CANADIAN PHILANTHROPY AND HIGHER EDUCATION: FUNDING SHIFTS, ORGANIZATIONAL RESTRUCTURING AND THE REPOSITIONING OF ACADEMIC CULTURE IN UNIVERSITY MUSEUMS.

by

Suzanne Pauline Scott Tomita

B.A., University of Toronto, 1993
M.A., University of Toronto, 1997

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The study analyses the changes to higher education funding, organizational structure and academic culture at two academic boundary organizations, the University of British Columbia’s Museum of Anthropology (MOA) and Beaty Biodiversity Museum (BBM). The study is framed by a blended theoretical construct that includes academic capitalism theory, theories of academic culture, and theories of critical museology as a conceptual framework. Drawing from these theoretical concepts, the qualitative sources of interview data, and quantitative documents, the study provides a missing element in the existing theory on academic capitalism and suggests a refinement in the existing literature on higher education research, in particular how to account for the increasingly important influences of academic fundraising as it plays out in two academic museums as examples of boundary organizations.

The MOA and BBM are the two study sites for the doctoral research as a result of their successful receipt in January 2002 of a research infrastructure grant from the Canadian Foundation for Innovation (CFI) which stipulates a matching grant of 40% of the funding to come from the province, and the remaining 20% from industry support and community donors. This emphasis on a new funding mix to include industry partnerships and input from the academic fundraising mechanism has influenced the organizational structure and culture of these two academic boundary organizations. The major findings indicate changes to the organizational structure of both units to include management teams, advisory boards, as well as an emphasis on entrepreneurial and marketing experience in the skill set of academics. The repositioning of academic culture indicates that these boundary organizations have shifted their introspective research towards a public outreach experience and recognize that with a competitive funding environment comes the need for academic units to be innovative and territorial.
PREFACE

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LIST OF ABBREVIATIONS

BBM  Beaty Biodiversity Museum

BCKDF  British Columbia Knowledge Development Fund

CFI  Canada Foundation for Innovation

CRC  Canada Research Chairs

MOA  Museum of Anthropology

UBC  The University of British Columbia

UBCPT  The University of British Columbia Properties Trust
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I could not have completed this ambitious task while managing my busy home life without the love and support of members of my family. To my parents, Dr. Jon Scott and Carolyn Scott, I thank them for their curiosity and unwavering commitment to my success. To my brother Matthew Scott I thank him for his technological advice and prayer. To my husband Dr. Todd Tomita I thank him for his love of learning and support throughout this educational journey. It is my wish that this work will inspire our three children, Ross, Genevieve, and Philippa Joy to ask questions and seek answers to the many puzzles in this world.
CHAPTER 1
INTRODUCTION

One of the central debates in contemporary higher education and museum literature concerns the impact and increasing influence of private funding: Does industry revenue somehow distort the mission and mandate of university museums? Which body within the university decides when and if a philanthropic gift is appropriate? In December 2006, the Globe and Mail, Canada’s national newspaper featured an article entitled “Coming to a town near you: national museums - Ottawa signals massive changes in funding policy” that highlighted the increased role for private-sector partners in museum funding. The article stated that politicians are warning cultural institutions to find private sector partners to fund their expansion and exhibition plans (“Coming to a town near you”, 2006).

The point of the article was that although Canadian museums yearn for national status and the federal government funding that comes with it, income generation and support from commercial activities or industry partnerships is a necessary way forward for the majority of museums. The article highlighted a gap in available research on how the inevitable injection of private funds into public institutions impacts the structure and culture of museums, in particular university research museums. It was and remains this debate over how private funding impacts university cultural organizations that sparked my interest in the interaction of academic-industry partnerships and in this case, the experience of the academic museum.
Pierre Ouillet, Vice-President of Finance, Resources and Operations at The University of British Columbia (UBC) wrote the following comments in his blog entry on March 8th, 2010 entitled “Balancing Budgets – an inconvenient truth.” Vice-President Ouillet addressed specific methods that UBC could harness towards seeking future revenues. In his blog he stated that among the future revenue streams the university should focus on were international student enrollment, centralizing information technology, improving procurement, and driving more revenues from our museums. Ouillet observes that:

“...This leaves us with two protections against inflation. The first is ISI [international student] enrollment. International students make our institution more vibrant and open to the world and yes, ISI tuition helps fund our infrastructure... The other one is our relentless search for revenues and efficiencies: centralizing IT [information technology]; improving procurement; switching to green energy to save on carbon tax; driving more revenues from our museums; expanding our continuous studies; better using our campuses in the summer; finding more effective ways to teach and better leveraging technology; partnering with industry; leveraging our land; and continuing to be the largest fundraising University in Canada.” [use of bold type my own]

From Ouillet’s blog entry it is clear that the academic executive at UBC emphasizes the engagement of our academic museums in revenue generating activities and highlights academic fundraising as a key priority for the university. The dissertation makes more visible the problematic that new funding mosaics incorporate private interests into academic museums that have for many years been funded through public financial endeavours. These shifts in funding sources have impacted the organizational structure and academic culture of university boundary organizations. It is these changes at The University of British Columbia’s (UBC) Museum of Anthropology (MOA) and Beaty Biodiversity Museum (BBM) that are the central focus of the research study.
Funding mosaics

The modern Canadian university derives its funding from increasingly diverse sources. This points to a considerable differentiation in the make-up of what I call the funding mosaic. As universities face decreasing provincial funding and increasing competition for resources, students, stature and faculty, the attraction of fundraising revenue has never been more influential and powerful. Major research universities in Canada have moved towards raising vast amounts of external funding through fundraising campaigns, endowments and ongoing development work. Starting in 1991, Canadian universities began major capital campaigns to build a funding resource base from donations (Tudiver, 1999). In 1991 the University of Toronto (U of T) raised $125 million, UBC raised $262 million by 1995 after a five-year campaign and a year later McGill had raised $205 million (Tudiver, 1999). By 2004, U of T had raised $1 billion dollars in nine years. The tremendous success of the U of T can be explained in large part to the changes in Canadian tax treatment of charitable giving which in 2006 allowed Canadians to transfer publicly traded securities to registered charities, forgoing the capital gains tax and getting a charitable tax receipt for the full market value (Kelly, 2009). These tax advantages and the pressure to find external revenue has established Canadian universities as keen participants in the fundraising industry.

The distinction between university funds that are private and those that are public is becoming less and less clear. At one end of the spectrum are business schools at publicly funded universities. Schools such as the Queen’s School of Business and the Richard Ivey School of Business at the University of Western Ontario derive their funding mainly from tuition, donations, and endowment income (Queen’s School of
At the other end of the spectrum are university museums, characterized as academic units applying each year for competitive federal funding agency grants to support their research and scrambling for meager amounts of funding for programming.

The University and College Art Galleries Association of Canada (UCAGAC) conducted a survey between October 2004 and March 2006 to provide a first-ever detailed picture of the circumstances and activities of university art galleries. The survey was conducted by means of an emailed questionnaire sent to the 40 UCAGAC member institutions. I was granted access to the Executive Summary in May of 2011 and found that the main points in the report support my major findings in very specific ways. The key points in the document can be summarized as follows: Firstly, galleries receive minimal programming funds from their universities and must apply for program assistance from a broad and diversified base of support; Secondly, over a quarter of the galleries partially supported their operations through retail sales and 22% generated corporate support (UCAGAC Report, 2006, p. 7). Interestingly, the report affirms what my interviewees repeatedly presented namely that corporate support is not easy to obtain because the university development offices often control a gallery’s access to corporate support in relation to the university’s other fundraising priorities; thirdly, a new development is described in the report as the obligation for staff to spend an inordinate amount of time raising funds. Over 80% of the respondents said they were actively

1 For the purposes of the UCAGAC survey and the dissertation, the terms university art gallery and university art museum are considered synonymous.
engaged in fundraising for programming and general gallery operations and the participants in the survey commented on the amount of time spent in non-professional activities such as those for which they have little or no training, thus making the support from volunteers and advisory board members and development officers crucial.

**Academic museums as boundary organizations**

The term “boundary organization” is used in the dissertation to describe organizations, such as academic museums\(^2\), that have emerged from the interstices of established universities and manage new activities related to the generation of external revenues (Slaughter & Rhoades, 2004). The boundary organization has arisen from new demands on higher education institutions and academics: they combine funding from the public and private realms and bring universities, corporations, and the state closer together (Chan & Fisher, 2008, p. 23). Contemporary academic museums have diversified funding patterns, hybrid management structures and shifting academic cultures. As academic units they are increasingly concerned with the economic, social, and political processes that connect them to institutions of higher education. These boundary organizations have moved towards seeking private sources of funding to supplement declining public sources of funding and in the process encounter: (i) the competitive research climate, (ii) a response to this competition through the increased importance of innovative income generation, as well as campus-based fundraising, and (iii) a sense of increased territoriality around these precious sources of funding.

\(^2\) The term academic museum and university museum are used interchangeably.
In the dissertation I go into great detail as to the ways in which UBC’s Museum of Anthropology (MOA) and the Beaty Biodiversity Museum (BBM) constitute typical examples of what are known as ‘boundary organizations.’ They are becoming increasingly dependent upon the ‘for profit’ world which many scholars would argue prizes advantage over understanding and outward success over what the eminent American philosopher Martha Nussbaum describes as our “inner eyes” (2010, p. 123). I trace the history of these two university museums, the funding problems they faced and give an account of how these two organizations reacted to the challenges that were placed upon them by the gradual replacement of public funding by private financing partnerships and the effect these changes have wrought upon their respective organizational structures and academic cultures.

The rationale and purpose

MOA and BBM and their staff and faculty are viewed as anomalies in academe: these boundary organizations do not fit the traditional mold of university administration and management because they utilize innovative revenue generation activities and engage in boundary spanning work. Economic and political demands on academic museums as examples of boundary organizations have stimulated the development of new ways of organizing higher education institutions and the way in which they interface with funders and external stakeholders.

To a certain extent, I also do not fit the traditional mold of a typical academic researcher as I have a professional background in fundraising. I have worked as a fundraiser for the Canadian Opera Company in Toronto and continue to work as a
volunteer fundraiser for various organizations. In 2002 I received a certificate in Marketing and Fundraising Management from the British Columbia Institute of Technology (BCIT) and designed the planned giving programme for the Vancouver International Writers and Readers Festival. In March 2011 I attended the Council for the Advancement and Support of Education (CASE)³ Asia-Pacific conference in Singapore to further my professional training. In addition to my fundraising background, I have long held a fascination with museums. My childhood romanticism of the hallowed halls of the museum as treasure house has matured into a practical realism whereby today I strongly believe that the funding of the research function of the social sciences and humanities departments in universities and in particular academic museums needs to be protected and nourished.

Academic museums negotiate a link between cultural production, research, and the operational needs of generating income to support the running of the unit. The nature of this disjuncture and the affects of competitive commercial adaptation are still relatively unexamined. The purpose of this study is to investigate two academic museums - one from the faculty of arts and another from the faculty of sciences - to indicate how higher education is seen as a competitive industry and how academic fundraising has become a necessary tool for UBC to be the internationally known university it is striving to become. The study centers on how two academic units at UBC, both academic museums, are shaped by and adapt to what is described in general as influences on the funding

³ CASE is a professional association serving educational institutions and the advancement professionals who work on their behalf in alumni relations, communications, development, and marketing.
profile, organizational structure, and academic culture. Influences are described as the external funding environment and the resulting research funding policies and practices. As an example, changes in the external funding environment affect and shape universities directly by means of the management and administrative challenges they present and indirectly by changing the culture such as augmenting the increasing sense of competition for resources.

At the centre of this doctoral study is the explication of the relations and influences of external funding environments with their internal units. Through the interviews and document analysis I explain the consequences, impacts, and effects on academic units of using different forms of financing. I show that academic units simultaneously emulate private enterprise in their income generation and other commercial activities and yet are able to perform their academic missions. The fundraising mechanism is shown as having a major impact on the academic units’ structure and culture.

The existing research in the area of critical studies of Canadian universities offers insight into the phenomenon of decreased public funding, targeted federal funding and an increase in private sector investment in commodifiable research, however, an investigation into the unique experiences of staff, faculty, and administration of two academic museums from diverse disciplinary cultures has not been conducted. This dissertation presents an attempt to remedy this shortcoming. More specifically, the purpose of this research is to undertake an exploratory, embedded examination of the academic museum experience in the higher education context, by investigating a sample
of the funding challenges and impacts of the funding structure on MOA and BBM and the experiences of the staff and faculty.

**Literature review**

The dissertation bridges the work on academic capitalism theory in boundary organizations (Chan & Fisher, 2008; Clark, 1998; Marginson & Considine, 2000; and Slaughter & Rhoades, 2004) with that of studies on academic culture (Becher & Trowler, 2001) and museology (Alexander 1996; Hein, 2000; Janes & Conaty, 2005; Jenkinson 1992; Kirschenblatt-Gimblett, 1998; O’Doherty 1972; Weil, 2002; Willamson, 2000; and Witcomb, 2003). Within the theory on museology there is a clear pattern that suggests an increasingly pronounced shift towards a market-based museology that has necessitated museums to access resources and supportive networks to ensure their continued survival. On the topic of academic culture I refer to Becher and Trowler 2001, and Chan and Fisher, 2008.

In my early stages of research I found the assessment of Slaughter and Leslie (1997) as well as Slaughter and Rhoades (2004) regarding the alignment of academic institutions with market forces compelling. Consequently, I felt driven to assess how higher education researchers and staff and academic workers in universities understand the funding mix available to them and the increasing importance of the fundraising mechanism in this funding mix. This dissertation refines the theories of boundary organizations, academic capitalism theory, academic culture and museology to contribute a deeper understanding of the importance of academic fundraising as a key component of the higher education funding mosaic, and to look more closely at academic museums as
academic boundary organizations in order to identify instances of imbalance and innovation. Little attention has been paid by researchers as to how competitive landscapes influence the work of academic museums, their financial conditions, their structural and cultural shifts and the ability of individual academic and staff members to carry out their work.

**Research questions**

The doctoral study’s three research questions are anchored in past research and theory available on the funding, organizational structure and academic culture of boundary organizations in higher education. The questions address gaps in the literature on the funding and management of academic museums. They are as follows:

1. What are the patterns of funding related to boundary organizations within universities, such as the Faculty of Art’s Museum of Anthropology and the Faculty of Science’s Beaty Biodiversity Museum?

2. What impact does the funding mix have on the university boundary organization’s structure? and;

3. What impact does the funding mix have on the academic culture of university boundary organizations?

The goal was to provide data which highlighted the primary forces that have shifted the funding sources, changed the funding mix, and blurred the traditionally distinct roles of the academy on the one hand and commerce and industry on the other.
Illustrating these trends was the data from budgets, annual reports, government statistics, interviews, and observations kept in field journals.

**Major themes: competition, innovation, and territoriality**

Three major themes of competition, innovation and territoriality emerged clearly throughout the vast majority of interview and supporting data collection. These themes are principal concepts, which refer to the conditions under which university funding, organizational structure and academic culture have become competitive, innovative, and territorial. Specific to these themes are examples of the pressure on academic units to generate their own income, market their specific knowledge product, and raise funds. These three central themes are shaped by five decisive factors: (i) the changing external financial and political landscape of the funding of research in Canadian universities, (ii) threats that a decrease in public funding will end programming, research projects, and careers, (iii) the importance of tied, targeted, and matching research grants for the specific commercialization of research, (iv) the increase in industry-academic partnerships, and (v) the emphasis on innovation, income generation, as well as the reliance on the profession of fundraising to help raise funds for the university.

**Outline of findings**

The findings reveal that academic units are being pressured to generate their own income and market themselves as innovative research hubs. These changes are the direct result of the real presence of an increased sense of competition and territoriality around the source of available funds due to the proportional decrease in federal government contributions, and the need to be innovative in finding new funding partners. The
research findings confirm that museums are organizations engaged in dynamic change. The academic museums in this study each have different and often multiple mandates as well as complex goals. They experience conflicting demands made on them by a range of interested parties including: funders, visitors, government officials, professional research communities, students, collectors, artists, and originating communities. Academic museums are boundary organizations insofar as they fulfill these multiple responsibilities - to the public, the staff, the collections, the scientists, the students, and the university, and search funding partnerships through public and private support.

The data indicates that universities and their staff, faculty, and administration are seeking to understand and in some cases redefine the very nature of their work. Funding sources, structural change and the repositioning of academic culture are key features in the new workplace. University staff, senior administrators, and academics face the need to be competitive, innovative and territorial as they redirect their mission and programming to showcase their strengths, prioritize their research according to where sponsorship money can be located, and in the process become more territorial about their access to potential external sources of funding. These workers in the academy are operating within higher education structures such as the campus-based fundraising operation that engage more closely with funding partnerships with private industry and individual donors.

The findings do not pull the data neatly into a new funding model, but rather illuminate how the external and internal funding landscape brings together different sources of funds and how these funding patterns impact the organizational structure and academic culture of hybrid academic units - in this case two academic museums. The
findings indicate that a balance is required from academic museums as examples of boundary organizations in that they must cater to the mixed interests of producing research relationships, generating income and engaging with the public in their outreach exhibits. This is no easy task. As a result of the academic capitalist climate, academic museums are forging closer links to research granting councils, and to industry through sponsorships and consumerist culture.

Prior to conducting my research, I suspected that the shift in museum funding as explained in the literature might have serious ramifications for museum exhibits at UBC moreover, that the funding mix would have an effect on the internal management of the museums themselves. What I found was that the changing competitive funding environment had not affected MOA and BBM to the same extent as is described in the higher education and museology literature. My hope is that this doctoral research will add to and extend research already completed on the ramifications of changes to the funding mosaic for academic museums. The aim is to open up discussion to explore in specific ways the way in which the changing tide of academic capitalism and the profession of fundraising have begun to impact how academic units are structured and how their academic culture evolves.

Though the specifics may change, understanding the general dynamics of the funding of academic museums in the past may provide a rough guide to the future as the funding environment of higher education units grows even more complex and unstable. Moreover, in the current era of government cutbacks and corporate downsizing, the types of pressures experienced by academic museums are shared not only by other cultural organizations, but also by all nonprofit organizations that rely on philanthropy and
government support. Thus, understanding the effects of funding pressures and the efforts of academic museums to manage them can shed light on how other types of non-profit organizations both shape and are shaped by their turbulent funding environments. This dissertation will add to the literature on academic museums as boundary organizations and fill the gap within higher education theory that addresses academic fundraising practices and affects on workers within these organizations.

**Structure of the dissertation**

In Chapter 2 the literature is outlined and arguments from key theorists and contributors to the scholarly critique of funding relationships in higher education are developed with particular reference to academic capitalism theory and theories of boundary organizations. Chapter 3 extends the previous theoretical concepts of academic capitalism theory to include the emerging literature on the concept of critical museology and addresses academic museums as examples of boundary organizations within higher education. This chapter also presents the working definitions of central terminology used in this dissertation and sets the current context for an analysis of the two academic museums at UBC.

In Chapter 4 I explain the methodological design of the embedded case study. I conducted 32 interviews, analyzed documents, and kept close observation of the units of analysis in my field journal notes to look for pattern matching, explanation building, time-series analysis, and cross-case synthesis (Yin, 2003). The tools of analysis, in particular the interview questions, led to the data which I mined for its significance based on the theoretical foundations and methodological framework to answer and probe for
further answers on funding, organizational structure and academic culture. In addition, documents such as annual reports, publicly available studies and budgets were examined.

In Chapter 5 the findings trace the funding profile of the two academic museums by addressing the primary political and economic conditions operating in the last twenty years in the Canadian higher education funding environment in general and at UBC specifically. The findings explore three overall themes that emerged from the data: increased competition for funding, pressure for academic units to be innovative in generating their own income, and an increased sense of territoriality over funding sources. These themes emerge from the very real funding patterns and changes to the funding mosaic due in part to: (i) a decrease in public funding for social science, in particular academic museums, and (ii) an increase in targeted funding for commercially viable research. This chapter illustrates the role the fundraising industry plays as a key influence on the Canadian research funding sector.

Chapter 6 identifies the major organizational structural changes to the two academic museums by examining the impact the funding profile has had on the university structure in general and academic boundary organizations in particular. The efforts by both units of analysis, in this case academic museums, to meet increasing public demands and rising costs raise questions that have not arisen in such a competitive landscape before.

Chapter 7 discusses the repositioning of academic culture at both museums by examining the impact the funding profile has on the culture of university boundary organizations. The data reveals that transformations are occurring and how the changes
to academic culture have influenced the careers of individual staff members, management staff, and scholars involved in these specific CFI funded infrastructure grant programs.

Chapter 8 presents the final conclusions specific to the funding mix and the resulting changes in organizational structure within the boundary organizations and the academic culture. I describe how my research work has answered, furthered or refuted the findings and conclusions of the leading theorists. Altogether, the three findings chapters provide greater insight into existing tensions as well as innovations resulting from the reshaping of organizational structures of academic units within higher education institutions. This doctoral study reveals that the increasing pressures for two boundary research organizations at the University of British Columbia to stay competitive, continuously innovative and retain their funding territoriality are not the same as those faced by many American higher education institutions as described in much of the literature. Certainly many of the same influences for change faced by American universities and their boundary organizations are affecting those in Canada, yet as the data demonstrates, specific conditions unique to the funding mosaics at MOA and BBM must be considered in order to bring forward new knowledge claims on the dissertation topic. Examples of these conditions include the sensitivities to the originating communities that MOA and BBM consider seriously when accommodating conditions such as naming rights from donors, and industry partnerships with corporate Canada and the government.

The funding challenges faced by universities today, such as the underfunding of operations and the increasing commercialization of knowledge simply mirror the economic, social, and political pressures of our times. We are faced with a society and a
higher education system in which market principles rule; a system in which institutions compete for ever-diminishing public funding and adopt non-cooperative strategies and enterprises to create an alternative supply of resources. Apart from a few academics mentioned above and to whose work this dissertation is indebted, no one is watching and addressing the rise of the academic fundraising industry and how it affects boundary organizations such as academic museums within higher education.
CHAPTER 2

THEORETICAL FRAMEWORK

The purpose of this theory chapter is to outline and develop the arguments from key theorists and contributors to the scholarly critique of funding relationships in higher education with particular reference to boundary organizations. The chapter sets the following two objectives to reach this purpose: (i) to describe and interpret the major theoretical concepts central to the critical literature on funding relationships in higher education, and (ii) to examine how these concepts are relevant to the understanding of boundary organizations in higher education institutions. The intent of the chapter is to lay the theoretical groundwork for understanding the changing role of funding in higher education by presenting a review of research contributions from scholars represented from different disciplines with an emphasis on higher education.

Three foundational social science disciplines underpin the literature analysis in this dissertation: political science, education, and sociology. Each of these disciplines provides inter-related propositions that frame the comprehensive nature of approaching the subject of funding relationships in higher education. The range of literature explores changes in higher education funding and describes characteristics of higher education influenced by globalization and neo-liberalism, academy - industry - state relations, increasing market-like behaviours within universities, increased managerialism within universities, and finally a discussion of the emergence of boundary organizations.

The critical literature is explained within the larger context of our current globalized landscape. The task at hand is to evaluate the conceptual work and analytical
frameworks necessary to explain the organizational forms taking shape in higher education systems increasingly subject to greater international influences. The chapter provides considerable insight into existing tensions that are reshaping the organizational structures through which higher education institutions are being reformed and reordered. If, as much of the literature suggests, universities are becoming more similar to corporate organizational structures, then they need to be subjected to similar forms of institutional and organizational analysis in which themes of power, conflict, authority, control and trust lie at the very centre of intellectual and practical concern (Callas & Smircich, 1999). The implication of institutional contradictions and tensions in the study of higher education funding and boundary organizations emerge as a central object of study in the literature.

Core literature on higher education funding

The funding of contemporary higher education is characterized by a complex pattern of resource availability. This diversity of resources offered through sponsorships, directed research dollars, and/or philanthropic gifts serves as a point of controversy for higher education researchers because it raises concerns as to the organizational role of the university. The market, with its emphasis on information technology, has brought universities greater resources for producing knowledge, and a more productive role in the economy. However, at the same time, the market has diminished the authority of universities over their own activities, weakened their service to the “public good”, and created commercial relationships that undermine the university’s original role as a neutral arbiter of knowledge (Geiger, 2004). The result of these changing funding relationships is a blurring of established boundary lines whether we refer to financial sources or to
public and private access to knowledge. The review of literature featuring boundary organizations in higher education is articulated in the second section of this chapter.

In response to changes to the funding mix and to the organizational development of universities, academics have put forward a variety of arguments. These include the promotion of an “entrepreneurial university” (Clark, 1998; Clark, 2004a), or “the enterprise university” (Marginson & Considine, 2000), or “the exchange university” (Chan & Fisher, 2008) or those who fall within this spectrum of debate such as Slaughter and Leslie (1997) and Slaughter and Rhoades’ (2004) important work on “academic capitalism”. Some researchers focus on increased managerialism at universities (Deem, 1998, 2001; Marginson, 1997), others on the effect of private financing on faculty and the freedom of intellectual pursuits not tied to corporate research sponsorships (Becher & Trowler, 2001; Horn, 1999; and McSherry, 2001).

These researchers employ research methods drawn from a variety of social sciences all aimed at understanding the change in funding relationships in higher education. The literature identifies a shift in funding relationships between the university, the state and industry that implies significant changes in the role of higher education in the light of economic demands for knowledge and labour. These changing funding mechanisms redirect priorities for higher education, create a new regulatory environment and introduce market-like conditions within universities (Amaral et al, 2002). The literature varies in terms of scope and geography as it examines global, national and state-specific applications of changes in higher education funding relationships. In addition, the research studies use diverse methodological approaches ranging from complex comparative international university case studies using qualitative and
quantitative data (Slaughter & Leslie 1997, Slaughter & Rhoades 2004) to small, regionally specific research studies (Levin, 2003).

As a working definition, funding relationships in higher education can be viewed as a criterion evaluating how organizations are funded to do research, how organizations fund themselves as well as the processes and structures used to achieve these goals. The definition of funding in higher education also incorporates concepts of leadership, management, and administration. Chan and Fisher define various funding formats as “sponsored research income, grants from federal sources, funding councils, specific funding envelopes, provincial sources, municipal sources, industry and private contributions” (2008, p. 73). The following literature provides the political/economic factors, which shape contemporary higher education institutions, and places the complex funding relations between the academy and the market in a global context.

**The globalized landscape – consequences for higher education**

The globalized landscape has fundamental consequences for higher education. Globalization creates conditions where nation state educational policies converge in areas such as access, research, and autonomy for faculty and institutions (Marginson, 1997; and Slaughter & Leslie, 1997). Existing institutional structures, values and beliefs change significantly as higher education institutions develop to meet a specific economic agenda. Currie and Newson (1998) show how funding and globalization have affected the external activities of Canadian universities in overlapping ways. They report that softening of federalism ensues, leading in turn to less state involvement, which then undermines the principle of universalism or education for the “public good.” As Currie and Newson argue, the continuing decline of the public sphere means universities have
less autonomy as they establish a closer and more accountable relationship with business and industry. Profit becomes a motive for action, as universities try to adapt to the needs of businesses and students (Currie & Newson, 1998).

Slaughter and Leslie (1997) identify four consequences of globalization for universities: (1) financial constraint by the state on discretionary activities, necessitated by fierce international competition, (2) the growing centrality of techno-science associated with international markets, (3) tightening relationships between governments and multinationals related to product development and innovation, and (4) increased focus on global intellectual property strategies within multinationals and established industrial countries, representing a new environment for university research (Slaughter & Leslie, 1997, p. 36-37). Along similar lines, Pannu, Schugurensky, and Plumb attribute three contextual developments of globalization as stemming from (i) the retrenchment of the welfare state, (ii) the emergence of institutional capitalism and (iii) the escalation of the commodification of culture (1994, p. 519).

The neo-liberal state and higher education

The new economy depends on the neo-liberal state for governing principles that create and sustain an equal playing field. To provide funds to reshape the economy, the neo-liberal state has instituted processes of commercialization and privatization. Marginson and Considine (2000) take the view that while universities may differ in the way they have taken up corporate models of management and accountability, in general they have adopted new forms of governance marked by an increased emphasis on the role of the university executive and a tendency to marginalize collegial structures. This new corporate model attributes the organizational change of universities to global and market
pressures. “The new corporate forms embraced by many universities are seen to embody a shift from an administered public service model to self-managed market practices and these developments have largely been driven by neo-liberal governments” (Lewis, Marginson, & Snyder, 2005, p. 61).

Altbach’s argument centers around the concept of the public good and states that neo-liberal ideology implies a reduction of the role of the state, based on the belief that anything ‘public’ is inherently inefficient and less productive than any corresponding activity assigned to the ‘private’ sphere (Altbach, 2004). Common to this approach is a preoccupation with the market as a mechanism for improving public sector productivity and efficiency and the closely related emphasis on managerialism. Increasing managerialism at universities includes the introduction of new forms of performance accountability and other approaches designed to increase the management capacity of public sector institutions (Bruneau & Savage, 2002). Recent analyses (Altbach, 2004; and Currie & Newson, 1998) suggest that neo-liberal policies have a significant impact on higher education institutions including shifting the boundaries of authority, and the balance of power associated with administrative and academic decision making.

Interestingly, in Currie et al.’s 2003 Globalizing Practices and University Responses: European and Anglo-American Differences, common policy trends are evident in all four countries studied, albeit with jurisdictional variations in terms of the magnitude and implications of these changes. It is surprising, however, that the changes taking place in all four jurisdictions seem to be independent of the political party in power. Altbach (2004) suggests that changes in system-level governance arrangements are never value neutral as they invariably replace one set of assumptions concerning the
role and function of higher education with another. These changes in governance imply alterations to the traditional view of the relationship between the university and society (Altbach, 2004). In summary, within the neo-liberal policy environment, higher education institutions are on the one hand, often granted more autonomy from central government, but on the other are then encouraged to partner with industry. In order to gain this financial sponsorship they must adapt to new organizational structures and systems.

**Contraction of financial resources for higher education institutions – the Canadian higher education example**

In Canada, state funding of universities has decreased steadily since the 1980s, “with per student government funding to universities declining by some 30 per cent” (Côté & Allahar, 2007, p. 172). The contraction in the state’s financial support of higher education institutions has had a number of institutional effects within the university. The most significant effect is a drive for efficiency as a response to scarcity. This has led to more centralized managerial structures as a protective response to economic cutbacks and managerial centralization. Geiger (2004), McSherry (2001) and Slaughter and Rhoades (2004) all specify the 1980s as a turning point when universities introduced commercial endeavours, notably research activities. The resulting new “corporate” agenda for higher education institutions in Canada began with the founding of the Corporate-Higher Education Forum in 1983. In 1997, Canada’s traditions of academic autonomy were further changed. In that same year, the Canadian federal government further reduced its support for core university operations by significantly cutting transfer payments to the provinces (for post-secondary education, health, and social services) by $10.6 billion over
4 years (Polster, 2007, p. 601). In this same time-frame, the government created a number of well-funded bodies and programs to support academic research, most notably, the Canada Foundation for Innovation (CFI) and the Canada Research Chair (CRC) program (Fisher, Atkinson-Grosjean, & House, 2001; Polster, 2007). Grants from these funding agencies have had a major impact on Canadian universities as a university’s granting record is increasingly seen and used as a primary measure of achievement (Polster, 2007). Polster’s specific study examines the implications of university research and social relations. She explores the ways in which “the activities of the key players (university administrators, faculty members, government, and the wider community) are being reoriented as both cause and consequence of the changing nature of grantsmanship in Canadian universities today” (Polster, 2007, p. 602).

New circuits of knowledge in Canadian higher education institutions are characteristic of the academic capitalist knowledge/learning regime as defined by Slaughter and Rhoades (2004) and connect Canadian funding councils to universities through sponsored research in partnership with the private sector (Fisher, Atkinson-Grosjean, & House, 2001). One such example is the Canada Foundation for Innovation (CFI) whereby matching grants from government and industry promote closer university/industry partnerships. These partnerships facilitate the movement of faculty and students between the academic and business worlds. The points made by Canadian scholars is that together with federal and provincial economic policies, “Canadian funding councils have played a direct role in shaping the research priorities of institutions, and influencing the research agendas of the professoriate” (Fisher, Atkinson-Grosjean, & House, 2001, p. 10).
Geiger’s work on economic relevance for research universities describes the variety of partnerships and focuses on the importance of research and training grants (2006). His description of university research partnerships can be directly applied to the example of CFI grants to university research in Canada. He contends that universities have received strong inducements to enhance economic relevance from external agents, especially since 2000. These lures have taken the form of research and training grants or support for building research infrastructure and have encouraged universities to engage more closely with industry, pursue research-based technologies, or form interdisciplinary collaborations. “These initiatives have come from federal science agencies, state governments, and from private philanthropy” (Geiger, 2006, p. 422).

Schütze and Bruneau associate the reduction of state funding and control of universities to an increased reliance on market mechanisms, private sources of funding and new forms of university governance and management (2004). They comment on the fact that the elimination of many trade barriers and the globalization of markets, especially the General Agreement on Trade in Services (GATS) have made higher education a tradable commodity, opening national systems of post-secondary education to international competitors (Schütze & Bruneau, 2004). In response to increasing global competition and the search for funding from non-traditional sources, universities increasingly engage in commercial activities. Examples include academic research marketed as “intellectual property”, the recruitment of foreign students at full-cost and the outsourcing of services such as food, parking, travel, housing, and renting out university facilities for conferences, and film productions. Property values have made the universities real estate brokers. In addition to all these commercial enterprises, the
relationship between higher education and government has changed – universities use performance indicators to increase institutional accountability, with targeted performance-based funding (Schütze & Bruneau, 2004).

Because legislative responsibility in Canada for education rests with provincial governments under Section 93 of the British North America Act, the federal government has only two means of supporting an interest in defining the national perspective. One is the system of federal-provincial transfer payments through which federal tax monies are transferred to provincial governments specifically for providing health and educational services to Canadians. The second resides in the federal government’s policy-making and funding control over the major research councils, which support academic research in universities; National Sciences & Engineering Research Council (NSERC), Social Sciences & Humanities Research Council (SSHRC) and the Medical Research Council (MRC). The level and distribution of research funding to academics through these councils, and the policies which guide their funding priorities, are significant instruments for indirectly affecting the shape of academic work as it is carried out in universities (Buchbinder & Newson, 1990, p. 362).

This policy of linking universities and university researchers with the domestic corporate sector to enhance national economic competitiveness – strongly promoted in Canada – has been a crucial initial step in drawing universities across the world into the globalizing process. Interestingly, Buchbinder and Newson (1990) reveal that in Canada, as compared to other Commonwealth states, Canadian federalism has prevented sweeping reforms like those in the United Kingdom, Australia, or New Zealand.
Buchbinder and Newson (1990) specify three types of new funding options as a result of the reduction in state funding – research funding, third party networks, and intra-university structures. They claim that all these mechanisms were designed to create corporate-university partnerships. Taken together, their effect on the university community is to create an atmosphere that encourages the development of the entrepreneurial spirit among academic researchers and the increasing involvement of universities in spin-off companies and other kinds of market-orientated activities (Buchbinder & Newson, 1990, p. 366). However, Buchbinder and Newson argue that industrial and private sector donors are overwhelmingly more inclined to contribute their research dollars to projects that have a technical or applied science pay-off. Academic disciplines in the humanities and social sciences do not foster the kind of research that leads to the development of marketable products. This imbalance is reinforced by the fact that the value of research “is increasingly assessed in terms of corporate needs, and government grant programmes actively promote this basis of assessment” (Buchbinder & Newson, 1990, p. 364).

Grosjean et al., (2000) outline fundamental external shifts in Canadian higher education, which relate to a contemporary explanation of higher education funding patterns in Canada. The major shifts include the ideas that as our knowledge economy demands that colleges introduce academic subjects and universities produce highly skilled technical workers, education and training are no longer separated in the same way. There exists a growing hierarchy between institutions, which becomes more pronounced with elite national research institutions at the top. This hierarchization of higher education institutions affects increasing competition for research funding and for
students. Universities trade autonomy for closer ties with commerce and industry by capturing re-training markets and on-going credential inflation. It is their view that students from lower socio-economic groups are pushed out of the university system and that the global focus on information and communications technologies will impact the delivery of education (Grosjean et al., 2000, p. 27).

Over the last 20 years, the Canadian government, through its various funding agencies, has progressively come to see the university as a principal instrument to improve national competitiveness in the global knowledge-based economy. Polster comments on tensions resulting from the obvious importance in the eyes of the state, of research in the sciences compared to the humanities (2007). Faculties such as Humanities and Engineering have divergent grant generating capacities and these funding differences are “taking a toll on academic collegialism and morale” (Polster, 2007, p. 613). It is her view that:

“Academics are switching their research topics to well funded areas in which they often have less expertise, changing their research approach or methodology in order to increase the amount of funding they may apply for; getting involved in as many research projects as possible in order to boost their granting record; and lending/or borrowing ‘research names’ not to work on research projects, but only to enhance the likely success of grant applications” (Polster, 2007, p. 616).

The case of British Columbia

One of the major tensions in discussions around higher education funding is how the state openly accepts the need for competitive commercialization strategies without a discussion as to how these changes will affect the universities other core faculties. For example, the province of British Columbia has made a significant contribution to research and research-related innovation through a number of initiatives announced and
implemented over the past few years. Examples include: over $275 million for the BC Knowledge Development Fund, $134 million invested in Life Sciences buildings for The University of British Columbia (UBC), University of Victoria (UVic), and University of Northern British Columbia (UNBC), $225 million to the Michael Smith Foundation for Health Research, $102.5 million for Genome BC, over $56 million committed by the Leading Edge Endowment Fund, a $50-million Natural Resources and Applied Sciences Endowment, $40.5 million for a World Centre for Digital Media (Plant, 2007).

British Columbian higher education institutions can measure their successes in the grants received, the patents obtained, and the successful start-ups launched. According to the province of British Columbia’s Campus 2020 Research and Innovation Document submission, UBC has been instrumental in creating over 120 spin-off companies since 1984, primarily in life sciences, physical sciences, and information technology (Plant, 2007). Through the publication of these policy documents, the state is able to prove the valuable pursuit of commercial research interests. Interestingly, the Campus 2020 document does question how to measure the value of the state’s research investment in terms of its contribution to social cohesion or cultural capacity. However, what is lacking is any debate as to why a contribution to social cohesion and cultural capacity is important for the Canadian academy.

In Currie and Newson’s edited volume *Universities and Globalization: Critical Perspectives*, the conclusion takes the position that the very essence of the university in Canada will change in ways that undermine some of the best arts of the tradition, namely those that emphasized national norms and public services (Currie & Newson, 1998). They view corporate-university linkages and the phenomenon of privatization as the
overwhelming trend by which institutions are changing their practices to accumulate power. It is their view that our universities are becoming more corporate, more technocratic, more utilitarian, and far more concerned with selling products than with education. They raise a key example that when faced with designing a curriculum jointly with private donors as well as the reliance on non-tenure track sessional or part-time labour, universities become more and more connected to the corporate agenda (Currie & Newson, 1998). Instead of being an influential agent and a voice of lively self-reflection, the university appears to have been “ravaged by the force of these changes – reoriented, restructured, reconfigured – even while, and perhaps because, it has adjusted its goals to its modus operandi to them” (Currie & Newson, 1998, p. 309). As the knowledge produced in university laboratories and research units “becomes the tool for economic, economical, and human resource exploitation on a global scale, the university is pressed to examine its conscience and to take a position on the uses to which this knowledge is being put” (Currie & Newson, 1998, p. 310).

One clear limitation in the Canadian literature is that a thorough examination reveals the shift in emphasis toward the natural and applied sciences away from the social sciences and humanities, thus creating a frequently overlooked imbalance within academic faculties and serves to generate tensions among them. Brison (2005), Fisher (1980, 1991, 1993), and Richardson and Fisher (1999) give socio-historical accounts of funding tensions, but the greater implications for the obvious funding differences are not addressed in a rigorous enough manner.
The core literature on funding in higher education

The core literature describes the research projects and scholarly writing from Clark (1998, 2004a), Etzkowitz and Leydesdorff (1997), Etzkowitz et al. (1998), Gibbons et al. (1994), Marginson and Considine (2000), Slaughter and Leslie (1997), and Slaughter and Rhoades (2004). Their contributions to the study of higher education funding are the most insightful as they provide a thorough theoretical analysis of changing higher education organizational structures. In *Capitalizing Knowledge: New Intersections of Industry and Academia*, Etzkowitz, Webster and Healey (1998) describe a second academic revolution that involves the translation of research into products and into new enterprises. They offer a “biological” Triple Helix model in which the strands are the associated relations of university-industry-government and treat the strands as separate and distinct. This Triple Helix model emphasizes the continuing mutual interaction and influence of the university and corporate worlds. This is a useful analytical tool for the study of funding in higher education because it outlines the clear relations between the three entities (academia, the state, and the market). This new “second” academic revolution describes the institutional role and character of academia as changing as it adopts a more central economic role in society, both in conjunction with industry and on its own behalf through exploiting its knowledge base. It has been suggested that this role has been encouraged by government policy.

The use of the term “first academic revolution” is used in Jencks and Riesman’s 1968 book, which gives an historical and sociological account of the factors involved in the establishment of American overarching national institutions. The first academic revolution relates to the state’s need for academic research to be beneficial for the
development of agriculture, medical studies and military programming, whereas the second revolution referred to by a number of contemporary higher education scholars refers to the state’s need to stimulate economic growth, so that spending on research in the military and medicine is not so much a national interest but more an economic necessity to generate value from research (Etzkowitz et al., 1998). In Jencks and Riesman, there is mention of “how the academician is now a prime fund raiser for his institution,” and the result is “a rapid decline in teaching loads for productive scholars, an increase in the ratio of graduate to undergraduate students, the gradual elimination of unscholarly undergraduates from these institutions and parallel elimination of unscholarly faculty” (Jencks & Riesman, 1968, p. 14-15). The effects of the first academic revolution led to a gradual expansion of the knowledge base through the development of a new research role (Jencks & Riesman, 1968).

The contribution of the triple helix model to the literature on higher education funding is highly valuable as the model explains how academia as a whole is experiencing a shift in its functional position within society to play a more important role in our knowledge-based, postindustrial economy (Etzkowitz et al., 1998, p. 50). The model highlights locating the discussion within the socio-economic and political context, particularly with regard to state policy towards industry (Etzkowitz et al., 1998). These questions set the stage for this theory chapter by asking what is the broad relationship between public and private sectors and where do their boundaries lie. Are we not better advised to see these boundaries as being more permeable? (Etzkowitz et al., 1998, p. 52).

Etzkowitz and Leydesdorff (1997) refer to the ‘triple helix’ of academia-industry-government relations as a component of any national or multinational strategy in the late
20th and early 21st centuries. The triple helix pattern is transnational and interdisciplinary. The configuration of the present crisis reveals that the research university is being rapidly repositioned as a site of commodity production in an information economy. With the end of the Cold War and the emergence of a knowledge-based global economy, commentators suggest a “new social contract is being negotiated between the university and the public” (Etzkowitz & Leydesdorff, 1997).

Under the terms of this contract, (1) the transfer of knowledge from the academic to the “productive sector” is being accomplished through direct rather than indirect means; and (2) that transfer process is becoming a central part of the university’s raison d’être and the professoriate’s self-definition.

The university’s traditional interest in the advancement of knowledge is matched by its current interest in the capitalization of knowledge (Etzkowitz et al, 1998). Entrepreneurial professors and their universities have become active rather than passive actors in the information economy. Industrial corporations, meanwhile, are sponsoring scientific conferences and setting up in-house “universities” to train and improve their stock of human capital. Etzkowitz and Leydesdorff suggest that “entrepreneurial” universities are an outgrowth of academic scientists’ own efforts to translate reputation into financial support for further research (1997).

The study conducted by Etzkowitz and colleagues is developed around the research function and research universities. The discussion of academic entrepreneurialism, the structure and function of academia, the nature of inter-organizational structures, and the determination of contested boundaries between public and private, provide the theoretical focus for researchers and practitioners of academic-
industry collaboration. The key feature of this research on the triple helix model is that it clearly establishes that growth in long-term academic-industrial strategic alliances has been primarily in the bioscience/biomedicine and pharmacology fields (Etzkowitz et al., 1998). The study raises essential questions regarding the conflict of interest issues which arise between the arts and the sciences, the funded and under funded sectors, especially under conditions of financial stringency (Etzkowitz et al., 1998).

As a result of this dichotomy of funding, the authors go on to ask if stronger links between research-intensive industry and research-intensive academia will accentuate the trend toward a two-tier system where large corporations and large science-based academic centres dominate over small and medium-sized firms and teaching-oriented, less well-endowed educational establishments. Traditional academic management through conventional committee structures may be inadequate to the task. New forms of decision-making at universities thus reflect the need for different mechanisms to manage the interface between academia and industry (Etzkowitz & Leydesdorff, 1997, p. 69). Etzkowitz and Leydesdorff stress the importance of developing techniques that can properly determine the genuine sense in which agenda setting may be taking shape (1997, p. 62). In sum, the survival of the academy depends on its ability to move from a “reactive” to a “proactive” approach to society’s problems (Etzkowitz & Leydesdorff, 1997).

**Mode 1 and mode 2 knowledge**

Important changes involving the incursion of industry into state-university relations is explained in the work of Michael Gibbons et al (1994). For Gibbons and his colleagues, knowledge production is outcome and product driven, not discipline driven,
and certainly not powered by a desire to seek knowledge for its own sake. According to Gibbons et al., universities are old-fashioned, discipline-based iron cages (1994). Of special interest to a study of higher education funding is this analysis of new and old modes of knowledge production. Gibbons et al. (1994) have juxtaposed two ideal types of knowledge production. The authors suggest that the “familiar” mode of knowledge generation, known as Mode 1, in disciplinary contexts is being replaced by a system in which knowledge is produced in broader trans-disciplinary contexts (Gibbons et al., 1994).

This traditional form of academic research produced knowledge through hierarchically-structured, relatively stable means. In Mode 2, however, knowledge is developed in the context of application by persons with heterogeneous skills and experience who are socially and ethically accountable for that knowledge. Mode 2 is an emergent form of knowledge production and is heterarchically structured. This refers to the fact that its organizational form is that which is in between a hierarchy and a network, as the organization provides horizontal links that permit different elements of an organization to cooperate while at the same time optimizing different success criteria. Knowledge under Mode 2 is characterized as trans-disciplinary, project-centered, shaped by various interests and evaluated in terms of effectiveness by peers, non-peers and sponsors of projects (Gibbons et al., 1994, p. 3). Diffusion of knowledge under Mode 2 depends on the commercial value of that knowledge, whereby a business may not wish to diffuse knowledge that may give them a competitive advantage. Both Mode 1 and Mode 2 are present within university research, but Mode 2 represents a commercialization of knowledge (Gibbons et al., 1994).
In Mode 2, knowledge carries the implication that traditional forms of knowledge generation are being phased out in favour of collective, applied trans-disciplinary developments which take place mainly outside academia (Becher & Trowler, 2001, p. 2). This explanation of a new phase of knowledge production has implications for the study of higher education, as Gibbons refers to the fear that research as a commodity can be manipulated by those who sponsor research, given the economic and military potential of contemporary scientific knowledge, and that such manipulation cannot be regarded with a sense of detachment (Gibbons, 1998).

**Academic capitalism theory**

The study of higher education funding draws on Slaughter and Leslie (1997) and Slaughter and Rhoades’ (2004) work on academic capitalism theory as a major theoretical marker. The academic capitalist knowledge/learning regime as described by Slaughter and Rhoades, explains the changes in the territory that connects the public and private sectors in higher education, between the state, higher education, and the market. Their work provides a point of entry for the study of boundary organizations within higher education. What is distinctive about their work on academic capitalism theory is the consistent focus on what they see as “an ascendant tendency and orientation of higher education institutions to engage in market behaviours in the pursuit of revenues that involve developing new organizational infrastructures and forming new inter-sectoral networks that affect the very identity of higher education institutions (Slaughter & Rhoades, 2004, p. 33).

Academic capitalism theory explains the processes by which universities integrate with the new economy. In constructing their theory and examining various higher
education institutions, Slaughter and Rhoades draw on Foucault’s studies of disciplinary regimes (1980; 1982) to help explain the changes in the way power and knowledge move in society. They argue that in the twenty-first century, knowledge and power regimes have shifted where professionals ally themselves with the market. New circuits of knowledge connect faculty, students and staff with the new economy, reorganizing organizational boundaries of higher education institutions. Such changes have major consequences for society in terms of “access to higher education, knowledge production in academia, and higher education’s performance and balance between various, cultural, economic, political, and social functions” (Slaughter & Rhoades, 2004, p. 33). Slaughter and Rhoades take the position that because of an increased emphasis on entrepreneurial activities, original boundaries of the public good knowledge/regime shift towards an academic capitalist knowledge/regime (Slaughter & Rhoades, 2004) creating hybridized forms of alliances (Slaughter, Archerd, & Campbell, 2004).

For the purposes of this dissertation, the term “boundary organization” describes a unit within a higher education institution, which straddles the public-private funding divide, being pushed towards a business model of governance while at the same time maintaining networks within the university and links to the critical public sphere (Lewis, Marginson, & Snyder, 2005). The use of the term “hybridized alliances” refers to the same phenomenon whereby change in resources has shifted boundaries within and around higher education institutions and changes how we view knowledge.

Academic capitalist knowledge regimes reconsider knowledge in a number of ways: knowledge as a commodity, knowledge as privately held, income from knowledge, and students as consumers (Slaughter & Rhoades, 2004, p. 10). Academic capitalism has
not entirely replaced the public good knowledge/learning regime. According to Slaughter and Rhoades, both regimes coexist, intersect and overlap. They intersect at points where funding for research becomes entrepreneurial (2004, p. 29). The public good knowledge/learning regime was characterized by valuing knowledge as a public good to which the citizenry has claims. The public good knowledge/learning regime paid heed to academic freedom, which honored the rights of professors to follow research where it led and gave them rights to dispose of discoveries as they saw fit. Discussions of the public good must take into account the ideas of Robert Merton (1973), which are often associated with the Vannevar Bush model of science research, in which the public good model assumed a relatively strong separation between public and private sectors (Bush, 1945).

Slaughter and Leslie (1997), in their comparative analysis of higher education policy in Australia, Canada, the United Kingdom and the United States, noted common features of academic capitalism in all four countries, but they observed that the impact and implications of these common trends appeared to vary by jurisdiction. Of particular interest to the Canadian context is that Slaughter and Leslie concluded that Canada was an exception in that higher education did not undergo the same degree of change as the other countries. Based on their cross-institutional global comparisons, the argument is that the development of academic capitalism pushes universities toward conformity in thinking and research agendas (Slaughter & Leslie, 1997).

Slaughter and Rhoades’ (2004) theory of academic capitalism explains the processes by which colleges and universities are integrating with the new economy, shifting from a public good knowledge/learning regime to an academic capitalist
knowledge/learning regime (Slaughter & Rhoades, 2004, p. 7). Slaughter and Rhoades argue that their work differs from other work on higher education in that they recognize the network of actors that link universities to each other, to corporations and to various state agencies. They state that the larger environment and particularly the organizational networks of which most organizations are a part remain relatively unexamined. They examine “networks of actors that cross boundaries among universities and colleges, business and nonprofit organizations and states” (2004, p. 9). Slaughter and Rhoades point to “the embeddedness of profit-oriented activities as a point of reorganization (and new investment) by higher education institutions to develop their own capacity (and to hire new types of professionals) to market products created by faculty and develop commercializable products outside of (though connected to) conventional academic structures and individual faculty members” (2004, p. 11).

**Resource dependency theory**

Resource dependency theory plays an important part in the conceptual development of the academic capitalist knowledge/learning regime. “Resource dependency theory predicts that the organization, which is the object of study, will take on and reflect the organizational characteristics of the principal external resource providers in its environment, a conception that requires the focal organization to be distinct and separate from organizations in its resource environment” (Slaughter & Rhoades, 2004, p. 12). In contrast to these ideas in resource dependency theory, Slaughter and Rhoades see the academic capitalist knowledge/learning regime as characterized by the development of new networks of actors who develop organizations that span and blur the boundaries between public and private sectors (2004, p. 12). They
view the changing resource mix as promoting an academic capitalist knowledge/learning regime. Fiscal crises combined with rising tuition have created a climate that emphasizes the “importance of new external sources of external revenues and the belief on the part of the faculty and administration that increases in external resource flows are necessary to sustain the academic enterprise” (2004, p.12). Under resource dependency theory, the rules are subject to change according to the interdependency that is established in a market environment. In a market environment, the behaviours that result include academic capitalism and institutional entrepreneurship (Clark 1998; Marginson 1997; Newson & Buchbinder, 1988; Polster 2002, 2007; and Slaughter & Leslie 1997).

In sum, the work by Slaughter and Leslie (1997) and Slaughter and Rhoades (2004) is impressive in so far as their research involved entrepreneurial practices in 135 science, engineering, and social science departments in 11 research universities. Their work also studied how university trustees are networked and how the network contributes to the academic capitalist knowledge/learning regime. An examination of the interlocks created by trustees who sit on corporations in the NSF Research 500 discovered that the private boards are very tightly interconnected and speculated that the trustees’ networks articulate universities with the new economy (Slaughter & Rhoades, 2004).

**The entrepreneurial university**

Clark’s body of work is essential for an understanding of higher education funding, because he emphasizes that as entrepreneurial actors, universities develop transformative efforts whereby they adapt to their changing environments and grasp new market opportunities. In his 1998 book, Clark examined European university case studies to advance five explanations of university change, which he described as “pathways of
transformation” which would turn a higher education institution into an entrepreneurial university. The first pathway recommends strengthening the steering core of individuals who have chosen to lead the organization. The second pathway recommends an expanded developmental periphery, populated by research centres to enhance the university’s trade with the external world. The third pathway calls for a diversified financial base through closer corporate cooperation. The idea of the stimulated academic heartland, the fourth pathway, is conditioned by the need to add value to the university’s mission. This feeds into the final pathway to support an integrated entrepreneurial culture (Clark, 1998). Clark pointed to the following imperatives universities are to face: the diversification of income bases; the strengthening of steering capacities; the extension of developmental peripheries; the stimulation of the academic heartland; and finally the embrace of entrepreneurial culture. Clark’s central premise is that while a shift in organizational structures, values and attitudes may occur a positive outcome is possible through institutional renewal and an enhanced funding base (Clark, 1998).

In his book *Sustaining Change in Universities* Clark turns to 14 international case studies to clarify anew these transforming steps and to suggest dynamics of change that produce a new steady state (2004b). Clark discusses concepts that combine transformation and sustainability and uses the five original pathways to transformation and five new ideas on how university transformation can be sustained (2004b). The many possible sources of financial support in a diversified funding base can be broken down into (a) other government sources (other than the core-support department) such as, national and provincial ministries, public agencies; (b) private organized sources, business firms, philanthropic foundations, and professional associations; and (c)
university-generated income, such as, alumni fundraising, garnered research contracts, profits from patents. Each sub-category offers numerous possibilities, and the three major sources together imply virtually no limit on possible financial streams of support (Clark, 2004b).

Financially, for Clark, the self-reliance of universities lies in a broad portfolio of income sources. The legitimacy of the portfolio depends on educational values guiding monetary decisions. According to Clark, there must be things the university will not do no matter how much money is offered, for example, permitting donors to select faculty. Conversely, there must be less immediately practical actions to take, for example, cross-subsidizing the teaching of classics and philosophy because it is an institution committed to cultivation and transmission of a cultural heritage as well as to economic progress. “The greatest gain in independence comes from tilting the resource base toward university-generated and directly controlled sources” (Clark, 2004b, p. 358).

Aronowitz in his work The Knowledge Factory describes the university administration as having devolved into a smooth running machine whereby the research faculty “produces” useful knowledge, which can be measured by the amount of grant money, commercial applications, or critical recognition received and which may enhance the institution’s prestige (Aronowitz, 2000, p. 159). It is Aronowitz’s contention that now more than ever, it is the imperatives of fundraising that drive higher education. “We have seen how officials scurry to forge alliances with large donors, offering to dedicate buildings and compromising chunks of the curriculum in return for financial support. Corporate sponsors and panicked parents and students alike demand programs oriented to “job readiness” (Aronowitz, 2000, p. 160).
The enterprise university

In a series of books and articles and drawing on the work of Marx, Marginson emphasizes that research on higher education funding needs to be familiar with the power of capital to universalize commodity production and market forms (1997; 2006; 2007). Marginson’s research involves amending the work of Marx to account for the role of commercial businesses as productive capital. The value in a knowledge society is best understood as an extension of capitalist production, consumption and exchange into education. Knowledge, and by extension education, becomes a commodity that is valued for its ‘exchange’ value rather than its ‘use’ value. Of importance in Marginson’s work is the fact that commercialization and marketization are changing the power relations within our universities. Marginson and Considine (2000) argue that university governance is concerned with “the determination of values inside universities, their systems of decision making and resource allocation, their mission and purposes, the patterns of authority and hierarchy, and the relationship of universities as institutions to the different academic worlds within and the worlds of government, business, and community without” (2000, p. 7). What is common to this conceptualization of governance is the notion of relationship or dynamic interaction of bodies of groups operating at different levels of a higher education system.

In Dynamics of National and Global Competition in Higher Education (2006), Marginson places the changes in higher education within a global political-economic context. The importance of this work for studies in higher education funding is that as higher education and research become integral to nation-building, efforts in poorer developing countries are much slower to develop. Thereby this global and national
competition in higher education will, according to Marginson, always produce “globally stratified outcomes unless modified by policy action coordinated across borders” (2006, p. 36).

Marginson continues with this discussion of competition in the article on global rankings, Global University Rankings: Implications in general and for Australia (2007). This time he examines what factors are incorporated into calculating the ranking of universities and how it has become mandatory to think critically about the assumptions and methods of global rankings (2007, p. 131). Rankings have exacerbated competition for research funding and high-performing researchers, which shapes institutional strategies designed to maximize the universities’ funding resources (Marginson, 2007). The critical literature on higher education has been greatly enhanced by Marginson’s extensive contribution.

**Limitations to the core literature**

Etzkowitz et al.’s work on the triple helix model is illustrative for designing an analytical tool to explain academy-industry-and government relations. Perhaps one of the few critiques of this extensive work is that an academic response to the model is missing. Limitations to the research by Gibbons et al.’s research on Mode 2 knowledge production involves the insufficient articulation of how research in the humanities and social sciences can be nurtured in our globalized higher education policy framework preoccupied with the commercialization of research and national economic competitiveness (1994). Even though Mode 2 knowledge production is clearly biased towards the world of science and technology, Gibbons et al., are adamant that Mode 2 include research from the humanities and social sciences as they have the capacity to
provide critical reflection on human projects and endeavours (1994, p. 105). However, their work has difficulty producing the contexts of application for humanities knowledge in today’s market-driven knowledge society.

There are limitations to the theory of academic capitalism as explained by Slaughter and Rhoades, and Slaughter and Leslie. One limitation takes the view that market logic is problematic for higher education institutions, as universities are not particularly successful capitalists. Colleges and universities very clearly do not want to lose state and federal subsidies (Slaughter & Rhoades, 2004). Slaughter and Rhoades demonstrate that in an analysis of academic capitalism there is little consideration of subunits and groups within organizations, or of their multiple connections with various units and groups outside the organization. They look at “networks of actors” that cross boundaries among universities and colleges, business and nonprofit organizations and states. Chan and Fisher (2008) point out that universities are not simply acted upon or “corporatized.” Instead, actors within higher education institutions participate in creating new knowledge/learning regimes by networking and partnering external actors (Chan & Fisher, 2008). Of particular concern to Chan and Fisher is one of the unacknowledged sides of academic capitalism, that given the benefits of economic growth, these advantages do not fall evenly on the population (2008). Treating knowledge as a private good may make much of this knowledge inaccessible, perhaps constraining discovery and innovation.

Many contemporary higher education scholars hold Clark’s work in high regard. One area where he lacks a depth of analysis is in considering why universities find it necessary to adapt their funding resources and research, teaching and learning and
processes of knowledge transfer. Other scholars including Frans Van Vught, (1999) look to the fact that Clark’s model of an entrepreneurial university is necessary precisely because universities are being challenged by other knowledge producers such as think tanks, business firms and government laboratories. Universities are also challenged by students and employers who demand specific skills and courses directly applicable to the market’s requirements. Commercial education providers with a vocational dimension, and new technologies continue to challenge universities. Marginson’s work on the changing nature of universities is exhaustive. Any limitations on Marginson’s work echo what Chan and Fisher (2008) point out, which is that external forces have not solely driven universities. Higher education institutions have in fact been complicit in and active agents in their own transformation.

Additional theorists on critical higher education issues

A number of additional theorists deserve mention to illustrate key inter-related points towards an understanding of the connections and concerns for higher education institutions. The purpose of including the major works of these theorists is to indicate that their views address specific aspects of an understanding of higher education funding, such as the changing value systems of universities, the rise in importance of academic fundraising, the technologization of education, the commodification of intellectual property and the affects of these changes on academic culture. Most of the following literature is political in its approach to the subject of higher education funding. Although these scholars have much to contribute, the literature described in the earlier section as the core literature has proved to be of greater relevance to the study of how higher education funding has contributed to changing organizational structures.
Turk, in his edited book *The Corporate Campus: Commercialization and the Dangers to Canada’s Colleges and Universities*, identifies warning signs that commercialization is reorienting academic research (2000). Government funding programs are opening the door to private direction by requiring “partners” as a condition of researchers getting public funding. Turk touches on the “user pay” approach to financing education. Here post-secondary education is redefined as a private good that primarily benefits those who attend the institution. The public interest and benefit from having a well-educated citizenry are ignored, as governments focus on individual benefits to justify significant increases in student tuition and fees to compensate for cuts in funding. “Charity replaces public responsibility as universities are told to seek private donors to top up their depleted coffers” (Turk, 2000, p. 6). “For the university, itself, growing dependence on private money allows donors to steer the institution in different directions” (Turk, 2000, p.7). Basic research, the groundwork for all intellectual advances, receives decreasing attention because it offers few prospects of short-term commercial return (Turk, 2000, p. 11).

**Theories of academic culture**

Becher and Trowler’s work *Academic Tribes and Territories* is an enquiry into the nature of the linkages between academic cultures (the ‘tribes’) and disciplinary knowledge (their ‘territories’) (2001). Their seminal work focuses on the evident political implications of diverse academic units. Physicists, medical academics, mathematicians and economists, are in a position to enjoy considerable power both within the intellectual sphere and beyond its boundaries. Conversely, disciplines at the opposite end of the convergent-divergent spectrum are seen internally as politically weak and externally as
lacking in good intellectual standing (Becher & Trowler, 2001, p. 192). The role of those from whom the wherewithal comes – the direct agencies of government, the quasi-independent research councils, the independent grant-awarding foundations and the commercial and industrial sponsors concerned to buy knowledge and know-how – is fundamental to a contemporary understanding of higher education institutions. Becher and Trowler argue that these new academic relationships carry certain moral obligations in order to preserve the integrity of the intellectual enterprise (Becher & Trowler, 2001, p. 200).

At issue here is the appropriate role for the academy in partnerships with industry. In Becher and Trowler’s terms, (2001) shifts in the funding of research has meant thinking about research differently: partnerships with the private sector, with industry, competing for grants and the use of a scientific model within the humanities and social sciences in terms of calculating how to go about securing research funding. This emphasis on research and the competition involved in securing research funding has an effect on teaching and the discourse around teaching and learning.

External funding sources have provided powerful inducements for economic relevance. Financial support for research emphasizes research-based technologies and collaboration with industry. For universities, this has been an additional reason to adapt internal strategies to economic relevance (Geiger, 2006, p. 424). For Geiger the university embraced commercial endeavours in the 1980s such as research activities. “Provided research attracts funding, dressed up research in a thin veil of truthseeking may ensure that almost any endeavour with a commercial bias will be legitimated. The
paradox in this model is that promoting this entrepreneurial outlook may be promoting “counter-innovation conformity” (Harpur, 2006, p. 140).

Currie and Newson (1998) examine human resource exploitation as the knowledge produced in university laboratories and research units becomes commodified. They find that “the university is pressed to examine its conscience and to take a position on the uses to which this knowledge is being put” (1998, p. 310). They ask that if the transformation of the university is necessary, then what are the least destructive changes required? Their findings show a “troubling quality of the thin role for creativity outside of the university-corporate partnerships” (Currie & Newson, 1998, p. 310).

Tensions regarding university values, institutional priorities and a compelling managerial agenda have initiated debate among faculty, administrators and members of university governance structures. “The emergence of cultural divisions is evident through the discourses of faculty and administrators concerning the values of a knowledge economy, the emphasis on science compared to broader learning and educational imperatives, and the place of the academy within the ethos of an overriding, competitive, global knowledge economy” (Chan & Fisher, 2008, p. 11). This has led to a tension between disciplines that receive funding and profits and those who are not engaged in funding and revenue activities.

Altbach (2002) argues that there are values of the national and social common good that must be protected and preserved in a globalized educational environment. According to Altbach, the multinational corporations, media conglomerates, and even a few major universities are seen as the new neo-colonists – seeking not to dominate for ideological or political reasons but rather for commercial gain (2002). The result,
according to Altbach’s rather fatalistic view is the same – the loss of intellectual and cultural autonomy by those who are less powerful (2002; 2004). Policy makers sell the appropriateness of market-like competition in higher education to the public on the grounds that academic capitalism in the new economy will make universities more self-sufficient and decrease costs to the public (Chan & Fisher, 2008, p. 26).

The strongest critique to emerge of the technologization of the university has come from David Noble’s, *Digital Diploma Mills* (2001). He argues that rather than providing academics with greater freedom and control over their work, the introduction of network technology into universities has instead contributed to the commodification of education. “As more colleges and universities have moved squarely into the realm of commercial online education, alone or in collaboration with private-sector partners, the distinction between non-profit, and for profit institutions has been blurred to the vanishing point” (Noble, 2001, p. 83).

McSherry’s book *Who Owns Academic Work?* focuses on the emergence of intellectual property concerns at the university. Her work is extremely useful for a historical account of where intellectual property and academic capitalism were evident even in the medieval guildhall. In her view the university’s reason for being is inextricably tied to that of the intellectual property system. “The relationship between intellectual property law and academia is not a simple one…but the emergence of intellectual property discourse in the university does challenge the constitutive boundaries of a shared epistemic regime” (McSherry, 2001, p. 64). The tension for McSherry (2001) is that when knowledge is commodified, faculty look like property
owners, and the more their work looks like a potential commodity and their institution looks like a knowledge factory.

**Limitations of the additional critical literature**

Surprisingly, despite an increased interest in private financing in public higher education institutions, research into measuring the private funding of higher education is especially scarce: very few of these studies evaluates how private finance uses its power to influence strategically what is taught and what students learn and what this means conceptually for the future of the university. Turk’s edited book brings together many voices from Canadian academe, but there is a disappointing lack of theoretical deconstruction of the many layers, which make up the complex higher education funding question. Many of the chapters present a normative criticism of the changes in higher education in terms of one or another ideal model of university life. Becher and Trowler’s work on academic tribes and territories is beneficial to map the complexity of the academy as a place of study. Their book is able to present a novel approach to the political implications and opportunities for diverse academic disciplines. Altbach’s concern with the values of the university is effective in reminding us that academic-industry partnerships can remove power from the weakest members within the academy. McSherry’s impressive contribution to the legal quandaries of intellectual property rights is very specific to areas where the law and university policies intersect. However, her work is valuable in itself as she uses the available literature on higher education as an effective starting place for her investigations into the commodification of knowledge production.
Theories of boundary organizations

Universities face a range of new funding relationships; research funded by industry, patent development, new forms of fundraising and development arrangements. The major issues concern matters of agency i.e., who or what organizational entity has the authority to determine the direction of the higher education institution. The term “boundary organization” is used here to describe the increasing complexity of the system-level policy environment in many university-funding initiatives. Increasingly ‘hybridised’ forms of alliances, problems, solutions, and discourses characterize the present condition of and future prospects for higher education on a global scale. The term boundary organization explains the ‘new realities’ that individual universities struggle with to align and adjust themselves to the affects of global changes (Amaral et al., 2002). “Change occurs as new organizational components emerge within the university and across its boundaries” (Owen-Smith, 2006, p. 304).

A working definition for a boundary organization within the context of higher education is: an institution that straddles the shifting divide between two spheres, for example, public and private funding, academy and industry relations, divisions across disciplines, within disciplines and issues surrounding professors work/ownership. The application of the concept of boundary organization helps shape where and how such organizations emerge within higher education. All of these new forms of alliances affect and change the work and culture of faculty, students and staff.

The concept of boundary organizations derives from scholarship of the sociology of science, which has argued convincingly that what demarcates science from non-
science is an array of contingent circumstances and strategic behavior known as “boundary work” (Guston, 2001). Although initially formulated to explain how scientists maintain the boundaries of their community against threats to its cognitive authority from within, boundary work has found relevant policy applications in studying higher education funding (Guston et al., 2000; Slaughter & Rhoades, 2004).

Guston et al.’s work on the concept of boundary organizations borrows from principal-agent theory, which holds that organizational relations may be understood as (a series of) delegations of authority from principals to agents within or between organizations (2000, p. 401). Principals on either side of the boundary determine the success of a boundary organization, according to Guston et al., both of whom rely on the boundary organization to provide them with necessary resources (2000). The boundary organization draws its stability not from isolating itself from external political authority but precisely by being accountable and responsive to opposing, external authorities. The boundary organization thus gives both the producers and the consumers of research an opportunity to construct the boundary between their enterprises in a way favourable to their own perspectives (Guston et al., 2000). Guston et al.’s work (2000) finds that the blurring of boundaries between science and politics, rather than the intentional separation often advocated and practiced, can in fact lead to more productive policy making. Guston and colleagues hypothesize that the presence of boundary organizations in fact facilitates the transfer of usable knowledge between science and policy (2000).

The emergence of boundary organizations within higher education institutions is a direct result of the complex funding relations and organizational structures of higher education. Slaughter and Rhoades (2004) differentiate between two types of boundary
organizations; (a) interstitial organizations, and (b) intermediating organizations. The emergence of these new organizations comes from the interstices of higher education institutions to manage new activities related to the generation of external revenues.

Interstitial units are located within the university, but at the boundary of the university and society. This would include university industry liaison offices and development offices. Professionals including faculty build new networks that connect them to the new economy, spanning boundaries between public, nonprofit, and market organizations (Slaughter & Rhoades, 2004, p. 38). Intermediating organizations are those that are outside the university, but between the university and other governance entities like government and industry. This is the location for foundations and many other non-profits (Chan & Fisher, 2008, p. 24). Intermediating organizations bring together different sectors interested in solving common problems, often redrawing the boundaries between public and private. In so doing, they are reconstructing universities to accommodate an academic knowledge/learning regime.

Central to the study of higher education funding is how interstitial organizations function as transforming elements for change in established organizations (Chan & Fisher, 2008). When interstitial organizations are successful, they intersect new opportunity structures – opportunities created by the rise of the new economy. One such opportunity structure is the concept of the network society.

The major contemporary theorist to contribute to the widespread acceptance of the concept of the network society is the sociologist, Manuel Castells. Castells (2000) contends that the information economy has become increasingly connected to the information and communication technologies (ICTs). The principal argument in
Castells’ work is the claim that the shift to a flexible, networked mode of production is accompanied by a transformation in the form and nature of organizational culture. Further, the emergence of the post-bureaucratic organization, in combination with the networking capabilities of ICTs, has transformed the very nature of work itself (Castells, 2000). In contrast to Castell’s view, Gibbons et al. (1994) still view universities, corporations, and the state as having relatively clear boundaries, and for the most part does not look at networks.

Over the past few decades, universities have been progressing from a primarily collegial organizational structure through bureaucratic and corporate changes to a predominately enterprise-oriented model. This enterprise model, emphasizes the melding of a coherent organizational culture with devolved work units articulated together by ICTs, “clearly fits into the networked model of organization held up by Castells and others as the paradigmatic organizational structure of the information age” (Richardson & Fisher, 1999, p. 76). Richardson and Fisher’s work indicates that many academics have experienced organizational restructuring in terms of an increase in both bureaucratic processes and top-down corporate managerial techniques, and a concomitant loss of flexibility and autonomy, a process that is often tied to the implementation of centralized systems of networked technology. They present a discussion on the use of concepts such as “field,” “discourse coalition,” “classification,” “threshold,” and “boundary work” as focusing attention on the social construction of the social sciences (Richardson & Fisher, 1999).

Slaughter, Archerd and Campbell (2004) concentrate on how professors encounter boundary work. Their research reveals important factors inherent in changes in
organizational boundaries, namely that changing values are in flux. What is referred to as “the academic capitalist knowledge/learning regime” (Slaughter & Rhoades, 2004) has “to some degree reorganized science, changing the configuration of relations between university, state and market, the process of which contributes to changes in values” (2004, p. 161). In addition, their research results indicate that boundaries between basic and applied research can shift, depending upon how industry sees the strategic value of the research changes, as any basic research could potentially be revalued as applied or entrepreneurial, depending on its strategic importance for industry (2004, p. 137).

Interestingly, the interviews with professors in the sample showed that faculty members were articulate about needing resources but not about the political alliances that shape funding (2004, p. 139). Of interest is the language used by participants in their study. The professors speak of clear boundaries, obscured boundaries, hidden and shifting depending on how industry sees strategic value (Slaughter, Archerd & Campbell, 2004, p. 137).

McSherry uses the term “boundary object” to denote “a concept that holds different meanings in different social worlds, yet is imbued with enough shared meaning to facilitate translation across those worlds” (McSherry, 2001, p. 69). McSherry raises questions about what is being betrayed in some of the multiple boundary crossings that seem to be necessary in this millennial moment, now that betrayal is accomplished, and what is considered immune to betrayal” (McSherry, 2001, p. 69).

In contrast to the premise in resource dependency theory, which refers to the clear boundary between organizations and their environment, Slaughter and Rhoades view the academic capitalist knowledge/learning regime as characterized by the development of
new networks of actors who develop organizations that span and blur the boundaries between public and private sectors (2004, p. 12). They view the changing resource mix available to higher education institutions as promoting an academic capitalist knowledge/learning regime.

A variety of new organizational forms and arrangements have emerged around academic departments, and these new forms clearly support and facilitate the academic capitalist knowledge/learning regime (Slaughter & Rhoades, 2004). A number of structural changes at universities have been documented by among many others Clark (1998, 2004a, 2004b), Deem (1998, 2001), and Tapper and Palfreyman (1998). The key points raised by these researchers are that the collegial tradition of organizing universities and university faculties has been influenced by ‘new managerialism’ (Deem, 1998).

“’New managerialism’ represents a way of trying to understand and categorise attempts to impose organisational structural approaches, more usually associated with medium and large ‘for profit’ businesses, onto public sector and voluntary organizations” (Deem, 1998, p. 49).

Emerging organizations from the interstices of established colleges and universities manage new activities related to the generation of external revenues. Many of these organizations are boundary spanning, bringing universities, corporations, and the state closer together (Chan & Fisher, 2008, p. 23). As an example, since the mid-1990s, in the United States and the early 1990s in Canada, most public universities have aggressively pursued large capital campaigns. Fundraising officials are no longer confined to university foundations; they are now frequently located in colleges and even in departments. Such initiatives were initially most common in business and engineering
colleges but have since expanded (Chan & Fisher, 2008, p. 40). Essentially all of the academic organizations in Chan and Fisher’s research samples have development officers and some departments had undertaken fund-raising activities.

One of the organizational mechanisms for pursuing such efforts is that of advisory boards, which often include members who represent or are connected to large corporations and potential donors. These boards mediate between the worlds of academe and industry (Chan & Fisher, 2008, p. 39). Another facet connected to the inclusion of fundraising in universities is that Slaughter and Rhoades mention that “the expansion of endowments” as another example of market-like activity generated by new circuits of knowledge, and interstitial and intermediating organizations (2004). Fundraising units within faculties and departments are examples of boundary organizations and Arnove (1980) points to the need for an elucidation of a principal source of rationales for such involvements by philanthropic bodies. Arnove examines the funding patterns and modus operandi by which fundraising organizations elicit the support of and work with agents of cultural production and dissemination. The critiques contained in Philanthropy and Cultural Imperialism aim to “lead to greater awareness and understanding on the part of the public to the workings and consequences of these powerful institutions” (1980, p. 19).

The scarcity of information on the effects of private philanthropy in academia in specific boundary organizations within a higher education institution is regrettable, as it is the sort of evidence universities need to make the case for more private funding, or less depending on the complexity of the situation. The role of research into higher education funding must address significant areas of university decision-making around fundraising as these decisions are made almost entirely without academic consultation and influence.
(Amaral et al., 2002). In addition, a closer look at how the prioritization of economic functions of higher education create a new hierarchy of knowledge that privileges research and academic programs that are more directly related to the market is in order. For Amaral et al., issues of governance continue to be at the root of these concerns: Who decides, how do they decide and what do they decide (2002)?

Changes in system-level governance are not just a function of changes in the relationship between the university and the state; they imply significant modifications to the traditional view of the relationship between the university and society (Amaral et al., 2002, p. 286). “System reforms frequently imply significant changes in the understanding of whether higher education is a “public” or “private” area of activity, of whether academic research should be viewed as the search for truth in whatever form that journey may take or whether it should be focused on addressing the economic needs of the state and whether faculty should be viewed as playing a special/elite/professional role within these institutions or as ground-floor workers in a knowledge industry” (2002, p. 286). Amaral et al. (2002) question whether higher education institutions are still an ‘organized anarchy’ or whether they are similar to business firms? They suggest that universities might adopt a mixed or hybrid organizational form, combining distinctively academic components with business-like components.

Boundaries are crossed in academic-industry relations. For Chan and Fisher, this boundary crossing provides corporations with a window on ongoing research, a means of influencing the direction of such research and access to marketable products based on the research (2008, p. 22). For Amaral et al., the boundary crossing is described as “fateful; its consequences are complicated and, at base, open to interpretation. Incongruity and
paradox stem from the application of market logics to publicly subsidized academic institutions” (Amaral et al., 2002, p. 229).

The blurring of boundaries occurs around the vocational boundary that has traditionally separated universities and colleges. The education-versus-training labels no longer characterize the binary structure of the post-secondary sector as in the past. Currie and Newson (1998) describe two contradictory trends at work here. Firstly, there is an academic shift, as colleges become more like universities; and secondly, vocationalism changes, as universities take on more responsibilities for training highly skilled technical employees in computer science or retraining professionals. The long-established trend toward vocationalism is exemplified by the expansion of commerce and business administration over the past 20 years. On the boundary between universities and colleges are the applied degrees offered by technical colleges or universities (Currie & Newson, 1998, p. 92).

“As the configuration of State resources changes and public universities are pushed to seek alternative sources of funding, so our conception of ‘public’ is blurred and altered” (Chan & Fisher 2008, p. 4). “Many higher education actors have created new circuits of knowledge, interstitial organizations, and boundary-spanning networks that link them to the new economy” (Chan & Fisher, 2008, p. 20). For Slaughter and Rhoades, the same organizations raise the danger that the university’s traditional disciplinary core will no longer anchor research and teaching (2004).
Conclusion

This theoretical framework presents the dominant discourses, commonalities and limitations in the critical literature on higher education funding relationships with a particular attention to boundary organizations. The chapter describes and interprets the major theoretical concepts central to the critical literature on funding relationships in higher education beginning with a brief introduction to the theoretical works on knowledge and power. The present-day, political-economic landscape and its effects on higher education institutions are presented by scholars from North America, Australia and Europe. The scholars selected for their research into higher education funding issues make up the core literature. These include work by Chan and Fisher (2008), Clark (1998, 2004a, 2004b), Etzkowitz et al. (1998), Etzkowitz and Leydesdorff (1997), Gibbons et al. (1994), Marginson (1997), Marginson and Considine (2000), Slaughter and Leslie (1997), and Slaughter and Rhoades (2004). Major tensions such as the phenomenon of industry redirecting knowledge production are examined in this core literature. The scholars in this section are complementary and illustrative of the inter-related aspects of higher education funding because their research studies are comprehensive and their theoretical analysis forms an accurate foundation for further research.

Additional reviews of the literature feature the work of Becher and Trowler (2001), Currie and Newson (1998), Geiger (2006), McSherry (2001), Noble (2001), Owen-Smith (2006), Polster (2002, 2007), and Turk (2000), and each of which provides a different dimension to the study of higher education funding, such as the rising concern of the increasing commodification of knowledge. Although excellent points are raised including the concern of the increase in the importance of academic fundraising, the
technologization of education and the future of intellectual property, much of the work can be characterized as relatively subjective and illustrative of single-issues. The discussion of boundary organizations turns to the work of Amaral et al. (2002), Castells (2000), Guston et al. (2000), Richardson and Fisher (1999), and Slaughter and Rhoades (2004). The most comprehensive studies on boundary organizations are those from the sociology of science, which provide insight into the relationship between studies in higher education research policy and science policy. These authors present serviceable research into the emergence and continual reorientation of boundary organizations.

The university system continues to be marked by contradictions; straddling the public-private financial divide, the use of business models of networking while at the same time attempting to maintain collegial networks as well as links with the wider critical public sphere. In this sense, the study of boundary organizations in higher education offers a unique and timely perspective on some of the major contradictions underpinning the funding of higher education. Any discussion of boundary organizations includes the relationship between funding and organizational structure. Similar to many other public sector service organizations across the globe, universities are acting or being forced to act, like organizational hybrids as they respond to powerful contradictory pressures in their environments.

This chapter draws selectively on different aspects of the theoretical traditions most appropriate to an understanding of the changing role of funding in higher education. This review of research comes from scholars represented from the disciplines of organizational studies, political science and sociology with an emphasis on higher education and the inter-relationships with the market and the state. The implications of
institutional contradiction and tension in the study of higher education funding and boundary organizations emerge as reasons to pursue future research on this complex and fascinating issue.
CHAPTER 3
CRITICAL MUSEOLOGY AND THE CURRENT CONTEXT OF ACADEMIC MUSEUMS

This chapter extends the previous theoretical concepts of academic capitalism theory to include the emerging literature on the concept of critical museology and addresses academic museums as examples of boundary organizations within higher education. This chapter also presents the working definitions of central terminology used in this dissertation and sets the current context for an analysis of the two academic museums at UBC. The scholars from the field of museum studies whom I have chosen to construct this framework enhance the understanding of how different sources of funding for academic units and their relationships with government and industry have changed and impacted the structural organization and culture of boundary organizations. The chapter illustrates and explains key elements of these theoretical constructs that aim to gain an understanding of the funding profile, organizational structure and elements of academic culture when academic units take on increasingly entrepreneurial actions and require creative, innovative funding measures to support the increasingly territorial and competitive search for research dollars.

Academic museums as examples of boundary organizations

The need to be both publicly responsive and economically self-sufficient pushes museums in opposite directions, “entertaining some with cultural emblems of others; calling for increased professionalism which also raises operating costs; seeking innovative programming while wanting to play it safe; using collections while attempting
to preserve them; and seeking corporate and individual support while asserting curatorial autonomy (Ames, 1992, p. 13). Ames highlighted this dilemma in the early 1990s, and my dissertation explores this dilemma at MOA and BBM in 2011.

“Museums occupy an intriguingly paradoxical place in global culture” (Macdonald & Fyfe, 1996, p. 1). Museums today exist in an increasing market and consumer-oriented environment. Museums are becoming more dependent on earned income made up of admission sales, museum shop profits, restaurants and other profit-making ventures. Financial support through the use of fundraising and sponsorship has become increasingly important. Public relations seem to have taken the place of education and museum visitors are seen as consumers and often view their experience in terms of recreation and amusement (Witcomb, 2003). These challenges for not-for-profit organizations such as academic museums focus on the appropriate balance between public funding and earned revenues (Janes & Conaty, 2005). There is a great need for museum practitioners, funding agencies and higher education scholars to consider thoughtfully what constitutes an appropriate balance between public funding, private funding and earned revenues for public institutions such as university museums. The university museum as a social institution within the higher education system confronts structural constraints, governing bodies, official mandates, corporate supports, public responsibilities and economic limitations (Ames, 1992, p. 4). A critical examination of museums involves locating them within their social, political and economic contexts (Ames, 1992, p. 5). The purpose of this chapter is to explain how political and economic factors affect university museums as interstitial units within higher education institutions.
Working definitions

An explanation of funding and research in university museums is tied to the theoretical concept of academic capitalism as described by Slaughter and Leslie (1997) and Slaughter and Rhoades (2004). Academic capitalism theory explains the processes by which universities and interstitial units within higher education institutions integrate with the market. This theory conceptualizes that decreasing funds from the state cause museums to seek funding from government grants promoting partnerships with corporate funding and business sponsorship for research. The term “interstitial unit” as described by academic capitalism theory is an organization within higher education, such as the university museum, which straddles both the public and private funding and research worlds. The objective of this chapter is to identify the source and set the context for an examination of the direction of forces that have transformed the university museum into an interstitial unit as a direct result of the academic capitalism process.

It can be argued that museum funding is increasingly tied to business mandates, which change museum management structures, delivery systems and operations and alter their societal and educational role. This chapter engages with contemporary theoretical approaches to examine how the political and economic climate of academic capitalism has changed the original boundaries of museums and their funding and research needs. While there is good research on museum management (Griffin & Abraham, 2000; Janes, 1995; Krug 1992, 1997, 1998, 2004; Moore, 1999; Stern, 1995; and Weil, 1995) and the effects of the political and economic climate on funding and research on arts institutions in general (Hooper-Greenhill, 1992; Macdonald & Fyfe, 1996), the university museum remains the least studied area of museum activity. Inter-related literature from higher
education theory (Axelrod, 2002; Clark, 1998; Marginson & Considine, 2000; Slaughter & Leslie, 1997; and Slaughter & Rhoades, 2004), organizational theory (Krug, 1998) and museology (Hudson, 2006; Mayer, 2003; and Witcomb, 2003) is advanced to gain an understanding of how the competitive political and economic climate of “academic capitalism” affects university museum funding and research.

“The contradictory, ambivalent position in which museums exist makes them key cultural loci of our times” (Macdonald & Fyfe, 1996, p. 2). Concerns over sources of funding inevitably raise questions about knowledge and power. Museums negotiate the link between cultural production and commercial consumption. The nature of this relationship and its effects on university museums is relatively unexamined. An analysis of university museums is critical to gain an understanding of our social and educational institutions as they play a role “not just in displaying the world, but in structuring a modern way of seeing, and comprehending the world” (Macdonald & Fyfe, 1996, p. 5). Prösler goes one step further to suggest that museums function as key players in the development of the nation state and global relations (Prösler, 1996).

Anthony Shelton, Director of the University of British Columbia’s Museum of Anthropology, is of the view that a closer study is needed of “the different administrative and organizational models of museums, the distribution of power and authority they imply and actualize and their relationship to the control and deployment of knowledges” (Shelton, 2006, p. 481). “Museums have become essentially threshold institutions constructed between major intellectual, historical and social fault zones, at the intersections and between the interstices of conflicting, contradictory and paradoxical, pluricultural cross-currents in an increasingly globalized cultural and political economy,
that still awaits serious theoreticization and concerted empirical study” (Shelton, 2006, p. 492). Shelton’s article (1997) in particular provides an extensive critique of the operational side to the study of museums and advocates what he terms ‘critical museology’. One main objective of critical museology is to decipher questions regarding the politics of museum funding. This chapter, therefore, takes Shelton’s call for a critical explanation of the market, politics and class relationships endemic to museums by using Slaughter and Leslie (1997) and Slaughter and Rhoades’ (2004) academic capitalism theory to describe university museums as interstitial units within changing higher education institutions.

It must be noted that Bourdieu’s work has great significance towards understanding museums. He identifies that as cultural institutions and also as educational institutions, museums have the capacity to legitimize what culture is by describing an artifact as possessing symbolic and economic capital (1993). Bourdieu’s many contributions to the sociological theory of social capital observes that the formation of specific “fields” of taste and knowledge where certain goods are valued for their scarcity and limited to exclusive consumers, serves to construct and renew the distinction and power of the elites. In sum, Bourdieu’s work is invaluable for highlighting the contradictory dynamics of funding and research in museums, and in particular the difficult situation with which university museums are faced.

The university museum

University museums are part of both a cultural bureaucratic network and an educational structure – a complex organization of cultural, educational production and distribution – which includes government policies, museum professionals, museum
associations, cultural critics, artists, researchers, collectors, dealers and agents, sponsors, academics and volunteers. University museums and museum practitioners are well aware of the increasing demands for fiscal accountability and the responsibility placed on directors who function as cultural Chief Executive Officers (CEOs) (Finkel, 2007). Museums worldwide are struggling to maintain their stability in the face of the complex challenges of the not-for-profit world. These challenges range from declining attendance to finding the appropriate balance between public funding and earned revenues (Janes & Conaty, 2005, p. 3). An additional challenge is the “complete failure of museum practitioners and funding agencies to thoughtfully consider what constitutes an appropriate balance between public funding, private funding, and earned revenues for public institutions” (Janes & Conaty, 2005, p. 5).

University museums serve a particular research function and have a social responsibility to various stakeholders, whether it be the science community, as is the case with the University of British Columbia’s Beaty Biodiversity Museum (BBM), or as is the case of the University of British Columbia’s Museum of Anthropology (MOA), the academic community, the arts community, the First Nations community and the public (Ames et al., 1999b). Ames’ scholarship on MOA consistently refers to the four “faces” of the museum, which interconnect university, departmental, professional and public mandates (1999a, 1999b). University museums with an arts or science base are clear examples of how interstitial units within higher education interplay with the mandates of government, academia and enterprise.

Museums and in particular university museums derive their financial support from a variety of sources. The first of these is philanthropic giving. Museums also derive
private funding support through membership programs, corporate giving, gifts and grants from charitable foundations. On the public side, many museums exist primarily as agencies of local government and their financial support derives at least in part from governmental annual budgets and/or legislative appropriations. University museums are generally supported through university operating budgets (Solinger, 1990). However, increasingly university museums face an erosion of the historical base of financial support and a subsequent change in the relationship between the university and the museum (Willumson, 2000). Willumson argues that the links between academe and the museum have been strained by two major factors: “the increasing professionalization of museum staff and the shift in academic research models” (2000, p. 15). In extreme cases, the widening separation between museums and the academy shows how collections can be viewed as assets to be liquidated in order to support other areas of university research. As universities adopt fundraising models this places the museum in direct competition with other academic departments that had been their traditional supporters (Willumson, 2000). Marginalized by shifts in academic practice and supported by their communities as well as their universities, university museums discover that they are in positions not dissimilar from that of public museums or that of universities.

At the extreme end of the funding needs of university museums is the case of the Burke Museum of Natural History and Culture in Seattle. Museum officials have considered splitting from the University of Washington, citing their hope to be more successful at finding funding sources as a separate organizational entity. Many researchers argue that separating collections from a university “has a deleterious impact
on both teaching and research as there is a cumulative value of keeping research, teaching, and students together” (Dalton, 1999, p. 2).

The message is loud and clear - museums are undergoing tremendous change. Both central and local governments are demanding greater accountability combined with an emphasis on the quality of provision, while at the same time funds and resources for museums are being reduced (Hooper-Greenhill, 1992). The overlapping, interconnected effects of the competitive political and economic climate of academic capitalism on university museum funding and research are multiple. They include: sponsored research agendas that bring government-industry partnerships into the forefront of administration and academic realms of tension; the advance of the tourism mandate connected to the driving source of revenue for the state; new technologies and learning that transform the museum into a virtual laboratory; and the increasing need for museums to raise funds. In addition, the effects of academic capitalism address the politics of the university museum, and the construction of art and knowledge as commodities. For the purposes of this chapter, each effect is discussed and addressed in light of the existing changes to university museums.

Museum institutions are in a difficult position whereby they must strike a balance in order to consider the impact of marketing, sponsorship and patronage. Instead of occasional marketing supporting the museum, the museum now provides a venue for commercial activities. This generation of income by museums is achieved through the marketing of goods and services, the attraction of sponsorship for specific developments and activities, and various forms of patronage including membership schemes. As a
consequence, “the museum has entered the marketplace and in the marketplace the market traders are the great arbiters” (Cannon-Brookes, 1996, p. 345).

This market-orientated behaviour is being increasingly forced upon institutions “founded in very different environments to preserve, research and make available, in perpetuity, representative collections of artifacts and natural history specimens selected for their documentary value” (Cannon-Brookes, 1996, p. 346). For Cannon-Brookes, museums are influential forces in the life of a democratic society, however, they must preserve both the integrity of their collections and their intellectual independence while at the same time “depending on the vagaries of the market and the questionable ambitions of motivated individuals” (Cannon-Brookes, 1996, p. 346).

Both arts and science-based museums are susceptible to the impact of activities more designed to generate income than further their core functions. For art-based museums, there is the “blockbuster” exhibition. These commercial exercises are potentially very profitable, following the formula of Thomas Hoving at the Metropolitan Museum of Art in New York – combining high profile museum objects, glamorous design and ruthless marketing to attract the public in large numbers and sell them vast quantities of goods created for this purpose (Cannon-Brookes, 1996).

An examination of the climate of academic capitalism and its effect on the funding and research of university museums is important because museums are products and agents of social and political change which states can use to “represent and reconstitute [themselves] anew in each generation” (Shelton, 2006, p. 480). An understanding of the role of museums in society and in this particular case, university
museums, requires greater focus on the economics and politics associated with the funding of higher education institutions in general and not only on the poetics of representations. Tensions stem from the fact that the museum’s role is no longer seen as valuable. Rather it is implicated in the distribution of wealth, power, knowledge and taste shaped by the larger social order. Shelton argues that the relations between business, politics, and museum interpretation need to be considered in the examination of the funding climate of academic museums (2006).

Stephen E. Weil, the late scholar emeritus at the Smithsonian Institution's Center for Education and Museum Studies and noted museum and art law expert, believed museums to be among the most remarkably flexible organizational types that a modern society has available for its use. “Museums can provide forms of public service that are all but infinite in their variety” (Weil, 2002, p. 89). Museums as organizations are restructured to adopt marketing expertise. Museums are becoming like another industry in the economy, unfortunately, there is virtually no segment left that by itself can support such an expensive production process. However, in the world of market economics, “museums are not competitive” (Krug, 1992, p. 19). Academic museums as examples of boundary organizations in higher education institutions are not what Slaughter and Rhoades would consider successful capitalists (2004).

Museums and universities share several qualities that distinguish them from other cultural and social institutions: a deep respect for intellectual attainment and learning for its own sake; appreciation of and questioning about humanity’s role in the world; and a sense of commitment or obligation to society with respect to educating its citizens (Solinger, 1990, p. 3). A university museum is a symbol of the university’s concern with
its own broader educational mission in society. “The museum forms a window – both into and out of the university – providing a major linkage between the academic and the surrounding communities” (Solinger, 1990, p. 69).

In financial terms, the parallels and differences between these two groups of institutions – universities and museums – can be illustrated by contrasting the museum with the private university. Each has developed a complex system for financing its activities that combines public funds (federal, state, local grants) and revenues from direct provision of service (tuition at universities and admission fees at museums) as well as extramural support from individuals, corporations and foundations. With rare exceptions, it is only through an integration of these funding sources that a fully viable operation can be achieved (Solinger, 1990, p. 222). It is within this system of multiple funding sources that museums and universities function.

**Chronic crisis: financial and identity crises for museums**

According to Hooper-Greenhill, museums are facing a time of enormous change: they must increasingly earn their own living and at the same time demonstrate social relevance to justify those public funds that they still do receive (1992, p. 12). For Zolberg, museums in North America have faced crises from their early days because the capital required for museums to carry out their institutional aims is never sufficient (1992). In today’s competitive research climate, university museums are pressured to maintain high standards of research, publications and programs. Zolberg’s work (1992) describes the struggle to raise additional funds from multiple sources, including at times individual patrons, city and state governments, foundations, corporations and by using commercial methods.
For an historical reference, O’Doherty (1972) illustrates that the museum in the 1970s was described as being in a state of physical, financial, esthetic and spiritual crisis. Its survival as a viable institution, maintaining standards of scholarship and high public service was in doubt (O’Doherty, 1972, p. 2). At issue was what the museum’s function should be when funds were no longer sustainable. The museum’s traditional conflict between scholarship/conservation and education became exacerbated. Of particular interest is that O’Doherty links the condition of the museum to that of “another troubled institution, the university” (O’Doherty, 1972, p. 3).

The recent history of museums is also characterized by reductions in funding leading to attempts to diversify the funding base as well as downsizing and restructuring. Museum boards have brought people with business backgrounds more frequently to their membership and redefined the role of the chief executive to concentrate on fundraising more than the core leadership functions. Museums are complex organizations made up of intertwined layers of competing interests (Ames, 2006).

For Weil, the majority of museums in the United States are organizations, which are fully public in their responsibilities both to their collections and to their communities while still deeply private in terms of their governance and funding. “That museums cannot report their results as measurable outcomes or plot them against statistical data bases are problems that they share with a host of other socially important organizations, including liberal arts colleges” (Weil, 2002, p. 63).

Moore’s book Management in Museums refers to museums as “specialized organizations” – professional bureaucracies dominated by professionals hired from
outside who are influential in setting the agenda of the organization (1999, p. 45).

Governments are frequently involved in funding or managing museums, or both, and have introduced organizational reforms into museums. These reforms mostly emphasize “rational economics and its attendant managerialism” (Moore, 1999, p. 45). Moore suggests the need for museums to alter radically in order to survive in an increasingly turbulent funding environment. However, Moore insists that there are inherent limitations of marketplace ideology for museums. He suggests that museums are in fact diversified portfolios where their work can be subjected to market forces, such as restaurants and product development. Other activities such as collections care and knowledge generation bear little relation to the market and probably never will (Moore, 1999, p. 22).

**Museum as social enterprise**

Weil refers often to the work of Dees et al. (2002) regarding the museum as a “social enterprise”. The social enterprise organization has two purposes (i) the desire to achieve a specific outcome, parallel to the business idea of the bottom line, and (ii) the use of the “social” method – where the organization may rely on donated funds, goods and services as resources while, correspondingly, providing its own services to the public either without charge or at a price below their fair market value (Weil, 2002). This social enterprise model infers that organizational culture is no less important to the effectiveness of nonprofits like museums than it is in commercial organizations. The point Dees et al. (2002) are making is that there is a change in the standard of not-for-profit accountability. An institution must demonstrate that it is using the resources to achieve what it said it intended to achieve because “an organization without the capacity to monitor its
outcomes credibly may no longer be fundable” (Weil, 2002, p. 47). In the for profit commercial enterprise, efficiency and effectiveness overlap substantially. Waste can undermine profit, the basic point of the enterprise. Not so in the social enterprise, where efficiency and effectiveness remain distinct. “A museum might conceivably be effective without necessarily being efficient” (Weil, 2002, p. 86).

As a social institution, the museum can accommodate a multitude of different and even potentially conflicting purposes: it can focus on heritage, on community building, on public education, on preservation, on scholarship or providing important experiences. “The demand that we be able to measure a museum’s contribution to its community quantitatively – to show, more exactly, how much value it has added in exchange for the support it has been given – is like the demand being made today upon colleges and universities” (Weil, 2002, p. 96). Exact measurables are problematic for museums and higher education institutions. To the question of how to measure efficiency, Hudson (2006) asks how it is possible to evaluate the transmission of cultural heritage, the affirmation of community identity, cross-cultural or inter-community communication, and perhaps most difficult, aesthetic effect (Hudson, 2006, p. 40)?

The social enterprise model is useful to explain how tensions of both private and public realms in university museums are played out especially when fundraising techniques and management styles have a significant role. In its pursuit of earned income, “the museum has put itself in a marketing mode…museum visitors have been transformed into customers – and they can with increasing frequency call the tune” (Weil, 2002, p. 201-202).
Boylan’s book probes the political, economic and cultural realities, which affect museums today (1992). The emphasis is on the changing financial climate for museums, especially the drive for profit and the political agenda of seeking to switch responsibility for museums from public to private funding (Boylan, 1992, p. 1). When museums take on funding and sponsorship from the corporate realm, there are political and economic, organizational and cultural impacts on museums and the people who work there.

The role of government in the funding of museums

Griffin and Abraham review and contrast the prevalence of effective management practices across both government and non-government museums and similar organizations through a study of 30 organizations in four countries (Griffin & Abraham, 1999). Griffin and Abraham’s study involved museums of all kinds including science centres and aquaria from Australia, Canada, the United Kingdom and the United States. While it seems there would be a difference in how science and arts-based university museums are funded and managed, for the purposes of this dissertation, the common themes and tensions are more pronounced than the differences.

Griffin and Abraham contend that governments have mandated certain practices for cultural institutions or forced their adoption through well-known strategies and tactics to funding and ministerial responsibility (Griffin & Abraham, 1999). In their conclusion, they state that their study demonstrates that government intervention, where it has emphasized compliance and cost-cutting, makes a negative difference to the performance of museums. Non-governmental organizations, which have not been faced with compliance and cost-cutting requirements have been free to develop the sort of leadership
that enables them to focus on the purpose, culture and management practices characterizing long term success and effectiveness.

Museums do not consider it their role to operate as a business. The culture that operates within them is one that expects public subsidy to provide public services for the social-economic, educational and cultural benefit of the public as a whole. Yet often government policy acts otherwise. The success of the museum is evaluated by looking at numbers of people who pass through the doors and how much it costs the taxpayer for this to happen. There is little reference to the many other ways museums might be measured: the quality of permanent displays, exhibitions or projects, the visitors’ experience, the diversity of audiences, attractive levels of longstanding participation, the provision of education and interpretation service and the standards of collection.

Revenue from grant funding is increasingly important relative to national and international prestige rankings, and the prestige of the institution is increasingly being defined by the amount of funding it receives from outside the university. Such developments in the view of Slaughter and Rhoades, speak to the ascendance of the academic capitalist knowledge/learning regime (Slaughter & Rhoades, 2004, p. 41).

For Jenkinson (1992), there is widespread anxiety about what the future of the museum holds, as well as widespread frustration that museums, after having worked so hard to open up diverse audiences to forward policies of cultural equity, appear to be going in reverse. This reversal moves away from access to all towards a reconstruction of museums returning the ownership to the influence and power of corporations who can afford to pay for culture. There are enormous tensions between the liberalizing trends in
museums that have increased in strength since 1945 and the privatizing free marketing
trends that came into force with neo-conservative governments. This growing
conservative ideology anticipates a declining role for state and local governments in the
financial support of the arts and consequently an ever-increasing role by business and
industry investment in the arts. It views museums and art galleries as part of the
entertainment industry, subject to market forces. Sponsorship, not public funding is the
future (Jenkinson, 1992). For Jenkinson, museums and art galleries are becoming a
cheaply available marketing tool for multinational corporations.

University museums find themselves having to assist the university administration
to make its case to government agencies by providing quantitative information about
number of pre-college age visitors, amount of time spent in the museum and the quality
of their experience (Willumson, 2000). The university museum demonstrates its unique
role as an educational site for future university students and current taxpayers.

The challenge of assessment is comparatively new to museums. It comes with
their reliance on public funding rather than on the personal idiosyncrasy of benefactors or
the judgment of the marketplace. Charitable foundations and government agencies have
formulated criteria for the distribution of funds and recipients are held to standards of
achievement beyond mere accountability. Museums learned quickly that they have to
police themselves internally and to spell out goals and procedures that have to do with
improving the quality of people’s lives.
Academic capitalism theory and university museums as interstitial units

The academic capitalist knowledge/learning regime reconsiders knowledge in a number of ways: knowledge as a commodity, knowledge as privately held, income from knowledge and students as consumers (Slaughter & Rhoades, 2004, p. 10). This paradigm can be applied to university museums and causes tensions in the way artifacts and objects are valued and how the museum experience is commodified. Slaughter and Rhoades argue that academic capitalism has not entirely replaced the original public good knowledge regime. They intersect at points where funding for research becomes entrepreneurial (Slaughter & Rhoades, 2004, p. 29). This has led to a tension between disciplines that receive funding and profits and those that are not engaged in funding and revenue activities.

The emergence of interstitial units within higher education institutions is a direct result of the complex political and economic relations and organizational structures of higher education in the new climate of “academic capitalism.” The emergence of these interstitial units comes from the interstices of higher education institutions to manage new activities related to the generation of external revenues. Professionals including faculty build new networks, which connect them to the new economy, spanning boundaries between public, nonprofit, and market organizations (Slaughter & Rhoades, 2004, p. 38).

The British Columbia Knowledge Development Fund (BCKDF), one of the funding partners involved in the CFI renewal projects for the Museum of Anthropology (MOA) and the Beaty Biodiversity Museum (BBM) focuses on creating and enhancing
research infrastructure within the province. According to the BCKDF, the museums must contribute to building or enhancing long-term capacity for leading-edge research, provincial economic development and job creation. This partnership demonstrates the direct link to the museum and the provincial government to build upon the universities reputation for good science, develop industry partnerships and generate employment opportunities. There are a number of scholars who address the phenomenon of private funding affecting academic management and funding (Clark, 1998; Currie & Newson, 1998; and Marginson & Considine, 2000). These changing economic and political mechanisms redirect priorities for higher education and create a new regulatory environment and introduce market-like conditions within university units such as university museums (Amaral et al., 2002).

Slaughter and Rhoades’ (2004) theory of academic capitalism explains the processes by which colleges and universities integrate with the new economy. They point to the inclusion of profit-oriented activities as a point of reorganization and new investment by higher education institutions to develop their own capacity, to market products created by faculty and to develop commercial products outside of the traditional academic structures (Slaughter & Rhoades, 2004). Further to the discussion of academic capitalism in Chapter 2, Slaughter and Rhoades (2004) describe the conversion of the university into multiple profit centers. It is their view that faculty, administrators, managers, presidents, and trustees are not simply acted on by corporatization but in fact actively incorporate their work and institutions into the new economy (Slaughter & Rhoades, 2004).
“The role of research in the production of knowledge is increasingly influenced by ideologies that support the commodification of knowledge” (Slaughter & Rhoades, 2004, p. 8). At issue here is the appropriate role for the academy in these partnerships. “The policy environment for higher education has changed dramatically to favour not only the market, but the natural, applied and health sciences” (Slaughter & Rhoades, 2004, p. 9). What is not known and what is a central question in this dissertation is whether the market would favour the science-based university museum over the arts-based museum.

**The competitive political and economic climate of academic capitalism**

The globalized landscape refers to the structures of capitalism that have permeated institutions worldwide. This has fundamental consequences for higher education and interstitial units within higher education. As Currie and Newson argue (1998), the continuing decline of the public sphere means universities have less autonomy as they establish a closer and more accountable relationship with business and industry. Profit becomes a motive for action, as universities try to adapt to the needs of businesses and students (Currie & Newson, 1998).

Ames (1993) describes the same attributes of academic capitalism theory in what he terms “consumer capitalism”. The role of government in this consumer capitalism is to aid market forces by protecting private property and reducing social overheads and other obstacles to profit-seeking and transnational investments (Ames, 1993).

Market-oriented governments engage in downsizing and deregulating their responsibilities to the cultural sector. Museums are obliged to market themselves as
popular entertainments, at the same time as corporations want public blessings for their support. Meanwhile, growing numbers of politically active and culturally diverse populations, seeing themselves as consumers, increasingly demand special services from the same cultural institutions (Ames, 1993). How then should museums respond? The short answer is that it is the mandate of the museum to serve, but not to surrender to the pressures of the changing landscape. The challenge for museums is to preserve intellectual autonomy while at the same time, opening doors to greater degrees of power sharing, consultation and collaboration. This is difficult in an increasingly competitive research climate where research is funded by industry, and industry-government partnerships, as well as by new forms of fundraising and development arrangements.

The new economy depends on the neo-liberal state for governing principles that create and sustain an equal playing field. To provide funds to reshape the economy, the neo-liberal state has instituted processes of deregulation, commercialization, privatization and re-regulation. Within the neo-liberal policy environment, higher education institutions and interstitial units such as university museums are on the one hand, often granted more autonomy from central government, but on the other are then encouraged to partner with industry.

“The neo-conservative economic policies of Western governments force museums further into the marketplace…Government policies are driving museums willing or not, deeper into the consumer marketplace” (Ames, 1992, p. 6). This leads museums to “opt for exhibitions that are more entertaining and revenue-productive than reflexive and disputatious” (Ames, 1992, p. 7). “When deregulation, politicized funding and consumerism are imposed upon cultural institutions they have the effect, whether
intended or not, of muting criticisms and reducing programming to innocuous, and politically correct entertainment” (Ames, 1992, p. 8).

The impact of funding and research on university museums

The competitive political and economic climate of academic capitalism is evident in the increasing significance of the commercial research agenda, which affects university museums. As interstitial units in higher education, university museums play a funding game whose rules are changing and elastic. In this dissertation, I argue that funding and research sponsorships are an extension of the academic capitalist knowledge/learning regime as demonstrated in the arts and science-based museums at the University of British Columbia and exemplified in the renewed interest in the funding of museum infrastructure. The case of the Canada Foundation for Innovation (CFI) grant, for example, is designed to improve information technology for a virtual museum network and to develop laboratories for leading-edge research, with the overall goal of benefiting British Columbia’s tourism economy and the overall Canadian economy.

Canadian funding councils are connected to universities through sponsored research in partnership with the private sector (Fisher, Atkinson-Grosjean & House, 2001). The Canada Foundation for Innovation (CFI) insists on a funding formula whereby matching grants from government and industry fund infrastructure to promote closer university/industry partnerships. These partnerships facilitate the movement of faculty and students between the academic and business worlds. Geiger’s description of university research partnerships can be directly applied to the example of CFI grants to university museums in Canada (2006). He contends that universities have received strong inducements to enhance economic relevance from external agents, especially since
2000 (Geiger, 2006). These incentives have taken the form of research and training
grants or support for building research infrastructure and have encouraged universities
and university museums to engage more closely with industry, pursue research-based
technologies or form interdisciplinary collaborations. “These initiatives have come from
federal science agencies, state governments, and from private philanthropy” (Geiger,
2006, p. 422).

Buchbinder and Newson (1990) argue that industrial and private sector donors are
overwhelmingly more inclined to contribute their research dollars to projects that have a
technical or applied science pay-off. University museums connected to academic
disciplines in the arts and humanities and social sciences do not foster the kind of
research that leads to the development of marketable products. This imbalance is
reinforced by the fact that the value of research “is increasingly assessed in terms of
corporate needs, and government grant programmes actively promote this basis of
assessment” (Buchbinder & Newson, 1990, p. 364).

Since the 1980s, the Canadian government, through its various funding agencies,
has continued to see the university as a principal instrument to improve national
competitiveness in the global knowledge-based economy. In Currie and Newson’s edited
volume *Universities and Globalization: Critical Perspectives*, they view corporate-
university linkages and the phenomenon of privatization as the overwhelming trends by
which institutions are changing their practices to accumulate power (1998). It is their
view that our universities are becoming more corporate, more technocratic, more
utilitarian and far more concerned with selling products than with education.
Based on the cross-institutional global comparisons of higher education institutions, Slaughter and Leslie argue that the development of *academic capitalism* pushes universities toward conformity in thinking and research agendas (Slaughter & Leslie, 1997). O’Doherty who wrote on this topic forty years ago predicted that museums would soon be treated like, entities in a conglomerate (1972). Moreover, with a different sponsor for each ambitious exhibition, the museum becomes subject to a variety of backers, each feeling entitled to have its interests acknowledged (O’Doherty, 1972).

Museums are inevitably political in several dimensions - if a museum receives public funding it is part of a patronage network that has political goals and responsibilities. In 1999, the Canadian federal government made changes to the twenty-year old heritage funding structure, which replaced core funding with project funding. Today museums must compete annually with each other for Museums Assistance Programme (MAP) monies awarded only for exhibitions, which meet the government’s “pan-Canadian” priority. “Together with federal and provincial policies, the Canadian funding councils have played a direct role in shaping the research priorities of institutions, and influencing the research agendas of the professoriate” (Slaughter & Rhoades, 2004, p. 10).

The internal political environment of the museum is also important to consider. The Director of the university museum often reports to the department chairperson or Dean and often a museum board, who then report to the university president or chancellor. In his/her long chain of command it is often difficult to retain the power necessary to maintain a strong mission and clear goals and objectives. In this chain of
command the museum is asked to justify itself in order to receive governmental financial support (Stern, 1995, p. 108).

Another unique feature of the politics within university museums as a result of the competitive political and economic climate of the globalization of higher education is the process of decolonialization. When the Native American Graves Protection and Repatriation Act (NAGPRA) was passed in the United States in 1990, this led to repatriation efforts and cooperation between museums and First Peoples (Applegate Krouse, 2006, p. 174). Great strides have been made in the repatriation of human remains and objects of cultural patrimony to indigenous peoples, aided by domestic regulation and international treaties (Applegate Krouse, 2006, p. 181). This leads one to consider the epistemological questions of not just how objects should be collected, but why. The modern university museum must be prepared to tackle these questions and be responsive to communities when museums hold objects important to a specific cultural heritage. Ames describes museums as cultural institutions upon which the major social, political and moral issues of the day are contested (1992, p. 152). The museum is embedded in the cultural affairs, in political relationships involving status and power.

Ames states that the important issues for museums are the political and economic ideologies under which they are increasingly obliged to operate (1992, p. 8). These issues include: the repatriation of artifacts; the politics of representation; museum exhibition boycotts; the privatizing and devolutionary policies of government; and the commercialization of museums (Ames, 1992, p. 6). The key issue for Ames is how museums will manage these changes and how they themselves must change to survive the challenges. The other sense of the term ‘political’ involves whether the museum
should promote explicit political messages in its exhibits. Arguably, there is no escape from political commitment, since its avoidance is also, effectively, a political statement.

Nestor Garcia Canclini, the Argentine anthropologist, suggests that in the discussion of politics and economics of cultural institutions we consider a central question, whether these changes signify the cultural reorganization of power or the political reorganization of culture (1995). He states that the hybridization of funding brings society to an understanding that all cultural/educational institutions are boundary organizations. This concept of what he terms "hybridity" has been generated by new communication technologies, the reordering of public and private urban space and the deterritorialization of symbolic processes (Canclini, 1995). University museums as interstitial units focus on “the blurring of boundaries among markets, states, and higher education” (Slaughter & Rhoades, 2004, p. 9-11).

In our contemporary society, there exists a structural tension built into the purpose of the museum, which results in an inevitable strain between quality and freedom of expression on the one hand, and the entertainment industry on the other. University museums also serve as major tourist attractions for certain regions. As Huyssen describes the museum, “the bastion of high culture now serves as the new kingpin of the culture industry” (1995, p. 18).

In explaining how the phenomenon of academic capitalism has affected university museums, Witcomb (2003) draws on the increasingly important connections between museums and the tourism industry. “The association of contemporary museums with popular culture, consumerism and the economy should come as no surprise. Nor should
the growing importance of tourism” (Witcomb, 2003, p. 27). What is new is the use of economic arguments as the central rationale for museums in the globalized economy. Government desires to make culture an integral part of the economy. “Museums play to national and civic discourses at the same time as playing to a series of contexts that emphasize global flows of tourists, goods, and ideas” (Witcomb, 2003, p. 28).

For Witcomb, “heritage and tourism are collaborative industries, heritage converting locations into destinations and tourism making them economically viable as exhibitions of themselves” (2003, p. 32). Museums provide a site from which to discuss cultural policy, the effects of new technology, and changes in geopolitics” (Witcomb, 2003, p. 32). “Rather than ‘the public’, a singular entity bound by a common identity, ‘museum audiences’ are now described as representing different ‘market niches,’ each with different needs and desires” (Witcomb, 2003, p. 49).

Witcomb has an optimistic view of the complexity of funding museums. By supporting new technologies, consumerism, and marketing, museums overcome their traditional stasis and become relevant (Witcomb, 2003). Witcomb addresses the current direction of museums which includes – the impact of tourism on museums and heritage sites, the changing structures of museum administration and management, the increase in interactive media oriented displays, the loss of curatorial authority and questions of access, cultural diversity and representation (Witcomb, 2003).

The juncture between consumerism, tourism, new forms of capital investment and culture is not a new phenomenon, however, under the influence of the tourist industry, commercial gain becomes the first objective and the concern is that traditional
values and roles of education and academic freedom can be lost (Witcomb, 2003). Krug (1992) suggests that if museums can only pass their cultural meaning to international tourists and not to an adequate number of people in society, messages and values of these social institutions will cease to have meaning. The danger is that few people will care when the final crisis comes that museums are closing down (Krug, 1992).

With the advance of the neo-conservative political and economic agenda, the public sphere has disintegrated into an arena of competing private interests. “It has become a rhetorical marketplace presided over by a government bureaucracy that answers to manipulated public opinion” (Hein, 2006 p. 27). Hein understands the museum as an institution that is both public and private. Her work explores questions regarding the public and private sphere with the goal of addressing current issues in the museum – “an institution whose public identity lies at the root of its private function and effectiveness” (Hein, 2006, p. 27).

Kirschenblatt-Gimblett (1998) contends that the type of museum that tourism produces is increasingly becoming the model for purpose built museums. Museums that orient their exhibits more to their visitors than to their collections now aspire to the intensity of experience, to the immersion in an environment, to an appeal to all the senses, which has precipitated a crisis in the identity of museums.

Museums have become part of the ‘learning industry’ and in so doing have begun to adopt new methods of communication and new technologies (Hein, 2000). With the arrival of digital technologies, the possibility of generating external revenues from instructional materials has transformed the university into an academic capitalist
knowledge/learning regime. This shift involves the creation of education into yet another new economy service and consumption item to be delivered to consumers. University museums as a consequence have established partnerships with university computer support systems, computer science departments and outside firms interested in developing software systems for online research and education (Witcomb, 2003 p. 121). As Turk suggests, universities and colleges are devoting ever increasing resources to adding on-line capabilities and they are certainly enriching the economic prospects of hardware, software and educational service companies (2000, p. 6). Higher education institutions pursue legislative strategies that increase public monies for information technology, creating tighter connections between universities and corporations.

Harpur warns that new technologies are “pulling apart the seams of the traditional university museum” (2006, p. 142). He states that even something as ubiquitous as the computer interface has a range of embedded cultural, political and social biases, which affect the educational content and mode of delivery. “Technology is not operated in value-free environments and transformation initiatives lauding its greater deployment rarely dredge up these values for critical examination” (Harpur, 2006, p. 143). In sharp contrast to Harpur’s warnings, Woods (2007) embraces new opportunities that technology brings to potential business models for museums. Woods recommends that such models include sponsorships, partnerships, the extension of museum boutiques on-line, enhanced web access for a nominal fee and better marketing and communication efforts (2007, p. 36). “What perhaps now needs discussion is the quality of the relationship between the material and the virtual” (Kirschenblatt-Gimblett, 1998, p. 127). It is important to recognize that museums have always been implicated in questions of
communication – questions which have always revolved around the relationship between objects, media, and social relations” (Woods, 2007, p. 33). This brief discussion of technology and learning shows how digital technologies move museums away from their traditional role as treasure house to a new focus on information. Virtual reality becomes one of the ways in which traditional discourses of museums are being altered to allow new associations for old institutions to emerge (Kirschenblatt-Gimblett, 1998).

**Construction of commodities**

“The rhetoric of economic globalization invokes the movement of goods, money, and information. Culture figures in the construction of commodities through design, branding, and marketing” (Foster, 2006, p. 285). With the commodification of culture, art and knowledge, the university and the university museum become a culture factory where individual entitlements are replaced by private investment. When culture is commodified new practices begin to shape academic life. For example, the intellectual products of the university are not easily open to debate and dissemination any more; instead, “research processes are hidden from colleagues (who become competitors) and preliminary results are subjected to secrecy until they hit the market. In this context, cooperative learning and collegiality among faculty are discouraged and replaced by individualism and competition” (Silva & Slaughter, 1984, p. 520).

Of great interest is the concern regarding the commodification of prestige. Parry (2007) outlines this concept whereby prestigious, well-funded museums find themselves selling their own brand. The limited growth of museum resources does not allow them to acquire the most reputed works or to undertake new research necessary to sustain the vitality of their brand. Thus, as museums rely more and more on limited funding and acts
of private patronage to fund renovations and acquisitions, a new trend has emerged, whereby museums license their name and prestige to new developing museums. The Louvre has plans to sell its brand name to a new museum in Abu Dhabi and The Pompidou Centre has signaled plans to open an antenna in Shanghai, a move that gives the museum an opening into an emerging art market. Global trends and the commodification in the art world make museums act as entrepreneurial units.

Another interesting phenomenon when considering the increasingly commodified role of the museum is the idea provided by Werner (2005) of the museum turned bank with branches in New York, Venice, Berlin etc. As the public trust is being demoted in favour of satisfying corporate sponsors, the museum can be seen as a holding place for expensive artifacts.

For Ames, increasing consumerism is changing museums. As they become integral parts of a consumer society they are also buying into the ideology of consumerism – an ideology that is steadily colonizing education and information services (1992). The populist slogan that ‘the customer is always right’ now applies to museums and other cultural industries (Ames, 1992). The trend is to define museums as ‘attractions’ expected to compete in an open market for customers. They are, as a result, “more inclined to promote lifestyles in harmony with the goals of a capitalist economy than to criticize it” (Ames, 1992, p. 11).
Private fundraising

The history of funding shifts in American museums is explained in part by Anheier and Toepler’s study (1998), which describes the first shift in museum funding that took place in the 1960s and 1970s. This initial shift indicated that funding from traditional individual philanthropic sources was declining and that more funds were coming from foundations and government support. In a second shift, which they describe as having merely just begun, the emphasis is now on museums themselves generating their own income from admissions, merchandising, and other ancillary activities (Anheier & Toepler, 1998).

In response to the decrease in state funding of museums there is a great need for private fundraising. Since the mid-1990s, in the United States and the early 1990s in Canada, most public universities have aggressively pursued large capital campaigns. Fundraising officials are no longer confined to university foundations; they are now frequently located in colleges and even in departments (Chan & Fisher, 2008, p. 40). In the case of the UBC’s Museum of Anthropology (MOA) and the Beaty Biodiversity Museum (BBM), both of these interstitial units have Development Officers assigned from their respective faculties whose responsibility it is to find private donors for the museums. The decentralized mandate of university fundraising initiatives were initially most common in business and engineering colleges, but have expanded to most faculties and interstitial units within higher education. In order to reflect an efficient and effective management and funding structure development officers raise funds in individual faculties and departments for infrastructure and research.
One of the organizational mechanisms for pursuing fundraising efforts is that of advisory boards, which often include members who represent or are connected to large corporations and potential donors. These boards “mediate between the worlds of academe and industry” (Chan & Fisher, 2008, p. 39). The expansion of endowments and other aggressive fundraising activities are viewed as examples of market-like activity generated by interstitial organizations (Slaughter & Rhoades, 2004).

Some museums have come to resemble corporate organizations with revenue and visitor attendance being the authoritative measures of value. Many of their board members are chosen for their business experience, corporate networks and influence in fundraising. A closer look at how the prioritization of economic functions of university museums as interstitial units within higher education creates a new hierarchy of knowledge that privileges research and academic programs that are more directly related to the market is in order. Fundraising decisions according to Amaral et al (2002) are increasingly made almost entirely without academic consultation and influence. Against this background, I will examine the funding profile and changes to the organizational structure and culture of academic museums.

**Setting the Canadian context for an exploration into the academic museum**

Canadian federal governments have established policy perspectives that require research universities play a larger more direct role in assisting industry and promoting national competitiveness (Fisher & Rubenson, 1998; Powell & Owen-Smith, 1998). Universities in Canada are being urged by the federal government to actively seek out partnerships with business in the development and commercialization of new
technologies. The Canada Foundation for Innovation (CFI) is only one example of this policy perspective in action.

In the 1980s two actions by federal governments in the United States and Canada created an environment fostering competitive university research environments. Competitiveness legislation introduced first in the United States with the Bayh-Dole Act in 1980 and the Federal Technology Transfer Act in Canada in 1986 blurred the boundaries between public and private knowledge by promoting the privatization of public research. In the case of the Bayh-Dole Act, this gave American universities, small businesses and non-profit organizations control over their own intellectual property, which had been funded through federal government resources. The federal government’s position in the 1980s in Canada focused on reallocating resources toward employment opportunities. As a result, universities became involved in trilateral research agreements with federal laboratories and private corporations. This strategic restructuring stressed knowledge as a commodity and changed common understandings of where the boundaries lay between public and non-profit organizations, “dissolving the boundaries between university and industry and allowing the market penetration into marketable areas” (Slaughter & Rhoades, 2004, p. 54). These policy changes spawned major structural changes and triggered many challenging new situations for academics.

The neo-liberal shift in federal policy encourages universities to have direct partnerships with business in the development and commercialization of research. Major support for the commercialization of research can be seen in the federal government’s investment in the Industrial Research Assistance Programme of the National Research Council, millions of dollars invested in Genome Canada research in the field of genomics.
from Outlook on Science Policy (April 2004, p. 41-42). This affects the political economy of boundary organizations such as academic museums within post-secondary education. These changes raise concerns from scholars who suggest that in this environment, market principles are replacing educational values, private interest is replacing public interest and the academic culture of the university is being shaped in accordance with principles and priorities of the market (Axelrod, 1998, 2002; Buchbinder, 1993; Buchbinder and Newson, 1990; Chan & Fisher, 2008; Polster, 1998, 2000; and Shanahan, 2008).

**Emergence of tied, targeted and matching funding mechanisms**

Over the last two decades, the Canadian federal government has used its spending power to reduce indirect transfers to Post Secondary Education (PSE) to support the overall core university operations and to channel more money into direct funding to universities for research, research chairs and research infrastructure grants (Fisher & Rubenson, 1998). This trend started in Canada in the mid-1990s, and by 1997, the Canadian federal government had restructured its contribution to higher education by investing in specific research functions, rather than the allocation of funds for core operations. The creation of new granting agencies, such as the Canada Foundation for Innovation (CFI) in 1997, have become increasingly important as persistent shortfalls in university operating budgets, increased targeted funding towards selected applied science research over and above social science and pure science research - especially museum research - combine with the rising costs of the growing commercial applicability of research (Polster, 2007).
Shanahan (2008) describes the political economic environment as characterized by drastic cuts in public expenditures and the emergence of accountability and efficiency management models. This shift in government funding for higher education emphasizes the use of tied, targeted and matching private sector funding mechanisms. To balance their budgets, post-secondary institutions place more emphasis on university-industry partnerships, fundraising and profit-producing activities and increase their engagement at the professional level in entrepreneurial, revenue-generating and grant winning activities (Bruneau & Savage, 2002; Currie & Newson, 1998; Fisher & Rubenson, 1998; Magnusson, 2000; Polster, 1998, 2002, 2007; Slaughter 1998; and Slaughter & Leslie, 1997).

**The case of British Columbia**

British Columbian higher education institutions measure their successes in the grants received, the patents obtained and the successful start-ups launched. According to the province of British Columbia’s Campus 2020 Research and Innovation Document submission, UBC has been instrumental in creating over 120 spin-off companies since 1984, primarily in life sciences, physical sciences and information technology (Plant, 2007). The point here is that through the publication of these policy documents, the state is able to prove the valuable pursuit of commercial research interests. It is particularly interesting that the Campus 2020 document does in fact reflect upon the importance of measuring the value of the state’s research investment in terms of its contribution to social cohesion or cultural capacity, but does not provide exact ways of doing so. What is lacking is any debate as to why a contribution to social cohesion and cultural capacity is important for the Canadian academy.
Existing and future funding changes

As a researcher in higher education studies, I take great interest in the growing pervasiveness of new funding mixes and changes in funding patterns, especially the growing influence of academic fundraising as a factor. Canadian universities are facing rising institutional costs, declining federal and provincial support and increased competition for foundation gifts, private giving and contracts and grants. The academic units within the larger institution struggle with resource shortages and a continuing need to generate new sources of revenue (Gumport, 2007).

Changes in Canadian federal policy have reshaped the external environment, structure and culture of research universities. No longer are universities the providers of basic research knowledge, they have become creators and retailers of intellectual property (Powell & Owen-Smith, 1998). Like many other countries, Canada invests vast amounts of funding in large-scale science research in the hopes of receiving economic benefit. Investment in life sciences is funded and governed by hybrid, public-private partnerships which stand outside the traditional funding arrangements and academic structures (Atkinson-Grosjean, 2006).

Discussion

Changes in university museum funding and research imply significant shifts in the understanding of how higher education institutions are affected by the competitive political and economic consequences of academic capitalism theory. This study suggests that interstitial units within higher education such as university museums adopt a mixed or hybrid organizational form combining distinctively academic components with
business-like components. The university museum is a clear example of the blurring of boundaries between state and market, and public and private spheres.

However, university museums do not quite fit into the corporate makeover of higher education by private finance as “they have a responsibility to expose ideological positions to public scrutiny and critical assessment as well as to respond to them, which is why they need to retain, and defend, their autonomy” (Ames, 1993, p. 64). Therefore, despite their political and economic challenges, interstitial organizations such as university museums can be the determinant for change in established higher education institutions. When interstitial organizations are successful, they intersect new opportunity structures – opportunities created by the rise of the new economy (Chan & Fisher, 2008). The central question remains as to how museums will manage these changes and how they themselves must change to survive the challenges. As interstitial units they can determine their future in the competitive climate of academic capitalism.

Examples of the effects of the political and economic climate of academic capitalism on university museums include: the commercial research agenda; the political environment of the university museum; the tourism and culture industry; the construction of commodities; and private fundraising. For university museums to be successful in the future they can re-examine their programming for it to be cross-disciplinary and embed the museum within contemporary academic discussions. University museums can provide strategic locations for dissent and debate. The museum does not take up a position, but rather a process by which knowledge is produced and our lives enhanced.
CHAPTER 4

METHODOLOGY

Many research projects in higher education studies have evaluated the increasing importance of technology transfer and the potentially lucrative commodification of certain research, but the missing voice is one that explains how academic units within the social sciences, arts and humanities compete with the sciences in an increasingly competitive funding climate. What I found missing from previous studies is a comparative examination of two diverse academic units representing competing funding interests – the Arts and the Sciences. This research attempts to fill this gap by examining two academic units from two different disciplinary cultures, both of which are committed to public outreach and research as academic museums and both of which are going through changes to their funding profile, organizational structure and academic culture.

A useful starting point in the methodology process was to revisit my field journal entries to find the sensitizing concepts and screens that I brought to the work in the first place. This was extremely time consuming, but brought me closer to the central questions I had formulated at the start of my doctoral program. This led to a better appreciation for the distance I had covered while constructing my theoretical platform and researching the data. In January 2006, the following journal entry indicated that I would explore how academic capitalism theory might be applied to the academic museum as an example of a boundary organization within higher education.
Jan 29, 2006

“The research thread that interests me most is the effect academic capitalism theory has on higher education academic units, in particular academic museums. Modes of commercializing aspects of the museum must have consequences for cultural policy. The competition for funders and the changing relationship government has with the university can be seen in the current emphasis on the funding mix necessitated by the CFI grant, and the implications these changes have on the structure and culture of institutions such as academic museums, artists, scientists, the public and academics. My concern is also that the heightened professionalism of the fundraiser will involve creative mechanisms for the university to link donors with researchers but may also push academics to do their real, curiosity-driven research to the side. I am interested in the many implications of funding for academic research, examining organizations within higher education that don’t fit the norm.”

Methodological approach

According to Amaral et al., higher education researchers need to understand the shifting combinations - indeed increasingly ‘hybridised’ forms of alliances, problems, solutions and discourses that characterize the present conditions and future prospects for higher education on a global scale (2002). As individual universities and academic units within these universities are struggling to align and adjust themselves to ‘new realities’ in our competitive global higher education market, researchers must consequently design approaches to assess and account for innovative processes of institutional re-alignment and organizational readjustment “through a judicious mix of multi-level qualitative and quantitative methodologies” (Amaral et al, 2002, p. xxi). The methodological approach that maps and interprets increasingly complex decision-making patterns evident in higher education systems has been the focus of my methodological design in this study.
Research design

The most important tool in a case study research project as outlined by Kaarbo and Beasley (1999) and Yin (2003) is to formulate the specific research question for the study. The type of research questions most appropriate for case studies are “questions focusing on the underlying process, on the causal nexus between the independent variables and the phenomena being explained” (Kaarbo & Beasley, 1999, p. 378).

In order to answer questions regarding the funding, organizational structure and academic culture of academic museums in a university setting, I therefore employed the embedded case study design. Scholz and Tietje (2002) describe the embedded case study design as a means of examining more than one unit of analysis, “the starting and ending points are the comprehension of the case as a whole in its real-world context” (p. 2). The embedded case design allows for both qualitative and quantitative data and the use of structured interviews are often used (Scholz & Tietje, 2002). Yin (2003) describes the embedded case study as the preferred research design method in examining contemporary events, and is particularly relevant to the examination of an environment where the boundaries between the phenomenon of interest and context are not clearly evident.

Anderson suggests that the case study methodology is the best fit if the research involves examining the adoption of policy or the deliberations of a committee, reflects changes to programs and explores organizational change (1998). Stake (1995) describes a case study as an inquiry that “investigates a contemporary phenomenon within its real-life context especially when the boundaries between phenomenon and context are not clearly evident” (p. 14). The application of a case study is to explain, to describe,
illustrate and evaluate (Stake, 1995, p. 14). The case study design defines the overall design, data collection techniques and data analysis.

Cases therefore can be used to develop, explore, refine and test theory. Feagin et al., (1991) describe the advantage of case studies that they can deal with “the reality behind appearances, with contradictions and the dialectical nature of social life” (p. 39). The case study can provide fundamental knowledge of human agents, communities and in this dissertation research, organizations (Feagin et al., 1991).

**Comparative nature of the two units of analysis**

For my research design to evolve, I looked for two boundary organizations that were beginning to undergo a change to their funding patterns with a view to understanding how funding changes impact organizational structure and culture. The two study sites, the two boundary organizations, MOA and BBM, shared many common features: they professed similar goals, were comparable in terms of the size of the Canada Foundation for Innovation (CFI) grant and operated within the same higher education institution. They had similar overlapping administrative boundaries with their faculties and the university development office. The focus in this study is upon the particular issues of governance, funding, research and relations between philanthropy, government and industry relations.

The context of each case study becomes important before comparison occurs. Each case study contained a rich body of information that was used to evaluate the conditions for which the theory of academic capitalism is held to be true or where an alternative, or additional theoretical framework would be a better explanation of the key
findings. The case studies possess what Jensen and Rodgers (2001) describe as intellectual gold because “detailed information is reported about specific conditions that are present and critical events that occur” (p. 237).

For Yin, a “two-case” case study increases the chances of conducting a good study “because the analytic benefits from having two cases will be substantial and analytic conclusions more powerful than those coming from a single case alone” (2003, p. 53). Under these circumstances the researcher can still arrive at common conclusions from both cases and will have immeasurably expanded the external generalizability of the findings compared to those from a single case alone (Yin, 2003, p. 53). A type of precision in the use of case study methodology is more substantial than the quantitative analysis, because it produces “the recording of social life as a meaningful whole” rather than “the sum of lifeless quantitative units” (Feagin et al., 1991, p. 13).

Data collection

I conducted 32 in-depth interviews, on-site observations and documentary analysis. Interviews were conducted with senior faculty, staff and executive administrators involved in the funding of the two academic museums. Senior fundraising managers from the Development Office at UBC, as well as professional bureaucrats involved in the provincial granting agency were also interviewed. Senior museum administrators at a non-academic museum were also included.

The interviews were complemented by on-site observation at the two museums over a two-month period from October 6th 2008 to December 18th, 2008. Data for the document analysis came from annual reports, budgets, minutes of various types of
meetings, reports prepared by independent experts, and material published in specialist newspapers and journals. In sum, my research findings are based on statistical indicators, narratives given by my participants detailing the CFI application process and critical events in the funding process. In the analysis, trends were considered and connections were made between specific agents and landmark events.

The researcher

As a doctoral student situated within the Higher Education division of the Department of Educational Studies, with a Masters of Arts degree in Education with a focus on Comparative International Development Education and a Bachelor of Arts degree with a major in Political Science, I am socialized within the academic disciplines of Education and Political Science. My Master of Arts thesis studied educational opportunities for girl child labourers in Bangladesh. However, I am also a practitioner within the field of fundraising and therefore I am also socialized within the realm of Fundraising Management. The concept of researcher-as-bricoleur (Denzin & Lincoln, 2005) describes the fact that as a researcher and “frequent traveler” between the practice of fundraising and a student within diverse academic disciplinary cultures, I have created a range of theoretical and methodological materials from which to make sense of the funding mix, organizational structure and culture in academic boundary organizations. As I straddle both the academic world and the world of practice, I recognize that this boundary spanning is analogous to my research subject, namely the shifting of funding, structural and cultural boundaries of academic museums in the context of an increasingly competitive, innovative and territorial funding environment.
Effects of being an informed researcher

I received a certificate in Marketing and Fundraising Management from the
British Columbia Institute of Technology (BCIT) in 2002 and have designed fundraising
initiatives in the cultural not-for-profit sector in Vancouver. This rigorous, practical
management certificate and the fundraising work I have completed have helped me to
become an informed researcher. This background had two effects on the research
process. On the one hand, it afforded me a greater awareness and in some instances a
sense of rapport between the fundraisers who were my research participants. I was able
to speak their language, engage with them on their terms and explore in greater detail the
specifics of their particular fundraising campaigns and roles in the academic units.
However, in other situations it created a sense of tension as I was able to sense that a
number of participants were guarded about sharing their knowledge with a graduate
student who was acutely familiar with their professional demands.

The genesis of this project came from, on the one hand my frustration and
dissatisfaction with the lack of critical academic research into the work of professional
fundraisers, and on the other hand a lack of practical understanding by academics of the
practice and profession of fundraisers. I recognize and understand a connection between
my future work as a fundraiser and academic. The logic of inquiry guiding this work
would be inconceivable without the orientation provided by the theoretical framework of
academic capitalism theory. The methodological approach I took, how I gained
knowledge on my subject area was to use as Hatch describes “rigorously defined
qualitative methods” (2002, p. 13). The products as a result of my theoretical and
methodological approach are “generalizations, descriptions and patterns” (Hatch, 2002, p. 13).

The study sites

Two academic museums were chosen as case studies: The Faculty of Arts’ Museum of Anthropology (MOA) and the Faculty of Sciences’ Beaty Biodiversity Museum (BBM). According to Flyvbjerg (2006) the only general advice when looking for cases, is “to look for either ‘most likely’ or ‘least likely’ cases, that is, cases likely to either clearly confirm or irrefutably falsify propositions and hypotheses” (p. 231). Initially I conceived of MOA and BBM as “least likely” cases in the following manner: if funding for university research infrastructure was increasingly tied to industry needs and government financial targets, then investment by the Canada Foundation for Innovation (CFI) in museum research in general and in cultural anthropology specifically would not likely lead to lucrative industry sponsorship and that if either academic unit would be more closely aligned to industry needs, I viewed that the BBM would have closer links to industry sponsorship and would therefore be preferred by the university as a place to secure funding.

Flyvbjerg (2006) recommends the selection of the paradigmatic case as a central criterion when choosing a case (p. 232). The paradigmatic case is that which highlights more general characteristics of the class of objects being considered. In this research, the Canada Foundation for Innovation (CFI) had in 2002 granted both MOA and BBM (via the larger Biodiversity Research Centre) similar amounts in research infrastructure funds
with the same insistence: that matching funds be raised by the province and industry and community partnerships.

**Museum of Anthropology (MOA)**

UBC’s Museum of Anthropology is both the largest university museum and one of the most active public museums in Canada. MOA as a university museum shares in the University’s mission of research, teaching and public service. MOA staff and students have been recognized for their pioneering research work in archaeology and anthropology. MOA is also one of the primary “public faces” of UBC: “often touted as the ‘jewel in its crown’ MOA is featured in the university’s marketing strategies and is always included in the itinerary of official visits” (Mayer, 2003, p. 102). MOA is part of the University’s administrative structure and constitutes an academic unit within the Faculty of Arts and is affiliated with the Department of Anthropology.

According to MOA’s web site [http://moa.ubc.ca/about/mission.php](http://moa.ubc.ca/about/mission.php) retrieved on August 8th, 2011, the mission of MOA is “to inspire understanding of and respect for world arts and culture.” Its vision is to be one of the world’s hubs for “exhibition, teaching, and research of international visual, tangible, and performative culture, and critical and collaborative museology.” MOA aims to enhance its international profile while working locally, maintaining and strengthening its focus on First Nations peoples of British Columbia as well as diverse cultural communities. MOA as Canada’s largest

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4 Prior to 2006, the departments of Anthropology and Sociology at UBC were located in a single department, but as of 2006 they are distinct academic departments.
teaching museum embraces interdisciplinarity and champions collaboration. MOA focuses on maintaining and growing its collections, continuing research and teaching as well as extending public programming and community connections.

The 2011 Annual Report (p.8) describes MOA’s overall funding sources as coming from earned income from admissions and sales, UBC operating funds, endowment interest, private and public sector support as well as the continuing Canada Foundation for Innovation (CFI) operating support. The capital campaign to support the CFI fund is also significant. Staffing at MOA is made up of employees in the director’s office, the administration office, the archives and library, collections and care, the curatorial department, and public and community service. In total there are between 30 and 35 fulltime employees at MOA (Annual Report, 2011). These employees are curators, administrators and academics. At MOA, the Director reports to the Dean of the Faculty of Arts and through the Dean to the Academic Vice-President, and the University Board of Governors. The past Directors have also held joint professorial appointments with the Department of Anthropology. The Advisory Board is made up of 17 individuals each with a connection either to the business, academic, or artistic community. These members provide advice and support for all of MOA’s endeavours enabling the exhibition spaces and encouraging public outreach. There has been active service by Advisory Board members to make significant philanthropic gifts to MOA.

The diverse programs and activities include a Kindergarten to Grade 12 educational programme as well as teaching resources and many on-line educational program options. The calendar of events and activities include the regular free guided
tours and feature family film screenings and guest performances. The long term exhibits are enhanced by the visible storage units and current exhibits.

The increased emphasis on income generation can be seen on the website links to rental opportunities, the museum shop and sponsorship opportunities (http://www.moa.ubc.ca/about/sponsorships.php). The web site detailing sponsorship opportunities provides information for corporate or individuals to sponsor specific exhibitions, events or public and educational programming. Benefits to individuals and corporations are clearly stated. The rental options are also explained with pricing for all manner of events and lists of performers, dancers and caterers are provided. Information on the museum shop highlights the artwork, jewelry, and MOA-branded merchandise for corporate or custom gifts.

Ames et al., (1999b) explain that MOA “faces in four directions: it is a university museum, an anthropology museum, a professional museum, and a public museum” (p. 251). Each of these areas of expertise represents a work mandate, a set of work goals and objectives and each serves a different audience. Krug et al. described these activities within four directions as opportunistic organizational structures (1999). MOA is maturing as an organization and with the CFI grant it has gained a new identity as a world-class research institute as well as a museum. It is undergoing a recreation of itself physically, structurally and culturally.

Officially entitled “A Partnership of Peoples: A New Infrastructure for Collaborative Research at the UBC’s Museum of Anthropology” and more commonly referred to by MOA employees as the “renewal project”, the CFI sponsored grant for
research infrastructure began in the late 1990s with a meeting between the then Director, 
Dr. Patricia Johnstone⁵ and a senior federal government official. Their initial 
conversations sought to devise a way to tap into a new source of government funds to 
improve the embarrassingly poor conditions of the academic museum’s research 
infrastructure. In addition for the need to improve the physical space of the museum, a 
virtual space known as the Reciprocal Research Network (RRN) was part of the 
successful plan for the renewal.

The RRN is an online research resource where images and detailed records of 
museum artifacts from multiple institutions are stored and accessed by researchers and 
participating indigenous peoples. In the MOA project, the RRN is being co-developed 
with three main user groups: the First Nation communities of the Musqueam Indian 
Band, the Stó:lō Nation/Tribal Council, and the U’mista Cultural Society. The renewal 
project, which officially opened in January 2010, represents the next step in MOA’s own 
history of working with communities, whose cultures are represented by the museum’s 
collections (Schultz, 2008).

**Beaty Biodiversity Museum (BBM)**

UBC's rich biological collections are housed in the BBM, a public museum that 
opened officially in May of 2010. It is dedicated to enhancing public understanding and 
appreciation of biodiversity, and making the research conducted by the scientists of the 
Biodiversity Research Centre more accessible to the public. The Museum and the

⁵ Patricia Johnstone is a pseudonym.
Research Centre are housed side-by-side in the new Beaty Biodiversity Centre building. The Beaty Biodiversity Museum (BBM) is an interesting example of an academic boundary organization as it came into existence as a result of Mr. Ross Beaty’s support of the larger CFI funded organization – the Biodiversity Research Centre. The Museum is an amalgam of specimen collections, which were each started by different collectors, with some assembling their collections as early as the 1910s. Over the years, the collection has grown to over 2 million specimens. The collections are made up of the Herbarium, the Spencer Entomological Museum, the Marine Invertebrate Collection, the Cowan Vertebrate Museum, the Fish Museum and the Fossil Collection. Researchers from the Biology departments envisioned a building that would facilitate interdisciplinary research work on biodiversity and house researchers and collections.

The BBM website (http://www.beatymuseum.ubc.ca) retrieved on August 8th, 2011 states that the mission is for the museum “to illuminate how biodiversity evolved, how it is maintained and why it matters to humans and how we can conserve it. The BBM is Vancouver’s only natural history museum dedicated to creating a shared sense of community and wonder.” There is an Operations Director who does not have an academic appointment and two Scientific Co-Directors both with teaching and research commitments as professors within the Faculty of Science. The Operations Director provides leadership with a strategic direction at the BBM, the UBC Botanical Garden and the Centre for Plant Research (http://science.ubc.ca/news/536). There are nine core members of the museum team. The six collections each have an Assistant Curator who also have management positions within the Faculty of Science.
The BBM offers a variety of activities designed for visitors of all ages. Visitors can interact with specimens in the teaching lab, learn about how researchers use the collection and watch films celebrating biodiversity in the auditorium. Interested teachers or individuals can book field trips and there are educator resources available on the website. Visitors can view the largest skeleton of a blue whale in Canada hanging in the atrium and visit the café and museum store. There are ongoing biodiversity lecture series, summer events and programs for families. Income generating activities besides the café and shop include rental opportunities for the atrium, outdoor space and auditorium. Memberships at many levels are also available with invitations to special events.

BBM in comparison to MOA is at the beginning of the organizational life cycle. Its collections have existed for over 100 years in scattered locations without sufficient capacity to display the artifacts. The biological collections that are the centrepiece of the Beaty Biodiversity Centre were each started by a different collector. Over the decades, the collections were added to by myriad researchers, and grew to contain over 2 million specimens. The BBM houses a world-class research collection of plants, fish, insects, vertebrates, fungi and fossils. Together with the Beaty Biodiversity Research Centre, the Museum will support research into the habitat, species and ecosystems in which we live and include the important public education and exhibit function.
Table 1. Summary Of Site Descriptions

<table>
<thead>
<tr>
<th>MOA</th>
<th>BBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Founded in 1949</td>
<td>• Each collection started by a different collector as early as 1910s</td>
</tr>
<tr>
<td>• Building designed by renowned Canadian architect Arthur Erickson</td>
<td>• Broke new ground in 2007, opened in May 2010</td>
</tr>
<tr>
<td>opened 1976</td>
<td></td>
</tr>
<tr>
<td>• Newly expanded facility opened in Jan 2010</td>
<td></td>
</tr>
<tr>
<td>• Total cost of CFI renewal project $55M</td>
<td>• Total cost of CFI project $49M</td>
</tr>
<tr>
<td>• CFI proportion of grant $17.2M</td>
<td>• CFI proportion of grant $16.5M</td>
</tr>
<tr>
<td>• Revenue 2008 $2,511,337 Expenses 2008 $2,465,967</td>
<td>• Annual operating budget $1,030,000 (forecast for 2010)</td>
</tr>
</tbody>
</table>

Source: compiled from annual reports and MOA and BBM websites.

Facts and figures about UBC, Faculty of Arts and Faculty of Science

In order to set the context for a study of MOA and BBM, it is helpful to describe the larger university and the Faculties of Arts and Science. The University of British Columbia (UBC) is a Canadian public research university established in 1908. It is the oldest university in British Columbia and has the largest student enrollment. In 2008, UBC has two main campuses with a combined student population of 50,000. The Vancouver Point Grey campus is the main campus and is made up of 993 acres with satellite campuses located at Great Northern Way and downtown Vancouver in Robson Square. The new UBC-Okanagan campus, which consists of 259 acres, opened in 2005 in Kelowna in the interior of British Columbia. The current President of UBC is Dr. Stephen Toope who was appointed on July 1st, 2006.
The Vancouver campuses have 12 faculties and the UBC-Okanagan campus has 7 faculties. The Vancouver campus has a total of 44,982 students (36,630 undergraduate students and 8,352 graduate students) and Okanagan campus has a total of 5,350 students (5,071 undergraduate students and 288 graduate students). There are 6,403 international students from 143 countries and comprise 12.6% of the student population. The UBC Library has 5.9 million books and journals and is the second largest research library in Canada.

In 2007, the Vancouver campus awarded 2,147 Bachelor of Arts degrees, 1,276 Bachelor of Science degrees, and 351 PhDs. The total number of faculty and staff at UBC totals 13,622. As of 2009 the total revenue for UBC was $1,472,140,000 and the expenses were $1,687,180,000. Research funding by sector is as follows with $41,200,000 from industry and $428,200,000 from government. The University industry liaison office brings in $6.6 million in technology licensing revenue (Retrieved January 2011 from http://www.publicaffairs.ubc.ca/services-for-media/ubc-facts-figures/)

The UBC Faculty of Arts has 20 departments spanning the humanities, social sciences and creative and performing arts. There are four schools: the school of music, journalism, social work and library, archival, and information studies. The Faculty of Arts has a museum (MOA), an art gallery and over 20 interdisciplinary programmes. Recent figures from the Office of the Dean of Arts state that in 2011 there are 11,028 BA and BFA students. (Retrieved January 2011 http://www.publicaffairs.ubc.ca/services-for-media/ubc-facts-figures/)
The UBC Faculty of Science is organized into nine departments and 18 different disciplines, including four innovative interdisciplinary programs. As of 2009 there are 7,896 students (6,700 undergraduate students and 1,196 graduate students). (Retrieved January 2011 [http://www.science.ubc.ca/about/organization](http://www.science.ubc.ca/about/organization)).

**Temporal order of the study**

I chose to frame the study within the temporal scope of 1998-2008. The reasons for this choice were that by the end of the 1990s funding partnerships between academia and industry were being emphasized and encouraged by the government. Industry was recognizing the spin off effects of investing in university research especially in the life sciences and engineering. In addition, when I started my doctoral programme in 2005 I was struck by how the physical infrastructure of UBC was changing dramatically and I wanted to investigate what major changes had occurred in the last ten years to boundary organizations at the University, and in particular those which did not necessarily fit the industry-academic partnership mold, namely boundary organizations in the Arts and Sciences, not in the applied and medical sciences. The benefit of this ten-year temporal scope is that it has provided a long-term timeframe from which to trace developments such as detecting funding patterns and look for reporting omissions. This temporal scope allowed me to interpret the significance of certain changes to funding patterns, organizational structure and academic culture within a distinct historical context.

**Documents**

The documents I used to retrieve quantitative data and to add to my qualitative research came in the form of newsletters, annual reports, special reports, posters, web
sites, archival reports, memoranda and meeting notes from the UBC Board of Governors meetings. I sought answers in my analysis of the documents in the same way I interviewed my participants. I looked for funding patterns, trends, changes to these trends, organizational structural changes and changes of mission statements. I then used these findings to either support or identify omissions in the qualitative data I was to collect. The Document Summary Sheet which Miles and Huberman suggest using was an excellent way to record the key findings and central evidence from each documentary source (1994, p. 54).

With respect to gathering quantitative data from the BBM, it was difficult to get copies of formal documentation, as many of the decisions to which I was keen to have access were being decided at the precise time I was gathering my data. Major funding and organizational decisions were “in-flux.” Had I conducted the interviews six months to a year later, I might have gained access to more information about the funding strategies for BBM. I was however fortunate to be able to access important information two years later as I was writing the dissertation when I located the Board of Governors meeting notes dated October 25th, 2006 posted on the UBCPT web site that stated the operating budget and other essential information for BBM.

I was given permission to access the MOA annual reports from the MOA Archives. I have data from the 1970s until the current 2009/2010 annual report. MOA is a more mature organizational entity and therefore I was able to access more documentary evidence than what was available for the BBM.
The participants

The participants in the doctoral research study were selected because of their expertise as staff or faculty members and because of their continuous direct involvement in the funding of MOA or the BBM. Marshall and Rossman (1995) describe the interviewing of these experts as *elite interviewing* (p. 83). In my case, I interviewed a number of individuals who are considered to be influential, well-informed people in the university administration and I selected them specifically because of their expertise in the financial, administrative and organizational structure of UBC.

The advantages to using expert interviewees are that “elites are able to report on an organization’s policies, past histories, and future plans, from a particular perspective” (Marshall & Rossman, 1995, p. 83). Disadvantages in interviewing elites included the problem of accessibility (Marshall & Rossman, 1995). However, with determination and persistence, I was able to secure interviews with senior administrators without difficulty. On a number of occasions I did encounter the elite participants taking charge of the interview. This scenario allowed them the freedom to respond with their broad knowledge to these areas of inquiry that meant, as Marshall and Rossman (1995) describe, demands were placed on me to “establish competence and display a thorough knowledge of the topic or lacking such knowledge, by projecting an accurate conceptualization of the problem through shrewd questioning” (p. 84). In conducting these interviews, I was respectful, especially in regard to their area of professional or expert knowledge, while I was confident of the worth of my interviews and my own expertise.
The participants included senior executive university administrators, academics, staff, curators, senior government officials and academic fundraisers. Fifteen women were interviewed and 17 men. Approaching the specific interviewees for this research was purposive. The interviews were conducted in the participants’ offices, classrooms or meeting rooms in their workspace. One was conducted outside in a park in front of the Faculty building. Three were conducted on the telephone and one via video conferencing. The average interview time was 45 minutes. Before each interview, the participants were reminded of the purpose of the interview and together we re-read the letter of informed consent. All of the participants agreed to have the interview recorded and signed the consent form.

At MOA I interviewed ten participants. The job titles held by the participants can be found in Appendix 4 and they include Director, Assistant Director, Associate Director, Professor, Associate Professor, Instructor, Conservator, Manager, Former Director, CRC Chair, Writers of the CFI grant and Curator. Certain participants held more than one of the aforementioned titles. At the BBM I interviewed eight participants. They held the following job titles: Director, Professor, Associate Professor, Outreach and Exhibits Manager, CRC Chair, Professor Emeritus, Lecturer and Curator. As in the case of MOA, certain participants held more than one title.

Within the UBC Development Office, I interviewed five academic fundraisers with the following job titles: Executive Director Advancement Services - UBC Development Office, Major Gifts Officer Faculty of Arts, Manager Development MOA Renewal Project, Major Gifts Officer, Faculty of Science, Director of Development, Faculty associated with the Sciences.
I interviewed four senior academic executives with the following job titles; Associate Vice President Finance; Associate Vice President Research; Director of the Office of Vice President Research; and one Senior Manager from the University of British Columbia Properties Trust (UBCPT). I interviewed two consultants to the MOA and BBM CFI process including one Professor involved in museum consultancy, and an engineer who worked in developing the IT requirements for both MOA and BBM.

I also interviewed two provincial bureaucrats who were linked to the British Columbia Knowledge and Development Fund (BCKDF), the provincial government agency that managed the CFI provincial match. I interviewed the Assistant Deputy Minister for BC’s Ministry of Technology Trade and Economic Development and the Manager of Research and Knowledge Development, Ministry of Technology, Trade and Economic Development. I also interviewed a senior finance official at the Royal BC Museum. A complete list of the participants’ pseudonyms and their job titles is found in Appendix IV.

I asked for participation from both the Dean of Arts and the Dean of Science. Both responded in a respectful way that they were unable to participate in my research study at this time as they were currently in the process of developing the financial model, and securing the operational funding for the BBM. As is understandable, this work requires extensive consultation with donors and UBC officials and such discussions are complex and necessarily confidential. I also requested the participation of the Director of the CFI/BCKDF Resource Office at UBC. This person declined participating in the interview stating over the phone “Everything I know is confidential.”
The participants were aware that their names would not be used in the presentation of the data. The letter of initial consent (Appendix II), which every participant received stated that “confidentiality is ensured as the names of the participants will not be identified when the results are reported” (Letter of consent, p. 2, Appendix II). All participants agreed to these conditions by signing the letter of informed consent. The research cannot be entirely anonymous as these academic units have been named and various titles and positions can be easily linked to individual participants. However, with the use of pseudonyms I can adhere to an element of confidentiality. The content of the interviews in my view did not disclose any damaging information, and all interviewees had the opportunity of reading and editing the transcript to check for omissions or add clarification. I strove to maintain a neutral but open and receptive stance throughout the interviews.

On a number of occasions, participants asked me to turn the digital voice recorder off and shared information with me that they felt was important to my study, but asked that this unrecorded information not be included in the data. Despite the fact that this information pertaining to the politics of fundraising and the protocol for approaching donors would be of great interest to the study, I was obliged to honour the wishes of my participants and therefore have not included in any way the information that they felt was confidential.

Participants were cooperative and helpful. On a number of occasions participants told me that although they themselves were comfortable talking to me, they thought others might be wary of me because I was asking about money. I was asking about “the
elephant in the room” referring to the fact that exact discussions about funding were obvious but were being ignored or going unaddressed.

The interviews

The qualitative research interview is an essential tool ideally suited to examining topics in which different levels of meaning need to be explored. As Cassell and Symon (2004) describe, one area where interviews “are of great use is studying organizational identities, where a complex pattern of organizational, work-group, professional and interpersonal loyalties exist” (p. 21). Through the use of interviews I could access multiple realities and examine the descriptions of an episode, a linkage or an explanation.

The interviews were all quite different in varying and sometimes surprising ways. For some participants this opportunity to talk about their experience with the CFI funding grant was a means of finding a sense of closure. These recorded formal interviews did provide participants an opportunity for them to tell their story. Without exaggeration, for a number of senior participants, the description of their experiences amounted to the culmination of their life’s work. Most reflected on how the CFI grant process was difficult, challenging, and, if successful, how it would guarantee the safety and future research life of the collections and their life’s research.

Protocol

The construction of what Yin (2003) calls the case study protocol is a beneficial methodological tool that guided the research collection process. The tasks involved in structuring the research protocol, such as designing interview questions, constructing probes, and identifying multiple sources of evidence, all assisted in shaping the reliability
of the study. The thirty-five expert participants were contacted by mail in September 2008 with a letter of introduction and initial contact as well as a copy of the letter of consent. The addresses of the participants are all available in the public domain via the museum and departmental web sites. The letter of introduction described the purpose of the research study and contained my contact information as well as my supervisor’s contact information (Appendix I).

**Ethical considerations**

All research conducted at UBC or undertaken by individuals connected with UBC that involves human subjects, animals, or bio-hazardous materials must be reviewed and approved by a UBC sanctioned Research Board or Committee (http://www.ors.ubc.ca/ethics/index.htm). In my case, as I planned to conduct interviews and use participant observation in my research, the Behavioural Research Ethics Board (BREB) panel reviewed my doctoral research proposal. I completed the on-line Research Information Services (RISe) behavioural research ethics application form, which was submitted by the Principal Investigator (PI) who is my co-supervisor Dr. Amy Metcalfe. On June 4th, 2008, I was asked to revise and re-submit my application for a final review as I had minor revisions to complete. The following day on June 5th, the provisos were submitted and on June 11th, 2008 I was awarded the Behavioural Research Ethics Board (BREB) Certificate of Approval- Minimal Risk to complete my research. The co-investigators are listed as Dr. Jennifer Kramer and Dr. Donald Fisher.

Two participants who were senior fundraisers engaged in the MOA and BBM renewal projects made the unusual request of asking for an informational interview with
me and my supervisory committee before agreeing to be interviewed for the doctoral research. At the time of this request, both participants were well aware that I had obtained approval from both the Directors of the museums as well as the official Ethics Board clearance to pursue this research. This behaviour from the two participants was interpreted as being indicative of a sense of unease, or perhaps trepidation that I may delve into territory where I would not be welcome. Both participants also asked for copies of the interview questions to be e-mailed to them in advance of the interview.

The interview questions

To set-up this discussion of the interview questions, I turn to a journal entry that I made at the very beginning of my doctoral program. On September 26th, 2005, during my first month of coursework, I wrote the following journal entry:

“At the heart of my PhD dissertation question is how academic industry relations (AIRs) effect institutional mission and purpose and raise questions about how universities will balance related and competing pressures. I’m interested in exploring these conflicting missions of the university as a for-profit and not-for-profit organization, as well as the differences in the university’s constituencies; the private sector investors, the private donors, the public and the researchers. How can we reconcile the entrepreneurial UBC and its academic museums and their approach to the community in light of the CFI grant for infrastructure?”

This grand, overarching question I asked myself in 2005 inevitably became more manageable and transformed into the three research questions for the dissertation which quickly summarized ask about patterns of funding relating to boundary organizations in universities, the impact the funding mix has on the organizational structure of boundary organizations and the impact the funding mix has on the academic culture of boundary organizations.
The purpose of the individual interview questions was “to gather descriptions of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena” (Kvale, 1983, p. 176). The goal was to see the research topic “from the perspective of the interviewee, and to understand how and why they come to have this particular perspective” (King, 1994, p. 11). Specific interview questions were formulated (See Appendix 3). I was careful not to ask directional questions and not to imply cause and effect.

King (1994) describes qualitative research interviews as having methodological and epistemological distinctions (p. 12). The philosophical assumptions underlying the approach to the interviews is confirmed by what King (1994) refers to as the realist approach. From the realist approach, the “interviewees’ accounts are treated as providing insight into their psychological and organizational lives outside of the interview” (p. 12). I triangulated interviewee statements with used documentary evidence to ensure realism and accuracy.

The interview guide I used listed a set of major topic areas with corresponding questions that acted as probes to elicit greater detail from participants. Although I did have a word-for-word list of questions, there was a low degree of structure imposed by me on the interview situation. Open-ended questions such as “Can you please describe your professional involvement with the Canada Foundation for Innovation grant to the museum?” were the norm. This afforded more objectivity and allowed for the interviewee to describe their specific situation rather than sharing general opinions or answering with limited one-word answers. Three sources for topics included in the interview guide include: the research literature, my own personal knowledge and
experience of the topic, and preliminary discussions with individuals who have personal experience in the research area (King, 1994, p. 15). I recognized in conducting the interviews that some questions failed to elicit responses in relevant ways to the research questions and were either reformulated or dropped.

After each interview, I spent up to an hour completing a Contact Summary Form & Coded Themes form (Miles & Huberman, 1994, p. 51). The purpose was to summarize what I had just heard and highlight key words, phrases and concepts. On this form I kept records of the name, title of the interviewee, the date, and location of the interview. I wrote notes on the main issues, a summary of the response or failed response to the questions, additional salient or illuminating information and new and remaining questions to consider in a possible future contact with the interviewee. From these “first-run data reduction” exercises forms, I was able to consider new or a revised code, and plan for the next contact (Miles & Huberman, 1994, p. 52).

**Transcription of interviews**

I used a transcription service called Points West Transcription Services (www.pointswesttranscription.com), which was extremely professional. After each interview was recorded, I uploaded the digital audio recording onto my laptop, made a copy and emailed the interview with a numbered heading to the transcription service. Through the Upload Files page on their web site, all files were 128-bit SSL encrypted and password protected. Completed transcripts returned in editable Word documents.

I received the completed transcription within the week at which point I saved a copy and read the completed transcription through once. As a member-checking
technique, I sent the completed transcriptions to all the participants for their comments. This step elicited responses from three participants who sent back their comments to correct vocabulary usage or to verify dates. This informant feedback technique as Lincoln & Guba describe (1985, p. 314) helps to improve the credibility of a study. The comments from participants serve as an affirmation of my study’s validity and decreases the incidence of incorrect data being used or the incorrect interpretation of data.

Process of analysis

Coding

Based on the research presented by Denzin and Lincoln (2005) and Stake (1995), the major conceptual responsibilities of the case study are to: (i) identify the boundaries of the case and conceptualize the object of study; (ii) select the phenomena, themes, issues, based on answering the three core research questions; (iii) seek patterns of data to develop the issues; (iv) triangulate the key observations and bases for interpretation; (v) select alternative interpretations to pursue, and (vi) develop assertions or generalizations about the case.

The atlas.ti 2009 qualitative research software program was used after I manually conducted a First Cycle of coding of the large volume of narrative text generated from 32 interviews. The work of Miles and Huberman (1994), Yin (1993), Merriam (1998), Creswell (2003), Corbin and Strauss (2008) and most extensively Saldaña (2009) provided a structure for me throughout the research gathering process and guided the journey of deciphering the interviews, documents and field journal data into codes, categories and themes.
Saldaña (2009) recommends the use of First and Second Cycle coding processes as ways of approaching the analysis of the data. In his coding manual for qualitative researchers (2009), Saldaña describes 29 distinctive coding methods. For the purpose of this dissertation, based on the theoretical framework I have constructed, and the research questions guiding the study, the *Structural Coding* method that Saldaña describes for the First Cycle coding (2009, p.66) was most appropriate and for the second coding cycle Evaluative Coding methods worked best (p. 98).

The term “code” he describes as “most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language data” (2009, p. 3). The language data in my case were the interview transcripts, field journals and other documentation. The process of coding is “the transitional process between data collection and more extensive analysis” (Saldaña, 2009, p.4). Merriam (1998) noted that “the analysis and interpretation of [the] study’s findings will reflect the constructs, concepts, language, models and theorists that structured the study in the first place support” (p. 48).

The fact that coding is “an exploratory problem-solving technique without specific formulas to follow” (Saldaña, 2009, p. 8) meant that I had to devise a labeling and linking system that made sense to me. In the First Cycle, preliminary jottings of words and phrases occurred during the interviews and particularly when I completed the Document Summary sheets and first reflected on what I had heard. While reading through the transcribed interviews, I again started listing codes, and as I did so, I created definitions for the codes and applied these definitions of words and phrases to the text. Within this First Cycle as Saldaña explains “codes get subsumed by other codes,
relabeled, or dropped” (2009, p. 10). As I progressed through coding the 32 transcripts, I was constantly rearranging and reclassifying how and why certain words and phrases and concepts were becoming more or less important.

Codes were used to assign units of meaning to the descriptive or inferential information. They took the form of a straightforward category label or larger concept label. Codes helped to retrieve and organize the narrative and helped me to locate segments of text relating to a particular research question or conceptual construct. In the First Cycle, “fundraising” and “the CFI process” were the dominant codes. In the Second Cycle, themes such as “the repositioning of academic culture” came out of drawing connections and charging myself with finding metaphors within the codes and categories of codes. In making sense of all the data, codes were placed in orderly arrays and were categorized according to frequency, commonality, depth and anomalies. The frequency of terms and descriptions of events that were very similar or starkly different were reported. Through the process of first and secondary coding, I arrived at tabulating relationships between codes such as the depth of the description of experiences of ownership, competition, dependency, territoriality and protectionism.

By the middle of the first full coding cycle of the thirty-two transcriptions, the list of codes was upwards of forty-five pages long. It was time to create and form linkages and subcategories of codes. The Second Cycle prompted a more clear structure and rationale for a simplified working code framework. Each research question was brought to the centre of the coding process in order to keep the collection of codes from diverging too far from the central research questions.
For the First Cycle structural coding methods, I applied a content-based or conceptual phrase representing a topic of inquiry to a segment of data that related to a specific research question used to frame the interviews (p. 66). As Saldaña states, this method is appropriate for multiple participants and semi-structured interviews to gather topic lists, major categories and themes (p. 67).

The Second Cycle of coding is an advanced way of checking the original code list with an eye to locating patterns, exceptions, puzzles, contradictions and inconsistencies in the data. I started to reorganize and reanalyze codes and develop a conceptual web, which included larger conceptual meanings and their characteristics. Through defining the codes I was able to retrieve and organize the data for analysis. The software I used allowed me to write memoranda within the coding framework, which later became keywords, topics and future headings.

In this Second Cycle, I recoded the text to filter out repetition and to narrow down generalities. In the analysis process I concentrated on capturing the salient features of the codes to generate categories and themes which elevated the codes into conceptual elements. Evaluation Coding with an amalgam of Description Coding was used in the Second Cycle (Saldaña, 2009). Evaluation Coding is defined by Saldaña as “the systematic collection of information about the activities, characteristics and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming (2009, p. 97). One of the key features of Evaluation Coding is that it is appropriate “for policy and organizational studies particularly across multiple sites” (Saldaña, 2009, p. 98).
Corbin and Strauss (2008) explain that it is the researcher’s ability “to show how these themes and concepts systematically interrelate [which] leads toward the development of theory” (p.55). These themes and conceptual models would emerge as building on the theoretical model I had established at the beginning of my research (Saldaña, 2009). The role of the researcher in this analysis phase is to look for change in the participants’ expressions of change within their organizations, changes to the ideology within their academic units (Saldaña, 2009). I was tasked with examining outcomes, impacts and ways that the participants made distinctions between where and how desired outcomes occurred and where they did not (Patton, 2002). It is worth reviewing the differences between codes and themes here. For my research purposes, a code is formed from a word or short phrase that symbolically assigns a distinct attribute for a portion text. A theme therefore “is an outcome of coding, categorization, and analytics reflection, not something that is itself, coded” (Saldaña, 2009, p. 13). Whereas a code is an explicit labeled piece of data a theme is more subtle. As an example, in my text I came across many codes referring to the “boundaries” and “territory” of an academic units’ funding sources for which I later formed the theme called “territoriality”.

I used a number of focusing strategies to find ways of structuring the codes by arranging the most salient ideas for the data. One strategy which stood out as helpful was to develop “the top three major phrases, themes” (Saldaña, 2009, p. 186). The top three themes that stood out from the research were competition, innovation, and territoriality.

Memos

The role of analytic memos was important in the Second Cycle of coding. Individual codes eventually became part of a broader scheme of classification. The
memos became reflections on how I placed codes into categories and subcategories and how themes were suggested. Glaser (1978) states that “a memo is the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding…it can be a sentence, a paragraph, or a few pages…it exhausts the analyst’s momentary ideation base on data with conceptual elaboration” (p. 83-84). The memos helped trigger creating a higher sense of order to the analysis (Saldaña, 2009, p. 36). This process, often called “codeweaving”, finds networks between and amongst codes, molds categories and themes into possible hierarchies of meaning, chronological flows and influences and effects (Saldaña, 2009). “Ultimately, analytic memo writing is the transitional process from coding to the more formal write-up of the study” (Saldaña, 2009, p. 41).

**Triangulation**

The third level of analysis is discussed here as the process of triangulation. The use of multiple methods or triangulation in qualitative research reflects an attempt to secure an in-depth understanding of the phenomenon in question. As a qualitative researcher, I know my research only through its representations. For Denzin and Lincoln (2005) case study methodology adds rigour, breadth, complexity, richness and depth to any inquiry. (Denzin and Lincoln, 2005). The rationale for using multiple sources of evidence allows me as the investigator to address a broader range of historical, attitudinal and behavioural issues (Yin, 2003, p. 97). The most important advantage presented by using multiple sources is the development of *converging lines of inquiry*.

methods for data collection and interpretation “which do not depend on mere intuition and good intention to ‘get it right’” (p. 107). The idea behind triangulation as a methodological tool is that because there is no best view, researchers must rely on multiple perspectives or views of a case.

Triangulation is a means of gathering information in different ways to support the analysis in a variety of ways. In this case, three types of data were collated to ascertain valid claims to the findings. The three sources of data were the interviews, documents, and theory, however, journal entries and site observations were also forms of data. It must be acknowledged that no observation or interpretation is perfectly repeatable, and therefore triangulation serves to clarify meaning by identifying different ways the phenomenon is being seen (Stake, 2005, pp. 443-466).

**Reliability and validity**

Integrated within the methodological design of the research study are distinct efforts to promote reliability and validity. As Palys (2003) states, “although the demonstration of reliability is considered a prerequisite to validity, the two terms are *not* synonymous” (p. 64). Rather, they should be seen as two successive methodological checks. Examples of the methodological tools to encourage reliability and validity include what has been previously discussed: the research question, defining the units of analysis, textual and contextual analysis, a case study research protocol, interviews and chains of evidence. The use of multiple sources of evidence such as site visits, document analysis, archives and interviews form a chain of evidence.
George and Bennett (2005) refer to the transparency of case study methodology as meeting the requirement of validity and reliability (p. 106). Reliability is interpreted as the ability to replicate the original study using the same research instrument and to get the same results. Reliability refers primarily to the demonstration in the dissertation of a type of consistency, which is defined by the degree to which the findings are independent from accidental characteristics of the research.

In this study the method of validation by triangulation is central to the conception of embedded case studies and acts as a validation and reliability instrument. This research study incorporated Carmel’s (1999) stance, which is to defend the reliability and validity of a research study by examining the case over time. Carmel emphasizes the integration of methodological tools such as the textual analysis of documentation with the “contextual analysis of the institutional and socio-economic framework within which discourses are articulated” (1999, p. 142). Essential methodological tools help secure the validity and reliability of the study such as making the initial data analysis transparent, contextualizing the analysis, and integrating theory, context and discourse (Carmel, 1999, p. 146).

Lincoln and Guba describe the “truth value” of qualitative research as applicability, consistency, and neutrality (1985, p. 290). Replicability asks how we can be reasonably sure that the findings would be replicated if the study were conducted with the same participants in the same context? And how can we be sure that the findings are reflective of the subjects and the inquiry itself rather than a creation of my biases and prejudice?
The strongest argument in favour of the case study is that it reinforces internal validity as it “incorporates a chain-of-evidence, a right and interconnected path of recording evidence so that the reader who was not present to observe the case can follow the analysis and come to the stated conclusion” (Anderson, 1998, p. 159). External validity therefore refers to the study’s findings and asks whether they are generalizable beyond the immediate case study. The goal of determining reliability is to minimize errors and biases in the study.

Yin explains that validity means verification (1993, p. 332). The outcomes of a case study depend on my understanding, my competence with the case study methods, and my proficiency in finding the right “graininess” in analysis on the different epistemic levels, its motivation and its intention (Yin, 1993). The doctoral study has been arranged to “demonstrate that the operation of the study – such as the data collection procedures – can be repeated with the same results.” (Yin, 1993, p. 18).

Often enough, critics of case study evidence devalue its contribution to research because they tend to value the terms of each case study as an independent finding, thus failing to appreciate each case study’s value to the whole network of research and to the final synthesis to which Jensen and Rodgers refer as “cumulative intellectual gold” (2001). Their belief is that a cumulative meta-analysis from many case studies is a powerful test of generalizability. The results of a summary of analysis of case studies reflect the cumulative evidence from many studies of the same setting, policy, process, or program.
The following chapters examine the funding profile, organizational structure and culture of academic museums. The data and analysis situate the specific research focus within a larger understanding of funding shifts and organizational change in the field of Canadian higher education. The three research questions serve as an organizing framework for the presentation of data in the findings chapters that follow.

1. What are the patterns of funding related to boundary organizations within universities such as the Faculty of Art’s Museum of Anthropology (MOA) and the Faculty of Science’s Beaty Biodiversity Museum (BBM)

2. What impact does the funding mix have on the university boundary organization’s structure, and;

3. What impact does the funding mix have on the academic culture of university boundary organizations?
CHAPTER 5
THE FUNDING PROFILE

This chapter addresses the first research question that asks what are the patterns of funding related to boundary organizations within universities such as the Faculty of Art’s Museum of Anthropology (MOA) and the Faculty of Science’s Beaty Biodiversity Museum (BBM). Both academic museums, MOA and BBM, are viewed as anomalies in the funding structure of UBC: these boundary organizations do not fit the traditional mold of the university administration and are engaging in innovative revenue generation activities to support their boundary spanning work.

The Canada Foundation for Innovation (CFI) grants in January 2002 to the UBC Faculty of Art’s MOA and the Faculty of Science’s Biodiversity Research Centre have had a major influence on the funding pattern of the two academic museums. This grant is used as a mode of entry into the closer examination of the patterns of funding at both boundary organizations. Together with a number of changes to the traditional funding profile, the phenomenon of the influence of the private funding, donor-driven market is highlighted as a major shift.

I did not find a dramatic, pronounceable trend towards the commercialization of museum operations, however, indications of increased commercial activities are nonetheless identifiable. New financial strategies such as the hiring of professional fundraisers and the encouragement of sponsorships hasten funding pattern transformation by emphasizing entrepreneurial skills and marketing skills. The commercialization trend in the two academic museums in this study is not as pronounced as I expected given the
contemporary higher education literature. At the time of my research data collection, both museums were negotiating critical changes to their funding pattern. I have found that there are strong indications of a move towards a business orientation at the core of museum operations. Essential decisions on the viability of academic museums are taking place and museums are changing to become more attractive to funders albeit carefully.

From the research on the funding profile, I found that the reliance on tied, targeted and matching research grants from private industry, the much needed injection of monies from fundraising revenue and an emphasis on revenue generation from within the individual academic units are transforming the funding profile of the university and its boundary organizations. These two boundary organizations are engaged in a clear process of transition. One can predict that they will never be the same as before and that they are headed towards a future of great institutional change.

**Chapter outline**

This chapter begins with a summary of the major funding themes. The second section outlines the two key funding factors that have influenced the funding profile of MOA and BBM. These include; (i) an examination of the changes to the political and economic landscape of universities, which has led to the importance of tied, targeted and matching funding mechanism; and (ii) the increase in diversified funding with an emphasis on industry partnerships, the increasing importance of academic fundraising and the need for income generation. The third section provides an analysis of the funding profile of UBC overall and the funding patterns for MOA and BBM specifically and includes pertinent quotes, quantitative data, as well as valuable theoretical data sources.
The final section assesses the impact of the changing funding profile on individual staff members and faculty members working at the two academic museums.

**Competition, innovation, and territoriality**

Three overall themes emerged from an examination of the funding profiles of both MOA and BBM. The themes are: (i) the intensified competition for funding sources; (ii) the pressure for academic units to be innovative in generating their own income; and (iii) an increased sense of territoriality within the academic units over funding sources. These themes of competition, innovation and territoriality emerged clearly throughout a large majority of interview and data collection. The themes are principal concepts and are woven into the three findings chapters.

The concept of competition as a theme is presented as the contestation in which academic units engage to gain access to funding resources. There are beneficial and detrimental effects of this notion of competition. The benefits include the determination of the best ways of becoming more efficient and productive financially as academic units. The detrimental aspects of competition include the loss of valuable energy and resources as the result of losing out to other academic units for necessary funding, as well as the possible violation of ethical standards that may be compromised in return for advantage in access to resources.

Innovation as another overarching theme describes how academic units are encouraged to find effective ways of continually improving their sources of income and generating their own income. Specific to the theme of innovation are examples of the pressure for the units to market their specific knowledge product. Territoriality emerged
as the third overarching theme in the study and concerns the actions an academic unit might take to defend its funding resources from other units.

MOA and BBM as examples of boundary organizations are seen as competing for research grants. The key themes exemplified in both the data from MOA and BBM suggest that: the approaches towards accessing external funding, whether from private sources or targeted government research funds, are becoming more strategy-driven, taking place within a framework of competing priorities, and that success in securing these grants is often highly dependent on the leadership and networking skills of the champion of the CFI application and the Director of the academic unit.

Two decisive external funding factors were found to have influenced the funding profile of MOA and BBM as academic boundary organizations. The first factor is the changing external financial and political landscape of the funding of research in Canadian universities, which has led to the importance of tied, targeted and matching government funds for the specific commercialization of research. An examination of the Canada Foundation for Innovation (CFI) grant and the impact the CFI has had on MOA and the BBM is an example of this funding factor. The second factor is that the need to secure external resources has led to a diversified funding base, which emphasizes industry-academic partnerships, innovative income generation strategies, as well as the academy’s reliance on the practice of fundraising.

**The Canada Foundation for Innovation (CFI) and UBC**

The Canada Foundation for Innovation (CFI) created in 1997 by the Federal Liberal Government and established by law under Bill C-93 funds research infrastructure
through partnerships with the provincial governments, private industry and the voluntary sector. This funding agency acts as a political entity. It functions as an agent of the state in enacting policy, adjudicating and allocating funding for research. The CFI marks the beginning of a new kind of policy instrument that impacts the funding profile of university boundary organizations: it is not subject to the scrutiny of parliament and therefore buffered from changes in government.

The CFI formula for research infrastructure support is limited to providing no more than 40 per cent of the total funds for a project. In the case of British Columbia, the province must then match the other 40 per cent and count on industry and private fundraising to make up the remaining 20 per cent. The CFI emphasizes commercial partnerships between the academy and industry with the logical consequences of increased competition within and between universities for resources and status.

The role of the CFI is to encourage partnerships on three primary levels – “between researchers, between governments and funding agencies, and between researchers and the private sector” (retrieved Sep 13th, 2007 from www.innovation.ca/10th/story.html). The CFI web site explains the CFI’s mission in the following way:

The CFI is committed to funding infrastructure to enable research that improves the lives of Canadians, and will focus on the future by concentrating on 5 critical challenges that lie ahead: evolving the infrastructure to meet new research demands; sustaining previous investments in infrastructure at state-of-the-art levels; fostering knowledge translation; promoting partnerships between academia and industry; and enhancing the international impact of Canada’s Research & Development enterprise.
The CFI favours investments into research in the health, science and engineering research sectors. The most recent tabulations of CFI Awards to the British Columbia higher education research sector are presented in Table 2. The figures indicate that 44% of CFI awards were given for research in the health sector, followed by 26% in science and 21% in engineering. Research awards in the fields of environment and social sciences received only 6.8% and 2.8% respectively of awards granted to date. The province of British Columbia received 631 of the total 5,473 CFI awards (CAUT, 2009).

**Table 2. CFI Awards to B.C. and Research Sector 2009-2010**

<table>
<thead>
<tr>
<th>Sector</th>
<th>British Columbia</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Awards</td>
<td>631</td>
<td>5,473</td>
</tr>
<tr>
<td><strong>Sector</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>$59,590,564</td>
<td>$618,481,619</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>$35,764,390</td>
<td>$202,967,672</td>
</tr>
<tr>
<td>Health</td>
<td>$159,833,650</td>
<td>$1,328,965,617</td>
</tr>
<tr>
<td>Science</td>
<td>$112,173,722</td>
<td>$767,573,700</td>
</tr>
<tr>
<td>Social Science</td>
<td>$23,046,459</td>
<td>$84,437,622</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$390,408,785</strong></td>
<td><strong>$3,002,426,230</strong></td>
</tr>
</tbody>
</table>

Source: From the Canadian Association of University Teachers (CAUT) Almanac of Post Secondary Education 2009-2010 (p. 47)

As described in Table 3, in 2008, CFI provided over $28 million to research infrastructure projects at UBC. This is a significant contribution, but when put into a
larger context, it is only one of many government funding agencies supporting research at UBC. Table 3 indicates that in 2008 more than $100 million dollars in research dollars from the federal government was targeted towards the health sciences, and natural sciences and engineering, leaving a very small amount for research support in the social sciences and humanities.

Table 3. List of Government Funding to UBC in 2008

<table>
<thead>
<tr>
<th>Government Institution</th>
<th>Funding Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Canada</td>
<td>554,000</td>
</tr>
<tr>
<td>SSHRC</td>
<td>8,971,000</td>
</tr>
<tr>
<td>Municipal</td>
<td>209,000</td>
</tr>
<tr>
<td>Canadian Institutes of Health Research (CIHR)</td>
<td>65,153,000</td>
</tr>
<tr>
<td>Province of BC</td>
<td>636,673,000</td>
</tr>
<tr>
<td>Other federal</td>
<td>47,825,000</td>
</tr>
<tr>
<td>Foreign</td>
<td>10,341,000</td>
</tr>
<tr>
<td>Canada Research Chairs</td>
<td>19,700,000</td>
</tr>
<tr>
<td>Natural Sciences and Engineering Research Council</td>
<td>39,907,000</td>
</tr>
<tr>
<td>Canada Foundation for Innovation</td>
<td>28,516,000</td>
</tr>
</tbody>
</table>

Source: Retrieved Oct 20, 2009 from the Office of the Commissioner of Lobbying of Canada
The estimated costs in 2005/2006 of Research and Development in the Canadian Higher Education sector by source of funds and by major fields of discipline indicates that the total cost for Social Science and Humanities is $1.896 billion compared with $3.758 billion and $3.863 billion for the health sciences and natural sciences and engineering respectively. The figures in Table 4 show that the federal government’s expenses for health sciences and engineering are more than double what they are for the social sciences. This data clearly indicates the vast differences in government and private investment between the fields of social science and humanities compared with the health sciences, natural and engineering sciences. This is hardly a surprise for higher education scholars.
Table 4. Estimated Costs Of Research And Development In The Higher Education Sector By Source Of Funds And By Major Fields Of Science 2005/2006

<table>
<thead>
<tr>
<th>Source of Funds (Amounts are in millions of CDN dollars)</th>
<th>Social Science and Humanities</th>
<th>Health sciences</th>
<th>Other natural sciences and engineering</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Government</td>
<td>417</td>
<td>990.7</td>
<td>1,137.2</td>
<td>2,544.9</td>
</tr>
<tr>
<td>Provincial Government</td>
<td>194.7</td>
<td>292.0</td>
<td>486.7</td>
<td>973.4</td>
</tr>
<tr>
<td>Business enterprise</td>
<td>29.3</td>
<td>333.6</td>
<td>417.3</td>
<td>780.2</td>
</tr>
<tr>
<td>Higher education</td>
<td>1,115.7</td>
<td>1,630.8</td>
<td>1613.4</td>
<td>4,359.9</td>
</tr>
<tr>
<td>Private non-profit organizations</td>
<td>139.4</td>
<td>464.5</td>
<td>138.6</td>
<td>742.5</td>
</tr>
<tr>
<td>Foreign</td>
<td>0.0</td>
<td>46.5</td>
<td>69.8</td>
<td>116.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,896.1</td>
<td>3,758.2</td>
<td>3,863.0</td>
<td>9,517.3</td>
</tr>
</tbody>
</table>

CFI grant to MOA and BBM

The initial call for CFI grant applications for academic research infrastructure was extremely popular and desirable. Research participant Leslie Yeoman⁶, a senior manager at MOA describes the initial excitement around MOA’s CFI grant application in the following way:

The CFI was a feeding frenzy…Every department on campus, and everyone in my understanding was encouraged [to apply], there was support at the University to help you get there.

The way in which the CFI grant application was designed meant that securing a match to the CFI funds from private industry and the fundraising initiatives of the development professionals in higher education proved to be a very challenging task.

Both MOA and BBM found that they needed a champion, a coach or trainer to initiate and support the units through the application process. This champion took the idea of the initial application to members of the CFI executive and assessed whether the application might meet the government’s targets.

The CFI grant to MOA in 2002 amounted to $17,247,000 for its project entitled “A Partnership of Peoples: A New Infrastructure for Collaborative Research at the University of British Columbia’s Museum of Anthropology.” The Biodiversity Centre’s CFI project was titled “An Integrated Biodiversity Laboratory” and received $16,493,287.00.⁷ All the participants describe the clear emphasis that was placed on the

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⁶ Pseudonyms are used in place of the names of the interviewees.

⁷ The third CFI grant issued to UBC in 2001 was to the International Collaboration of Repair Discoveries (ICORD) from UBC’s College for Interdisciplinary Studies (CFS) for $12.8 million (MOA and BBM CFI applications, 2001).
importance of effective leadership in the success of their CFI proposals. In addition to the need to identify a champion and to find strong leadership, interviewees mentioned that CFI applications required a large injection of funds even in the preparatory stages of the application. Expert advice from expensive external consultants, such as computer software engineers, was required to be able to justify the need for complex research infrastructure spending. For the majority of participants, the CFI process was a particularly arduous task, which took many scholars away from their own academic research. A more detailed exploration of the individual responses to the funding profile can be found in the final section of this Chapter.

**Federal government support of universities**

Federal government funding support of universities is directed primarily towards research and innovation. This leaves two ways for universities to move towards gaining funding i) becoming more innovative in their income generation strategies, and ii) looking for lucrative funding partners and donors. Doug Owram, Deputy Vice-Chancellor of UBC - Okanagan states that funding changes “are so significant [that] their effect on the operation of the university needs to be recognized and explicitly managed” (2004, p.180).

The Canadian Association of University Teachers (CAUT) Almanac of Post Secondary Education 2009-2010 presents data regarding the decrease in federal cash transfers for post secondary education as percentage of Gross Domestic Product (GDP). In 1983-84, the federal cash transfer for post secondary as a percentage of GDP was
0.50% and by 2008-2009, it had declined to 0.21% (CAUT Almanac of Post Secondary Education 2009-2010, Figure 1.1, p. x).

Additional figures show the total government funding as a share of university operating revenue by province. In British Columbia (BC) in 1977, total government funding of university operating revenue was 90%. In 1987 it fell to 80% and in 1997 it was further reduced to 70%. By 2007, the government funding as a share of university operating revenue had fallen to 55.5% (CAUT Almanac, Figure 1.3 2009-2010, p. 3). As government funding as a share of university operating revenue reduced in BC, expenditures of federal government research and development programmes in the higher education sector rose significantly. The CAUT Almanac shows that from 1995-1996 to 2005-2006, federal government research and development expenditures in higher education more than doubled, from $947 million to $2,307.1 million (CAUT Almanac, Figure 5.1, 2009-2010).

There is an element of incongruity in the reduction of federal and provincial funding responsibilities to the higher education sector with concurrent heavy investment in research and development in certain research areas. The CFI’s reinvestment into research can be viewed as government funding that has returned to the system as tied and targeted.

**Provincial perspective**

The province of British Columbia’s Knowledge Development Fund (BCKDF) is the provincial arm that provided the CFI matching grant of 40 per cent for the two case studies of interest here. From the BCKDF’s perspective, once the federal government
grants are dispersed, there is no confirmed source to fund the operating costs of maintaining these large investments in new university research infrastructure. As BC’s Assistant Deputy Minister of Research Technology and Innovation Division of the Ministry of Advanced Education, Gary Schwartz explains:

Let’s face it, the province is on the hook for the operating costs and the long-term development of these facilities, even though CFI is putting in a small amount towards overhead… The other reality is that these are research spaces, right, therefore they’re not covered under the operating grants provided by the province, so you’re creating a huge deficit and we are stuck right now with a fairly large bill for occupancy costs which we have no idea how we’re going to fund… I have no idea where that’s going to come from…. How do we sustain it?

Funding history of MOA

The two academic museums have very different funding histories. On the one hand, MOA enjoys a worldwide reputation as a first rate repository for First Nations artifacts and world culture that is undergoing a much needed renewal of its infrastructure. On the other hand, BBM is a new institution that will house an amalgam of specimens previously used for scientific research alone, and which have been housed for over fifty years in unprofessional conditions within the departments of Biology and Zoology. As a result of their differences in collection size, maturity as organizations, and level of public profile they have very different funding histories.

To give a brief synopsis of the overall changes to MOA’s funding profile, the 1977-78 MOA Annual Report is taken as the first example. This report indicates the entire operating grant at MOA was $270,000.00. Other figures indicate that in its first year of operation, the museum shop grossed $90,000.00. Admissions revenue was $63,444.00, and the amount from the UBC Contribution fund was $430,264. Under the
Charities Act of December 1977, the Friends of the Museum of Anthropology, a society of supporters and volunteers of the museum, was registered to “assist the Museum in its public programmes and fundraising” (MOA Annual Report, 1977-78, p. 2). The “Friends” organization intended to remain small in size for the first several years, and to concentrate on soliciting donations from the corporate sector. Plans were laid for a fundraising programme in 1978-79 (MOA Annual Report, 1977-78).

From the official opening of the new Arthur Erickson designed MOA building in 1976 to the late 1980s there was a period of exceptional public acknowledgment of the importance of the museum and its research. The research being conducted was internationally recognized, resources from the federal and provincial levels of government were forthcoming, and MOA achieved major successes in applying for research grants. This success may have been associated with the federal Liberal government’s need to make MOA an emblem of multicultural policy at work. There was little to no discussion of private funding proposals, as this went against the leadership style of Director Michael Ames. There was no formal system of fundraising.

The funding pattern in the 1980s shows a significant change to the funding of MOA. The total revenues reported in the 1986-1987 Annual Report, ten years later than the 1976 data, list a number of generous government grants including: the National Museums of Canada Exhibition Assistance Programme for $83,300.00; Training Assistance grants from the National Museums of Canada; $32,000 from the Canada Council; a grant from Canada Employment and Immigration; grants from Secretary of State for Youth grants; and grants from the Province of BC Cultural Services Branch. Total revenues in 1986/87 exceeded $1.2 million and indicate that the National Museums
of Canada grant for $200,000.00 coupled with provincial sources, museum revenues and the UBC contribution was supporting MOA adequately at the time. The reason for this surge in support had in part to do with the boost in publicity and recognition during the Expo 1986 year. The overall attendance for MOA at 161,558 was record-breaking during this year.

Other major activities included the expansion of the museum by the architect Arthur Erickson to include the major donation of European ceramic art by one of the museum’s originating founders, Walter Koerner. This same year, MOA received a two-year Canada Council operating grant to allow programming in western and non-western art and anthropology. MOA was one of the few non-art galleries to receive one of these grants. However, by the late 1980s, the museum was facing the pending elimination of the federal government’s annual Museums Assistance Programme grant, a reduction from the provincial government, and uncertain support from the university. The view from the museum staff going into the 1990s was that the university should make up the shortfall from the government reduction and also that a larger museum shop might generate additional revenue for the museum.

In 1991, MOA underwent an intensive academic review for the Dean of Arts, which highlighted a number of serious funding, organizational and leadership concerns. The review described the funding of the museum as being in jeopardy because of changes in government cultural policies and the reduced level of university support. The museum in 1991 was generating a higher proportion of operating revenues than other museums and galleries in Canada and was also very successful in generating funding through project grants (MOA Academic Review, 1991).
Of great significance is the Director’s response to the Review Committee in which he states that “fundraising from the private sector was not a significant alternative for the Museum” (Ames, 1991, p.1). He gave several reasons for this: (i) that because MOA is part of the University many corporations assume incorrectly that the museum is well taken care of by the university; (ii) the university operates its own major fundraising program and the museum must compete for a position within that program; (iii) that in keeping with the academic tradition of a university, the museum does not have a Board of its own preventing it from having direct links to corporate boardroom; (iv) fundraising is seen as a difficult task, particularly in British Columbia where there are many well established not-for-profits in the competition for limited resources; and (v) a director with academic responsibilities does not have the time to devote to major fundraising projects (Ames, 1991).

In this response, Ames describes the financial situation for MOA as “particularly uncertain” due to the under-funding of the museum by government and the university, the difficulties of raising funds from the private sector and the intention of the federal government to cancel its Museums Assistance Programme (MAP) grant. He also anticipated that the devolution of cultural funding would likely lead to an increase in the politicization of the funding process (Ames, 1991, p. 5). Ames raises a critical point when he states “No other academic unit in the Faculty of Arts is expected to generate such a high proportion (81%) of its direct operating costs” (Ames, 1991, p. 6).

The university’s focus in the 1990s was on market pressures – how to market the institution, the faculties and units more effectively with improved efficiency and productivity. Internal institutional challenges included the realization as confirmed in a
variety of internal and external audits and reports that MOA was facing a future of severe financial constraints. However, no leadership was taken towards building opportunities to alleviate the impending complete loss of the annual MAP grant from the federal government. The 1995 Review of the Faculty of Arts described MOA as being in “serious financial difficulty.”

MOA was recognized by the Department of Canadian Heritage as an associate museum from 1976-1999 and it received an annual grant under the Public Programming Access component of the Museums Assistance Programme (MAP). This grant was a single payment with no financial reporting required on the grant and it averaged $221,000. In 2000, this critical funding source ended and MOA lost this significant revenue.

Patricia Johnstone, a senior anthropology and fine art scholar and former MOA director from 1997 to 2003 describes an increasingly deficient funding landscape at MOA at that time:

> When I arrived at MOA, it was the demise of the annual $200,000.00 that MOA used to get from the Museums Assistance Program (MAP) and that had been going on for 20 years. So we have to find ways to carry on without that huge proportion of the budget. And now, it’s gotten progressively worse. I don’t know what you do now to get exhibitions funded with the cuts to the Museum’s Assistance Program. And so it’s not happy out there…. The total money MOA gets from the province is $60,000.00 a year, which is laughable – not even a salary for a staff member.

> The reporting in MOA’s financial documents in the mid to late 1990s was not very consistent. In the years 1995/96 to 2001/2002, no financial documents were officially released in the form of annual reports. This was during the turbulent years when Michael Ames stepped down as Director, a position that he had held for over...
twenty-five years and also when the MAP funds were eliminated. During the transition stages and under the new direction of Dr. Patricia Johnstone, the official release of financial reporting was non-existent.

A specific example of unclear reporting is found in the 2002-2003 Annual Report. An “Endowment” is reported to the amount of $63,843.00 without any indication as to its provenance. The following year’s annual report 2003-2004 gives an entry line combining the endowment income with donations for a total of $70,784.00 and by 2004-2005 that combined income is reduced to $62,791.00. In 2005-2006 there is no statement of endowment income or donations; there is however a line entitled “Miscellaneous Revenues” at $45,550.00. Informal interviews with the financial manager at MOA verified these inconsistencies, confirming that there were errors in the 2005-2006 budget to the amount of $77,000.00.

The Annual Report of 2007 shows that $319,902 was donated to MOA by “individuals, foundations, and corporations through cash donations, estate gifts, in kind support, and donations of objects to the collections” (2007, p. x). The exact amount from external revenue sources is couched in the all-encompassing terms “individuals, foundations, and corporations.” In sum, a general observation can be made from the annual reports that MOA receives 41% of its budget from UBC and less than 1% from the private sector. Admission is still the largest source of revenue, and earned revenue from the shop continues to be a significant component of revenue. Two-thirds of the staff salaries came from admissions.
Shift in funding profile for MOA

The funding profile started to shift between 2002-2006 when the MOA Annual Reports indicated the growth of earned revenues through memberships and admissions, the revenue from the rentals and the shop. In 2002/2003 Earned Revenues from admissions and memberships totaled $550,189.00, in 2007/2008 $749,000.00 and in 2009/2010 $1.9 million. The shop was earning over $400,000.00 in 2002/2003 but showed a reduction in earnings from 2005 to 2010 because of the renewal project construction.


Table 5. Funding Trends for MOA 2002-2010

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Earned revenues admissions and memberships</td>
<td>550,189</td>
<td>749,658</td>
<td>1,922,708</td>
</tr>
<tr>
<td>UBC GPOF and ISI Monies</td>
<td>790,465</td>
<td>1,174,276</td>
<td>1,467,233</td>
</tr>
</tbody>
</table>

Source: Complied from MOA Annual Reports collected from the MOA Archives.

In the 2007/2008 MOA Annual Report, donations are reported at $229,731. In 2008/2009 $5 million was donated by the Koerner Foundation for the Renewal Project, leaving in 2009/2010 $5 million remaining to complete MOA’s Renewal Project: one initiative is the Michael M. Ames Theatre Chair campaign accepting gifts at the $1,000 gift level.
The funding picture as it stands today shows a mature fundraising portfolio. The financial statements from the 2009/2010 Annual Report are easier to read and have clear headings such as “Public Sector Support” “Private Sector Support” and revenues from “Foundations and Agencies” listed as well as the endowment interest. Gifts received and pledged totaled over $2.8 million, with $2,531,000 million directed to the renewal project and $288,500 directed toward operations and programs. Major funding for the renewal project included a generous grant from the Audain Foundation for the Visual Arts, and from many individuals through the Michael M. Ames Theatre Chair Campaign. To encourage giving as part of membership, MOA and UBC’s Annual Giving Unit created a new Contributors Circle, allowing annual donors and members who also donate to receive enhanced benefits by joining at the level of Benefactor, Partner, Associate or Friend. A recent membership campaign resulted in significant increases in both membership and general donations, which support MOA’s public programming and exhibits. The gift levels for the different gift circles start at $120 and have varying options up to the $1,200 level.

**MOA has a protected funding status**

The findings indicate that MOA is afforded a somewhat protected environment as an academic museum because operating monies from UBC support the basic operating costs of MOA. In May, 2011, the UBC web site stated that MOA had received one of Canada’s most prestigious architectural awards, the 2011 Prix du XXe Siècle Award for enduring excellence in Canadian architecture from Architecture Canada | RAIC, the
Royal Architectural Institute of Canada.\textsuperscript{8} This award will secure MOA’s place at UBC as deserving of supporting funding. Multiple and combined funding sources characterize the funding picture for the MOA. There are public funds from the federal and provincial governments, research grants from federal and provincial ministries, revenues from the direct provision of services — admission fees, memberships, income generated from shop sales, rentals for special events and food sales shared with the union-run Food Services, as well as fundraising support from foundations, corporations and individuals.

The data shows an unmistakable decrease in federal monies for MOA with the removal of the annual MAP grants at the same time as there is tremendous pressure put on MOA to generate revenue through admissions, rentals, memberships and the shop. As a result of the CFI Renewal project, MOA has invested in the specific income generating areas of fundraising. This combination of factors lead to the present financial situation where the CFI insists upon industry partnerships and the fundraising industry plays a key role in adding to this complex funding mix.

**Funding history of BBM**

It is important to emphasize the very clear distinction between the funding of the BBM and the MOA. Tim Matthews, a senior manager in the Vice President Research Office describes the major difference in the following manner “the BBM is donor-driven, and the donor driving this is also the donor who enabled this entire facility.” James

\textsuperscript{8} http://www.publicaffairs.ubc.ca/2011/05/04/ubc-museum-of-anthropology-receives-prestigious-national-landmark-status/ retrieved May 9, 2011
Peters, a senior manager at the UBC Properties Trust describes the interesting funding anomaly that created the BBM:

With the Beaty Museum… an additional donor source actually created this project and this that wasn’t the 40, 40, 20 rule, it had an additional funding source. On some projects that creates a different dynamic especially if you have a very active donor.

The old research collections for many years were seen as relics of a former age. The Fish Collection for example had no curation for fifteen years, and although it was used for class research, it had no ongoing maintenance. Wendy Price, outreach manager at BBM, explains the funding concerns for natural history museums:

All across North America…there is pressure on natural history collections. It can often be difficult for them to find funding…. so getting this new building, with a public face, is a huge step and I think a lot of folks feel that it’s a very positive thing for the future of the collections. That if we’re out on public display, people are more likely to understand the collections’ worth and to support them. Hopefully it’ll give us a longer life.

With the CFI award and funding from the British Columbia Knowledge and Development Fund (BCKDF) for the Beaty Biodiversity Centre, an additional 20% of the overall project funds came from one individual donor, a successful geologist and resource company entrepreneur, Mr. Ross Beaty. His generous support of the CFI funded Beaty Biodiversity Centre however was not unrestricted: it came with conditions. The conditions were that this Centre would house a natural history museum and thereby make the collections available to the public.

Wendy Price, outreach manager at BBM describes the origin of the museum:
Several years ago, a few faculty members wrote the CFI grant that is funding the building project, intending to make a place for the collections and also for biodiversity research and there was no idea of a public museum originally. Ross Beaty came forward with his generous gift and expressed enthusiasm that part of the project be a public museum, so that the collections would be available to members outside the research community. And it was at that point that the idea for the museum was born and the faculty decided to support it.

Prior to the CFI grant, each of the collections received funding from individual departments, i.e. the Herbarium received funds from the Botany department, the others from the Zoology department. As Price explains:

Most of the collections were started in the early part of the 20\textsuperscript{th} century by collectors who were also faculty members. Over the years, the collections have had funding from various departments. So the herbarium has funding from the botany department. The insect, fish and vertebrate museums have funding from the zoology department. Each collection has also been partially funded by gifts from interested parties in the community.

Some collections were only partially funded and were in great danger of being destroyed unless funding was found to support their management. Under each academic department the collections had very small operating budgets. Curators were often poorly paid or volunteered for these positions. As a result of the CFI funding and the Beaty gift, the BBM is intended now to be the outreach arm for all these collections. At the time of the interviews, many decisions were still being determined, such as what the exact mission and mandate of the BBM would be, and whether faculty would also serve as curators without any formal training in museology. As a result, I was not privy to documents such as the business plan or many other financial planning documents.

However, further research in 2010 led me to once again check the UBC Properties Trust web site on July 21\textsuperscript{st}, 2010, which listed a number of Board of Governors
documents. One document featured files from the UBC Board of Governors dated October 12, 2006, which stated that:

“The Board of Governors at its meeting held on September 28, 2006, passed the following resolution: conditional approval of BBM budget at $1,030,000 based on the standard UBC operating and maintenance rates of $90.16/sq.m per year and an approximate building area of 11,420 square meters. With a capital budget of $49,000,000, and that an internal UBC loan of $4 million is “hereby approved for the Beaty Biodiversity Research Centre and Beaty Natural History Museum (now known as the BBM); it being noted that this loan will be repaid over a period of 30 years and debt service will be funded equally from general Purpose Operating Funds and Faculty of Science discretionary revenues.”

The document continues stating that the BBM project was presented to the Chancellor’s Borrowing Advisory Committee at their November 2005 meeting and that the committee was generally supportive of the project, but questioned the size of the loan and “felt that the business plan for the museum should be monitored closely.” Also “Treasury reviews the financing of projects that utilize debt on an ongoing basis and will also focus on the museum business plan.” It is an example of the work in progress that will determine the exact dimensions of the future funding plan for BBM.

BBM funding profile is “uncharted territory” for science faculty

Despite the different origins of its original funding structure compared to the history of government funding of MOA, the current emphasis on securing future private funds as described by a senior academic associated with BBM, indicates that BBM, like MOA, is experiencing a funding shift from the known government grant structure towards unknown private funding sources. Lisa Jakobsen, a senior science scholar, describes the funding of BBM as “uncharted territory”. Jakobsen explains:

The museum is uncharted territory for the researchers because all of a sudden you can't apply to NSERC, which is the primary research funding source for all the
researchers to run a museum and so, we're now having to think outside of the box, link to private organizations that fund either small grants for little public outreach projects or larger funding and we don't know where that's going to go. Is that going to be at the provincial level? Are there ministers of Education and Tourism that might be interested, might be sources of funding? Are there small grants from Vancity and other organizations that are eco-friendly? But that is all stuff that we are having to find and negotiate for.

**BBM inherits protection from UBC**

Wendy Price describes the dependency and protectionism that BBM has inherited from UBC as the parent organization. In particular, Price highlights the notion that as an academic museum, the university will cover the cost of fundraising and maintenance.

Price explains:

> We are embedded within the university, so we’re not completely stand-alone. We’re not planning to have an independent development office. We’re relying on the Faculty of Science for that. We’re not planning to have an independent maintenance staff. We’re basically borrowing the maintenance staff from the rest of the university.

BBM is not in the same position as MOA in terms of government funding as BBM is not eligible for provincial funding and they cannot receive Canadian Heritage or Canada Council money. However, BBM has a direct link to a wealthy Canadian – the question remains how much his gift will continue to support and maintain the museum’s operations in the future.

It was somewhat surprising, not to say puzzling to learn that despite the fact that BBM senior faculty saw the success of the MOA shop at bringing in around $400,000.00 dollars a year, BBM chose not to advance this aspect in the architectural design or business plan. At the time of interviews, the shop was not on the architectural plans for the new space, however, as of January 2011, there is a café and a shop on the museum site ([www.beatymuseum.ubc.ca/shop](http://www.beatymuseum.ubc.ca/shop)). The latest funding contribution to BBM is the $3
million gift from the Djavad Mowafaghian Foundation for the Djavad Mowafaghian Atrium, a two-storey glass gallery that showcases the Beaty Biodiversity Museum’s flagship exhibit, the skeleton of a blue whale - the largest living animal. The exhibit and the Museum’s educational programming are expected to be a major draw for the region's schoolchildren.

**Funding Factor: tied, targeted, and matching funding mechanisms**

Among the many significant findings made in Slaughter and Leslie’s (1997) study of academic capitalism was the reference to Canadian universities as being among the most autonomous in the Western world. However, all my research participants agreed that targeted research funds from the government have left researchers feeling far from autonomous, and that these targeted funds were very limiting. Jacqueline Wilson, Associate Professor of Botany, a scholar knowledgeable on the BBM, draws out the central aspects of the change in the funding profile that is shared by the vast majority of participants. She describes the trends toward tied, targeted and matching grants in the following way:

The targeted research areas are meant to meet government priorities. They are not scientifically informed, they are politically influenced…The government asks “What is your plan for commercial development? What kind of timeline can we expect? If you can’t meet a five-year timeline for a spin-off application, then we’re not interested in funding you at all”…

For the kinds of research that we do, there is no industry partner that’s going to say “Yes, I can see there’s a deliverable there at the end of five years”…I would bet that if you went back and looked at the deliverables, they haven’t really materialized. In most cases you won’t get a patentable product, that’s not going to happen. You’re going to lay some framework for further studies.

Harold Fields, a senior academic executive at UBC, observes that UBC as an organization is driven by federal funding. This targeted funding mechanism greatly
impacts the ability for basic research to be conducted, as most federally funded research
is targeted towards specific results and inquiry. Fields contends:

We’re [UBC] driven by the federal funding programs. The province doesn’t give us squat except to match where the federal money is and it’s getting worse and worse. It’s harder and harder to get a project funded which is just basic research. President Toope is really aware and is trying hard to encourage the basic research elements of the university because no one else is ever going to do it and the government sure as hell isn’t going to encourage us to do it.

The majority of participants highlighted concerns that decisions made by government to target specific research areas are often misguided because only the commercial applicability of the research is considered.

Wilson continues her criticism of federal funding practices, observing that biodiversity research without industry partnerships is not viewed as a research priority for the federal government. Referring to specific examples pertaining to her research grants, Wilson explains:

Strategic research grants at NSERC, for example, used to allow government partners, government agencies to serve as partners…now the rules are “No, it has to be an industry partner”…there are clear rules about what kind of contributions are valued, and that means whole sectors are shut out…It means we are scrambling in a lot of cases. Either those sources of funding are completely gone, or we’re in a situation where we have to spin really hard to try to fit the criteria.

She continues with an explanation that in her view government interest in research is not compatible with the fundamental role of the university. Wilson explains:

Nobody cares whether we’re doing good science. They [the government] care whether we’re creating jobs and creating industry spin-offs. And that is not fundamentally what the role of university research is meant to be.

Liza Jakobsen, a senior scholar and administrator within the Faculty of Science, describes the federal government’s targeted research interests in this way:
Canada decides that there are particular areas that it wants to push forward and hopes for technological breakthroughs and Genome Sciences has been one of them. I don’t think that it’s going to push forward and say Museum collections and research collections are going to be our next huge pot of money we’re going to put towards that.

Wilson concurs with her colleague Jakobsen on the fact that an increase in targeted government funding limits research in the biosciences. Wilson states:

We’ve seen a huge growth in the amount of political strings attached to funds, and that comes across in the language and rules about matching funds or about partners….For health-related fields, fields with industry ties, those kinds of partnerships make dollars go further. For other fields like studying biodiversity, those strings just shut doors.

This limiting aspect of government research grants is described by Diane Muller, a senior faculty member associated with MOA in the following way: “the funds are really tightly controlled and you can hardly move sideways on them.” A senior counterpart to Diane Muller is Christopher Wright, Director of BBM, who describes the political “spin” involved in securing government grants with these remarks:

It’s certainly the case that funding sources in general can have an effect. If you think you have a chance to go for a grant, then you might be more likely to put a little bit more of a slant in it – that’s a common thing.

The above representations from the research participants on the limiting nature of tied, targeted, and matching research grant mechanisms highlight a major change to the funding pattern for academic boundary organizations. Lines of tension are felt as the university moves to find a balance between the role of its boundary organizations as public outreach museums and research institutions and their role as commercial enterprises.
Academic museums are protected from market to a small degree

The Canadian academic museums in this study are somewhat protected and insulated from the vagaries of the market by the fact that UBC contributes to the operating budgets of these organizations. Liza Jakobsen, a senior scholar associated with BBM, encapsulates the financial constraints and benefits of being an academic museum:

We’ve both benefited from and been slightly constrained by being within a university because the university has its fundraising efforts and we can not countermand those…The Dean of Science has a development office, so that’s good for us…The only constraint is that if we were a completely independent museum then we could go after whichever donors we wanted…There’s no way you would start the Beaty Biodiversity Museum as a completely independent organization…Museums are closing down these days…There are not a lot of funds. So being a university museum has made this possible.

This quotation touches on a number of critical issues which the majority of participants also emphasized, namely: (i) the simultaneous benefits and constraints of being a university museum, (ii) the administrative hierarchy and priority politics of the university’s fundraising efforts, and (iii) the inability to access donors without going through the correct protocol. The quotation also highlights the importance of considering the effects of the increased emphasis on revenue generation by university museums.

However, the academic museum still feels pressure to think of itself as a business, to become a space of commerce and to enter into business-like commercial transactions. The recent actions of the American university Brandeis University to sell off the entire holdings of its Rose Art Museum, one of the most important collections of postwar art in the state of New England is a drastic result of the university responding to the cost-cutting imperative (Kennedy and Vogel, 2009). As reported by Kennedy and Vogel, David Alan Robertson, President of the Association of College and University Museums
and Galleries, this sale was by far the largest closing of an academic museum in his memory, and he said he could not think of a mass dispersal of important works from a college or university that would compare (Kennedy and Vogel, 2009).

Resource dependency

MOA and the BBM as examples of boundary organizations within higher education institutions are becoming more aligned to the characteristics that make up an academic capitalist approach as they compete for research grants, create innovative funding partnerships, and grow increasingly protectionist/territorial as they gain access to donors. These academic units accomplish their research needs with the money received from grants and funders. These funds provide an enabling effect, but there are also constraints in this funding dependency.

Yeoman, who works in a management capacity at MOA raises the interesting point that MOA has now become more dependent on corporate sponsorship in order to launch an exhibit and that this shift in funding sources will undoubtedly influence the museum’s organizational culture. Yeoman explains:

...Decisions will be made that are more financial than intellectual, or conceptual. I think the end results will be that we will accept exhibits that somebody wants to sponsor. We will accept collections that may also come with money, to be crass...I think that’s an institutional reality, it’s not by the nature of MOA, or the CFI project, but I do think the funding does something fundamental to the institution and that needs to be a concern.

Participant Diane Muller explains that MOA’s future will involve seeking corporate sponsorship for exhibitions and that this will entail a great deal of change from previous established practice. Muller also mentions tensions inherent in seeking
sponsorship yet wanting also to remain experimental and distinct from other museums.

Muller explains:

In the future we will be in a position where we require corporate sponsorship in order to be able to put on the size of exhibitions we want to put on. And it’s going to be a fairly substantial change for us….Our aspirations are to have this big new exhibit space, and the consequences are going to be some changes in the way that we do things because we will need to be bringing in corporate sponsorship to realize those visions. And yet we want to stay experimental and different in our exhibits…But we may find ourselves in sort of an interesting position where we have to shift some of the concepts that we might want to be pursuing in order to find the funding to get things done.

Patricia Johnstone, a senior scholar in museum studies and former Director of MOA illustrates the risk involved when an academic unit relies upon private donors. Johnstone explains:

The problem with the shrinking of public funding in Canada is that it increases the risk that you become dependent on the whims of private donors/foundations.

Louis Seaborn, senior academic in the Faculty of Science, comments on the constraints of becoming dependent on one major donor. He explains these constraints as dangers. Seaborn explains:

We do need to have some more public sponsors… we can’t just keep relying on Ross Beaty. I think we’ve got to broaden that base. I keep talking to the fundraisers about this saying Ross is going to go away at some point and you need to have other prospects…. They still need an endowment to pay for the curators and things. As I said, if you rely on UBC, eventually it will get cut again, because who knows when somebody wants to cut things?

Tina Marcus, an Instructor in the Faculty of Science and Curator of the Insectarium was particularly conscious of her academic unit’s dependence on private sources of funding in the form of private donors. Her views are impassioned and her
statements reveal a level of frustration with the targeted funds and the implication that her department will become ever more reliant on private funding in the future. Tina explains:

The big change that has happened is that the federal government has cut funding… Until there is a dedicated transfer to education [by the province], universities will continue to be hard pressed to find that funding elsewhere. And that funding, just like government funding, is going to come with strings. The strings are just perhaps a bit shorter….I am not sure I see that trend reversing….I think this is the way we’re going to go, probably for the rest of my career, towards relying heavily on private sources of funding and all that entails.

**Catalyst for applying to CFI**

Both research infrastructures at MOA and BBM were in great need of updating. Bridgit Huber, a senior curator at MOA, describes the conditions of the museum collections prior to winning the CFI grant as “professionally embarrassing.” Professor Louis Seaborn, the principal writer of the CFI grant for the Biodiversity Centre, describes the terrible working conditions under which the biodiversity research scientists worked for many years. The former Second World War temporary huts “were completely hopeless for our modern DNA approach to studying animals and plants…Our facilities were disgraceful, probably the worst in Canada.”

Tim Matthews, a senior manager in the VP Research Office and former fundraiser describes the condition of the biodiversity collection in this way:

I mean, it was really gross….it was like something out of a horror movie. You’d go down these rickety old stairs into this cellar where there were all fish in jars and… it was creepy… There was the cow and vertebrae collection…it was scattered all over the place, and certainly not publicly accessible.

As Patricia Johnstone explains, a great deal of effort was required when applying for the CFI to think of what the museum’s future needs would be. In order for the
application to go forward, professional advice was required from engineers and information technology experts. Johnstone describes the process:

It became clear that in order to assess the kinds of [grants] we might apply for, what kind of infrastructure we could justify as research infrastructure, we were going to need some technical information, which would need to be developed by professionals… it was an effort to think not about the way museums had functioned in the past, but how they needed to function in the future.

Paul Bauer, senior consultant to MOA on the CFI project describes the MOA CFI process in the following way:

There wasn’t necessarily a pre-existing coherent vision. It was very much, “We needed to get infrastructure, we have an aging museum, we have an aging facility, this is a way of getting the infrastructure.

In the following passage, Johnstone expresses the rationale behind MOA applying for the competitive CFI grant. Her reflection is a good example of how the majority of participants felt, namely that museum scholars had to persuade the university to include museum research as an academic priority. Johnstone explains:

In a way, the whole point of the CFI effort was to persuade [the university] that academic museums had always been research institutions but not always recognized as such, that the shifts and changes in the world of academia… had made academic museums important sites for research in our time. But it’s still the case that when a university has to prioritize, it will always pay for its academic programs first – it has to.

Funding profile: diversified funding base - the role of academic fundraising

The changing role of fundraising within Canadian universities is a critical piece of the funding profile. What was originally viewed as a marginal source of revenue has now shifted towards being a central source of university funding. Fundraising in the academy
I argue can and does make a difference to the funding profile of these two units and is viewed as a central element in analyzing the overall funding profile.

Funds raised externally are considered by Lawrence Woodland, a senior finance executive at UBC as “soft money”, and this funding source includes debt as well as departmental reserves. Woodland describes how the funding profile has changed at UBC. He describes how the funding of infrastructure projects has moved from a single source of funds whereby the province would fully fund academic buildings, where there was no risk, to the contemporary situation where every project has an element of fundraising or debt and obvious risk. Woodland confirmed that the CFI grants required the university to find matching funds that it did not have. Woodland explains:

CFI didn't give its award based on the full package, it was really based on the research component of the package and very quickly we realized that the program was way out of line with our abilities to raise funds.

Woodland explains the process of convincing the university Board of Governors to support the CFI project and laments the delay in driving the projects along a firmer timeline. Woodland describes the CFI salesmanship process from the perspective of the university’s senior finance office:

…there's a huge imperative to implement these projects driven by CFI…it's a shame that it took so long, I think everybody feels the same way.... We have to have a backup plan if the remaining funds do not... And we are willing to take some risk...And there's not a fixed amount. It's really a bit of a gut call at the executive level. To go forward…the executive needs to be prepared to not only take the risk, but be ready to allocate any resources we might need to allocate. And then be ready to step in front of the board and sell it to the board….If you do it a couple of times and miss then you completely shoot your credibility and you can't go again.
**Influences of academic fundraising on the funding profile**

The vast majority of interviewees remarked on the changing economic climate, the reduction of government spending, the limitations of targeted federal research funding, and the need to acquire private funding. As Patrick Williams, a senior academic fundraiser, states:

> The reality is that it takes resources to run a university and to run an academic operation, and where those resources come from certainly has an impact on how a department would operate and no question we’re counting more on the private sector to come in and support where public sector funds have traditionally been.

The efforts by both academic museums to meet increasing public demands and rising costs raise questions that have not existed in such a competitive funding landscape before. The role of the fundraising industry is a key influence on the funding profile of UBC’s research funding sector. Efforts by both MOA and BBM to meet increasing public demands and rising costs by generating their own income and relying on the academic fundraising mechanism are examples of how two different cultural institutions on campus are faced with funding questions that had not previously existed in such a competitive landscape. These academic units are facing severe financial concerns. Increasing operating costs with new infrastructure development have forced administrators, curators, and academic staff to seek financial support from outside the traditional granting sources for corporate support. Scarce funds exacerbate the museum’s traditional conflict between research and scholarship on the one hand, and education on the other. This is where the academic fundraising machine steps in and the influence of disciplinary culture is experienced by the interviewees with full effect.
By tracing the overall themes of competition, innovation and territoriality we can see the influences of fundraising on the funding profile of the two boundary organizations. UBC’s Central Development Office and its campus-led fundraising operations are an important sector within the academy, the study of which is largely avoided by most scholars. A principal question emerges from the findings that challenges higher education scholars to consider more closely how to incorporate the practice of academic fundraising into a discussion of the funding of contemporary higher education institutions.

The first major fundraising campaign at UBC was “The World of Opportunity” campaign, which ran from 1989 until 1993. Under the direction of President David Strangway, the campaign raised $262 million (Tudiver, 1999). Anthony McKellar, a senior fundraising executive at UBC explains how the fundraising mechanism at UBC has changed significantly since 1993, the date of the last major fundraising campaign. McKellar explains:

When I joined [UBC] it was at the end of the World of Opportunity campaign and we had raised from the private sector $130M over 5 years. And now we’re doing $130M a year. That’s because we have far more people involved in it. At the time it was all very central and now we’ve got this decentralized, collaborative campaign. Now we’ve got the Deans very much involved, and faculty very much involved in the process. And also, I think people are now realizing on the social side that “My tax dollars are not enough.”

The practice of fundraising as a professional unit embedded within specific faculties and in this case, the museum institution, can be argued to be a fundamental element of change in the university’s overall funding profile. Today between 65-70% of funds are raised through the individual faculty development offices (from an informal interview with former AVP UBC Development, Clark Warren).
Complexity of deciphering fundraising sources

McKellar describes a fundraising spectrum. At one end is the idea of pure philanthropic gifts: at the other is the idea of contract research whereby donors receive something in return for their donations. McKellar explained how most funds fall in the middle ground and any committed funds depend on the larger social, political and economic situation. One of the limitations for McKellar and his team is deciphering whether funds raised or pledged have been done so through the Development Office or through the Research Office. Another complicating factor is that donors and academics tend to over-simplify UBC Development as one big organizational unit, when in actual fact, according to senior management staff, it is very fragmented. The amount raised by the development office is only a small percentage of revenue at UBC, although it is becoming significantly more important. McKellar suggests:

Even though the university development office brings in $130 million a year, it’s still only 13% of the overall 1.6 billion dollar a year industry, which is UBC. Fundraising is increasingly used as a tool to increase funds and the more experienced and well-funded Fundraising departments like Medicine or even the interesting case of the College of Interdisciplinary Studies are more successful.

Quantitative data collected by the UBC Advancement Office in 2009 regarding development funds received – including pledge payments, outright gifts, and gifts in kind from 1998 to 2008 from all the different faculties at UBC reveals very interesting trends. Most pertinent to the dissertation was the overall total growth of $30M in revenue from fundraising, which advanced from $35M in 1998 to $75M in 2008 with the greatest increases in revenue raised by the College for Interdisciplinary Studies (CFIS). The CFIS “supports collaborative, interdisciplinary research, and teaching in other disciplines, in industry and government, and in local and international communities to find solutions to
problems that cannot be readily solved within the confines of a single discipline”
(http://www.cfis.ubc.ca/about retrieved April 21, 2010). In 1998, CFIS started with
$359,889 funds raised and ten years later in 2008, the amount had increased to $6.3M.
Truly a staggering achievement.

The data also revealed that the Faculty of Applied Sciences had raised $1.1
million in 1998 and by 2008 the annual total had grown to $8.3 million. The Faculty of
Arts grew moving from $4.6 million raised in 1998 to $6.5 million in 2008. The Science
Faculty went from raising $1 million in 1998 to $3 million in 2008.

The private funding, donor-driven market

One of the most important findings yielded by the data is the clear indication by
the majority of participants that UBC has entered into “the private funding, donor-driven
market.” Participants explained that the university’s funding profile is changing as a
result of having to forge funding relationships such as sponsorships with private business,
and wealthy donors. The role of the fundraising industry has a new and increasingly
important role, and academic units are accommodating donor driven demands.

Leslie Yeoman, senior manager at MOA, raises the concern many participants
shared about the “cost” for the university entering the fundraising donor driven market.
Yeoman asks:

…This is a question for the University at large…how does it, when it enters the
market to such a degree, like the private funding philanthropy donor driven
market, how does it sustain its commitment to research, intellectual autonomy?
I’m not sure, I’m not sure.
The majority of participants stated that fundraising was now critical to the future success of academic units. As explained by Erik Karger, a senior faculty member and Canada Research Chair in Science, fundraising is considered essential to the future success of academic units. Karger’s frank remarks highlight the linkages between raising funds and attracting high calibre scholars to the university. Karger states:

If you want to hire somebody truly magnificent, you need to raise funds to bring that person here. And where do those funds come from? It would be difficult to pay for the salaries of a lot of our faculty purely from provincial coffers, or to provide research infrastructure. The CFI was an amazing opportunity for universities. I think the private sector is the future. The Beatys are a perfect example of that, none of this would have happened without the Beatys, so I think [their funds] will facilitate research.

Karger specifically states that a university’s fundraising abilities constitute major factors in its success as a university, that Canadian universities are heading into this direction, and there is “no turning back.” Karger’s comments are representative of the way in which the vast majority of scholars and staff whom I interviewed felt about these concerns. Here Karger addresses the changes brought about by the need to fundraise:

The focus of universities has changed a lot. I think we’ve gone from a more English model where the University is funded entirely by government into the direction of a more American model….The difference between a good state university and a great state university is the fund raising abilities, the role of the alumni in the university. So I think that this is a direction, and there’s no turning back. And everyone knows from examples that participation of donors is a huge part of the success of a university.

For Karin Buergin, a senior scholar who has worked in both the business school and the arts administration realm, the fundraising structure at UBC, which began in the 1980s, has gained strength and now constitutes a powerful and effective aspect of the funding mosaic. She describes the process as follows:
In the 1980s, and even now, health care becomes more and more expensive, the funds just aren’t coming from those [government] sources and people got smarter and said, “Okay, we are going to have to look elsewhere.” And they set the structures up, and the one very powerful structure at UBC is the way in which their Development, their Central Development placed within faculties is working.

An emphasis on academic fundraising is entrenched in the current UBC Collective Agreement. Article number seven states that faculty receive a bonus based on the fundraising activities of the university as an organization. McKellar explains:

Faculty get a bonus based on fundraising...It’s part of the faculty agreement,...they get one percent bonus if the university raises over 100 million dollars...I don’t know how many faculty even know that.

Georgina Tsitos, a senior fundraising professional at UBC refers to a number of important themes related to how academic fundraising increases a sense of competition between academic units, presents conflicting priorities within the university for raising funds, as well as increases a sense of territoriality between faculties. Of particular interest is her comment regarding the ways and methods employed by certain faculties “jump the queue” in terms of accessing donors before other faculties. Tsitos states:

There are so many great charities and great causes out there, and we’re all going after the same funding sources. And then the additional challenge for UBC is each faculty has to work within the framework of other faculties having their own funding priorities and often looking at the same prospective donors as well....Another challenge...is the competing priorities on campus. And everyone, every faculty is doing great work, and it’s a matter of coordinating with others around when you are going to whom and who’s sort of jumped the queue in terms of putting a request through to a particular funder, it’s just the nature of the beast when you work for a large organization.

**The role of income generation**

Income generating activities are taking on much greater importance for academic units. Many academic units need to balance the pursuit of outreach and research with
financial constraints. Powell and Owen-Smith (1998) argue that the shift in greater significance of income generation within universities is not driven by a need for new sources of financing, but rather, is due to changing incentives that favour increased efforts in the commercialization of research.

The term “commercialization” as applied to higher education institutions refers to the greater reliance on earned income relative to other forms of revenue, such as donations and government grants. The trend towards museums relying more heavily on income from shop sales and rental fees causes tensions between curators, the traditional guardians of the museums and museum directors, as well as university administrators who are responsible for the financial viability of the institution. As Anheier and Toepler state, “the unity of artistic and administrative responsibility has been weakening as business backgrounds and orientations have become primary qualifications for museum directorships” (1998, p. 235). The shifting of responsibilities towards the open entrance of business partners in research infrastructure has had an impact on the funding profile of MOA and the BBM.

University unprepared for change in funding profile

Dawn Worthing, senior management staff member at MOA, sums up the specific case of academic museums in Canada thus far. On the one hand, they face continued pressure to find additional private support in an increasingly competitive funding environment, while on the other, they are somewhat protected by the harshness of the funding reality by the fact that unlike non-academic museums, they are supported by the university. Worthing’s statement reveals the situation as follows:
The funding environment is definitely competitive. We do get an annual grant from the provincial government, but it’s not as much as comparable institutions in the province because they see that their funding of the university should cover our cost.

Academic units therefore have created the need to develop a diversified funding base, which in turn justifies the need for the enhanced role of the discipline of academic fundraising. In following the case of the CFI grant to MOA and BBM, the data shows that up until January 2009, UBC was not able to raise its share of the 20% CFI matching funds quotient for either the MOA or the BBM project. This key finding from the interviews was a surprising one. From the perspective of the majority of the academic staff I interviewed, it was their impression that the University failed to have a contingency plan to raise additional funds in case the CFI projects were approved. In order to secure the CFI grant, the university administration and senior academic executives had to commit to raise millions of dollars for the MOA and BBM projects. However, as the interview data highlights, these were funds the university simply did not have and had not publicly reported by the time data collection was complete.

A common element was what I refer to as “the delay”, or as another participant put it “death by a thousand cuts.” This delay in the construction of both MOA and BBM and ensuing funding cuts to the larger projects refers to the lengthy waiting period whereby academic units had to reduce their costs for the non-funded areas of the CFI grant. This delay revealed interesting parallels of the experiences of the two academic units. The delay could be explained by the fact that museum research is not given the same priority as commercializable research from the applied sciences. James Peters, a
senior manager with UBC Properties Trust describes the lengthy delay in the following terms:

MOA and Biodiversity [Museum] have been an extreme struggle, given that their funding source is so old, relative to the time we’re trying to build it…It’s almost an eight, nine year process. I think timing is the biggest challenge for sure.

The data shows that the majority of participants refer to the fact that the university itself was unprepared to secure outside funds as part of the CFI matching grant.

Concurrent to the university’s lack of preparation for the success of the CFI applications was the important finding that pointed to a distinct lack of leadership on both the part of the MOA and BBM. Leslie Yeoman, senior staff member at MOA, was involved from the beginning stages of the MOA CFI grant. She made a specific point of highlighting the fact that the university was unable to commit to the 20% matching funds and seemed incapable of planning for its success. Yeoman describes the lack of university support in this way:

Well I think we knocked the socks off the University, I don’t think they thought we were going to get the CFI grant….The university didn’t know how to raise money for us….that had a couple of effects on the institution, and on the project…It was not easy to get people to respond to us, it was not out of ill will. I just think that they [the university executives] were scared. They were kind of shocked that we had a grand scale project encouraged by them at every step, and then we got it, and then the reality is that they didn’t have the funds to support us.

Paul Bauer, a senior consultant for the CFI MOA Renewal Project mentioned the distinct lack of leadership in pushing the university to commit to the 20% funding match. Bauer explains:
In the specific case of the MOA Renewal Project, I’d say that everyone involved recognized that it started about four years later than it should have. And unfortunately that’s a manifestation of an absence of leadership. Because in the absence of a Director who would be pounding the table at the UBC Development Office on a weekly basis saying, “Come on, where’s our plan…when is our campaign going to start?” In the absence of that, obviously the University had other priorities that it focused on.

Wilson has been involved with the CFI BBM project from its inception and shares similar frustrations with the lack of ability and motivation by the university to fundraise for the remaining 20% of the CFI grant. Her description is very useful in illuminating how each matching fund needs to be supported to move the project forward. Wilson explains:

The Beaty Museum project was made possible by the success of the CFI grant…with the plan that they [UBC] would fundraise that 20 percent. After the project was funded, it just sat in this stagnant condition while we waited for the university to fundraise…I think eight million was what was required for the university to say “Go.”

And that was the extremely frustrating part, because we knew we were sitting on this money that was budgeted for a new building, and time was ticking in an environment where building costs were escalating all the time, and quite dramatically. We knew, even though we were sitting on this money, that it was worth less and less of a building as time went on.

So thankfully, a donor came in, and that was Ross Beaty, and he contributed the eight million that was necessary, but not without strings attached. The condition was that we would build this public institution.

**“Donor-driven” aspect of BBM’s funding profile is new dimension**

Matthews describes how the prioritization on the part of the university for securing the matching funds for the CFI projects weighs the proximity to the market as its most pressing requirement. The determining factor from Matthews' perspective in

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9 MOA experienced a change in leadership in August 2004.
finding a fundraising match for BBM and MOA was whether the research had any interest to the private sector. An imbalance emerges between interest and commitment on the one hand, and ability to contribute on the other hand. Matthews explains:

We had this tremendous success in the first round of CFI funding, we needed this incredible amount of money, this 20% everywhere to match these projects…The university probably was strategically looking at all those projects most likely to have potential success in the private sector…I suspect the university made the decision to fund those less likely to be successful out in the fundraising marketplace. So I think the Beaty Biodiversity Museum was probably deemed to have some appeal among the private sector.

Tim Matthews, a senior manager in the Vice President Research Office and former academic fundraiser at UBC, describes the BBM project as entirely donor-driven. Matthews explains:

It wasn’t the university’s decision to create this publicly accessible museum, it was donor driven. The reality is that the donor who is driving this thing is also the donor that has enabled this entire facility. So you might think it’s the university’s responsibility, but in fact it was not a university-level decision to do this, it was donor-driven.

Lawrence Woodland, UBC’s AVP Finance, explains the complexity and difficulty of finding supporting funds for CFI awards. Woodland states that there is an imbalance between types of donors and explains that finding capital and a match for a project is a very difficult endeavour. Woodland explains:

It takes two years to incubate it [CFI] into a successful project and it needs to be driven and be able to pass a multidisciplinary review process under intense competition and is often fairly esoteric, at least to the average donor, and as a result…we never get money at the front. It's always the back-end, that the award comes first and then we have to fill it. And it's very hard, very often, to match a research award with a potential donor. In fact that's what people thought about this Biodiversity Centre. It was a significantly difficult thing to find donors for.
Skepticism of fundraising dimension

Amongst the interviewees associated with BBM there was one participant who was very skeptical of the mounting enthusiasm for the new BBM facility, especially with respect to the Blue Whale Project\textsuperscript{10} a fundraising campaign to fund the museum space. Participant Tina Marcus explains the irony and frustration she felt by the fact that the amount of money to purchase a whale bone and raise the funds to bring it from Prince Edward Island to BC would fund all the BBM curator’s salaries for the next 20 years. Marcus explains:

I am well aware that that kind of fundraising never would have happened to maintain our collections in their current state. That kind of fund raising only happens when you have a high public profile and something that's very sexy to sell. So I know that there's no point in feeling too bitter about the $1 million or so being spent on a whale that could fund all of our curator's salaries for the next 20 years, because they are just apples and oranges and that's the reality of the funding world.

Future funding challenges

Woodland, the senior UBC academic executive describes the funding challenges faced by the UBC from a different perspective. He provides the view from the standpoint of a university executive and explains that because of the many pre-existing research projects, conflicting priorities were set in motion with the CFI. Here Woodland explains:

One of the difficulties with the CFI was that while they may be a glint in the eye of a faculty member and it might be a brilliant research initiative, the institution typically has many more long-standing priorities as to what its capital needs are... So as a result it’s very hard to have the 20% on hand. And typically on these big

\textsuperscript{10} The Blue Whale Project is the name of the major fundraising campaign for the BBM. Efforts started in 2007 to bring the remains of a blue whale from Prince Edward Island to UBC. It hangs in the atrium of the brand new BBM building.
projects, you can’t build an exclusive research building or a building that fits CFI’s definition of research exclusively. Not only is there 20% to find, but there’s always a non-research component of the building.

These valuable insights from the interviewees expose the conflicting tensions between the academic staff and the management on funding sources. At the same time, this tension emphasizes the lack of communication between the professoriate and the administration regarding funding concerns. The funding of contemporary higher education is characterized by a complex pattern and mix of resource availability. This diversity of accessible resources entails complex means of dealing with financing opportunities offered through sponsorships, targeted research dollars, or funds raised through philanthropic gifts. Methods of accommodating these influences have served as points of controversy, becoming centres of intense debate for staff, faculty and students in the Canadian university community. Woodland, explains the major change to the funding pattern at UBC:

It used to be that universities would build buildings and typically there was a single source of funds for them. The province would fund academic buildings…the funding risk was nonexistent. Nowadays, it doesn’t work as simply as that, and virtually every project we go forward with has an element of soft money attached to it. Often fundraising or debt or some combination or reserves that department may have.

An additional element of a future funding challenge is to consider that the CFI project itself is in competition with other research granting agencies and needs to project successful investments. As Lawrence Woodland, a senior finance executive at UBC explains:

CFI is pushing as well to get this [MOA] project going. They’re very interested in seeing the money that they’ve awarded go to work and therefore allow for results to come from the infrastructure they’ve implemented. CFI can use that information and sell their program primarily to the government, which provides additional funding to keep the program going, right?
**The perspective of individual staff and faculty**

Participants described the process MOA and BBM underwent for the CFI application process as working through a process of convincing the government that its investment in their research infrastructure would be attractive to the government and private sector investors in the future. During the CFI application process, MOA and BBM, participants describe feeling “betrayed”, “lost”, “abandoned by the university” during the time delay from when the CFI funds were received and when the university’s commitment was solidified.

Harold Fields, the individual described by the majority of participants from both MOA and BBM as their CFI champion, describes the delay in a very personal way:

> At the end of the day there was no way to fund the whole project so they had to cut big chunks out of it and eventually they needed the order of $10 or $12M dollars in fundraising… Yuck it was awful. It took a lot of politics and running around to Deans involved… But when it comes down to spending their own money, there’s always a list of priorities and MOA wasn’t very high on the Dean of Arts priority because there’s not much university activity in the museum… Then Martha Piper left and Stephen came in and eventually we got everything signed off and looked for a donor and we have been unofficially successful in identifying half the $10M.

Arthur Cassidy, senior manager at MOA describes the delay in these terms:

> It was painful. I mean, it was very difficult. The project was, I think, threatened, a number of times. I think the university said ‘that’s a lot of money’ and we had to keep bolstering ourselves to say, this is a valid project… when they actually finally started to dig the hole for the foundation we were positively giddy. Because it had taken that long to get to that point and that there was, we might not go ahead, that it might just fall flat, …it was just very difficult, what we went through.

Diane Muller, senior scholar in the department of anthropology, describes the delay in detail:
There was the need for cuts, and the cuts were incredibly painful. And I think in some ways it wasn’t the big cuts that were the most painful. It was the “death by a thousand cuts” that was the most painful.

Jacqueline Wilson, senior scholar in the faculty of science reveals a management issue which the university views as too costly, namely the fact that there is no accommodation for a pool of funds to support the fundraising component of successful CFI grants. Wilson explains:

It was really a shocker. It felt like abandonment. Now the truth comes out, you know? You’re really on your own for this part of it…. A bit harsh….The university placed a lot of expectation on successful fundraising for fulfilling their end of the commitment and it seems like there ought to be a pool of resources that can help….The penalty for our success is that the university was unprepared to meet its obligation, and even unprepared to fundraise. They weren’t ready…they said “Well now the job starts of securing the funding.” But we are not fundraisers.

The university did not contribute the funds to running it, no not immediately. The university signed on the bottom line accepting this donation that in our view meant that they were assuming the responsibility for the associated costs and contributions that would need to be made to make a public entity. There has to be some recognition on the part of the university that accepting a donation doesn’t end with the building being built. It implies a responsibility to the institution that’s been created.

From the data provided by the participants, museum research is not high on the university or the government’s priority funding list. The set of principles designed by the government driving competition for grants and the commercialization of research output does not place high value on research conducted by academic museums. As Jacqueline Wilson, senior scholar associated with BBM states:

Spin offs are an occasional product of a certain percentage of research. But by and large, university research is not industry-targeted, and not applied….The rules now for grants programs at NSERC must include an industry partner. There are clear rules about what kinds of contributions are valued, and that means that whole sectors are shut out. For us, that means we’re scrambling in a lot of cases. Either funding sources are completely gone or we’re in a situation where we have to spin really hard to try to fit the criteria.
Contradictory Evidence

One participant was particularly concerned to point out that only 1% of MOA’s budget came from private sources. From her perspective Monica Birch held true to her deep understanding of the revenue sources for MOA. This individual tried to prove to me that there was no point in conducting this doctoral research. Of interest is the fact that this one participant did not see the indications of increased commercial activities and proposed sponsorships in the same light as the rest of the 31 participants. Participant Monica Birch suggested repeatedly that the sources of external funding would not change the mission or structure of MOA in any way.

Discussion

The academic museum is challenged on many fronts. In the case of MOA, it must demonstrate its revenue generating abilities through strategic business plans with rental and sales revenues as well as plans to secure its financial sustainability within the higher education institution without straying from its mission. For MOA this is a major change. Serving its mandate of investigating, preserving, and presenting objects and expressions of human creativity is complicated by the fact that MOA performs many roles as a public museum, a professional museum, an anthropology museum, and a university museum.

This chapter suggests that there is need to refine academic capitalism theory to take into account what participant Leslie Yeoman describes as “the private funding philanthropy donor-driven market.” The findings indicate that the investment of MOA and BBM into academic fundraising practices will bring these academic units under study closer to the market. The exploration of the funding profile of two academic boundary
organizations develop our knowledge of higher education and open up an understanding of the university to its employees in order to permit a better understanding of the power and dependency relationships that exist between and within its members.

The chapter sets the context for future knowledge claims about the funding of Canadian academia by (i) presenting the external funding influences on Canadian academia and how they have impacted UBC and MOA and BBM specifically, (ii) exploring the CFI as a funding agency, and (iii) explaining the key funding patterns as described by participants working at MOA and BBM and as presented in Annual Reports and other official documents. The central funding patterns are (i) the reduction in government spending in universities, which has necessitated the creation of specific funding agencies, (ii) the limitations of targeted government research funding, (iii) the increasingly diversified funding base which has created an increasing importance to the role of academic fundraising.

Despite the federal government’s establishment of the CFI, which aims to facilitate an intensification of the relationship between academic researchers, and their institutes, in this case academic museums and the private sector, the findings indicate that the introduction of close partnerships with industry and private donors for the MOA and BBM CFI grants has not guaranteed a successful funding formula. Nine years after receiving the CFI grant, neither unit is capable of securing the twenty percent mandated by the CFI that insists the university raise funds through private industry support and fundraising.
The participants’ concern about the private funding, donor driven market echoes that of Alexander (1996) who explains this concept of ‘museum frictions’ through the use of resource dependency theory, whereby stakeholders who have control over resources acquire the ability to coerce the museum into meeting their demands. As museums do not have the ability to operate solely from admissions and other income generating activities, they must rely in part on some form of donation and are therefore susceptible to conditions set by donors, often aligning their objectives and goals to those of the sponsor (Alexander, 1996). The criticism Alexander puts forward, and one which is supported by the majority of participants, is that the demands and needs of corporate sponsors may often distort the goals of the unit and of a particular exhibition.

The major external influences on the funding of Canadian universities include pressures to compete, to become more innovative regarding potential funding options, and to become more territorial about funding sources in response to increased funding competition. The efficiency agenda, and an entrepreneurial push for units to be self-funding, presents contradictory demands on university management and the professoriate. The external environment of competing resources to fund universities has shaped institutional funding and management challenges.

Academic fundraising has emerged as an essential element in the funding mosaic. No longer are funds raised to pay for extra benefits, but rather fundraising is critical for the overall operating budgets of most universities. Most participants described the practice of academic fundraising as the key to success of any academic unit in being able to recruit top scholars and build world-class infrastructure. Purposefully embedded fundraisers working within specific faculties orchestrate a small but increasingly
important source of funds. The success of funds raised by the College for
Interdisciplinary Studies (CFIS) at UBC is given as an example of how highly effective
the fundraising unit within an academic discipline can be.

There is an imbalance between the university’s interest and commitment to
securing funding raised through development efforts on the one hand, and the ability of
the university to contribute through its fundraising efforts on the other. The regrettable
fact that there was until 2008 little success in the CFI model for generating private funds
to support the two museums, coupled with the realization that success in securing private
donations to meet all of the required 20% has been elusive, means that the CFI funding
model has not worked in these two circumstances. Industry is not interested in
supporting museum research, but individuals through family foundations are.

The philanthropy market will produce if the organizational structure is in place.
MOA has been successful only relatively recently in attracting sponsors as a result of the
embedded fundraiser who has worked for the last five years on building memberships,
and raising funds for the renewal amount. However, despite the $5 million gift from the
Koerner Foundation in 2008/2009 and the $1 million gift from the Michael O’Brien
Family Foundation, there remain funds required to complete the renewal project’s
fundraising component. BBM’s recent gift of $3 million from the Djavad Mowafaghian
Foundation is also an example of how family foundations are filling in the required
financial needs.

The response of academic units to institutional challenges, both from the external
environment directly and the internal environment, form new models of university
structure and culture. The knowledge claims in the findings argue that MOA and BBM are examples of academic capitalism’s focus on “new circuits of knowledge, emerging networks that intermediate between the public and private sector, and can be characterized by having extended managerial capacity and link the institution, faculty, administrators, academic executives and students to the new economy” (Slaughter & Rhoades, 2004, p. 15).

The academic museums in this study appear pulled between the needs of “the muse” - the creative, educational research force and “commerce” - the financial emphasis to secure private revenue for exhibitions and specific research. These are contradictory forces and difficult situations in which academic museums must face increasing pressures to make their outreach accountable and measurable. As expenditures rise faster than revenues, the costs of exhibiting and insuring exhibits outpace those for acquiring new works. This dissertation views these tensions as giving rise to opportunities within academic units to re-envision their strengths, their mandate, their mission and thereby incorporating a fundraising consciousness from the campus-based fundraising operations.

The literature and data show that public funding for social science and humanities is less than that available for the hard sciences, in particular funding for museum research is not a priority. The interviewees agree that any public funding that comes their way is targeted to specific research goals. However, over time, the funding profiles of these two academic museums are changing. Competitive, innovative, and territorial activity is pursued in order to secure external funds for academic units to source private sponsorships, and other private gifts. The CFI infrastructure award kick-started a new opportunity for these academic museums to garner interest and support, and backed by
academic fundraising specialists and marketing people these academic museums can work towards accessing capable prospects to give a new life to museum research, one which is no longer entirely dependent on the public purse. In the next chapter, the data explores changes to the university’s organizational structure and highlights changes to the organizational structure of MOA and BBM.
CHAPTER 6

CHANGES TO ORGANIZATIONAL STRUCTURE

This chapter addresses the second research question, which asks what impact does the funding mix have on the university boundary organizations’ structure. The internal structural changes at UBC, MOA, and BBM are described. As a result of the federal government’s efficiency agenda, and the corresponding entrepreneurial push for academic units to generate their own income, contradictory demands have been placed on both MOA and BBM as academic museums.

Several changes to the larger organizational structure of UBC as a whole and to MOA and BBM have occurred in the last twenty years as a response to the changing funding profile as described in Chapter 5. Examples of organizational changes to the two academic museums include the development of a formal management team structure, the creation of an advisory board, and the hiring of fundraising professionals and external consultants.

As the online Encyclopedia of Business entry on organizational structure explains (http://www.referenceforbusiness.com/management/Ob-Or/Organizational-Structure.html), organizational structure has certain inertia – the idea borrowed from physics and chemistry – that something in motion tends to continue on that same path. An organization’s structure as Kelly and Amburgey (1991) explain, evolves as the organizations grows and matures over time. Organizational structure also refers to how an organization manages people and tasks so that work is performed and goals are met. The organizational chart therefore is how the division of labour, task allocation,
departmentalization of tasks, coordination and supervision of control, and direction of authority is depicted graphically. In the case of MOA, with increase of numbers of staff members over the years the structure of this boundary organization has evolved from flat to a more complex, hierarchical structure with more departments.

Connected to the organizational structure of an academic unit is the role of leadership. This element of leadership as part of organizational structure emerged from almost every interview. Participants placed great emphasis on the importance of effective management, maturity and clarity of direction in guiding academic units through these pronounced funding and organizational changes. For MOA, the change in leadership in 2004 played a significant role in subsequent organizational and cultural changes and more detail on this aspect will be described later in the chapter.

The key findings reveal reformations of the organizational structures at MOA and the BBM. These two boundary organizations have evolved from primarily collegial structures into predominately enterprise-oriented model structures where more hierarchical lines of reporting are found. At the same time there is an emergence of ‘knowledge networks’ (Slaughter & Rhoades, 2004) such as advisory boards, and groups of marketing specialists and information technology experts, which facilitate the use of highly specialized staff, volunteers, and equipment designed to promote industry arrangements and fundraising initiatives such as those encouraged by the CFI Innovation Fund grants.
Themes of competition, innovation, and territoriality

MOA and the BBM are examples of boundary organizations within a higher education institution that show signs of structural changes indicating that their management style is becoming more aligned to the characteristics that make up an academic capitalist approach. This chapter details the extent and scale of the CFI application by the MOA and BBM, and presents data into the effects that the new funding profile has had on the structural development of academic museums as organizations. The central themes of increased competition for funds, the pressure for units to show initiative and innovation so as to generate their own income, and the sense of territoriality involved in protecting funds are the points of entry into a number of other, larger issues such as the politics of research funding and the prioritization of academic knowledge by academic executives.

Grants application process

The grants application process as described by many of my participants has shifted the balance between research and teaching within the universities in favour of the former. Major changes in a shift from a collegial structure towards an enterprise-model include a business ethos that exposes part or all of the organization to competition such as applying for grants and requests for proposals. There is a shift away from grant writing towards the marketing of ideas. The consequences for the traditional collegial structure are considerable: the academic community can be split into potentially antagonistic camps between those academics whose research can receive financial and status inducements and whose research can bolster the rankings of particular departments and those whose research does not.
Another effect of ‘new managerialism’ is that as universities are increasingly obliged to justify the expenditure of public funds and to demonstrate ‘value for money’ (Deem, 1998, p. 47), academic faculties and individual departments are mandated to manage their academic institutions much more tightly than they did in the past, to reach for ‘efficiency gains’ indicating a clear pervasive managerial ethos (Tapper & Palfreyman, 1998). With this development departments and faculties need more administrative support as they cope with new financial and managerial pressures.

**The hybridization of collegial structure**

The traditional collegial structure of universities where there is a sense of shared buildings, space, and function amongst university professors and staff also embodies particular ideas on how the university is to be structured and organized and how academic colleagues interact. Tapper and Palfreyman cannot claim that movements towards entrepreneurial models of university structure and management automatically undermine the collegial structure, but it is undeniable that it sets up tensions (1998). The higher education structural changes I have studied reflect a considerable degree of hybridization. As Deem (1998) describes, senior management teams, such as the Development Office and VP Research Office exist side by side with more traditional forms of university administration such as semi-autonomous departments and peer review processes.

Clark (1998) discusses that as universities face an overload of demands with an undersupply of resources that the way forward is for an entrepreneurial university model that requires collegial attitudes and forms. In his short essay *How fearless five took entrepreneurial path* he states that “the culture of higher education can absorb the risks of
entrepreneurship” and that “fundraising from other than traditional mainline patrons need not be squalid” because “part and parcel of the entrepreneurial response is the clear-headed recognition that dependable returns come with a diversified portfolio of supports and income streams.”


Organizational structural change at UBC

The UBC Properties Trust (UBCPT)

One notable organizational change at UBC, which is relevant to the funding and structural shifts at MOA and BBM, concerns the rise in the influence of holding companies. In 1998, UBC created a property management subsidiary known as UBC Properties Trust (UBCPT), dedicated to managing UBC’s real estate assets and all construction projects for the benefit of the University endowment. The CEO of UBC Properties Trust reports directly to UBC’s VP Finance and Administration. In 2009 UBCPT managed over $600 million worth of construction on campus. It is the largest developer in the province of British Columbia with over 1000 acres under active management (from interview with Participant James Peters). The role of UBCPT is to mediate between the Campus Planning and Development Group and the User Groups, which in this case are the academic units benefitting from the CFI grant – MOA and BBM. UBCPT, as described by participant and MOA Manager Arthur Cassidy, has “been charged with building the new projects in campus in the most affordable way.”

Paul Bauer, senior consultant to the CFI projects at UBC, stated that the change in management from the Campus Planning and Development Group to UBCPT provided a
valuable insight into an important organizational structural shift. Bauer explains that at almost the same time as the CFI grants were accepted, the UBC Campus Planning and Development Group had been replaced with the UBCPT as the managing organization for the CFI construction projects. This change in management was the result of UBC’s structural overhaul emphasizing efficiency and cost-effectiveness.

Bauer attributes changes in university policy as having a direct impact on organizational structures. Bauer explains the particular obstacles that were placed in the path of the MOA CFI project by the change in university policies:

The MOA received their grant just as the University made a significant policy change in the way that it developed projects. …Unfortunately, the Museum really was stuck in that transition…the transition of responsibility of development projects from an internal University driven to effectively an arm’s length institution, UBC Properties Trust, and also a different nature of accountability in that there was a higher degree of accountability towards occupants or to building users.

This combination of a changing landscape, and an inexperienced group with a new mandate, and new policies and procedures was a very difficult situation to manage….I recall UBC Properties Trust asserted that, “They could build the facility for much less than the original budget.” And I think that assertion was neither particularly well informed nor particularly wise.

This was not a smooth transition and Bauer attributes the delay in both CFI financed projects to several factors. Paul Bauer explains:

UBC Properties Trust did not have internal institutional experience with the development of projects of this nature, or this magnitude. So this was out of their experience. You had a change in University policy, you had an inexperienced UBCPT being asked to carry [CFI projects] forward, and then you had this dramatic change in the construction cost landscape that all occurred.
The decentralization of the Development Office

The management studies literature, including articles by Kelly and Amburgey (1991) and Russell and Russell (1992) describe decentralization as a management tool, which allows smaller units to have more control over resources enabling them to initiate and test a greater number of innovative and creative strategies.

Of particular interest for understanding organizational structural changes at UBC is the decentralized nature of the Development Office. Fundraisers are located within Faculties to have more direct access to prospective donors. Tim Matthews, a senior manager in the VP Research Office and former academic fundraiser at UBC, describes the change:

The Development Office kicked it into high gear with Martha Piper as President and began to plan for raising $100M on an annual sustaining basis and that’s when they embedded development people within the Faculties.

In order for academic departments to afford the costs of hiring a fundraiser, a cost-sharing model is used within academic units whereby the Dean of the Faculty and the Central Development Office share the costs of employing the fundraiser. This cost-sharing model also requires a dual reporting mechanism whereby the fundraising staff reports to both a Dean and the Development Office. This arrangement presents challenges, and leads to competition and territoriality issues, as well as the need to be innovative in the search for prospective donors.
The creation of the Vice President, Development and Alumni Engagement position

During the data collection process, an organizational change occurred with the appointment of UBC’s first Vice President, Development and Alumni Engagement in January 2008. The creation of this new executive position emphasizes two major changes for the university. Firstly, it indicates that the practice of raising money for the university is of central importance: the VP of Development and Alumni Engagement reports directly to the President. Secondly, it validates the importance of the fundraising profession as a key part of the funding profile and organizational structure of the university.

This senior academic executive position is an indication of the university’s priority to have a system of management with a clear delineation of the university’s important fundraising responsibility. The organizational chart labeled Figure 1 (dated November 2010) outlines the reporting structure of the UBC Development and Alumni Engagement (DAE) department. Four key areas make up the overall fundraising operations at UBC; i) the Development division oversees among its many responsibilities major gifts to the university, estate planning, and corporate and foundation relations ii) the Alumni Affairs division engages alumni in various partnerships and events, iii) the Advancement department provides research and prospect coordination as well as the finance and human resources divisions, and iv) the Communications division which coordinates the stewardship of donors as well as the marketing and events planning for the whole department (http://www.supporting.ubc.ca/contact-us).
Figure 1. Organizational Chart for the UBC Development Office of Vice President Development and Alumni Engagement (DAE)

Organizational structural change at the boundary organization level

As Chapter 5 explains, MOA and BBM are required to focus more on the need to achieve sufficient financing in order to succeed as academic boundary organizations in an increasingly market-based sector. These changes have redefined how museums are structured, as they now must place more importance on the following; (i) the management team model of operating; (ii) developing a network within the Advisory Board; (iii) developing income generation through admissions, gift shop sales, and facility rentals; and (iv) the academic fundraising mechanisms.

MOA and BBM as academic museums must appeal to visitors and corporations alike in order to attract and access new sources of funding. The data shows that these boundary organizations are now openly looking for corporate sponsors, increasing their rental appeal, and through the use of marketing seminars and workshops identifying what aspects of their “product” makes them more attractive to a broader range of clients and funders. MOA and BBM as a result have adopted a mixed or hybrid organizational form – where the concepts of “public” and “private” are blurred.

History of MOA’s organizational structure

The organizational structure at MOA from the mid 1970s up until the appointment of Director Martin Leggott\(^\text{11}\) in 2004 can be described as an “integrated-overlap” system designed to create a structure that maximized flexibility and equality of relations within the needs of the museum (Krug, 1999). Faculty and non-academic staff were treated as

\(^{11}\) Martin Leggott is a pseudonym.
more or less equivalent professionals, rather than is the case at most university museums, where the latter served as support staff for the former. All employees were granted as much autonomy as possible to define their own job priorities within general guidelines and objectives. Up until the late 1990s, MOA was an example of an organizational structure that promoted “a location of ideas, improvisation, extemporaneity, change, multiplicity, spontaneity, freedom, ambiguity, openness and opportunism” (Krug et al., 1999, p. 263).

Figure 2 shows the organizational structure at MOA from 1976 - 1980 as a very flat, non-hierarchical, research-focused, research-driven structure and representative of the traditional higher education era. This organizational chart is not dated, but comes from the MOA archivist’s personal file, as no official reporting of the organizational structure is available until 1993. The use of concentric circles depicts linkages and overlapping roles of the various departments, representative of the organic organizational structural model. Russell, R., and Russell, G., (1992, p. 643) describe the organic model as one that de-emphasizes job specialization, is relatively informal, decentralizes authority and decision-making and goal setting procedures are shared at all levels with a result that communication flows freely through the organization.
Figure 2. MOA Organizational Structure 1976-80

Source: MOA Archives, Archivist Collection
The organizational chart shown in Figure 3 dated February 1993 features a more linear, mechanistic structure. Russell and Russell (1992) refer to the mechanistic model as having the characteristics of being more complex than the organic model, emphasizing job specialization, and centralized authority and accountability (p. 643). Contrary to a highly hierarchical mechanistic model, the diverse branches of working departments such as the curatorial academic department, conservation department, administration, communications, design and curatorial nonacademic are featured as having equal positions of power.

Each branch reported directly to the Director who in turn reported to the Dean of the Faculty of Arts. The Dean then reported to the VP Academic who reported to the Board of Governors. The Head of the Department of Anthropology held a similar relationship as the Director of the Museum, but reported directly to the Dean of Faculty of Arts. Those individuals who held joint positions as curatorial staff and academics reported to both the Director of the MOA and to the Head of the Anthropology Department. In 1993, the full-time staff numbered 16.
Figure 3. MOA Organizational Chart 1993

MOA’s contemporary organizational structure

Harold Fields, Associate Vice President Research\textsuperscript{12} at UBC, was one of the most senior academic executives I interviewed. He was also the person described by both MOA and BBM staff as their “CFI champion.” He played a significant role in supporting the academics from both museums who were writing the CFI applications. His insight into how academic museums are managed is very helpful. Fields describes MOA’s CFI project in the following way:

\textsuperscript{12} The office changed its name in August, 2009 to The Office of the Vice President Research and International (VPRI).
The MOA Project is an unusual one…there’s a whole body of people, an organization, salaries that have nothing to do with the university. These things are awkward…they’re not part of the main way that the people who operate and run these programs and pay for things at the university usually do…The “normal structure” is that the Dean gets a budget and the Deans hand out dough to the department heads and the department heads have a budget for their department and there’s some extra money and then they try to fundraise and then …they hide money under mattresses.

Fields’ comments may appear flippant; however, the major points to consider here are that academic museums do not conform to the “normal structure” in relation to how the funding process works. The hierarchy for distributing money does not necessarily follow along traditional routes as Fields describes how department heads hoard funds.

The function and role of MOA as markedly different from the operations of other academic units is shown in the following description given by Martin Leggott, senior academic and Director at MOA. Leggott explains that he needed constantly to remind senior university officials of the purpose of MOA in order to instill a sense of the importance of finding financial support for the museum. Leggott expands:

We needed to explain to the university administration, to the executive what we were and how we operate because we don’t fill the same academic model that they’re accustomed to.

What began in the 1970s as an anthropology museum staffed by academics and staff with one single management figure in Director Michael Ames, with volunteers who did not fundraise, has become and will continue to be a museum in which specific kinds of technical knowledge are required to run the oral history laboratories, and the proposed marketing aspect to complement the fundraising activities.

The new organizational structure of MOA includes the establishment of a more formal management structure, the implementation of an Advisory Board, the need to
support a specialized marketing and income generation dimension of the MOA structure, and the secondment of a fundraiser from the Faculty of Arts. The 2005/2006 MOA Annual Report (p. 7) explains the major changes to the organizational structure of the academic unit.

Among many important initiatives undertaken this year, the most significant was a comprehensive organizational restructuring. Change was urgently needed to improve decision making, facilitate medium and long term planning, better define areas of responsibility and accountability and meet the diverse and complex challenges of the Renewal Project. Our challenge was to adopt an effective management model that could lead the institution through a potentially difficult period of renovation-related upheaval, facilitate enhanced public and research programs both during and after the Project, and better coordinate and deepen our relationships with First Nations and other cultural communities. The collaborative management structure introduced in July 2005 divided staff into four functional Departments, with members being assigned clear responsibilities with designated lines of accountability to Department Heads. All Heads are members of a Management Committee, convened by the Director and Associate Director, which allows annual work-plans and budget allocations to be better coordinated and institutional priorities to be properly acknowledged and made more effective in shaping the Museum’s future. Phase II of the internal reorganization will include the constitution of a representative advisory board which will begin in 2006/2007.

The Annual Report describes the new formalized policies and procedures for a staff handbook and the terms of reference for departments, committees, organizational charts, individual areas of expertise, work plan templates, institutional policies and strategic planning goals. In this sense the contemporary organizational structure of MOA is mechanistic in the way Russell and Russell (1992) explain as the museum’s current organizational structure features formalized procedures and protocols as well as the centralized authority, accountability and emphasis on job specialization.
Management teams

The management structure at MOA today is organized with an increased emphasis on management teams, and the organizational structure was changed by the appointment in 2004 of a new director to reflect clearer hierarchies and relations of governance. The greater emphasis on management style and the added responsibility of the Advisory Board function account for major organizational change. Leggott explains:

For years we didn’t...have a departmental system. Previous directors, as far as I know, basically kept all the funding and staff made applications or solicited the director for funding for whatever was required…We’ve now got a departmental system…we’ve a got a reporting system…people have to put a work plan together and it must reflect institutional priorities…so it’s quite different. It’s a huge change in the managerial structure. We basically had no managerial structure.

Advisory Board

Knowledge is increasingly located in networks of relationships and access to such networks is increasingly viewed as a key to competitive survival. Clark (2004a) expresses that the networks of relationships are required for universities “to go from beyond survival to consequential effectiveness in the 21st century” (p. 362). The creation of an active and engaged Advisory Board at MOA, and an embedded fundraising officer are examples of how MOA is aware of the need to be competitive and to develop and maintain high prestige. Participant Arthur Cassidy raises a particularly important point in describing the new structures of the Advisory Board and the fundraiser role and how these structures affect MOA’s institutional culture:

13 The fundraiser seconded to MOA from the Faculty of Arts moved back to the Faculty of Arts in July 2010 as most of the fundraising goals had been met.
The Advisory Board, fundraising – this is new. We cannot behave as individuals as we have in the past. We’re going to have to work more collectively. We’ll be looking more strategically at what kinds of exhibits we do, when we do them, the idea that we’re going to need to bring more people in to support all of this…. There will be more institutional levels of thinking applied that may mean people get told what to do, which has not been our culture up to this point, so it is changing…the Director has been more strategic about our value to the university.

The following quote from fundraiser Debbie Bergman indicates that one of the primary goals of members of Advisory Boards is their fundraising function. Bergman explains:

Most faculties over the last thirteen years that I’ve been working here, have developed their own advisory boards. Many of those advisory boards, part of their role is fundraising…The first thing [the Director] wanted to do was to get an advisory board together, so it came from him and it’s part of fundraising….The external Advisory Board needs academic experts but also affluent and influential members of the community.

The new advisory board as described by Leggott “will make us much more connected with decision-makers and public opinion formers.” Advisory Board membership duties involve networking for prospective donors, which in the case of the MOA, had been strongly opposed by the former MOA Director Michael Ames, and is therefore quite a structural change.14

**Academic fundraiser position**

MOA’s CFI application (dated 2001) states that “the employment of the Development Manager will begin in November 2005 to raise private sector funds for the

14 It is important to note that a number of MOA participants mentioned that the idea of implementing an advisory board was planned long before the CFI application was written.
Renewal Project and to establish a sustainable fundraising program for the museum.”

This shift in organizational structure signals a direct link between the change in the funding mix and the reorientation of the traditional academic units structure to include the active funding development role.

The vast majority of MOA participants judge that the hiring of a Development Officer marked a major structural change for the museum. For MOA Director Martin Leggott one of the biggest changes is that MOA now has its own development officer and that this has made a “huge difference.” The fundraising goal for MOA as an organization, as stated in the 2007 Annual Report, is to secure “the $10 million remaining to meet the Renewal Project’s overall budget of $55 million” (Annual Report, 2007). Leggott is confident that funds will be raised:

I think if you can create an environment in which you're looking at the world differently, in which you're looking to break old models and ways of interpreting things, I think through innovation, inventiveness, and creativity, you can capture potential donors to back you. I don't think it's a problem finding money. I think the real problem is actually coming up with interesting ideas.

**Marketing Manager and mechanisms for income generation**

Participants from MOA expressed the desire to hire a Marketing Manager, as well as the hiring of additional staff to run the oral history laboratory, one of the innovative, new technologies in the new space at MOA. Leggott points out the need for MOA to hire specialists who can assist the museum market more strategically. Leggott explains:

We need help in the marketing sector… At some point, we will be looking at appointing a marketing director….We have been looking at our brand and looking at how we can market that more strategically….People are excited by the new direction, the new possibilities and we have got to make them realize that accomplishing brand and marketing is really linked to raising our funding.
Leggott’s description indicates the diversification of programming at MOA required to capture and develop the existing markets. Here Leggott elaborates:

We need to generate a lot more money, because we have got a lot more research infrastructure …you know, we have diversified. I mean, the reason behind diversification is that we have got the collections, 40% of the collections are Asian, there is no Asian museum in Vancouver. It has got the largest Asian population, outside of China, so we should not be sitting on those collections. We need to get them out there. And yes, it is great that it would develop our share of the market, but that is really not the first and foremost consideration. It is a kind of moral consideration, that we have got the material, we should be showing it.

As a result of federal government funding cuts, the participants were well aware of the need to generate income within their own academic units. As Leggott emphasizes:

Income generation is really very, very important, and we’re looking at it very seriously and there are a lot of opportunities…We use income generation to support our research, so there is an integral relationship between research and income generation through the public sector side.

Participant Dawn Worthing, Associate Director at MOA comments on the importance of income generation at MOA in this way:

We’ve always been pretty good at generating operating money for ourselves. We’ve always had to generate a lot of money, we’ve expanded our gift shop, we’re working to get new spaces for facility rentals. We’re always looking at ways to generate money to support the operation.

Ruth Johnstone, former Director of MOA, describes the entrepreneurial pressure to generate income as having an impact on the hiring practices of museums. Johnstone explains:

It’s affecting the kinds of directors who are getting hired by museums because increasingly, you hear this everywhere… the directors are hired because they’re thought to be good at fundraising and at dealing with wealthy people or foundations or whatever and not because they have academic credentials.
Figure 4 is dated August 2006 and shows a much more hierarchical organization of management teams. The total number of full time employees has now risen to 28.
Source: MOA Archives.

The current reporting structure is much like the one shown in Figure 4 such that the Director reports to the Dean of Arts and through the Dean to the Academic Vice-President, and the University Board of Governors, and also holds a joint professorial appointment with the Department of Anthropology, as do several other academic curators. The growing importance of marketing specialists, fundraising professionals,
technology experts continues to influence the organizational structure of MOA as it continues to mature into an established organization.

The knowledge networks model as described by Slaughter and Rhoades (2004) is introduced here as a way to explain the organizational structure at MOA as this type of structure facilitates the use of highly specialized staff, such as the computer programmers required to run the research laboratories, the marketing staff to continue to bring publicity and interest in the commercial activities of MOA, as well as fundraising professionals who will continue to search for compatible donors, sponsorships, and run membership drives and other campaigns.

In sum, the findings show great changes to MOA’s structure with the introduction of new management structures with defined reporting structures, an advisory board building national and international networks, the increased pressure to generate income that affects the need to diversify programming, and the secondment of a professional fundraiser. With the new organizational structure comes a change in hiring practices, stressing the importance of skills sets, which assist the museum to generate income. MOA will continue to look more strategically at the kinds of exhibits it can prioritize which will bring in corporate sponsorship.

**Organizational change at the new BBM**

One of the limitations to this section of the study was that an established business plan was still being finalized by the Dean of Science and was not available at the time of data collection. The comparison of two academic museums in very different development stages is, however, still valuable in order to ascertain what impacts the
changes to the funding mix that encourage private funding will have on the structure of the donor-driven BBM as it develops into a mature academic museum.

Clear organizational structural changes are obvious as a result of the fact that BBM will be a “brand new” institution with a totally new mandate as a public museum. For the first time in history, one location will house all the diverse bio-diversity collections together in a completely new setting in a new building. The shared space will bring researchers from different science backgrounds together, out of their silos of isolated study and into a public museum with a public outreach focus. Everything is new.

The Museum has a Director who works closely with a fundraiser from the Faculty of Science who is responsible for seeking donors for the remaining CFI support, and an Advisory Board. In addition to the professoriate aligned with the research at BBM, the museum staff will help market the popular lecture series and promote awareness of the museum.

Shift of work responsibilities

The following quote from Wendy Price, manager at BBM, describes how the new museum structure will shift certain roles within the established former structure. Price explain:

There will be a director, an administrator, various faculty members who are curators of the collections and collections managers. For the moment we only have collections managers in the herbarium, the entomological collection and the vertebrate collection...there will also be an outreach side and a director of exhibits and outreach.
Many participants stated that these collections can now move to a shared space and that this will bring great strengths to the museum, but that the new structure will mean a shifting of working roles. As Price describes:

The new structure is probably going to involve some shifting of roles and more interaction with the public than they’re used to providing and some new administrative responsibilities. I think that everyone is a little bit nervous about what it will mean to have people in the collections every day.

Advisory board and fundraising role

At the BBM, the role of the new Advisory Board is described by Liza Jakobsen, senior science scholar, in the following way:

It would participate in major strategic decisions and offer advice on outreach and business so that it would be representative of other faculties, educators, leaders in the community, and scientists…hopefully people who know potential donors or who can network us in the fundraising activities.

BBM has benefited greatly from the support of the fundraiser position from the Faculty of Science who has organized establishing donors for the remaining 20% of the CFI funds. Georgina Tsitos, a fundraiser for BBM from the Faculty of Sciences, discusses the consideration that changes in government support require academic units to look at private sources of funding. Tsitos explains:

It is so ingrained that universities are getting so much support from government that private funding is not required. But of course, that has changed. And when government decreases its funding, where are you going to find the money? You can only increase tuition so much. And then what else do you have? You have to start looking at private sources.

Conflicting perspectives within participant group

The data reveals some conflicting perspectives in the area of structural and cultural change. One participant in particular emphasized that there were no significant
structural changes to MOA, whereas the vast majority of participants could point to very specific examples of structural transformations happening within their academic units. This factor is important for understanding how changes are experienced and transposed into practice. Interestingly, two interviewees, one from BBM and one from MOA, did not think that any major changes to the organizational structure had or would occur and yet these same participants would go on to describe in great detail examples of very specific structural changes.

This anomaly was similar to the discoveries of Slaughter, Archerd, and Campbell (2004) that interviewees were “articulate about needing resources but not about the political alliances that shape funding” (p. 109). Reasons for this could be that the participants who did not think any major changes were occurring were differentially affected depending on the status and security of their employment. This differentiation notwithstanding, the point here is that the participants view the effects of a structural change differently. The vast majority of the participant base was very clear that changes were indeed occurring within their respective institutional structures. These findings, however, recognize that the role of external forces as outlined in Chapter 5 shape the organization’s structure.

**Discussion**

In the process of managing the changes to the funding profile at MOA and BBM, the structure of these two academic boundary organizations has changed. The structure of these academic units now features management teams, an advisory board, professional marketing expertise, income generation mechanisms, and formalized fundraising
operations. As a result, MOA and BBM are developing novel and hybrid forms of organizational structures retaining some older, traditional values and blending these with new management structures. By examining interviewee responses and revisiting organizational theory, I have explored how new organizational structural models such as ‘new managerialism’ (Deem, 1998) and hybridized organizational models are replacing or utilizing in new ways the previous traditional collegial way of organizing universities.

In the case of MOA and BBM, their organizational structures are changing from primarily collegial organizational structures to a predominately enterprise-oriented model. The new emphasis on successful entrepreneurialism requires a more hierarchical reporting structure as can be seen in the shift towards a more structured reporting structure at MOA. The secondment in 2005 of a fundraiser from the Faculty of Arts to MOA and the inclusion of the embedded fundraiser position for the Biodiversity Research Centre and BBM indicate that the university values the role of the fundraiser to generate revenue for the specific CFI sponsored projects and other museum efforts. This introduction of a fundraiser position within the academic unit is described by the vast majority of participants as one of the most significant changes for both academic museums. Hiring practices as described by many participants indicate that fundraising skills and abilities are held as highly important in the hiring of Deans of departments and other senior management. Academic units are thus faced with the challenges of accommodating the private, donor-driven market and specific donor demands (Slaughter & Rhoades, 2004).

Although many of these changes to structure may seem detrimental to the open academic freedom which has been experienced by in particular, MOA for so long as
Ames (1992, 1993, 2006) and Krug (1992) describe, the museums are building the skills and knowledge required to survive in the coming years of tightening public purses. The introduction of the advisory board made up of members from the academy and the community possessing business, marketing, and fundraising skills are examples of structural shifts that will negotiate the new funding landscape.

The structures of these academic units will continue to shift, affecting the type of exhibits and accessible knowledge available in academic museums. This chapter has explored and investigated how two academic museums from two different disciplinary cultures are experiencing organizational structural change. Chapter 7 addresses the impact the funding mix has on academic culture: the shared attitudes, values, goals, and practices that are altered when the funding profile changes and the organizational structure of the academic unit is remodeled.
CHAPTER 7
THE REPOSITIONING OF ACADEMIC CULTURE

This chapter addresses the third research question for the doctoral dissertation, which asked what impact does the funding mix have on the university boundary organizations’ academic culture? Academic culture can be defined as the attitudes, knowledge claims, values, beliefs, goals and practices that are shared by an academic group (Dill, 1982). Much of the literature on entrepreneurial culture and higher education (Shanahan, 2008; Axelrod, 1998, 2002; Buchbinder, 1993; Buchbinder & Newson, 1990, Polster, 1998; and Chan & Fisher, 2008) feature the argument that as market principles replace educational values, private interest replaces the public interest, the academic culture of universities is shaped in accordance with the principles and priorities of the market. This chapter outlines the ways in which the funding mix has had an impact on academic culture at the university overall and for MOA and BBM specifically. In particular the influence of academic fundraising has had a transformative impact on the traditional disciplinary culture of these units.

Clark (1980) in his paper entitled “Academic Culture” defines academic culture in four parts. The primary culture is that of the discipline whereby academics with increased specialization in an advanced area of study are located. In this culture, the bonding powers are stronger than those of the institution. The secondary culture is that of the profession and refers to beliefs and practices around teaching, scholarship, and research. The third culture refers to the enterprise: the sense of loyalty and commitment to the university because of its history and its size. The fourth culture is the culture of the system, the national higher educational system.
Clark admits to a vast reshaping of academic culture (1980, p. 25). He explains, for example, how a separate culture is generated between university executives and faculty members who have become more and more isolated from each other. To this description, thirty years later I add that my research data explores how the funding profile and organizational shifts in academic boundary organizations have created different cultural sub-cultures, or as Gerwirtz et al. (1995) explain these changes in academic culture creates a kind of ‘bi-lingualism’ whereby two or more sets of values and cultures exist side by side and are invoked in appropriate contexts (1995).

In Becher and Trowler’s terms, (2001) shifts in the funding of research has meant that organizations think about research in different ways than had previously been the case. The two academic boundary organizations from two diverse disciplinary cultures are seen in the research data as forging partnerships with the private sector and with industry, competing for grants and using innovative methods to calculate accessing the most lucrative research funding options. In addition, the increased sense of territoriality throughout the process is highlighted. These are significant factors that affect academic culture because different disciplines have had to act similarly in order to access diverse funding options. This emphasis on the growing competition and territoriality between disciplines in securing research funding has an effect on academic boundary organizations in terms of identifying a business ethic above and beyond the traditional academic values that emphasize teaching and learning.
Culture clash

It is undeniable that an overall alteration process is currently taking place within the two academic museums, whereby they are becoming more audience-focused and donor-driven, requiring them to redefine themselves, their interests, their mission, and their goals. For Patrick Williams, a senior fundraising professional in the Faculty of Arts, the competitive reality of the university’s funding environment means that an increased emphasis on securing private sector funds is imperative for the future of the university. As he explains, with this change in the funding mix comes a clash of values between what he calls the business policies and the academic process. Williams describes this clash between the business operations and academic process in this way:

It’s the reality that private sector funds are becoming more and more important in meeting an institution’s mission….We [UBC] are a $1.7 billion organization, so there are business policies, procedures, and operations that need to be met. Sometimes their procedures, policies, and operations clash with the academic process.

With respect to the research findings, new emerging academic relationships are occurring in boundary organizations. Closely associated with the practice of fundraising, lies a system that honours donor-driven relationships over and above traditional academic values. Business ethics, such as securing partnerships that establish a bottom line, the use of sales language, and the competitive “ownership” of prospective donors by academic departments most capable of securing a donation, coupled with a growing sense of territoriality reveals a repositioning of the traditional academic culture that needs to be examined and incorporated into higher education theory.
Slaughter and Rhoades (2004) suggest that the “academic capitalist knowledge/learning regime has to some degree reorganized science, changing the configuration of relations between the university, state and market, the process of which contributes to changes in values” (p. 139). This learning regime has also reorganized the social sciences and humanities in similar ways. The findings draw connections between the funding profile, the reorganization of organizational structure, and the repositioning of academic culture. This chapter considers changes to academic culture as emphasis lies on the donor-driven nature of fundraising, changing an academic unit’s research mission.

The repositioning of academic culture brings changes to the museums’ image: the need to be relevant and innovative. This presents a change for the professoriate and staff from working in an insular research institution towards working in a public outreach focused academic unit, which asks for financial help from the market. Statements from individual participants regarding changes to the conditions of their work and the ways they are undergoing dramatic change in their work include the following remarks: “There is no turning back”, “We are facing un-charted territory for museums to think of asking private organizations for funding,” “We’ve crossed the line,” “We have to show relevance and value to society.” The vast majority of participants described the profession of fundraising as being a central factor in changing the culture of their academic units.

Commonality of purpose

One of the more surprising aspects to this research was the commonality expressed by scholars as to the nature of their different disciplines. The following quote
from Jacqueline Wilson, senior scholar in the science faculty is representative of how most scholars I interviewed felt about how tied, targeted, and matching funding from the government is interfering with true scholarship in their disciplines. Here Wilson passionately describes her interpretation of the similarities between scholarship in “pure science” and “pure art”:

Pure science is a lot like art, it’s an exploration, and it’s curiosity-driven…It’s an exploration of a different part of the world, maybe not so much of the human condition, but it’s an expression of culture, and of learning and knowledge. And if we want to kill that, all we have to do is eliminate the funding for inquiry-based science.

Culture swap

I discovered an interesting phenomenon occurring within this close examination of the transformations to academic culture at MOA and BBM. The BBM with a brand new mandate to become a public outreach museum, has changed from its origins as a research collection used mainly by the professoriate. The culture with which it has become long familiar is being re-assembled, and an arts-based, museum model is being encouraged. These changes are described by the participants as “uncharted territory”. At the same time an anomalous cultural swap is occurring at MOA. MOA is being encouraged to operate more along the lines of a science research institute and is embracing the scientific model of operating, by applying for research grants, which have previously been considered for the hard sciences.

Paradigm shift in academic culture

Thomas Kuhn used the term paradigm shift in his book entitled The Structure of Scientific Revolution (1962) to describe a change in a fundamental model of events.
Although he was describing the hard sciences, this term has been used by diverse disciplines. Participants have used this term to describe the shift occurring in how academic units share beliefs, attitudes, knowledge claims, values, goals, and practices. The fundraising profession has brought its own values to academic culture at UBC. The fundraising culture is in and of itself a specialized culture made up of a code of ethics in its relationship to donors (Burlingame, 1997). Tim Matthews, a senior manager in the VP Research Office and former academic fundraiser at UBC, describes a distinct paradigm shift in the institutional culture of UBC. According to Matthews, fundraisers at UBC have been purposely embedded within faculties and that Canadian higher education institutions are moving towards what he describes quite bluntly as an “American fundraising mindset.” Matthews explains:

There’s been a paradigm shift in terms of the way that development has become integrated into the institutional culture [at UBC]….I have seen fundraising evolve, and I’ve seen it become increasingly important….In the U.S. fundraising has always been very entrenched in the institutional mindset…You are essentially trained and bred to be a future alumnus of the institution and they are really big on fundraising for life…I see a big movement towards that in Canadian institutions.

Matthews continues with an explanation of an attitudinal shift occurring within the university regarding academic fundraising. He describes how the university is moving away from a feeling of resistance and even resentment about the fundraising profession, towards an understanding that securing external private financial support is necessary. Matthews explains:

There’s been a transformation even in the time that I’ve been here, the eight years. There used to be a much more vociferous concern about the corporatization of the university, there was resistance and resentment, that a university was looking externally for funding. You don’t hear that anymore. I think there is a new generation of researchers that understand and are more sympathetic to the needs of the university as it is required to go outside [for funding]…That vociferous
expression of concern that existed around this corporatization notion, it doesn’t seem to be as loud as it was. In fact, I just really never hear it anymore.

Anthony McKellar, senior advancement executive, offers a clear emphasis on the realization university employees have as to the importance of the academic fundraising function. His views are representative of the majority of interviewees. He insists that fundraising which used to be for “the extras”, is now necessary for everyday basic operational costs. McKellar explains:

I think people are starting to realize that government cannot pay for everything….In the World of Opportunity campaign, the last big [fundraising] campaign that was done at UBC, which finished in 1994, David Strangway was the President at the time and he used to talk about “The campaign is kind of for the extras, the things that make the excellence.” But now it’s much more for the basic stuff, it’s for everything. Because governments do not fund everything, and student fees do not fund everything. So to maintain even basic operations, we need that level of philanthropy. That’s been a real change…Governments aren’t going to pay for everything, our taxes are not going to pay for everything. Therefore, we’ve got to give back in other ways.

Resistance to fundraising culture

There is still a resistance among employees and society to embrace this culture of fundraising. McKellar and Johan Richter, both senior fundraisers, mention that fundraising is still considered by members of the public as a “dirty word.” By this they purport to mean the feeling of discomfort that many Canadians feel when being asked to donate money and specifically about being approached to donate to their alma mater. But, some university staff realize that the attitudes and societal norms as well as the academic culture with respect to academic fundraising must change. Richter explains that fundraising is a key component of what universities do.
I think it is crucial, particularly to the Deans, and to the community, that fundraising isn’t necessarily a ‘dirty word’, that it’s a key component of what universities are these days, and what universities do.

**Changes to academic culture at UBC: fundraising is a donor-centered practice**

According to informal discussions with Clark Warren, retired Associate Vice President, Development, the UBC development department sets a “donor-centered” practice. For Warren, the purpose of the development office is to match the priorities for the university with interests from donors. Prospect management, meaning researching who is capable and able to fund projects, is extremely important and useful for the university. As with any major organization, a rigorous gift approval process assesses the integrity of the donor, foundation, corporation, and individual, as well as a detailed analysis of the proposal. The Board of Governors sets the fundraising policy and the question of naming rights goes through the President’s Advisory Committee and is approved by the President and confirmed by the Board of Governors.

The concern with a donor-centered practice is establishing the correct balance between the influence of the donor and the true nature of the scholarship. Skonikoff (1993) remarks upon the obvious idea that the research agenda as a whole is determined largely by the frontier of knowledge of that discipline and thus determined largely by the researchers working in the field. He mentions that the interests of the funders will necessarily influence the proposals made to them, and thus will affect the research that gets done (Skolnikoff, 1993).
It is worth noting here that the majority of participants interviewed expressed an increased awareness that the donor-driven nature of fundraising presents new concerns. For example, a number of interviewees stated that naming rights and donor conditions will change the organizational culture of their academic units in ways which would make them increasingly and continuously aware of potential fundraising opportunities. One participant in particular mentioned that their professional working boundaries had become blurred when accommodating wishes from a potential donor.

**Business culture embedded in fundraising is shaping academic culture**

Despite the well-intentioned concentration on a donor-centered practice, the reality is that academic fundraising brings a distinct business culture into academic units. The importance of the fundraising role has meant the pervasive development of the lexicon of marketing and business planning into the culture of the academic museum. Part of the university’s overall business strategy is to play on its strengths to stay competitive; this in turn has a direct impact on prioritizing the funding needs for academic units. Williams describes the need for innovative funding strategies in the following way:

> We need to invest in our strengths more…so we can’t be everything to everyone. Not even Harvard can be everything to everyone. So choices have to be made, Are we going to direct fundraising resources to this program or this program? And what are the trade-offs with the two? So I think it’s bringing more of a “business” approach to the way universities are run.

**The changing skill set**

At the academic culture level, shifts are evident in the way academic museums are importing business management terminology and entrepreneurial practices. The main
factors in the cultural shifts that have affected individual professors and staff include the changes to the desired skill set, which encourages experience in raising funds from private sources to support the academic units’ operational costs. This changing skill set as described by some participants demonstrates increasing professionalization and managerialism of staff and academics. Emphasizing fundraising abilities takes professors away from their intellectual pursuits, presenting a clash of cultures between the management and fundraising staff on the one hand and academics on the other. Trowler (1998) explores this further as to how internal pressure on academic staff appears in the guise of activities of academic managers and administrators re-organizing, controlling, and regulating the work of academic staff and the conditions under which those staff work. This presents tensions and contradictory demands. Professor Louis Seaborn from the Department of Zoology at UBC explains how he had to change from an academic to reading lines like an actor to make a sales pitch during the final interview in the CFI application process. He describes the situation in this way:

I’m not an actor. I can’t memorize lines and say what other people want me to say. I’m a lecturer…That’s what they [UBC Executive] wanted me to do is read a script. I’ve never done that in my life.

Other critical factors affecting the work culture of academics and university staff are the bidding culture of grant proposal writing otherwise known as grantsmanship and the element of salesmanship required for academic responses to Requests for Proposals (RFPs) as well as to the overall academic fundraising culture.
Museum an agent of consumerist culture

The type of knowledge production that takes place in the social sciences and humanities is about developing new ways of understanding problems, new ways of seeing an issue. Scholarship in this realm of studies is not “commodifiable” in the same way that perhaps a scientific discovery can be applied and marketed. As a result of this contrast between what can be considered commodifiable research and what is not, it is wrongly assumed by many workers and scholars associated with studies in higher education that the BBM would have greater access to funding as it is likely to have closer ties to lucrative resources connected to the market, as opposed to MOA. However, my research reveals that many additional factors such as good leadership, proactive fundraising staff, an effective organizational strategy, are in fact critical elements towards securing external funding not purely the fact that one academic discipline may be more closely aligned to marketable research than another.

While the life sciences, engineering, management studies, communications, and information technology are the leading edge of commercial ventures within the academy, other faculties are taking new approaches to exploit their assets to enhance revenue generation (Powell and Owen-Smith, 1998). Outreach programs, rentals, professional education, conferences are signs of commercial activities.

Leslie Yeoman, a senior manager at MOA, highlights the fact that the fundraising tradition at UBC has been much more responsive to the needs of the science disciplines for research infrastructure than for the arts. Yeoman explains that the university’s claim
that MOA held a special place as the “jewel” in the university’s “crown” was never supported with real financial commitment:

I think one of our [MOA] biggest dilemmas, and also for the university is that they have always had an imaginary relationship with the museum. In that, they trot it out and use it as the jewel in the crown…but then we have to go and fight for every nickel, and so I think that imaginary relationship was tested a little bit. We were actually an active research unit in the university, and a jury of our peers thought so, and gave us $48 million [laughs]. But it never really sunk in…the tradition at UBC was way more responsive to the sciences’ needs for research infrastructure because they also have a much longer tradition of having research dollars, build labs and run labs, so that’s part of what their tradition already was.

Pannu, Schugurensky, and Plumb (1994) discuss the hierarchization of knowledge according to its market value over its academic value. This concept of valuing certain types of academic knowledge over others because of its perceived marketability was evident in the reflections of most of the research participants. Woodland, senior financial administrator at UBC, explains how the sciences have more funding agencies whose resources can be accessed by science faculty. Woodland explains:

There is a very strong ethic at the university to support pure Science and the Arts faculties. And a subset of that is that the sciences do have far more granting agencies that they can go to and far more funding that they can get. And Social Sciences do not have the same level and do not seem to get as much recognition as a result of that. Very often we measure success by dollars and that is not always the best way.

Patricia Johnstone, former senior scholar at MOA, describes her view as to the government’s reasoning behind the CFI research grant to the social sciences. Johnstone describes the MOA’s funding situation in these terms:

The reasons that governments put money into programs like that [CFI] is because they think that our economy will survive as a knowledge economy, as an economy that can produce innovation, and technology and medical science and things like that. They throw in humanities and social sciences because they can not really give them anything. But it is always less prestigious or emphasized or
prioritized. Universities following this economic model always put more of their resources into the sciences. It is just the logic of the times we live in, everywhere that I know of.

Witcomb (2003) warns that if commercial gain becomes the primary objective the result will be that traditional values and roles of education and academic freedom can be lost. Bok (2003) explores how culture is changed when art and knowledge is transformed into commodities and states that “the encroachments of the marketplace on the work of cultural institutions leads to apprehensions that something of irreplaceable value may get lost in the relentless growth of commercialization” (Bok, 2003, p. 4).

Hein (2006, p. 27) understands the museum to be an institution that is both public and private (hybridity/boundary crossing). Ames (1992) states that as museums become integral parts of society and operate more like attractions, they are expected to compete in an open market for consumers, and as Ames states, the ideology of consumerism is colonizing education and information services and transforming museums into agents of consumerist culture.
Examples of territoriality & competition

Participant Douglas Newman, a scholar and specialist in museum learning, shared his insights into the intrinsic territoriality within academic culture. He provided the view that a concentrated series of efforts to connect and build research networks within and between academic units are absent at UBC, solidifying this sense of territory within and between academic disciplines. Newman explains that academic units attempting to run the museum alone without support from other academic units will make their work much more difficult. Newman explains:

Academic culture has largely resided in a structure of fiefdoms. So you get the fiefdom of science, the fiefdom of arts, the fiefdom of medical sciences, and they’re structured as a function of the deans of each faculty, and I think sometimes the culture is that the deans are competing for resources – that’s definitely the case – and they’re competing for their little piece of the pie. And the museums reside within the fiefdoms. You’ve got Anthropology residing within Arts, the Beaty Museum residing within the Faculty of Science, and other museums residing within their local faculty.

Newman states that despite the fact that Vancouver has a rich network of museum educators, neither of the two academic museums in this study are drawing on this expertise, nor on the resources of each other. Newman attributes this fact to the lack of leadership at UBC towards its academic museums. Newman explains:

Out of all the cities in Canada, Vancouver has the richest museum community, and certainly the best network community of museum educators anywhere in the country, so it’s a little bit surprising to me that they [BBM] haven’t drawn more widely on the expertise that does exist within other institutions…..this points to, I think, a larger systemic issue about the way the UBC has a lack of centralized leadership when it comes to its museum institutions…There are some systemic issues that are embedded within UBC that are challenges to collaboration.
Newman continues to explain that the communication practices between the cultural institutions on the UBC campus are not strong, and that a lack of communication is inherent to the way in which academic culture functions. Newman explains:

…Cross-faculty connections at UBC, as it is in most academic institutions, is very poor. Very often you’ll find a situation where people are doing pieces of research, or major research projects which, when you look at them logically, should be partnering together. Yet you find that they’re separated and not connected with one another. There’s something in academic culture which encourages operating and functioning in isolation to other compatible and indeed mutually advantageous partners….The notion of connecting and collaborating with one another is very much absent.

Newman describes the sense of territoriality and politics involved in a current project at UBC and relates it to the BBM situation whereby BBM is dealing with an absence of well-informed leadership that could assist in coordinated fundraising efforts. Newman explains:

Within our faculty we’re trying to set up collaboration on the topic of museum education with another faculty. And the politics involved with this is quite extraordinary. The notion that it’s our turf, or you shouldn’t be doing this, it’s really ours, is very strong. With this cultural background, it promotes isolation. It requires a bigger perspective, and it requires bigger muscle from echelons much higher than the notion of it coming from a faculty. It needs to come from levels of the university which are at the Provost or the President, to try and bring these disparate bodies together.

The themes of competition and territoriality within academia are also obvious in the data on the role of academic fundraising. Here, Newman provides one view:

I suspect that one of the elements which is driving [campus fundraising] is this notion of competition, competition for funding, competition for prestige within the university, competition for recognition. Certainly within Education, I know that we self-perceive the reality that we are somewhat down the bottom of the totem pole in terms of university priorities. And part of it has to do with the fact that, you know, we can’t hope to compete with the kinds of monies that are coming into the faculties of medicine and commerce.
Newman’s astute perspective is supported by the research conducted by Silva and Slaughter (1984). They suggest that in this competitive funding environment co-operative learning and collegiality among faculty are discouraged and replaced by individualism and competition and that these new practices shape academic life research processes are hidden and secrecy exists until research hits the market which is a major change in the traditional, collegial role of academic culture (p. 520).

**Culture of rigour and discipline in applying for grants is a positive aspect**

Paul Bauer, senior consultant to MOA, describes how a change in funding sources influences how disciplines organize themselves in the search for finances. Bauer attributes the expectations of the CFI grant as having a positive influence on the work culture of how academic units prepare and sustain innovative funding blends. Bauer explains:

> I’m a civil engineer, but I’ve also got a BA in Western Civilization Culture, and see no reason why the same level of rigour and discipline that is necessary could not be achieved by arts groups….The CFI Project forces academics to work together in a way that they perhaps haven’t done so before.

**MOA – culture repositioning**

MOA is engaged in entrepreneurial activity, in relationships with funders, and has plans to interact closely with private sponsors for exhibitions. The CFI grant of $17,247,628 awarded to MOA in January 2002 opened up the museum to tremendous change. Structural changes to MOA have re-positioned its culture to be more open to accepting the legitimacy of fundraising as a practice, to the consideration of naming rights for donors, and the arrangement for corporate sponsorships for exhibits. Ames (1992) alludes to the fact that the deeper museums connect with the consumer
marketplace, so exhibitions will become more entertaining and revenue-productive than engaging the visitor in reflexive learning (p.7).

The following quote from Arthur Cassidy, senior manager at MOA, describes the repositioning of MOA’s culture. He explains how the competitive aspect for funding has shaped how the museum expresses its relevance to society generally. Cassidy explains:

I think the competition for funding is very strong…it goes back to the idea that we have to be able to articulate what it is that we do, we have to be shown that we’re relevant and that we have value to society…We’re going through a time right now of change, of mission and direction and I think they [Advisory Board members] can help us to be more relevant to today’s society, help us to be more contemporary…we’re changing…I think there are some areas that are going to take us to new places…Our culture has to change. The museum’s culture has to reach out more…we have to be better at positioning ourselves for grants.

**Cultural repositioning is a response to economic challenge and structural change**

Arthur Cassidy, comments on the major culture shift occurring in response to the structural changes and economic challenges at MOA:

We’ve had to change our culture to fundraise. Over the years we’ve [MOA] been very self-sufficient, have not really sought out large donations, large funding, we don’t have a very large [membership] base, I think that’s changing now with the Director and the Advisory Board…We’ve [MOA] been quite insular, we’ve been doing good work but we don’t really go out and tell people we are. And I think you need to do that to be able to ask them for help for funding.

Cassidy continues to explain that the museum has “crossed the line” and from now on will be more open to private sponsorship:

I think that if somebody wants to come along and give us enough money to change the name of the museum, I think that we would accept that. Because we’ve crossed that line, well, maybe it’s a very broad line, but we’ve crossed it to
say, “we’ll entertain those kinds of things. Before we didn’t want to be obligated and we didn’t have to think about that. The competition for funding is very strong and that goes back to the idea that we have to be able to articulate what it is we do, and we have to show that we’re relevant and that we have value to society.

**New leadership, fundraiser position and advisory board signal cultural shift**

In the case of MOA, the decision to engage a fundraiser and enlist an advisory board is a significant cultural shift in the new life of the museum. Until as late as the late 1990s, strong legacies of suspicion and discomfort had been built up towards external sources of funding because of the possibility of strings attached to sources of external resources. The implementation of MOA’s Advisory Board and the secondment from the UBC Central Development Office of a Fundraising Manager to work on the MOA fundraising requirements are obvious structural changes, but they also reveal changes in the work culture. Many interviewees referred to a “cultural shift” characterized by an enhanced need to be increasingly conscious of: fundraising opportunities; ideas for revenue generation; the need to ensure accountability for government funds; and the need to market new income generating ideas.

Leggott discusses that in his previous work as a museum director in the United Kingdom he had always been involved in raising funds for museums. The following quote raises the interesting point that the open culture of philanthropy which involved naming rights for donors was still an uncomfortable topic at UBC even when Leggott started as MOA Director:

All my life I've raised money and it's never been a big thing. I mean it is part of being social. I don't really notice it. But it's very funny, when I came here… there was one lunch where the head of treasury took me, with their guy who looks after institutional giving here and towards the end of the lunch they said, "Well, so what do you think about getting funding from organizations, if it might require some kind of institutional recognition, through naming?" And I looked at them
said, "Well, fine, why is that an issue?" And apparently it is a big issue here, which I didn't realize.

Leggott also highlights the differences between different national government’s finance policies towards supporting the arts and the type of culture around philanthropy which ensues:

England changed a lot under Mrs. Thatcher and I’m amazed sometimes at Canada because I don't think it's gone through that where arts and cultural institutions were basically told, well, we're cutting your budget and so you have to go after private money and foundations and additional support. And instead of giving us big grant cheques, they [the government] made a lot of it dependent on particular projects and finding additional funding.

As a result of the secondment by the Faculty of Arts of a fundraiser to MOA, the museum has participated in a review exercise to reconsider its cultural mandate and open-up discussion on branding opportunities. Debbie Bergmann, MOA fundraising manager explains the process and uses terms from business management:

We’ve had visioning workshops. We have our external advisory. We’re looking at our marketing for when we reopen in 2010. Everything is being looked at and the workshops were great. We had, I think, over 40 external people coming in and saying, “Well, you know, you’re right, your name doesn’t reflect what you do.” Or, “We don’t see that you’re doing this and your identity is kind of inconsistent.” So, we are looking at that and it’s been accepted that we are looking at it. People are working with external advisory members on an individual basis. A lot of individual staff members are starting to come to me with names of people.

Bergman’s descriptions of the re-branding exercises MOA underwent is an example of how academic culture is being repositioned by the business culture imbedded within the practice of fundraising. As described in Chapter 6, a shift has occurred in the organizational structure of MOA where the original collegial culture has embraced a level of entrepreneurial culture. In the following quote Bergman describes the re-positioning of MOA’s culture.
MOA went through a whole re-branding, a whole re-visioning which fundraising tends to do because it says “Okay, what are we, how do we really work with our constituent groups that we’re dealing with?” So, MOA went through this re-branding to really take a look at what they do, what they needed to do, what were the major contributions to the community and that being conservation and education.

Foster (2006, p. 285) explains that culture figures in the construction of commodities through the design, branding, and marketing process. This fundraising process has become a constant in the consciousness of the MOA staff and faculty with the abstract knowledge that if certain exhibits can secure sponsorship, they would therefore be given a corresponding priority.

**Flexibility and adaptability: different challenges**

Dawn Worthing, Associate Director at MOA describes the changing, dynamic nature of MOA’s organizational culture and stresses that MOA needs to be adaptable, and donor-focused. She explains:

> The funding environment is always changing, you have to be adaptive to the changes….We have to be open to ideas for generating sponsorship…We have to think about naming opportunities… you know what do you offer donors in terms of space and special events for members and donors and all those kinds of things, which we hadn’t had to do before. So the public relation kinds of things…keeping your donors interested and happy with what you are doing.

Cultural changes are not seen as without constraints. Yeoman describes the decreasing flexibility of MOA as an organization:

> We have been a very solvent institution because we’ve had some very insightful financial planning, but now…the scale of the institution and the projects are taxing us in ways that before we had a little more flexibility and maneuverability than we’ll have in the future.
Territoriality built-in to fundraising mechanism

The theme of territoriality is exemplified in the participants’ discussion of “ownership” of fundraising prospects, the description of precincts on campus delineating disciplinary fiefdoms. There is a clear emphasis in the data on the perceived need for academic units to concentrate efforts in income generation and marketing – linking academic units to the new economy, and as Slaughter and Rhoades (1997) claim constituting an academic capitalist knowledge/learning regime.

Leggott, Director at MOA, describes this territorial system very clearly. His views are representative of the majority of interviewees. Leggott points out that external granting agencies, foundations, and prospective donors have already been assessed by the university’s development office as having specific relationships with academic units.

Leggott’s following remarks indicate that the museum as a boundary organization does not fit into this type of funding allotment, as the academic museum offers a different type of “product.” Here Leggott explains:

Potential gift givers, foundations, companies, individuals, potential donors, they are already… equated with specific faculties and you're expected not to cross the line and that's something that the development office does is to kind of ensure people don't cross the line. And it's amazing just how so many of them are with applied sciences. And my own view is that this shouldn't really exist for the museums because we're offering a very different kind of product. It's a very different kind of environment.

BBM’s cultural shift from private research facility to public outreach institution

James Peters, a senior manager at the UBC Properties Trust (UBCPT), describes the similarities of CFI sponsored projects. In particular, Peters connects the funding
changes to an effect on the culture of the museums whereby they now have a public outreach function:

MOA and BBM are CFI funded projects that are using the CFI funds and drawing on additional funding to create a public outreach institution….CFI is consequentially improving the public’s enjoyment of these artifacts. What you’re seeing is two projects that have used CFI funding to strengthen their research mission but it has a collateral effect on public outreach and accessibility to the public.

The following comments from a senior faculty member associated with BBM explains how the source of funding for BBM which comes from the Ross Beaty gift, a private donor source, has changed the way the staff and faculty view the museum; staff and faculty have begun to categorize the BBM as a public experience, as opposed to a research resource. Jacqueline Wilson comments on how the Beaty gift has changed the whole thinking about museums. Wilson expands:

The private donation… changed the way we thought about the museum component, as not being mostly a research resource with a view to some public outreach programs, but actually making it a centerpiece of the public display, of the public experience.

The biggest change is the fact that a small research collection is now a centerpiece for public outreach, transforming the private research of scientists. With the new BBM space, research is brought into a visible public domain, forcing researchers to think about how they can explain their research to the general public.

Erik Karger, a senior scholar in biodiversity research, comments on how the emphasis on the public face of biodiversity research is a novel concept for scientists. Karger explains:
It was an interesting idea to put a public face on biodiversity research here at UBC. And I think it was a good thing. We all justify our research in terms of rather specific research goals, but as a Centre we’d never really identified our goals in such a way that people would come to us basically providing a service to people of British Columbia, Canada, and even the world. And that was a novel concept, and it was really the Beaty family idea that got that going to an even larger extent than we had originally proposed. So Ross was particularly interested in the collections, and in bringing those collections to public view. You know he remembers a time of “Going into a natural history museum and that just grabbing him.” Basically setting a fire in his mind about what he wanted to do.

Witcomb (2003) documents the anxiety widely held within the museology research community that with a public outreach role of museums comes the threat of bland, celebratory narratives (p. 166). One of the major changes to the culture of BBM as a boundary organization is this emphasis on public outreach and fundraising, with an emphasis on developing a business plan for the museum. The transition from a researcher-based museum into a public institution will bring many challenges. The sticking point here is that this territory of a public institute using a business plan is largely foreign to academics. Christopher Wright, senior director at BBM describes the new challenges at BBM in two major perspectives:

I can see two things. There’s the fundraising aspect…you have to be an entrepreneur. I mean you have to not only worry about making the innovation, but also everything behind it. There’s also the other aspect of a changing role, which is not the administrative side of it, but the outreach side of it.

The challenges BBM will face are highlighted by Douglas Newman. Newman suggests that BBM will need to put more thought into how to be a museum rather than a research collection and that BBM staff therefore need to focus on the notion of understanding the needs of the museum visitor. Newman explains:

The challenge BBM will face is that because they are making this transition from a researcher-based museum to a public museum they need to put a lot more effort into conceptualizing the notion of public visitor. Because up until now the visitor
has been the scientist, and the scientist as visitor and the public as visitor in all the incantations from school groups to seniors…they all have different kinds of needs, agendas, and expectations.

For the scientists at BBM, the major culture change has been that they are now required to be cognizant of how their research can be displayed and made accessible to the public. The organizational culture of both academic museums is in a process of great transformation, bringing with it substantive changes to the images of these institutions, the need for research to be relevant, innovative, and creative, thereby changing these units from being insular research hubs towards marketing their research niche and engaging directly in financial partnerships from the market.

Major findings particular to changes in the academic culture at BBM include: an increased accountability to the new public outreach function of the museum, and tensions evident in targeted funding practices at the expense of curiosity-driven science.

**The repositioning of academic culture affects individual staff and the professoriate**

MOA’s culture has shifted in terms of how the staff and professoriate organize their work assignments. Cassidy points to a more institutional and directed level of thinking where staff are clearly informed of their respective duties and responsibilities and held accountable for them. As described in Chapter 6, MOA’s structure, which used to be described as an “organic” way of distributing the workload and responsibilities, has become more strategic with a hierarchical model of work distribution. Cassidy explains:

I think we will be looking more strategically at what kinds of exhibits we do, when we do them, the idea that we’re going to need to bring more people in to support all of this…and there’s a more institutional level of thinking applied that
may mean that people get told what to do, which has not been our culture up until now, so it is changing.

For Dawn Worthing, Associate Director at MOA, the practice of creating “naming opportunities” to honour donors is one example of how MOA is adapting to changes in its organizational culture. MOA has never had to consider these issues before the CFI grant fueled these structural changes, which have repositioned the boundary organization’s culture. Worthing explains:

The talk of naming opportunities…how much it costs to name a building, a room, or a gallery, these kinds of issues we’ve never really had to consider before, because we’ve never needed to.

Karen Buergin, former MOA manager, describes how prior to the CFI grant, all interactions between MOA professionals and non-MOA professionals were about art, research, and creativity, whereas now these relationships with non-MOA staff are changing. Buergin explains:

All the interactions between MOA and the outside world prior were with cultural people. MOA would deal with the First Nations people, MOA would deal with artists who made the works…that was the direction, the interaction was never with money people. But that is absolutely changing, and I think it will be interesting to see over the next 5-10 years how dramatically that will change the perspective of people working there.

Discussion

Despite a trend towards building a strong donor source, MOA and BBM will still face difficulties attracting outside funding for certain core activities, forcing them to develop, and manage their internal resources including commercial income. This, in turn, will continue to affect the culture of the academic unit. Staff will require some form of business training, which will bring these academic units from “scholarly” to managerial
organizations. The advisory boards will continue to be composed of well-connected individuals who helped identify and cultivate potential donors.

Faculty-based fundraising operations are viewed by participants as being competitive, innovative, and territorial. Examples of competitive actions include instances or fear of “queue jumping” when approaching prospective donors. Innovative actions include playing on a unit’s strengths to appear more appealing to donors, and territorial actions include certain academic departments claiming ownership over potential donors. Culture clashes emerge as a consequence, emphasizing the differences between the academic needs and the business needs of the university.

The research in this chapter on the repositioning of academic culture supports Slaughter and Rhoades’ argument (2004) that academic culture is shaped in accordance with the principles and priorities of the market. Academic fundraising has had a major impact on employee and faculty relationships creating a ‘bilingualism’ or ‘academic subculture’ where fundraising that was once primarily the province of central development officers, has now been extended into the academic heartland, academic colleges, and in some cases, departments (p. 193). The challenge for these academic museums is to keep pushing their research needs and funding requirements in front of the academic executive in order to balance the tilt towards potentially profitable research areas. The financial centre of gravity of leading research universities needs to balance the needs of pure research in the arts and sciences with the inevitable pursuit of commercial partnerships and highly sought after income from patents.
The decrease in the available public funding of university research, especially museum research, has provided powerful inducements for academic units to look for competitive, innovative, and increasingly territorial methods of securing additional funding. Financial support from targeted government research funds reveals how the applied science disciplines have research-based technologies, which fosters close collaboration with industry. For other disciplines in the social sciences, a new emphasis is on securing funding through income generation, searching for donor partnerships, and approaching private donors for sponsorships. In the Conclusion, I discuss the implications of the research findings, and review applications thereof to higher education research projects, as well as consider future research challenges to the research presented here.
CHAPTER 8

CONCLUSION

The study of the renewal process at The University of British Columbia’s Museum of Anthropology (MOA) and the creation of the new Beaty Biodiversity Museum (BBM) captures significant features of academic capitalism theory and serves to identify some challenges that fundraising poses within the higher education arena. The research findings suggest that at the time of the data collection, the characteristics of academic capitalism were not evident at the MOA and BBM in the same way or to the same extent as is described in the literature. Rather, the study showed that academic museums that also serve as research centres are subject to the politics of both public and private research funding. Philanthropy, leveraged by significant public investments in the form of research grants gains importance as part of the university’s funding mosaic.

This study contributes to the higher education literature by addressing the inherent stresses involved in searching for external funding sources in an increasingly competitive funding climate. Two academic museums in my home institution have experienced significant infrastructural changes as the result of a funding mosaic that has combined financing by the Canada Foundation for Innovation (CFI) grant and philanthropic partnerships with future plans for funding from industrial partnerships. The academic museums are architecturally stunning, with beautiful display cases and dazzling collections. From the outside looking in, the future of these museums looks clear and secure.
However, as a result of this study I am acutely aware of the original states and conditions of the artifacts and research space at MOA and the BBM collection, and the difficulties encountered by the staff and faculty to achieve their present day successes. Having researched both academic units I appreciate the significant changes that have occurred in areas of funding, organizational structure and academic culture. The CFI grants stipulated that funding must be matched by the provincial government, industry and donors. As a consequence, MOA and BBM will be dependent on lucrative sponsorships, and intimate donor relationships, both of which put the museums in vulnerable positions. Ten years after the CFI grant was awarded to MOA, UBC’s fundraising efforts for the renewal project have not been entirely successful. The following statement indicates there is still more fundraising required by MOA to fulfill its commitments to the CFI project: “Approximately $5 million remains to be funded through public sector donations to ensure the project’s overall success” (http://www.moa.ubc.ca/renewal/overview.php, retrieved April 12th, 2010).

Summary of aims and purpose of the study

The original idea behind the study was to examine what impact external resources such as private industry support and individual philanthropic gifts had on the funding of research. In order to begin to address the answers to this very large question I had to consider the university funding landscape, determine what inherent tensions existed in the funding mix and explore emerging funding innovations.

An important driver of the research effort was my desire to explore the theory of academic capitalism to see if the descriptions and explanations provided by Slaughter and
Leslie (1997) and Slaughter and Rhoades (2004) applied to the context of academic museums. Descriptions of increased market-like behaviours and changes to the academic values in the literature intrigued me and I wanted to find out if and whether these were commensurate with changes occurring at UBC. In their descriptions of academic capitalism theory, Slaughter and Leslie (1997) and Slaughter and Rhoades (2004) make convincing arguments as to how market conditions have permeated boundary organizations in the academic environment. As I looked around the university I was struck by the visible changes to the university’s infrastructure and wondered how the process of matching funds from industry and private doors worked in the context of a university museum.

**Academic museums**

This study focused on museums as embedded academic units within the university. These academic units are becoming entrepreneurial agents searching for competing resources (Alexander, 1996; Janes & Conaty, 2005; Kirschenblatt-Gimblett, 1998; Weil, 1995, 2002; Witcomb, 2003). MOA and BBM appear pulled between the needs of “the muse” – the creative, educational research force and “commerce” - the financial emphasis to secure private revenue. Contradictory forces affect the work of professors and administrators who must make their research and outreach work accountable to government funding requirements. The study has shown that these have occurred as the units made changes in resource allocation, and strategic planning, incorporating a fundraising consciousness intended to build upon their existing strengths.
Theoretical framework

As stated in the second and third chapters, I used three theoretical lenses to understand the funding profile, changes to organizational structure and the repositioning of culture at MOA and BBM: (i) academic capitalism theory; (ii) theories of academic culture; and (iv) critical museology. This dissertation furthers the research of core theorists on entrepreneurial behaviour in the academy and academic capitalism theory (Clark, 1998, 2004a, 2004b, Marginson and Considine, 2000, Slaughter and Leslie, 1997, and Slaughter and Rhoades, 2004) to account for the increasingly important role of fundraising as seen in Canadian academic units.

The movement towards becoming entrepreneurial academic units can be identified at the MOA and the BBM by their emphasis on fundraising, marketing, and their advisory board networks. These boundary organizations are both spanning and blurring the original boundaries between public and private sectors. New circuits of knowledge that connect faculty and staff with the new economy have emerged. The findings suggest that MOA and BBM are gradually moving towards what Slaughter and Rhoades (2004) call an academic capitalist knowledge regime, which has led to the creation of hybridized alliances in the form of new funding mosaics, management styles that promote efficiency and a culture that is extremely conscious of seeking donor support. MOA and BBM are actively seeking what Clark (1998) refers to as a portfolio of income sources in a market environment that promotes what Marginson (1997) calls institutional entrepreneurship.
Witcomb’s (2003) research is most valuable in viewing the extreme end of the process of how academic capitalism affects cultural boundary organizations. She claims that governments desire to make culture an integral part of the economy (2003, p. 27), and argues that public relations have taken the place of education. Museum visitors are considered consumers and their experience is viewed in terms of recreation and amusement (2003, p. 27). I would agree that university museums do have a major role to play in Canadian discourses on identity and social well-being, but I did not find in my research that BBM and MOA are to any great extent part of “a global flow of tourists, goods, and ideas” (Witcomb, 2003, p. 28). However, this dissertation sets a benchmark from which to measure in the future how far the university museum is affected by consumerist influences. The hope is that MOA and BBM do not become museums that are used as cheaply available marketing tools for multinational corporations as described by Jenkinson (1992).

The study findings do not support what Hein (2006) explains as museums becoming part of the overall ‘learning industry’, however, the data does support Jones and Conaty’s (2005) call for the changing culture and identity of museums to focus on the appropriate balance between public funding and earned revenues. The deep concern raised by these museum theorists and by my research participants is that when research in academic museums is commodified, new practices begin to shape academic life. My research pushes Willumson’s (2000) inquiry further to suggest that the adoption of strategic fundraising models and marketing expertise places the museum in direct competition with other academic units on campus, and that a direct consequence is the restructuring of museums in reaction to these forces.
My research refutes Amaral et al.’s (2002) discovery that university decision-making around fundraising is made almost entirely without academic consultation and influence. Despite instances where my interviewees refer to grant making decisions being made by the government for purposes of making jobs as opposed to being made to support curiosity-driven science, I found that the academic executives and fundraisers whom I interviewed had a very clear understanding of the importance of working with academic consultation. There is room to improve the university’s capacity to accept fundraising challenges, particularly when raising the matching funds is likely to be difficult.

In addition, Amaral et al., (2002) take the view that the resultant hybridization of funding and organizational models from the application of market logic to publicly subsidized academic institutions leaves room for incongruity and paradox, whereas I view this as providing opportunities to apply new ways of finding much needed funding sources and management techniques which may provide workable solutions to these new challenges. There is much that boundary organizations can learn from business models and fundraising models. Hybridization of funding models and organizational structures are occurring whereby distinctively academic components are combined with business-like components.

Becher and Trowler’s (2001) work on academic culture makes the association of academic cultures as “tribes” and disciplinary knowledge as “territories.” My research contributes to this discussion of academic culture as my findings revealed that shifts in the funding mosaic towards partnerships with the private sector have greatly repositioned the culture of two academic museums.
**Discussion of themes**

At the center of this analysis is the major finding that there was not as much explicit marketization or commercialization at MOA and BBM as is commonly believed and explored in the contemporary higher education literature. O’Doherty (1972) wrote forty years ago about the predicted future of museums as being treated like entities in a conglomerate, moreover with a different sponsor for each exhibition making the museum subject to a variety of backers, each feeling entitled to have its interests acknowledged. This predicted future has not occurred at MOA and BBM. What I have learned is that at the exact time I collected the research data, a critical turning point for the structure and culture of both academic museums had been reached. I have studied boundary organizations in a process of clear transition.

The overall themes that have emerged from the research are the intensified competition for funding sources, the pressure for academic units to be innovative in generating their own income, and an increased sense of territoriality within and between academic units over funding sources. Approaches towards gaining access to external funding and donors are more strategy-driven, taking place within a framework of competing priorities of the university and I also found that the success in securing these grants is highly dependent on the leadership and networking skills of the director of the academic unit.

Although there are obvious differences between the two academic museums, such as the dissimilarities in their respective intellectual approaches to museology, the themes of competition, innovation, and territoriality that emerged reveal many similarities. Both museums have reorganized their structures and management styles to reposition their
culture, created new knowledge networks such as advisory boards, and have recruitment and hired of fundraising professionals and marketing experts. MOA and BBM have had to develop commercial and entrepreneurial activities such as museum shops, cafés, and rentals to support the financial operations of the museums.

Participants from both MOA and BBM pointed to many similarities in their organizations. The respondents shared the widespread view that government funds were targeted towards specific research outcomes and potentially commercializable research that interfered with their everyday research work. Many interviewees pointed out the constricting influences of resource dependency on donors, and described the very real fears of abandonment that many participants felt during the prolonged delay created by the university’s inability to solidify the matching grant as stipulated by the CFI mandate. They discussed the intrinsic territoriality within academia, and the lack of leadership to coordinate fundraising efforts across the two museums.

In the case of the BBM, the Blue Whale Project became the showcase campaign fundraiser to bring a much needed advertisement and a new look to an old scientific collection. The Blue Whale Project has been a successful fundraising mechanism to draw attention to the new museum. For MOA, continuous efforts are undertaken to increase memberships, facility rentals and other ways to bring the market into the facility. Both the MOA and BBM continue to struggle to reduce the limiting consequences of dependence on private donor funding. These are serious concerns for the future of these two academic museums.
The funding profile

In Chapter 5 I showed that the funding mix at MOA and BBM is made up of government research grants, private philanthropy and is open to sponsorships from industry. This is an extension of the academic capitalist knowledge/learning regime, (Slaughter & Rhoades, 2004), which sees the economy rather than the polity as central to the well-being of the citizenry. This approach affects “the kinds of students, types of education, and types of research that we fund” (Slaughter & Rhoades, 2004, p.37).

I described the funding profile by sketching out in broad strokes the funding landscape of UBC, describing the financial history of the individual academic units of MOA and BBM with finer detail, and representing the reflections of individual members of the professoriate and the reactions of staff to the changes in the funding mix. Many participants felt that decisions on funding were not scientifically informed as shown by the university’s reliance on tied, targeted and matching research grants from government and industry. Rather several participants felt that funding decisions were politically influenced, and that the kind of research conducted in museums was not easily transferable into finding an industry partner. There are no measurable deliverables and no patentable products in museum research, however, it is important to stress that what is being created in this academic forum constitute essential foundations for future research. Tightly controlled government grants with political strings were described by the majority of my participants as limiting the kind of research they do.

One specific aspect of the funding for academic museums at UBC is that they are sheltered from severe funding shortages by the general operating grants of the university: to a certain extent this protects them from the vagaries of the market. For example, the
museums do not pay for independent development officers and they do not have to pay for their own maintenance staff. They rely on the faculties with which they are connected. Overall, a favourable level of financial protection for MOA and BBM exists.

The majority of my participants highlighted that dependency on resources from industry and private donors was a significant concern. As the museums have become more aligned with the characteristics that make up an academic capitalist approach, they compete for research grants, create innovative funding partnerships such as the support of open sponsorships for galleries and exhibitions. These signify a tremendous change from previous established practice.

**Organizational structure**

In Chapter 6 I demonstrated that as a result of shifts in the funding profile, UBC’s organizational structure has moved towards a more entrepreneurial model and away from a traditional collegial model. Formalized management structures, advisory boards within faculties, and the hiring of fundraisers and external consultants characterize current academic units. MOA and BBM have adopted more hierarchical lines of reporting at the same time as a new knowledge network has emerged, together with an alliance of advisory boards, marketing specialists, managers, and information technology experts.

As the university’s management style and organizational structures become more aligned with the characteristics that make up the academic capitalist approach, the collegial structures are not being replaced, but rather innovative approaches are being taken to accommodate change. “New managerialism” (Deem, 1998) which tries to impose for-profit organizational structures onto public institutions brings a business ethos
and exposes the university and faculties to competition for grants and requests for proposals.

The major organizational change for MOA during the period of this study was the movement from a flat “integrated-overlap” system to a complex hierarchical structure. The “integrated-overlap” system was designed to create an organizational structure that maximized flexibility and equality of relations among the needs of staff from 1976-1980. In the early 1990s, the organizational structure changed to the more mechanistic model emphasizing job specialization, centralized authority and accountability. In 2005/2006 a comprehensive organizational restructuring occurred whereby the decision-making planning system was greatly changed. MOA adopted a management strategy that formalized policies and procedures and terms of reference for departments, committees, organizational charts and strategic planning goals. The secondment of a professional fundraiser from the Faculty of Arts was described by the majority of participants as a groundbreaking change for the museum. Another major adjustment to the organizational structure was the continued emphasis on MOA to generate its own income. Many participants stated that this new emphasis affected the hiring practices as new directors were hired specifically for their experience as fundraisers.

The organizational structure for BBM is new, and therefore historical change is not an analytic consideration. The Museum Director position works closely with the fundraiser from the Faculty of Science and BBM’s Advisory Board. However, there have been major shifts in the work responsibilities of staff and faculty newly associated with the BBM, as the vision for the collection is for public outreach as opposed to purely private scientific study.
The organizational structures of both MOA and BBM currently feature management teams, advisory boards, professional marketing expertise, income generating mechanisms, and formalized fundraising operations. Study participants together with ample documentary evidence indicate that MOA and BBM are boundary organizations with hybridized structures that retain some older collegial practices and values and blend these with new organizational and management practices. With this shift comes the need for a more formal hierarchical reporting structure at the same time as new knowledge networks facilitating the funding needs of professors and staff. In order to access external funding sources, MOA and BBM have had to adapt to new organizational structures and systems. Their success in doing so comes from not isolating themselves from the changes to the external financial and political influences, but precisely from being accountable and responsive to changes that will continue to challenge their futures.

**Academic culture**

Academic culture has been defined as the attitudes, knowledge claims, values, beliefs, goals and practices that are shared by an academic group (Dill, 1982). Much of the literature on entrepreneurial culture and higher education (Axelrod, 1998, 2002; Becher & Trowler, 2001; Buchbinder, 1993; Buchbinder & Newson, 1990; Chan & Fisher, 2008; Polster, 1998; and Shanahan, 2008) feature the arguments that as market principles replace educational values, private interest replaces the public interest, and that academic culture is shaped in accordance with the principles and priorities of the market. There is no doubt that the funding mix has had a transformative impact on the traditional disciplinary culture of academic units.
One factor affecting academic culture is how academics and administrators think about research. Through the CFI grant, both MOA and BBM are being encouraged by the university to seek and forge partnerships with private industry, to compete for grants and to find innovative methods that will yield lucrative funding options. This process adds an increased sense of territoriality around donors and research that many participants argued is already endemic to academia. Business management terminology and entrepreneurial practices are used and encouraged thus presenting a clash of cultures between the university management staff and the professoriate.

This ‘culture clash’ between the business policies and operations of the university and the academic process is observable when the business ethic of the university seems to be given priority over traditional academic values emphasizing teaching and learning. A distinct sales language with marketing terminology has entered the lexicon and is affecting academic culture. The university’s business strategy is to play on its strengths to stay competitive, and this has a direct impact on which funding needs are given priority.

Another interesting finding is that there is an element of ‘culture swap’ occurring within the two academic units. BBM has moved from its roots as a research collection for the scientist into a donor-driven public outreach museum. This shift requires a completely new redefinition of their mission and their goals. The culture with which it has long been associated has been reassembled and an arts-based museum model encouraged. At the same time an analogous ‘culture swap’ is occurring at MOA whereby it is being encouraged to operate along the lines of science research institute, seeking grants previously considered the domain of the applied sciences.
Despite the different disciplinary traditions and cultures at MOA and BBM, there was a definite commonality of purpose expressed by the majority of participants. Many interviewees expressed the fact that pure science is a lot like pure art: they are both curiosity-driven. One participant in particular articulated that “although pure science is an exploration of a different part of the world, not of the human condition, that science is an expression of culture and of learning and of knowledge.”

Participants referred to the impact which fundraising has had on their culture in the following manner: “there is no turning back”, “this is un-chartered territory”, “we’ve crossed the line”, and “there has been a paradigm shift.” Participants described a fundamental repositioning of how academic units shared beliefs, knowledge claims, values and goals. New values include those from the fundraising culture: development has become integrated into UBC’s institutional ethos. Many participants observed that the university was moving away from a feeling of resistance and even resentment about the fundraising profession and towards an understanding that securing external private financial support is necessary for continued operations.

Academic culture traditionally has resided in a structure of fiefdoms with the deans presiding over what today are diminishing resources. Academic units in the contemporary context compete amongst each other and with other universities for academic prestige, top global rankings, star researchers and capable donors. Gerwitz et al. (1995) explain this ‘hybridity’ in academic culture as a kind of ‘bi-lingualism’ whereby two or more sets of values and cultures exist side by side: the fundraiser and business manager working alongside the researcher and professor.
Silva and Slaughter (1984) refer to the fact that in this competitive funding environment, cooperative learning and collegiality among faculty are discouraged and replaced by individualism, which now characterizes academic life. The majority of my participants explained that strong communication networks did not exist between the museums on campus. Participants agreed that this lack of communication is inherent to the way academic culture works. However, both MOA and BBM experienced positive cultural change as the application process in applying for the CFI grant involved a level of discipline and rigour that forced academics to work together in ways that they perhaps had not done often before.

**Significance of findings**

The study is the first of its kind to bridge the work of academic capitalism theory with those of museum scholars to examine academic museums. The interconnection of government and university policy with regard to the financing of academic museums needs further study and attention by scholars, fundraising practitioners and policy-makers alike.

The significance of my doctoral work can be described on several levels. As the literature explains, much university organizational and cultural change within the university is undoubtedly attributable to changes in funding patterns and leadership. This is hardly a novel phenomenon. My research shows that the fundraising operation within UBC has become a necessity and has contributed to change within two focal academic boundary organizations.
The comparison of two academic museums in very different developmental stages is valuable for scholars of higher education theory, museum scholars, and academic managers seeking to comprehend and to understand the processes of challenge and change driven by the continual search for new funding sources that are slowly transforming our universities and academic museums. This work will assist higher education scholars to ascertain the impact that major funding changes have on an organization’s structure and culture. Valuable lessons have been learned by MOA and BBM as boundary organizations through their work with the development officers - such as how to streamline their mandates and factor in the donor as a consumer in their research. In the case of MOA, it is moving forward as an internationally renowned world arts and culture museum with a financial future dependent on sponsorships and relationships with wealthy donors. In the case of BBM, this donor-driven academic unit has transformed a former scientific resource base into a new player in the academic museum world. This work will serve as a useful benchmark to monitor its future as an academic and educational outreach unit.

**Strengths and limitations of the study**

Several major strengths distinguish this work. Firstly, it provides a temporal view perspective from 1998 to the present. Secondly, while previous work has focused on the funding profile of the sciences alone, and the arts and humanities alone, this study includes an analysis of the funding profile, organizational structure and academic cultural changes to both an academic unit in the sciences and one in the arts, and is the first to include an analysis of academic museums. Given that Directors, senior academic executives, government bureaucrats, professors and fundraising professionals were
interviewed, the study also encompasses multiple viewpoints giving greater variety in the types of respondents used in the data collection.

Confusion in terminology when classifying codes and themes became a limitation to the study. The confusion stemmed from the fact that the primary data collection sources were the individual interviews with people, whereas the case study sites were in fact the organizational units of the two academic museums. Yin refers to this as a common confusion (2003, p. 75-76) and Ragin (1991, p. 8) alerts the researcher to a note of caution not to confuse the data categories and theoretical categories as both units of analysis. In order to address this limitation, in my findings chapters I was able to separate the experiences of individuals and the changes to the academic units in the following way. First, I addressed the physical changes and impact of policy changes to the university as a whole, secondly the academic units specifically, and thirdly the experiences of individual academics and staff.

Another limitation to the study is the inevitability of the idiosyncratic biases of the researcher. The case study according to Yin (2003) is affected by bias that is “more frequently encountered and less frequently overcome” (p. 18). I was able to remain as objective as possible and where any bias was sensed I kept close notes about how and what may be attributing to this. The inherent limits of an embedded case study include “the use of diverse sources of evidence leads to challenges to construct validity and reliability” (Yin, 2003, p. 83). Although these are viewed in one respect as merits to the embedded case study approach, there can be functional limitations of the varied sources of case study research data. I did not encounter any difficulty with too many data sources as I viewed the many results of such a project as valuable in practice. However, staying
organized with the many sources was hard work. The recommendations of Kaarbo and Beasely (1999), Yin (2003) and Creswell (2003) provide an amalgam of various tools to address these limitations and strengthen the merits of the embedded case study.

What is beyond the scope of this study, but of no lesser value is the question of how much shrinkage in the public voice or access to public space occurs when exhibits and research conducted by academic museums is sponsored by government and private donors whose aims may not be in the public interest or which may conflict with the larger purpose of the university.

Implications for institutional policy and practice

My study confirmed that within the university there is a poor understanding by academics and the public of the need for philanthropic support of our universities. As there is such little research in Canada on university fundraising, this study is a worthy contribution to the understanding of philanthropy in the Canadian higher education context. The findings imply that in the 21st century, funding for universities will come from a complex system of endowments, tuition payments, government operating and special purpose grants, public-private partnerships, sponsorships and operational income. This multiplicity of funding sources may aim to favour certain types of research activities over others. Therefore, this research will be useful for administrators and the professoriate in universities with similar organizational and funding structures to prepare for innovative funding proposals, accountability to public and private funding partners and to be open to previously unrealized sponsorships.
Other implications for institutional policy focus on the university’s increased business orientation and fundraising policy that will inevitably involve an understanding of academic ethics. Owran (2004) studied the codes of ethics for both fundraisers and researchers and found that these codes were understandably focused more on the protection of the donor and research participant respectively as opposed to the core values of the university. Ethical protocols will need to include transparency to ensure that when corporations donate to an academic unit that their gift is linked to the values of the academic unit. Research on the current state of ethical protocols used by university fundraisers is warranted, with subsequent policy development if necessary.

Vital decisions by the university executive administration will increasingly be made in view of economic viability rather than based on artistic merit fostering an academic capitalist knowledge/learning regime. Museums may change their core services to make them more attractive to a broader range of funders and this finding can be applied in practice to other boundary organizations within higher education institutions such as botanical gardens, theatres, and art galleries. The multifarious relationships maintained by the market, state, and higher education with one another will mean that innovative university fundraising policies will inevitably emerge. One predictable consequence is the growing risk that these units will become territorial and competitive over their external funds, but that an understanding of the findings will assist in measuring the extent of such developments.

This shows that in general academics have a limited understanding of what fundraising officers do, and in particular were confused by the fact that certain prospective donors could be marked as “owned” by certain faculties. This meant that
other faculties could not approach donors who had already had a funding relationship with an academic unit. As a result of this lack of knowledge and territoriality among different types of higher education workers, it would be instrumental for the university to communicate how academic fundraising can be a supportive tool for academic units. One possible outcome of this research is that it will push future dialogue and research in the direction of how we can indicate that involvement from both fundraisers and academics can enhance the debate regarding the research and public communities of academic museums. There is an educational vacuum and therefore constitutes a great opportunity for development staff to educate the professoriate in ways of university “advancement” - the catch-all term encapsulating all aspects of fundraising from campaign planning, communications and marketing to alumni relations.

Future research directions

The study indicates that more research will be required to measure future changes in what is an extremely fluid and dynamic set of developments. Future research directions could usefully focus on two key areas. The first area is a defined attention to research that involves an accurate measurement, analysis, and mapping of commercialization trends, market-oriented changes and fundraising capacity in boundary organizations at Canadian universities. Further research would be needed to discover whether academic fundraising in academic museums is a general trend in Canadian universities, and whether the forces behind commercialization are similar or identical over time and what forms they might take. Weisbrod’s (1998) prediction that increased fiscal pressures will lead to new forms of commercial activities and new organizational forms that blur the distinctions between for-profit and non-profit organizations will need
to be further tested for its relevance and applicability, particularly in the Canadian context.

Future research could also focus on how efforts to create an Arts and Culture precinct at UBC unfold. A fascinating study would be to map the future plans for a new Asian Wing at MOA and the efforts made by UBC fundraisers to approach donors from various cultural communities in Vancouver. Tied to this research would be an analysis of how specific growth in sponsorships may impact the individual research of the professoriate and whether it is able to sustain independent, autonomous research.

Future work along these lines would certainly raise questions about how fundraising is tied to the political agenda of the day. How can fundraisers ensure that policies affecting the university are not perceived as politically self-serving? How can they minimize the potential for bias and conflicts of interest in dealings with advisory committees?

The second key research area is aimed at educating, involving and engaging the various partners in university research, including the teaching staff, administrators and donors. An acknowledgement of changes to the funding profile, organizational structure and culture can minimize inevitable conflicts between business and academic dimensions of the university and create complementary and mutually reinforcing relations between donors, university executive and academics. A valuable study would be to interview academic fundraisers working in many different faculties to see how varied their working culture is within one profession and then to contrast that with the work culture of academics. The findings of such a study, coupled with the present one would be highly
useful for universities to ascertain appropriate ways to educate staff, the professoriate, academic executives, and fundraising professionals about funding options and the influence of the changing funding mosaic on organizational structure and academic culture.
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APPENDICES

Appendix I

Information letter

Printed on official Department of Educational Studies letterhead  p. 1 of 2

Letter of Initial Contact  Date: December 9th, 2008

Dear: Participant,

My name is Suzanne Scott and I am a Ph.D. candidate at the University of British Columbia in the Faculty of Education in the Educational Studies Department. Under the supervision of Dr. Amy Scott Metcalfe and Dr. Donald Fisher, I will be initiating a research project on the funding of academic museums. This project aims to use the information that is discussed in interviews and document analysis to inform higher education scholarship on how funding sources from the academy, government, industry and private philanthropy influences the organizational structure and behaviour of academic museums.

My project is entitled: Funding the Muse: A comparison of the resource mix at the University of British Columbia’s Museum of Anthropology and Beaty Biodiversity Museum.

As the title suggests, I am interested in the funding mix in academic museums. The research goal is to examine the funding process at two different academic museums with different academic disciplinary cultures. The research study aims to: (i) compare the funding sources of two academic museums representing different disciplinary cultures; (ii) investigate the implications of combining public and non public funding; (iii) delineate the politics behind funding decisions by examining the structural politics of research funding, as well as; (iv) question the future of boundary organizations within higher education institutions. Because you are in a position of involvement in the funding of the academic museum, I am interested in hearing about your relationship to the funding process.

This study involves participating in a one hour structured interview. In addition, I would like to attend any meetings your department may have on the funding of the museum projects in order to observe the process. The observations will not be audio-taped.

The purpose of this letter is to introduce my research and to obtain your permission to audio record the interviews. I will contact you within a week of receiving this letter in order to arrange an interview meeting time that is convenient for you. In addition, this letter is to obtain your permission to use the research data in any future journal article or other publication.
In order to give you control over the data arising from these interviews, I will return transcripts of your individual interviews to you so that you have the opportunity to review and edit them. Audio recordings of the interviews and the transcriptions are stored and kept locked in a filing cabinet in my office in the Department of Educational Studies at UBC.

Please understand that your participation in this research project is voluntary and that you may withdraw at any time. Confidentiality is ensured as the names of the participants will not be identified when the results are reported.

If you have any concerns about your treatment or rights as a research subject, you may telephone the Research Subject Information Line in the UBC Office of Research Services at the University of British Columbia, at 604-822-8598. If you require more information about my research area you may also contact my doctoral supervisor, Dr. Amy Scott Metcalfe at 604. 822.5331 or via e-mail amy.metcalfe@ubc.ca

If you give me permission to carry out this project with your involvement, please sign the consent form on the following page. A copy of this letter of initial contact will be copied for you for your files.

Kind thanks,

Suzanne Scott, Ph.D. Candidate
Educational Studies
Faculty of Education, UBC
Appendix II

Letter of consent

Printed on official Department of Educational Studies letterhead

Informed Consent Form

I understand that my participation in the study entitled “Funding the Muse: A comparison of the resource mix at UBC’s Museum of Anthropology and the Beaty Biodiversity Museum” is entirely voluntary. I have read the letter of initial contact and the informed consent form. I understand that the time required for the interview is one hour. I understand that this consent permits the researcher to use the information in the interview and to use this data in her research study and in future journal articles or other publications. I may refuse to participate or withdraw from the study at any time without jeopardy of standing in the community. I also understand that I will have the opportunity to read through the transcripts of my interview and I will be able to add or delete from the transcript. I have a copy of the initial contact letter and a copy of the informed consent form for my own records and I understand what is asked of participants in this study. I understand that if I have any further questions I can contact Suzanne’s doctoral supervisor, Dr. Amy Scott Metcalfe at 604.822.5331 or via e-mail amy.metalfe@ubc.ca

I CONSENT to participate in this study.

Signature________________________________  Date: ____________________

I CONSENT to having the interview audio-tape recorded.

Signature_________________________________  Date: ___________________
Appendix III

Interview questions

Section A. Funding patterns – academic capitalism theory

• What is the funding pattern of MoA and BBM over the last fifteen years? (1993-2008)

• Can you describe the major changes in the funding structure over the past five years?

• What does the current funding environment look like in which MoA and BBM operate?

• What is the general breakdown in terms of financing from the federal government, provincial government, private industry sponsorship and individual philanthropy?

• Where does the museum look for private industry support, external revenue, to enhance the CFI grant mandate?

Section B. Organizational change – resource dependency theory

• From what organizational context did the decision to apply for the CFI grant emerge?

• Can you describe the museum’s mandate, mission and organizational structure?

Section C. Boundary organizations

• What efforts is the museum undertaking to adapt to the funding mix and organizational changes?

• How is the museum responding to the challenges, opportunities, and problems related to funding mix and organizational changes?
Section D. Academic disciplinary culture

* What factors are evident in different disciplinary access to external, non-public funding?

* How are museums from different academic disciplines funded?

Section E. Fundraising practices

* Can you describe effect of private industry sponsorships and individual philanthropy on how the museum operates?

* How is the formal discipline of fundraising changing the structure and/or behaviour of the academic museum?

* To what extent does the practice of philanthropy affect the mission and mandate of MoA and BBM?

* What is the nature of the relationship between the Development Office and MoA and BBM?
Appendix IV

Participant pseudonyms and job titles

Beaty Biodiversity Museum
Dr. Christopher Wright
Director – Beaty Biodiversity Museum
CRC Chair

Wendy Price
Outreach and Exhibits Manager

Dr. Jaqueline Wilson
Associate Professor Botany

Dr. Liza Jakobsen
Professor of Zoology
Director – Biodiversity Research Centre

Dr. Louis Seaborn
Professor Zoology
Principal Writer for CFI Grant

Dr. Erik Karger
Professor of Zoology
CRC Chair

Dr. Kevin Brown
Professor Emeritus
Botany

Tina Marcus
Lecturer, Curator
Zoology

Museum of Anthropology
Dr. Martin Leggott
Director

Monica Birch
Assistant Director, Financial Resources

Dawn Worthing
Associate Director
Coordinator of Team Leads for Renewal Project
Leslie Yeoman  
Curator of Education and Public Programs

Dr. Diane Muller  
Associate Professor  
Curator Public Archaeology  
Project Lead for the Reciprocal Research Network

Bridgit Huber  
Conservator, Session Instructor  
Project Lead for the Collections Research Enhancement Project

Arthur Cassidy  
Manager Design/Exhibits  
Building Lead for the Renewal Project

Dr. Patricia Johnstone  
Former MOA Director  
Canada Research Chair in Modern Culture  
Carleton University School for Studies in Art & Culture: Art History

Dr. Karin Buergin  
Assistant Principal, Strategic Development & Communication  
College for Interdisciplinary Studies  
Former writer for MOA CFI grant

Earl Sprott  
Curator Pacific Northwest

**UBC Development Office**  
Anthony McKellar  
Executive Director Advancement Services  
UBC Development Office

Patrick Williams  
Major Gifts Officer, Campus Based Fundraising  
Faculty of Arts

Debbie Bergman  
Manager Development, MOA Renewal Project  
Campus Based Fundraising

Georgina Tsitos  
Major Gifts Officer, Faculty of Science
Johann Richter  
Director of Development  
Faculty of Forestry  

**UBC Senior Administration**  
Lawrence Woodland  
AVP Finance  

Harold Fields  
AVP Research  

Tim Matthews  
Director  
Office of the Vice-President Research  

**BC Provincial Government BCKDF**  
Gary Schwartz  
Assistant Deputy Minister  
British Columbia Ministry of Technology, Trade and Economic Development  

Marianne Silverstein  
Manager, Research and Knowledge Development  
Ministry of Technology, Trade and Economic Development  

**UBC Properties Trust**  
James Peters  
Project Manager  

**Royal BC Museum**  
Grace Lim  
Chief Financial Officer  
Royal BC Museum  

**Consultant**  
Dr. Douglas Newman  
Associate Professor  
Curriculum and Pedagogy, UBC  

Paul Bauer  
Consultant