CREATIVE FREEDOM IN DEVELOPING TECHNOLOGIES

by

RYAN SCOTT ATIMOYOO

A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF FINE ARTS
(Film Production and Creative Writing)
in
THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

THE UNIVERSITY OF BRITISH COLUMBIA
(Vancouver)

April 2016
© Ryan Scott Atimoyoo, 2016
Abstract

This paper and the web series, “Paradox” explores the research question “In what capacity do higher end tools affect innovation and creative freedom within low to no-budget filmmaking?”

Initially, I had high hopes of producing a feature film I wrote previously titled “Blood Brothers” for the requirements of writing and directing a project for my Masters of Fine Art in Film Production and Creative Writing. I set out with a clear and direct path and felt fortunate to have learned so much through the writing portion of this program, which in turn, enabled me to further develop my storytelling skills. Repeated funding rejections forced me to evaluate backup options and so, during my first year in the program, I shot the first episode of “Paradox.”

My whole time at UBC was a creative journey unlike anything I had encountered previously. Winning a chance to direct a Crazy 8, a separately funded Canada Council Short film entitled “Mahcimanitonahk- The Devil Dwelling” which was developed throughout Peggy Thompson’s screenwriting class, employment as a VFX Editor at FuseFX and 7 days of shooting Blood Brothers brought together a host of questions and answers of which I had no previous knowledge.

As such, I would say that higher end tools greatly affect creative freedom and innovation within low to no-budget filmmaking with stipulations. In my experience, initial ideas evolve through testing both high-end gear and software allowing deviations to create a more efficient filmmaker.
Preface

This thesis is original, unpublished, independent work by the author, Ryan Atimoyoo.
**Table of Contents**

Abstract .......................................................................................................................... ii
Preface ............................................................................................................................ iii
Table of Contents .......................................................................................................... iv
Acknowledgements ....................................................................................................... v
Introduction .................................................................................................................. 1
Previous Works ............................................................................................................. 1
Genesis ......................................................................................................................... 4
Websseries .................................................................................................................... 7
Research Chapters ........................................................................................................ 9
  Finishing the Script ...................................................................................................... 9
  Synopsis ...................................................................................................................... 15
  Production .................................................................................................................. 16
  Post-Production ......................................................................................................... 20
  Sound .......................................................................................................................... 27
  Picture ......................................................................................................................... 28
  Festivals and Marketing ............................................................................................. 30
Conclusion ................................................................................................................... 31
Bibliography ................................................................................................................ 32
Appendices .................................................................................................................. 36
  Appendix A: Episode Scripts ..................................................................................... 36
  Appendix B: Floor Plans ............................................................................................ 82
  Appendix C: Complete Credits ................................................................................ 84
  Appendix D: Schedule .............................................................................................. 86
  Appendix E: Budget ................................................................................................... 89
Acknowledgements

I would like to express my thanks for the many people who supported my paper, this film and my academic journey throughout my studies during these last four years.

I would first like to thank my instructors Rachel Talalay, Peggy Thompson and Tom Sholte. Their valued input in academia and career advice was thoughtful and much appreciated. I would also like to thank Zanna Downes, Sarah Crauder and Stuart McFarlane for being available and open to questions whenever I needed help.

Thanks also go out to my team. Ranging from professional hands, recent graduates to current students, I wouldn’t have been able to do it without their hard work and effort. Special thanks goes to Chris Fisher (Director of Photography), Cameron Watts (Camera Operator), Shaun Lang (Boom Operator), Eric Mouawad (Post Audio), Michael Bryant, Ben Hanson and Tara Pratt (actors), as well as Chris Wolfinger (student/PA)

Thanks also to my good friend Rob Hunt. His advice, tenacity and cheer offered a hand when spirits were low.

Lastly, I would like to thank my family, Heejoeng Kang and Hannah Atimoyoo who have supported me throughout this endeavor. Every moment away was a moment apart and I thank them for their patience and grace.
I’ve come to view filmmaking as a dance between the artistic nature of the human spirit and the technician’s practical know-how to achieve that vision. I’ve had a long history of analyzing story and dramatic structure during my undergraduate degree in Drama and time spent at Circle In The Square but however bringing that form into a film medium required me to unlearn and reshape my experiences to capture what I intended.

I had always enjoyed writing and my first film out of school “Dreamcatcher” (2010) had the fortunate opportunity to receive some funding through the Canada Council for the Arts. It was a story about a young woman who was undergoing a change that came along with dream walking powers much like her Grandmother. She used these powers to save her ailing sister only to understand the high price that came along with such responsibility.

While it enjoyed some excellent reviews and festival praise, it never truly achieved my vision. I came to understand that I lacked the technical fluency to achieve what I was seeking. My practical effects were incapable of matching the dream world vision I had first envisioned.

For the next year following Dreamcatcher, I delved into research and understood that computer graphics and visual effects held the answers to some of my questions. From there, I immersed myself in the basics of compositing utilizing Photoshop, After Effects and Avid Media composer.

I would say my first forays into technical arts began there. I was an artist with a vision but no real technical skills. I envisioned key frames of what I wanted to see and experience but was unable to achieve it. Armed with, at the very least, a basic fluency in visual effects and the technical lexicon that came with it, I could at least begin a self-tutorial period. And with that came my web series “Chord”

Chord was expansive in every respect to what I knew about film and how I could achieve it. Early attempts at directing actors with no vfx experience was humorous to say the least (A big drone is shooting at you-run!) and a raw, inexperienced crew with little vfx experience trusting in my vision was at times daunting but also quite exciting and challenging.
The time spent in post-production was both lonely and exhausting however I came to understand framing and limitation and how to build on those limitations as a writer and a director. It gave me knowledge of the very basics of post-production and how it related to cinematography in a way I hadn’t quite grasped before.

I had sought to continue the series, but with the lead actress announcing a pregnancy, all the action and stunt work combined with long hours of filmmaking made for an unrealistic objective and we concluded the series.

However, I was left with a highly successful web series, which surpassed my expectations on the festival circuit such as nominations for a Leo Award, a Golden Ace award for best TV pilot or a best webseries win for The New Media Film Festival and laid the foundations for a technician’s journey.

With graduate school, I knew I had to surpass this and more. The initial idea was a feature film script I had written titled “Blood Brothers” which had performed well winning numerous writing awards and even recognition from the Sundance Institute.

It was raw, however. Clever but having never been taught in the long form of screenwriting nor having the peers to bounce work off, my work existed in a vacuum so to speak. I think that first year of screenwriting classes opened my eyes once more as a veil seemed to lift from my eyes to what truly made for a great story. I felt truly grateful to my teacher, Peggy Thompson, and my peers of that class for their insight and analysis. I had never seen what a true writing room was like nor had I taken part in any kind of writing workshop so understanding how screenwriters built their craft made for some breakthroughs in the development of my script but also to my approaching the craft as a whole.

Technical evaluations used throughout the green screen approach weren’t coinciding with one another and the plates weren’t photorealistic enough to “fool” the viewer. Clearly, I had more to learn and was while I had the vision as an artist; I was missing something in my technical knowledge that had impeded me from executing what I needed.

I was motivated at the time and my team was humming. I used my weekends and spare time to craft a spin off idea of “Chord”. Something I could fashion in the same universe but from
a different point of view. A weekend here and there of writing and filming over the first year saw the first episode of “Paradox” shot on my dslr, a Canon 7D with VFX done in After Effects and Avid.

I had also won a grant with a short film crafted in creative writing class. The Canada Council stipulates that you cannot use the monies towards any Master’s Degree but once more, I ventured into an arena with which I was unfamiliar. In three days, I did the shooting myself on my first 4K camera and quickly finished post-production with a team of two individuals as crew. The extra latitude in resolution made for the bulk of my camera movements (pan and scan) and knowledge of VFX (plate stitching) allowed for the rest.

Crazy 8’s had also selected me to direct a short film. Having not written the script- I could not enter this as a Master’s Project also, but again, the knowledge that came with the project was more fortuitous than imagined. Working with children once more, VFX of burning a house down, the accelerated time frame to complete a project and thus, an efficient shot list and team to manage the execution provided a growth experience.

I began to shoot Blood Brothers but after three months of finding the talent and cast, locations, and crew, my budget was beginning to run thin. I managed seven days of shooting before I was forced to concede I would run out of time. The last few years had not been in vain however. I had come far in studying my new camera, LOG space and had launched myself into NUKE, a professional compositing piece of software.

Building upon my position as a Capilano Instructor and VFX editor at FUSEFX, I embarked upon a new approach to filmmaking and began the next installment episodes of Paradox armed with screenwriting craft and new technical VFX and cinematography knowledge.
Genesis

I’ve been fortunate to develop and find some small success to two approaches in filmmaking. In one sense, I am very passionate about telling First Nations Stories and would like to build a reputation and career as such. However, my knowledge of visual effects has greatly helped me find success in the sci-fi and web series genre.

It could be argued the development of one indirectly influenced the other.

The genesis of “Paradox” was of course, rooted in the development of “Chord” but its inception grew out of a greater appreciation of works. I was always one to enjoy puzzle films or films that made me an active participant rather than a casual observer. Films such as “Memento”, and “Pi” teased at my creative centers while TV shows such as “Lost” gave me the impetus to hold the answers back as a storyteller.

More so, my time at UBC also grew my appreciation of strong female characters thanks to my teachers, Rachel and Peggy. Something I hadn’t knowingly taken into consideration when writing Chord, which featured a strong female lead.

As a writer and filmmaker, I knowingly separate the two approaches whenever I embark on a new project. I trust the writer in me to consider thematic elements, story considerations and to make the utmost compelling, well-crafted script I can manage, however the filmmaker approach in me compels me to “see’ and “hear” the script in a more visceral fashion in ways I might gloss over in writing.

The sci-fi genre allowed me to ask many “what-if?” questions and in this instance, I enjoyed the idea: what if sound became unstable? What if we as people could not depend upon it to communicate as we once had? What if research into this area led to some doomsday weapon or a weapon of mass destruction in terms of sound? The universes of Chord and Paradox allowed me to explore that.

I’ve also enjoyed the idea of time travel. I was a big fan of the film 12 Monkeys where a man undergoes the Cassandra complex whereupon Cassandra was left with the knowledge of
future events, but could neither alter these events nor convince others of the validity of her predictions.

During my time as a student at The Vancouver Film School, I was given gear, crew and locations and spoon fed the ingredients to make a film. During the time after school, I was forced to innovate and manage together what I could for a film. This kind of bare-bones approach to storytelling forced me to innovate on a number of different issues and make me think outside the box. Trained as a purist in terms of gear and equipment to use, I found myself resorting to creative fixes and wearing different hats throughout production. The phrase “shoot for the editor” never rang true more than on “Paradox” as I came to understand how I would fix or solve issues in post-production in my own time.

Paradox was built upon the idea of Chord’s Universe and in that Universe, the future had experienced an event that had made sound unpredictable and dangerous. Chord’s father had excelled in this sound wave research before the event and had passed on abilities to Chord. She awoke to find herself devoid of memories and covered in tattoos. She is handed a device by an unseen person and collapses. She awakes and recalls a past where a man chased and killed her father. She also remembers she is not of this time and finds a guide of sorts. A hologram embedded within the device.

We learn the man who is hunting her is named Gideon. He is sent back to hunt down Chord and believes she killed his wife. On a mission of vengeance, he hunts her relentlessly guided by a man and woman only he can see.

Time passes and Chord recalls some memories and is horrified to discover Gideon, the man who killed her father has also travelled back and is hunting her. She fights him off and disappears into the night leaving the man dazed and confused. The series ends with a defeated and confused Gideon scanning the night for any sign of Chord.

To counter what had occurred with Chord (main actress leaving due to pregnancy) and to continue with the story, which I was still passionate about, I sought to tell the same story from Gideon’s point of view.
In the initial pilot episode, I had first approached a physically large actor to take on the part and purchased a military style outfit for him. A week before filming he withdrew from the project and so, hesitant to delay principal photography, I stepped into the role as I could fit the clothes and had sufficient stage and film experience to quickly call upon for the role.

With Paradox as a concept idea, I was quick to pull the trigger as I knew I would always have my lead (me!) ready and could quickly capitalize on any needed pickups, wild lines, ADR as long as I maintained enough sense to distance myself the actor from the director and stayed true to the story.

That was only the beginning however. Gideon’s story was a true twist on the universe I had created and I had to reinterpret story points and balance with those with practical considerations. The first main consideration was Gideon’s arc.

His through-line while promising had never been developed. Nothing in Chord had. It wasn’t a major consideration until Peggy’s and Rachel’s classes. The problem with being the one-man band on a show is a tendency to have the story all in your head and leave details out when dealing with newcomers or people who wish to aid on the project. Hitherto, I had always helmed the lead on a project and carried it as far as I could, picking up slack along the way or utilizing support on an as needed basis. The problem with this model is that it limits collaboration and creativity as a group.

The thoughtful input of the screenwriting class made me more appreciative of others feedback and as such and I began to actively consult those who I thought would give thoughtful, insightful input rather than feedback for feedback’s sake. While I had a general overarching goal for Chord, no real analysis had been done on the peripheral characters.

Gideon became a story of redemption. In the beginning, I had originally intended to use him as a foil character and one who was about to die in the fourth episode of Chord. Now, with the given circumstances and new developments I had to understand a man who had lost his wife.

I knew after careful analysis that Gideon’s super-objective was to redeem himself. He “wants” revenge for his wife but he “needs” redemption for committing terrible atrocities in the past and bringing the terrible future to bear. It became clear to me that he had to die, and in
keeping with the title of the show, he had to kill himself before the terrible act, thus creating a paradox.

**Webseries**

The next consideration was the medium or format I would deliver the story. Would it be a TV show, a short, a feature or in my case- a web series? This would determine how I would approach the material and how I would approach framing and the appropriate tools for the job.

In the case of Canadian Film festivals, after having done research on what plays and what doesn’t, I understood well enough that I didn’t have any social issues, nor was I issuing a call to arms with my story. It wasn’t a doc, which Canada is well known for, and in the case of the sci-fi genre, I did not have a big budget behind it, which was the case for many successful short films. In a sense, I knew the market was saturated with dramatic short films and sci-fi work but a new frontier was still being developed in the case for web series.

Web series had the benefit of a series approach like TV, where I could tell a longer form story but also small enough in length to not overextend myself. It would give me the playground I needed to hone my skills and develop my craft. I had yet to understand my own preferences in framing, working with actors, dramatic beats and so forth, so I quickly embraced the web series genre once more for Paradox, armed with the new knowledge I had gleaned since Chord.

Chord had yielded me several awards and festival recognition and after some careful research, I had learned that others had taken to developing their craft in this medium and the competition was going to be much stiffer. While I knew that I could build upon some of the recognition previously earned by Chord, I also knew that more and more festivals were recognizing the web series value and in fact had embraced it into the mainstream. The Austin Film Festival will actually fly you over and put you up should you place as a finalist in the Digital Series category, and the same goes for The Marseilles Film Festival in France. So, I decided once more to forge ahead as a web series content creator.
As previously mentioned, the approach for web series is dramatically different than that for, say, a short film. There have been previous successes where web series have in fact been picked up and developed as television pilots. It’s a case of trying to tell an episodic story in a very succinct amount of time.

The content creator has to be very much aware that their audience will consist mainly of tech-savvy people who will in fact come across it over the web. This also means that the most likely screen it will be played upon will be a 720*486 monitor utilizing an srgb Color space. This is such a factor because it means as a director, I am very much aware that unlike a feature film, which has many eyes upon it and covers a large theatrical screen of real estate, I can forge ahead with my content knowing that I have some wiggle room in terms of VFX. Industry experience has shown me how feature films are scrutinized pixel by pixel in terms of CG over as many as 70 versions for one shot unlike TV, where typically ten to fifteen versions exist. Web series, designed for even smaller screens have the luxury of not being scrutinized as closely.

Framing is also a consideration. As the content medium grows smaller and smaller to play on mobile devices and tablets, the content creator must also adjust his or her thinking in approaching the medium. Do close ups play as substantive when presented on a mobile phone? In an age of showing everything and presenting a visual smorgasbord, does the opposite hold true to hold back and consider presenting the absence of something? Would Internet linking or interactive storytelling be an advantage in this case and, if so, - how? How could I play out an additive digital component? My time at Arctic Air had shown how CBC was adding digital web content in an attempt to reinforce their online presence and had new directors working on the content. Again, a frontier was being trekked by a larger studio.

Finally, in an age of YouTube and instant click gratification, the struggle seems to be with finding the right audience. There are studies that indicate how the average shot length has declined from 12 seconds in 1920 to about 2.5 seconds today. That combined with a chaos cinema approach found in such films as The Bourne Identity where handheld shaky camera attempts to bring the viewer in via confusion, makes for a mainstream audience hungry for quick successive action that captures their attention for a few brief moments before clicking on to the next eye-catching event.
There is still quality work however. More and more talent is emerging through the web series medium and I felt I had enough of a base to try the format once more.

**Research Chapters**

**Finishing the Script**

Paradox presented me problems on many different fronts. While it allowed me to dream big in terms of story, I always had to look at the story in a practical sense. The writer in me was positively gleeful about the boundless possibilities I could take while the VFX artist in me cringed at some of the more detail oriented work.

It was fortuitous in the sense that I had a beginning to start with and a solid base. From there, it was really the question of could the vfx artist, cinematographer and producer in me get to the point that the writer and director in me wanted to reach with quality work?

I set out first to run some tests before I attempted anything in terms of an actual shoot. At this point, armed with my Canon 7D and a deep bench of filmmaking collaborators, it was a continuous series of tests and software analysis. I knew I could reuse and even build upon some of the techniques I learned for Chord such as wave pushing and holograms but for a thesis project, I wanted to stretch my production and vfx muscles, so to speak.

The first test was a jumper effect first seen on the film “Jumper” and while a static frame or “locked camera” as is known in vfx terminology, would have been sufficient, it’s always best to push the boundaries and so we used a stitched frame approach for a panning camera effect. The first test was a resounding success.

The next test was a test in slit-scanning or time displacement. In essence you are warping the temporal displacement of your characters creating a folding like effect. Again, our attempts were a resounding success.
Finally, the last test was what I decided I would incorporate into a plot element - Actual 3D characters or objects.

Chord was accomplished with Photoshop and a vfx technique known as compositing. Compositing is the creative process of assembling and combining filmed or rendered elements from multiple sources, to create a final lifelike illusion or fantastical visual effect, delivered as a set of still or moving pictures. There are two different types of compositing: node-based and layer-based. In the case of Chord and Paradox Ep.1, the software tool utilized was Adobe After-Effects. It involves a layer-based approach to compositing. I wanted to graduate to nodal based compositing software called Nuke.

3D objects, dynamics, rigging and integration were the real challenges and things I had only heard about. It was during my first year of my Masters before I could claim any knowledge of 3D applications. Between my film and writing classes, I took to watching various digital-tutors courses and teaching myself on trial versions of software to understand the basics of 3D and how it could be used in filmmaking.

My research carried me into two software packages, Maya and 3DS max. It helped me understand a scene in terms of coordinates and polygons. My knowledge of lighting and cinematography also carried over as I was forced to relight within the software package and even framing in keeping with the rule of thirds.

My first few tests were abysmal. My renders seemed “video-gamey” at best and the time spent for one render took a full six days to complete before I realized it was done incorrectly. Clearly, I had much to learn but moreover, the story I had in mind was in serious jeopardy. I hadn’t come across many VFX artists in general during my film career at that point and I had never met one attempting to do what I was embarking on.

During this time, I almost gave up on the idea and the project as a whole. The writer dreamed too big and the technician could not keep up. I had no mentor to ask questions of in this arena, nor did I have a basis upon which to test my theories.

It was during this time however that a side project in Crazy 8’s came up and proved a fortuitous distraction. The time spent away was a much needed break but also served to arm me
with new knowledge. Crazy 8’s is a competition where you enter and if your team is selected, you have a total of eight days to come up with a finished project that will in turn be viewed by local industry in a gala event screening. I would say the event sharpened me. I hadn’t ever tried to make a film in that much of a crunch time but neither had my team or any of the fellows I knew.

In the end, I was happy with what my team had achieved. The scenes look great and I was happy with the acting, but disappointed with how I misjudged the pacing of my camera. (especially towards the climax), but vfx concerns and time constraints had me locked to a stationary camera, thus restricting how I could play out the scene. I sometimes come back to this and still haven’t reached a conclusion as to how I should approach the climax, but I digress.

When the event had passed, I was once more confident to take a stab at Paradox and as luck turned out, I was able to purchase a professional level graphics card- one much more up to the task I was demanding of my processor and the high-end graphics I was pushing. Numerous weeks and tests later, I had the first photorealistic simulation I needed for my story and the so the story editing continued. I was finally up to par in terms of technical skills to add my Robotic Drone into Episode 1. It was a milestone of sorts but only one of many in terms of research. I was lucky in the sense that I had actually shot the scene but had to achieve the 3D drone I needed to insert into the first episode.

My success in Crazy 8’s was then followed by an additional grant for my film “Machimanitonahk- The Devil Dwelling” which would go on to screen at the LA Skins festival. While stipulations of the grant state that I would not be eligible to use it as a thesis film, the work directly affected my research and career as a whole, as I was able to purchase a Blackmagic 4K Camera, lenses, drone and lighting gear; a significant upgrade to my simple dslr, a Canon 7D.

The Canon dslr series had been a game changer for Indy, low budget filmmakers such as myself and allowed for new storytellers to hone their craft using relatively inexpensive gear. The trade-off however was in technical quality. The canon series utilized H264 compression and a 4:2:0 color space, which made for a less than ideal approach to Chroma keying and color grading.
My first episode of Paradox had all been shot on the dslr’s including my green screen section where Gideon accesses a Hologram. The result of that footage was a thoroughly taxing time in two weeks of rotoscope, in what theoretically should have been an easy keying situation. At the time however, I had not understood the color science nor compression technology that was being utilized by the software. Again, the writer overreaching what the technician could effectively deliver.

The introduction of the new camera was a revelation. Suddenly, I rediscovered color and its advantages in film but more effectively, it illuminated research in the areas of color science and specifically Chroma-subsampling. Where a dslr records at 4:2:0 effectively throwing away information to fit on the small compact flash card, my Blackmagic could record at a full 4:4:4 Raw format throwing away no information and effectively giving me one click keys when lit correctly.

Technical notes aside, I was able to finally deliver a professional quality film along with high end footage to supplement the vfx I had in mind for my story. This had a huge impact on the story and where I would take it ultimately.

I was also coming into my own as a DOP/ Director. I had utilized others to be my cinematographers while I focused on the directing, but would find less than reliable people and as a result, have to step up and light and shoot the scene myself. With the new gear, I was in a much more independent realm of filmmaking.

One of the benefits of knowing the production and post-production ends is that it allows a certain amount of slack. I knew for example, that with a 4K camera, I didn’t require the experienced stable hand that I might once have needed as I could stabilize and add camera movements in post-production. The settings had to be right, but as long as I knew the focal length and that a certain amount of contrast of tracking markers were present, I could greatly enhance the footage in post.

And so, I began to contact the old cast and crew of Chord. As luck would have it, many were still around and wanted to participate but a script and show bible would be required.
I knew I wanted drones and mechanical robots present in Paradox. I also wanted a
dreamlike machine world much like the one presented in the all-white room of the Matrix.
Finally, I wanted to explore the idea of nanotechnology in terms of audio and optics. These were
the story points that only I as a technician could provide. The contacts I knew were unable to
provide these on my scant budget and in fact, there were very few I knew who even had the
expertise to carry out some of the more difficult tasks.

Once I knew I could secure those in post-production, I had to take inventory of what I
could afford and produce in terms of props and locations. As luck would have it, my recent
appointment as an instructor at Capilano University granted me access to professional studios
consisting of a 100 foot green screen, standing bar and standing apartment. Each room, in it’s
own right, a low budget filmmaker’s dream. That, and the forest nearby and campus itself would
lend themselves to my imagination.

The second episode was intended to be an adventure within Gideon’s mind as he tracks
down a signal he believes to be the key he has been looking for.

I had originally intended for Gideon to be attacked and captured, only to wake up in a
cyber-dream world where nothing made sense to him and be led throughout these various
situations by a woman he thinks is his wife. In the end, he would realize he was being hacked
and was unconscious the entire time. He would kill the imposter playing his wife and awake in
the real world.

The original filming was actually quite easy. I experimented with two different
approaches I had researched and developed. The first approach was a dual 4K camera approach.

An associate of mine, Rob Hunt, was coming off of his own web series titled “Standard
Action”. He was my B camera operator armed with another Blackmagic 4K camera and
multitasked in many roles.

The footage amount was staggering. I had to purchase additional drives to the point of 21
TB of storage capacity at the time of writing just to store the amount of data I was recording.
Shooting with two cameras can be a double-edged sword. They can be highly useful during a crunch time situation but the extra time in processing and storage is a drain on resources. Something I hadn’t anticipated and so after the first two days of shooting, I scrapped that approach.

The second approach was a literal hack job. During my research through various forums, I came across a hack for Canon dslr cameras from a team calling themselves Magic Lantern. What they did in effect was to take the small camera, hack the sensor to record raw quality footage, which was uncompressed, and store it. The process was new, revolutionary and in no way sanctioned by Canon.

I jumped all over it. The process called for software hacks, which I ran on my own Canon 7D, and a process of taking those Raw files to convert in Davinci Resolve. It also called for a faster speed Compact Flash card that I ordered off of E-bay. I shot color charts for both cameras and took the footage to colorist specialist, Scott Mackenzie, for analysis. He assured me the quality was up to par but the Blackmagic camera footage would be sharper. It would make for an ideal B camera.

Typically for a two camera shoot, I shoot my B camera wide and my A camera on a longer lens. This allows me some flexibility in post. I also can shoot the B on a long lens on a ninety degree angle from the subject for a profile shot if the subject is stationary.

In any case, the two-camera test worked and didn’t work. The hack was too new and frames would drop. I couldn’t trust the footage to not drop frames on a quality take, so this in itself was enough to detract from its implementation. Another reason was the added two processes in post-production hindered my ability to move forward in a timely fashion. The hack approach was discontinued after day three.

I shot one camera for the rest of the shoot. I captured the rest of the show and was off to post production. It was here that I found more technical problems. There were four to eight shots where I spent an entire week on a single shot and still was unsatisfied with the results.

Finally, I had lost two of my actresses. One had moved to New Zealand unexpectedly and another was unavailable.
I reshot the ending and reworked the script. What was a 40-minute rough assembly on my timeline whittled down to an eight-minute episode.

Synopsis

The web series “Paradox” will revolve around a primary protagonist, Gideon, a time traveller from the future seeking redemption to right his past crimes. He knows he has been sent back in time but remembers very little.

Guided by a hologram called Face, Gideon seeks to remember his past.

His nemesis, Sebastian Oldershaw, has travelled back in time in part to thwart Gideon and ensure the future past comes to be. Sebastian and Gideon battle for control of the future.
Production

The first episode of Paradox was complicated, difficult and taxing. While I had run tests and had a script for the first episode, I wasn’t quite convinced of my technical ability.

Throughout casting, I wanted two villains. One I could carry as a mastermind or puppet master of sorts. Much like a chess game, I wanted Gideon and the character of Sebastian to be diametrically opposite in mannerisms but similar in abilities. With that said, it was always my intention to reveal Gideon as the mastermind original villain and architect of the terrible future, more insidious than even Sebastian.

The decision to cast myself as Gideon was twofold. The first was for simple practical reasons. I knew I never wanted to run into the situation of actors departing due to unforeseen reasons. Without a proper budget, I would always be in jeopardy of losing actors.

The second reason was continuity. I could continue the Chord story and universe using a character we had seen before.

The next choice in casting was a co-villain. I’ve always enjoyed the idea of strong women challenging the status quo or the dark heroine. In this case, I came across Christen Traversy as a student at The Vancouver Film School and her work in The Compendium Series where she played a dark Tinkerbell and a dark Snow White. Her presence as a villain was strong and moody and she was a perfect fit for the role.

To round out Gideon’s allies I turned to a friend, Ben Hanson, who I had worked with in my student film “Simon” for VFS. He has a roguish quality to him that I quite liked. I knew his presence would serve as a foil to Gideon’s more brooding nature.

Finally, for the role of Alicia, I held auditions over three weekends before I came across Tara Pratt. Her presence rounded out the three of us nicely. It also occurred to me that since she held the lead role in another web series “Standard Action” as Wendy, she had a small but appreciative following. Her presence could help increase the brand awareness in the long term.

A good location needs to fit the story and has to have many things that a filmmaker requires. It needs to have nearby parking, facilities for washrooms, a separate station for hair and
makeup, a green room, power outlets or a station for a generator and a gear staging area where lights and grip gear can be placed on standby.

As a filmmaker, I’ve not given serious consideration to my work as a producer. During the first episode, I had gone about collecting the wrong individuals for the task of shooting “Paradox”. This is in no part to diminish the scope of the hard work and talent of the people involved but I now understand how I overshot and wrongly delegated tasks.

One of the strengths of low budget filmmaking is the ability to have a small team, which makes for effective communication.

The bar was much higher for the work I was aiming for in Episode 2. I wanted an eye-catching opening to make up for the weakness of episode one and sought to pull out my big guns of 3d models and integrate them into the scenes.

The first few were easy city shots on my canon 7D but I had to remember to take to snapshots of the environment for reflection purposes. This is called environment mapping in vfx terminology. I also shot an associate of mine for some green screen to simulate a particle disintegration shot that occurs.

I wanted to investigate the cyberspace that Gideon enters and have a guide present for him to interact with. For that role I cast Sinead O’Flynn. The final role was given to Jennifer Morden, for the role of Face once more.

For the shoot, I built upon previous experience and had a small crew. I would use two camera people for the first two days and rely on one single camera afterwards. I would employ a makeup and hair artist once more, along with one sound operator and two grips. For the shots that required no or minimal sound, I wouldn’t use a sound person.

For this and future episodes, I would take on the role of cinematographer as well as director and actor.

My shot lists and beat breakdowns had evolved. A major problem I had discovered with previous shot lists was that they were highly technical. My actors suffered from aiming to hit technical marks and performances suffered. With that in mind, I built my shot list keeping
mindful of three key frames I wanted for each shot- The opening frame, the middle frame and the last frame. While this may seem simplistic in conception, it freed my thinking to focus more on performance.

Experience from “Devil Dwelling” had also taught me that should the camera operator frame wider than needed, I could crop in post and manipulate the camera movement as needed since I was shooting over scan, a term which means shooting 4K but delivering in HD resolution.

For each day that I prep, I always prepare a shot list. The more complicated the shoot, the more detailed the list. When it involves a larger crew and bigger shots, I typically arrange for a first AD to help me go over the shots ahead of time. I’ve found that the more prepared I am going into a scene, the faster I move and more flexible I become. I also typically scout out my locations two to three days in advance ensuring power, sound and weather conditions are optimal.

Having my own gear has made me independent as a low budget filmmaker. The low budget nature of my shoots has caused me to create do it yourself solutions that I encourage when teaching classes. Some of these novel approaches involve using bristle board to create snoots, negative fill devices, cookies, splitters, bounce boards as well as shower curtains to diffuse lighting or harsh daylight conditions.

Green screen shoots have the deceiving appearance of being relatively simple. You can do the main task of lighting of the green screen and then afterwards tweak the lighting to match the talent and what the shot entails, so the lighting setups are very fast.

The real task is designing the background, tracking and the keying process. For a standard scene with no creative camera movements, you have a wide, and two coverage shots. This means you have to design three backgrounds and integrate them with the talent.

The first two days of shooting were executed and seemed to flow along seamlessly in the Capilano green screen studio. The amount of footage was enormous -and would be hard on my system without proper data management.
I was dismayed to learn I was going to lose Sinead after the first week as she had decided to move to Australia for a few months, so I shot numerous plates as well as stills I could manipulate in post. The same was done for Laura. These were assets I could manipulate in postproduction. The technique is known as grid warping and it involves taking still or moving images and applying a digital “mesh” to the area as needed. From there, you can twist or alter the mesh, taking care not to warp it past the point of believability. This technique has been widely applied to footage to simulate eye blinks, heads nods, facial tics, and so on.

In a sense, I was made more aware that I was applying a unique creative force based upon years of experience from a low budget filmmaker’s perspective. I was no longer vying for higher end tools where they were no longer needed and in some cases rejecting them for the low budget version to acquire flexibility and mobility. Camera settings and post-production knowledge also allowed me to reverse engineer scenes to fit my low budget circumstances. That, combined with my crew had made me a very different and changed filmmaker from the first episode of Paradox.

Sadly, towards the end of the shoot, Laura Mitchell also had to cancel a day of shooting. It was an unforeseen difficulty but not one I hadn’t considered. After the Chord situation with losing my lead, I knew I could be more fluid in storytelling using myself as the lead. I quickly wrote off the loss of days as collateral damage and set about to remedying the situation.

I was able to still use the first half of the footage and so, I set about altering the script and devising the present script where Gideon is jumped, awakens in a strange environment and recalls his past. He then reawakens to the real world and comes across the hologram face before passing out once more. Previous experience had taught me to focus my creativity on elements I could manage such as locations and props.

Once more I called upon my crew and we captured the footage in less than three days. It would only be a matter of post-production from then on.
Post-Production

The post-production stage of filmmaking is the area where I experienced the most growth as a low-budget filmmaker.

The post-production phase of episode one was grueling. It was the experience of realizing I’d hit one roadblock after another. This is not to say that the task was insurmountable or that the film was ruined but the experience was such that I could have easily rectified the situation with better planning or being more knowledgeable about vfx or cinematography.

The first scene of Paradox involving Gideon getting hit by a car was not tested and even though we had captured the correct plates with a locked camera, the lighting was insufficient and much to my dismay, my camera was one of the worst to shoot green screen. The compression of the camera resulted in data being thrown away that would make keying all the more difficult.

This two-second shot was minuscule compared to the interior of Gideon’s house when he activates the hologram. The locked camera green screen shot and the shot preceding it took to a full week in rotoscope and keying work. Time at a vfx facility could cost a professional well over $9000.00 in billable hours.

The head that Gideon holds in his hand was also an experiment in tracking and working with 3D objects and particle systems utilizing Red giant’s plugin for Adobe After-Effects called “Form.” This was a particle system that recognized 3D vertices and could be wielded to work with the models. This plugin would be a big part of my climactic battle near the end with Alicia, Christen Traversy’s character.

This was the first project that forced me to develop a proper workflow. During my time at Arctic Air as a vfx coordinator, I came to understand editorial and a vfx workflow and how to properly manage an EDL between the two working in Avid Media Composer. Chord saw me using compressed footage over and over and as a result, the end quality was deteriorated. Episode one of Paradox didn’t suffer as much from my inexperience.
My title sequence was the result of a week’s search of video hive’s title sequences for sale. It required some finessing to get a polished result but the majority of work was already done.

Another frustration was Alicia checking her phone’s text message. The hours I spent in tracking were in itself a hurdle. I could not seem to manage a track that looked believable. After giving up, I took to researching outside tracking software programs and came across a planar tracking program called Mocha. Where Adobe After Effects could track one or two points at a time to resolve translation and rotation, Mocha was a planar tracking system that was built for situations such as Alicia’s phone. I took to watching the Digital Tutors series on Mocha and within two days, I had nailed a track that could resolve the shot.

The electric whip shot was a lesson in shutter speed more so than post-production. I bring it up here because at a certain point, I find the two to be completely tied together. It’s my experience that you can’t do great postproduction without excellent camera technical knowledge. The two are inexplicably linked and now, with camera costs and software rapidly declining, there is no excuse for the ambitious low budget filmmaker not to take advantage of both.

In the case of the electric whip, the shutter speed should have been increased to resolve motion blur. And to create a stroboscopic effect whereby I could effectively track the whip, add the effect in post and place motion blur in post-production to sell the effect.

I was proud of the blood shot and Nano-machines in Gideon’s’ blood at the five minute mark. I had never used 3D in this way and to model a blood cell, texture it and bring it into After Effects- This created a blood stream with machines inside. Adding a camera push in as well as a rack focus gave it that added measure of polish.

I was also happy with the effect of the Nano machines reacting to Gideon’s wound. It was an extra hard track that mocha helped me through. I was fortunate that no 3D was added but rather a simple distortion field that I had to copy and paste to give the effect of three Nano machines closing in to seal his wound.

The series of shots where the two villains are discussing Gideon were a complex task in post-production. I had mistakenly shot Michael Bryant’s character Sebastian gesturing in the air
when I should have placed a green screen behind him and then another as a clean plate. The result was a week of rotoscope work. That and a 180-shutter speed made the motion blur of his hand a nightmare to work with.

It was also a task to come up with the holograms. I was running short of time and I could not design enough material in Photoshop at a fast enough rate. As a result, I had to purchase Digital Juice’s Motion Designer’s package, which consisted of premade animated backgrounds. From there, I invested in some After Effects scripts online, which would “curve” the holograms around Sebastian giving the image more depth in the scene. The last step was an investment in Red Giant’s Holomatrix plugin that allowed me to quickly apply a hologram feel to the animated curved background.

The first shot of the drone was my pride and joy for about a week, I had never worked with 3D and the initial test renders were video gamey and unrealistic. I was happy to have interactive reflections, motion blur, and grain placed within the scene to achieve a realistic composite.

The following scene of the drones flying overhead and shooting at Gideon’s team took another week. Despite my best efforts I was unable to effectively time the group turning as they watched the flying drones, I had to track and stitch together two separate takes into one take and then place the drones overhead. For this shot, I had never tried to stitch two moving plates together and found it to be a task of manually hand stitching frame-by-frame and retiming in some key frames.

After numerous attempts to hand place the drone falling to the ground, I had hit another obstacle. After consulting the blogs about collisions of 3D objects, I came across a plugin for 3DS max called Rayfire. It would calculate algorithms to correctly assess the fall and apply it to the scene for me. Numerous tutorials and multiple render passes later, I had a final result. By this point, I was halfway through my second year of my Master’s and the project seemed stuck in post-production. I had captured the plates and footage but numerous roadblocks in my knowledge seemed to make the project insurmountable.
The final showdown between Christen’s character and Gideon involved two cyber-like character’s battling each other in a way only they could see. Christen’s character seemed to appear from air as a golden feminine warrior and called forth smoke tendrils to battle Gideon. Gideon in turn was a blue electric warrior figure who defended himself with an electric shield.

This was a culmination of months of research and development that I wasn’t sure would even pay off. I started off oblivious as to how to make a 3D character move. A drone was one thing that had no intricate moving parts but my research indicated rigging, a process where the animator takes the 3D model and associates mesh pieces to bones that the animator can link together for a chain to work off of.

I was stumped for about two months. After reading numerous blogs and watching tutorial sites online, I came across a lesser-known animatic program called “Poser”. This was a program that rigged the model for you and allowed you to “pose” the figures for scenes or digital artwork.

I took to bringing in a human male and female and understand the posing process. After a week of immersing myself in the program, I also had to decipher the workflow or if it was even feasible to bring what I needed across software packages.

It’s quite often misunderstood by students and newcomers to post production that while a software may work fine by itself, the real test comes when one tries to move in-between two or more packages and how to resolve issues through troubleshooting. Such was the case of Poser and After Effects and the previously mentioned plugin “Form”. I knew how to animate figures but I didn’t want a bare-naked male or female in the scene. Rather, I needed the “Form” plugin to recognize the 3d vertices of Poser’s 3d model and in 2013, the plugin “Form” updated their software to recognize 3d .OBJ file sequences. This was exactly what I needed and it had occurred at just the right time in my case.

After that, I simply built upon the same effect of having my Gideon hit by a car and added a shot to help sell it. We started the car in front of Christen, and drove in reverse timing her actions as such that we would reverse the flow in time. The effect is such that it seems we are racing towards her before we hit her.
The title sequence was again an easy find on VideoHive and tweaked for the team credits. From there I set about to getting a copy out to my post Audio technician Eric Mouawaba, and set about spot checking what we needed for ADR and effects.

Looking back, the effort that was put into the first episode of Paradox impresses me to this day. I had given up at one point, undertaken a new project (for Rachel’s class), came back and hit a wall, did the crazy 8’s film “Sacrifice” and returned to finish the project. While the quality of the work is quite painful for me to view now as a seasoned post-production professional, it still holds sentimental value as a project I did not abandon and serves to remind me as a milestone of learning.

Episode two and post production was nowhere near as difficult, though not without it’s own challenges. I had finished episode one and completed my film for the Canada Council “Devil Dwelling” and had begun to learn the technicalities of my camera. This and the fact of having shot numerous practices and examples at Capilano had made me an effective and knowledgeable cinematographer.

It should also be mentioned that 2014 and my fourth year of my Masters saw my wife diagnosed with Leukemia and as such, a pause on scholastic activities over the course of the summer during her treatment and recovery. The time was well spent on family, reflections and life assessments with which we happily emerged with a remission of her Cancer, which carry through to the present time of writing.

The result was a keenly felt sense of mortality and ambition to proceed quickly with my work. As such, I set out to film my feature and that saw me spend time on casting, rewrites, location scouting and rehearsal.

I was fortunate to find some great talent and even managed to film six days of footage but as a result of policies at Capilano and the timeframe in proportion to my Master’s duration, I proceeded on to Episode two knowing I would complete Blood Brothers on the heels of my thesis and graduation. With that, I set out to film.

The postproduction phase of Episode 2 saw me years ahead in knowledge of compositing. I had a more efficient camera, a more efficient method keying in After effects and
was beginning to build a solid foundation of keying methodology in Nuke, a node based compositing program and industry standard for vfx.

The results were completely night and day to episode one and my previous work. My entire workflow had evolved and with it, my knowledge of how to approach a scene. It has made me a better writer, director, producer and editor. I can only describe it as seeing a mathematical problem where you understand how all the principles and rules converge to elegantly solve a problem.

My excitement had reached new heights and saw me overshoot once more. I was simply running out of time and had a rough assembly of 40 minutes for a Webisode episode, which should be 10 minutes maximum. I was overextending on my format as a result of my work on my feature. The sensibilities of time restrictions had eluded me and as such, I had spent two months on keying, tracking and designing backgrounds, I simply didn’t need.

I had to rethink my entire episode and bible as a result. I redesigned my script and shot some reshoots. My first shot of Episode two saw me open with Drones attacking the city. This shot alone was a six-day render in 3ds max in 2012 when I first attempted it. In 2015, it became a 6 minute render with the upgrades that had evolved in After effects and in particular, a plugin called Element 3D by Video Copilot.

I would like to take a minute and address the staggering speed of technology advances. Effects used in Jurassic park 12 years ago were done on computers no better than what my home system now has. The same could be said for the Abyss and water simulations, or terminator 2 and the moving T-1000. It’s my opinion that with proper time, research and software, a sole motivated filmmaker could achieve a simplistic but believable version of such effects today. It is another direct way in which creativity is affected by technology.

The shot of the drone blowing up a building was a shot- that might have confounded me earlier. It contains a combination of the After effects plugin Element 3D, 3ds max for the torus ring that blasts out of the drone and a different simulation from Rayfire which I had used in the first episode. I was simply better at integrating the software packages and able to bring together assets in a quicker manner for a more integrated shot.
The walking Titan Mech as I call it, was altogether a new set of challenges. The model was an acquired asset I had purchased and while I was quite happy with the design, I was thoroughly unhappy with the texture mapping and especially the inverted design of the mech’s legs. It was a nightmare in terms of rigging and bringing it through Poser’s software called for a delicate approach and attention to detail, especially concerning walking scenarios.

I had to first animate the mech in poser, which was not hard by itself except for walking. Then I would bring the model through to After effects where I would retextrue the model, giving it chrome alloy and glow. The chrome alloy would need to reflect something but by this point, I was aware of environment maps and had shot stills on the day.
Sound

The soundscape was an interesting learning experience as well. Many of the effects I had created obviously needed some designing and took a considerable amount of time searching through various sound libraries for assets, which I could use to build the sounds.

Production sound was always a challenge to capture. Through repeated production sound issues with Chord, and after an especially difficult process of capturing production sound for Rachel’s exercise, thorough location sound scouting has always been a prep issue for me.

For Rachel’s exercise, the entire project was filmed in an underground parkade, which echoed and reverberated throughout the entire production. As a result, the entire show had to involve ADR or automated dialogue Replacement. This was impossible since two of the actresses had moved away since filming.

This exercise was a valuable learning exercise as I make it a central tenant to schedule wild lines on set from all my actors on the day of filming. This practice came especially in handy for Paradox Episode two as Sinead has moved away but as a result of getting her wild lines, we were able to grab what we needed from the takes.
The entire conceptual look and texture of Paradox has grown considerably since its inception. What originally was thought to be a dark, sleek and harshly lit feel for the show has grown with my skillset over time and evolved in scope.

I enjoyed filming in the cover of night and using the lighting to direct the viewer to what I intended. I would converse with Chris Fisher, my Episode one cinematographer about the feel I was looking for and was happy to see him quite receptive to the look I was going for.

I was sure to communicate ahead of our shoot dates about different asset acquisition for vfx and have a thoroughly prepped shot list. Chris in return would suggest ways to heighten my vision through beautifying shots and lighting. It would be safe to say I learned a great deal of cinematography from watching him assess a scene and shot.

By the time we shot Episode two, I was quite confident of my cinematography skills and felt largely confident to take risks and push myself in terms of framing quality. Moreover, I was in a better position to correctly shoot the vfx and set the camera information I needed.

Episode two was an experiment to push my green screen skills. I had never attempted this many green screen shots before and as such, creating an entirely different environment for Gideon to wake up to was a daunting and entirely challenging task. The software was entirely new to me, and yet, knowing that it was within my reach allowed my imagination to aim high. I had collected and stitched together enough photographs and images off the net to create a scene I was happy with but it became evident to me during the process that I was no longer bound the way I was before during Episode one. Even simple shots managed on location could benefit from postproduction set extension and augmentation.

Another unexpected side effect that came with using such a high-end camera and shooting at 4K was the added time in rendering. While I could quickly go back and forth between programs with a highly compressed, lower size file, the added time to render out in 4K and with little to no compression made for especially long render times and almost doubled my previous time spent in post production.
I would also have to add that with the higher end sensor, I had to compensate for grain and noise and learn to correctly de-noise plates and add grain after the shot was finished.

As such, the overall picture and world of Paradox has evolved. The knowledge of vfx set extension and green screen work will allow me to dream big, while previous follies of overreaching my abilities will temper my ambitions moving forward.
**Festivals and Marketing**

The approach for Festivals and marketing has evolved since I first attempted a web series. Web series have grown in popularity and as a medium in general, there is a much stronger presence online and in the film festival circuit.

I have also met various, successful, web content creators that have helped me grow and enlightened me as to what works, and what doesn’t. One individual of note, Rob Hunt, a good friend of mine and creator of Standard Action, informed me how his series went the Convention route to build their fan base instead of the Festival route. He detailed how they reached out to their fans and ran a successful kick-starter campaign for each season in the range of $30000 per campaign. That and a strong outreach to their fan base, blog mentions and Con appearances made their series highly successful.

The film festival circuit has also evolved in the last few years. My intention is to submit to Austin Film Festival, The Marseilles Web Festival and the Leo Awards with Paradox and market it first as a web series. Second tier festival and awards shows would include Holly Webfeet, La Webfeet and ITV Fest. There are many additional 3rd tier festivals that are too numerous to list here. The benefit of having one or more episodes at a length of 20 minutes and above allows me to enter the series into certain Television Film Festivals also for consideration.

There is also added pressure as competitions such as the Telus Storyhive competition now accepts pitches and funds successful web series based on their pitch ideas. These and the government funded Independent Production Fund have made the web series landscape much more competitive and as a result, content value has increased significantly.

It can also be noted that several professional filmmakers have made use of these funds such as Gary Harvey the former showrunner of Arctic Air, who directed “Coded” a 2014 recipient of the Telus Storyhive fund.

The goal is to first craft a number of episodes and build up word of mouth through various film festivals, awards and recognition prior to launching a website where content can be accessed. Through proper crowd building on reputable sites, blogs and social media sites, any awards and recognition will build our brand for a proper launch.
Conclusion

The entire process of filming Episode one of Paradox to finishing Episode two has been an enormous learning curve in all avenues of production and screenwriting.

There was no singular moment that the work gelled or that I achieved a moment of clarity. It could be said that it was a constant battle of running into obstacle after obstacle and despite my best efforts, on some days my vision simply overreached my abilities.

This was the best experience I could have asked for however as it pushed me well beyond my comfort levels. Without having someone there to tell me the proper way to do things, I had to creatively ascertain what was possible and use what tools were at my disposable.

If the first episode of Paradox was a full on production complete with a full crew and gear compliment, locations that were properly scouted and assessed with the energy of a full television production, than episode two was the little engine that could. It was well thought out, skeleton crewed, prepped, efficient and flexible.

Experience from relying on large amounts of gear and crew personnel had taught me to think outside the box. The same could be said of post-production and higher end software packages. Trying to solve a 3D scene using high-end programs that may be unfamiliar does not guarantee a high production value or successful outcome where a lower end solution will fit the situation and circumstances to a better outcome.

In conclusion, in my experience, initial ideas evolve through testing both high-end gear and software allowing deviations to create a more efficient filmmaker. As an experienced filmmaker, I regularly employ low budget solutions to technical problems where I once mistakenly may have overthought the situation. There is no substitute for experience and skill, and while higher end tools may allow for greater creative freedom, it is the storyteller who is the one responsible for their implementation.
BIBLIOGRAPHY

Books


Websites


**Films**


    12 Monkeys [DVD]. Universal Studios Home Entertainment, 1995. DVD.


APPENDIX A

Episode Scripts

EXT. BAY DOORS

Devyn walks to a nearby console and intensely focused, utilizes some holograms to activate a drone.

The drone powers to life and hovers in the air.

It’s POV flashes a screen that identifies Gideon as a target. It hovers and is suddenly camouflaged. It races off into the night.

Devyn smiles and turns back- his work done.

The drone races above the treetops, hunting the landscape.

EXT. FOREST - DAY

Gideon groggily awakens. He awakens and opens his eyes which are immediately scanned.

FACE
You’ve been asleep for a little over a day. How do you feel?

Gideon grimaces at the bounds around his hands and feet.

FACE (CONT’D)
Sorry about that. It’s for our safety though. You’re not in any danger.

Gideon extends his laser sword but the angle is not right to help him.

GIDEON
Aw come one- not again?

Gideon spots FACE.

GIDEON (CONT’D)
Why am I tied up?

FACE
It’s for our safety, Gideon, that’s all. We’ll untie you soon. We just want to ask you some questions.
GIDEON
What kind of questions?

FACE
What do you remember?

Gideon looks around. He doesn’t see anything. He pauses and thinks back.

GIDEON
I...I was a prisoner.

FACE
And before that?

GIDEON
Jesus...ummm... I was searching for something.

He suddenly remembers and scans the phone. It gives an unusual energy source.

FACE
Yes?

GIDEON
Are you... the thing... I was looking for?

Face smiles and shakes her head. Gideon is crestfallen.

FACE
Gideon- we’re curious- Think back. Way back. What do you remember? Really remember about your past?

Gideon eyes suspiciously.

FACE (CONT’D)
It’s important.

GIDEON
I... I’m military... or something. My wife... and machines... Big machines.

FACE
And?

GIDEON
There was this woman. I was chasing her.

A memory of Gideon chasing Alice and being hit flashes back.
GIDEON (CONT’D)
I was hurt but...something happened. I don’t know how to explain it.

Face looks upward. A map where her image was suddenly appears with a flashing red dot flying toward them indicating danger.

The drone continues flying through the treetops towards them ominously.

FACE
We don’t have much time, Gideon.
What else do you remember?

GIDEON
What do you mean we don’t have much time?

FACE
There was a girl.

Face just stares at him. From afar Gideon is watched by someone else.

GIDEON
I...I never saw the woman again.
I..I didn’t want to. But I started remembering things... about finding a key.

Face looks off in the distance and raises her voice to a nearby companion.

FACE
It’s not far off now!

Gideon tries to see behind him and can’t. He starting to feel woozy.

GIDEON
Who are you talking to?

Face projects her image closer to Gideon.

FACE
Gideon- Do you remember this man?

She flashes an image of Devyn.

GIDEON
Yeah- that’s him. He had ...had me.
Gideon begins to nod off.

FACE
Gideon!

GIDEON
Tired...

FACE
Are you sure? Do you remember anything else about him? It’s very important.

Gideon shakes his head groggily..

FACE (CONT’D)
Gideon!!!

Just then a drone flies in and hovers in the air. Devyn’s face is heard.

DEVYN (O.S)
Gideon! Just you? What a shame— I guess we’ll just have to end things here after all.

The drone is about to fire when a wave pulse is heard in the distance. From afar, a figure blasts the drone and it begins to limp away, sparks flying.

Gideon watches as the drone limps away damaged before he passes out.

INT. TIME DISPLACEMENT FACILITY - FLASHBACK

There is a large hangar where a large imposing piece of machinery designed for one man begins to whir and come to life.

Electricity crackles and Gideon suddenly appears and collapses on the floor out of thin air.

Gideon claws to rise up to his haunches while steam rises from him.

GIDEON
Sebastian! Sebastian!

The sound reverberates and echoes thunderously. Gideon has to cover his ears. The room then pulses and cascades with some kind of barrier.

A hologram appears with Sebastian’s face gravely concerned.
SEBASTIAN
It’s secure now Gideon. The barrier is up—go ahead.

GIDEON
I failed. I couldn’t find her. Her father... I killed...her father...he

SEBASTIAN
It doesn’t matter. And the file?

Gideon nods.

GIDEON
That’s done.

SEBASTIAN
Ok. (beat) there’s been a priority development.

Gideon lifts his head.

SEBASTIAN (CONT’D)
She’s been here, Gideon. While you were gone. She broke through security and used the equipment.

Gideon looks back at the machinery.

SEBASTIAN (CONT’D)
I need you to jump immediately. Before she damages the timeline beyond’s it’s capacity.

Gideon begins to head back towards the machinery and pauses.

GIDEON
I’m not 100% right now...the nanos...they might misfire at some point.

SEBASTIAN
We need to take the chance.

Gideon nods. The machinery begins to whir and hum. Electricity crackles once more and bright light envelopes Gideon.

FADE OUT.
EXT. FOREST— NIGHT

Gideon groggily comes to as his eyes open to the full sized figure of Face starring at him.

FACE
You’re awake.

GIDEON
Jesus! You’re huge! How’d you get so huge?

Face smiles at that.

FACE
There— take that rope and fasten me to you’re arm. I can help you while we move.

Gideon looks at the rope and starts to do so.

GIDEON
What happened?

FACE
You had a friend nearby... and before you ask... No, I can’t tell you.

GIDEON
You’re not really great for answers— did anybody ever tell you that.

Face just smiles and looks back at Gideon. Sighing, he gets to his feet and winces. He’s starving and sore.

FACE
That way. And hurry— there’s no telling if another is nearby.

GIDEON
So is this how’s this works?

FACE
What do you mean?

GIDEON
I have some night-lite tellin’ me what to do without giving me any answers? Someone tied me up, someone helped me back there and...
FACE
Someone has told me to keep that
information from you, but trust me—
they want to help. (sighs) I’ll
fill you in more as soon as we get
out of this forest. There—there’s
a clearing over there.

From afar, a cloaked Mech takes note of Gideon and begins
pursuit.

GIDEON
Hey, do me a favour—can you send a
message? A text or something?

GIDEON (CONT’D)
Yes—just enter the number here.

A holographic dialpad appears and Gideon inputs a message. He
finishes and the dialpad vanishes.

GIDEON (CONT’D)
You mentioned...that man...

FACE
Sebastian. Sebastian Carrington is
his name.

GIDEON
What can you tell me?

Gideon winces and stops.

FACE
We’re here.

Gideon stumbles out of the woods to find an abandoned shack
of a bar cordoned off. He begins walking towards it.
EPISODE 1

INT. FACILITY-NIGHT

Gideon sits in a chair subdued by holographic restraints. Sebastian and a nurse are present. A hologram appears with text in front of his eyes.

TELEPROMPTER
You’ve been caught consorting with criminals, undesirables. Anarchists.

Gideon winces in worry, nervous.

TELEPROMPTER (CONT’D)
As such you’ve been given an option of serving time... or... a beta tested behaviour-modification therapy enhancement. How do you plead? Yea or nay?

Gideon winces, closes his eyes and nods.

TELEPROMPTER (CONT’D)
Let it be shown the defendant has shown to nod in the affirmative.

A green light suddenly chimes softly to light. The nurse begins to prep Gideon as such. She prepares a syringe, full of clear fluid.

She lifts Gideon’s sleeve and injects the fluid. Gideon clenches his eyes and opens them as the fluid rushes through his blood stream and nanomachines begin to alight the veins throughout his arms.

FADE TO WHITE.

INT. BAR-NIGHT

Gideon stares ahead thoughtful of the past. Face, the hologram activates in the background, responsive to his mood.

FACE
Whatcha thinking about?

Gideon swills a drink in his hand and gulps down a sip.

GIDEON
Future-past. And what to do next.
INT. BAR-NIGHT

Face is staring at Gideon, waiting for an answer but Gideon isn’t biting.

FACE
  I don’t under...

GIDEON
  You mentioned I had a friend.

It’s face’s turn to be quiet. Gideon nods in understanding.

GIDEON (CONT’D)
  I have more then a few.
  (beat)
  It’s time. Now tell me- what don’t I know?

Face’s full sized image approaches Gideon and approaches close.

FACE
  I’m glad you asked.

Face approaches and leans in.

FACE (CONT’D)
  You know it’s all inside you.

GIDEON
  What?

FACE
  I’m sure you’ve spoken to them already. They’re part of you.

Gideon thinks back and an image of the red-haired woman he saw, previously unconscious appears to him.

WOMAN (O.S.)
  We’re a part of you.

GIDEON
  How did you know?

Face re-materializes across the room.
FACE
They were programmed to program you
Gideon. That's why you did...what
you did.

Gideon winces at that.

FACE (CONT'D)
It wasn't you. But somehow...the
jumps, the disruptions...

An image of being blasted from behind flashes by.

FACE (O.S.) (CONT'D)
They released you. They reset. The
woman you know as Chord...she
brought you back from being a
zombie. (beat) you owe her.

GIDEON
Whoa...I owe her? What about my
wife?

FACE
And her? Her father...

Gideon turns away sharply.

EXT. FOREST- NIGHT
A cloaked titan mech walks through the forest. He scans the
ground searching for clues for Gideon.

INT. BAR-NIGHT
Gideon is pacing back and forth, drink in hand. Face watches
from the side.

FACE
Drink what you will... they won't
let you get drunk. Just like they
won't let you stay injured.

Gideon puts down the drink.

GIDEON
I did things. Hurt people. It's in
my head...it's all here...I
remember them!

FACE
Yeah... but you know...
GIDEON
You say it like... like I shouldn't care...

EXT. BAR - NIGHT

A figure assesses the bar from outside. Gideon’s voice is analyzed and heard from afar identifying him.

INT. BAR-NIGHT

Gideon stares ahead.

GIDEON
There’s no way out of this, is there? I’ve already...already “will do” these things..

Face nods.

GIDEON (CONT’D)
There’s nothing to be done is there.

ALICIA (O.S)
Why do you say that?

Gideon turns to see Alicia, who nods at him.

ALICIA (CONT’D)
Whose you’re friend?

Face looks at herself and back, frowning. Alicia smiles.

EXT. FOREST-NIGHT

The titan mech continues to walk. It’s sensors read nothing. Sebastian’s face appears on it’s scanners.

SEBASTIAN
Continue due north. Drone assessments place the signal north 1 km north of your position. Make due haste.

The titan mech turns and heads north.

INT. BAR-NIGHT

Gideon is embracing Alicia when Face breaks the silence.
FACE
Ahem...

ALICIA
I wasn’t sure... Thomas stayed behind... like...

GIDEON
Protocol... yeah... you remembered...

Alicia nods.

ALICIA
So what happens now?

GIDEON
This... call her “Face”. She’s been helping me.

ALICIA
Alright- so?

Gideon and Face eye her. Gideon shrugs and Alicia counters.

ALICIA (CONT’D)
You phone. You disappear. You text me and show up here... in a bar... sorry, abandoned bar. Drinking with... a “Face”.

Gideon and Face say nothing.

FACE
You’re famous.

ALICIA
Excuse me?

FACE
Alicia Kimball. You’re work.

GIDEON
Turns out you’ve got fans where I’m from.

FACE
You’re insights into game theory and analysis create avenues into AI. Your work is revolutionary.

GIDEON
I didn’t know exactly “why” they were after you- guess that’s our reason.
ALICIA
Okay. I can buy that. So where do "you" come from?

CHORD (O.S)
She’s with me.

Chord steps from out of the back wall’s shadow.

CHORD (CONT’D)
You’re gonna want to leave, right now.

FADE TO BLACK.

EXT. BAR – NIGHT

An SUV drives off the distance carrying the team away. A cloaked Titan Mech steps on to the scene.

INT. BAR – NIGHT

The Titan Mech’s heavy footsteps disrupt the silence of the bar. It de-cloaks and analyzes the scene.

It’s an imposing figure in the otherwise deserted bar.

It begins relaying a signal to it’s headquarters

TITAN MECH (SUBTITLE)
No indication or life readings present.

SEBASTIAN
Return to base. Aerial reconnaissance will continue scans.

The Titan Mech cloaks once more and exits the bar.

FADE TO BLACK.
EPISODE 5

INT CAR - NIGHT

Gideon, Chord and Alice are driving off in the SUV. Gideon drives while Chord is in the back seat. She analyses the “face” device. Gideon begins to hear the nanos speak.

NANOS
She’s not your enemy. No more than you are hers.

- an image of the red-headed girl flashes by. Gideon looks around. He looks at himself in the rear-view mirror briefly.

GIDEON
You again? I didn’t think I’d hear from you again.

NANOS
I told you we were a part of you.
We want what you want.

GIDEON
Which is?

NANOS
Peace. Quiet. Rest.

Chord clears her throat.

CHORD
You’re talk to you as well?

Gideon stares and quickly tries to brush it off.

CHORD (CONT’D)
It’s ok. Mine do sometimes as well.

Chord looks out the window.

It’s how I knew to find you back there. It’s how I can do... things.

She gestures the wave motion and returns to her work. Alicia looks from Gideon to Cord. Chord catches her and returns to her work.

ALICIA
What are you doing?
CHORD
I need the source code for how this thing operates. I'm missing something.

ALICIA
Missing? For what?

Chord briefly raises her own “Face” device. Alicia eyes her suspiciously. Chord looks to Gideon.

CHORD
Airport. Head there.

Gideon eyes her through the rearview mirror.

ALICIA
It’s a monitored no-fly zone. His drones can’t easily access the area.

GIDEON
No can do. I need... sustenance. Soon.

Chord eyes him and looks at Alicia.

ALICIA
He’s not kidding.

Chord eyes Gideon and notices his grimace.

CHORD
There’s a place. Just out of the city. It should work for now. Take your next left.

Gideon nods and presses harder on the gas. Chord looks down and briefly catches sight of her hand displacing. She looks around and tries to play it off casually.

INT. FACILITY—FLASHBACK

Sebastian is watching an industrial factory for drones on the monitors. Gideon enters.

GIDEON
(signs)
Here to report.

Sebastian waves and a faint glow surrounds them.
SEBASTIAN
It’s okay. Go ahead.

GIDEON
No sign of the rebel’s whereabouts yet. Reports of a destroyed drone squad at vector 8-alpha are coming through.

Sebastian takes the news and thinks.

SEBASTIAN
Gideon, I think it’s time to let you in a secret.

GIDEON
What’s that, sir?

SEBASTIAN
You’ve been with me a long time now Gideon...despite a step or two off the path at the beginning. But on the whole, a long time.

Sebastian waves his arm. His eyes glow briefly and a screen flashes forth of the time displacement gear.

SEBASTIAN (CONT’D)
I need you to come a little bit further with me, Gideon. I need you to complete a task for me.

GIDEON
Sir? Of course I’m in. May I ask the timeline I have to complete the objective?

Sebastian turns and smiles.

SEBASTIAN
It’s funny you should ask.

FADE OUT.

INT. FACILITY - NIGHT

Sebastian is reminiscing, when a screen props up. He activates it and smiles.

SEBASTIAN
Tsk, tsk. Gideon. Do you really think I would just let you go after everything?
He taps into the Face device and spies on Alicia and Gideon speaking.

INT. APARTMENT - NIGHT

ALICIA
Did she say when she'd be back?

GIDEON
Supply run. Shouldn't be much longer now. You haven't said too much. How're you doing?

Alicia starts to rise and pace about while speaking.

ALICIA
They're not wrong. You know? I have been working on something...what they're talking about. But it's not...it's just scribbles. Thoughts. Not like what they're talking about.

GIDEON
Progress starts that way.

Alicia makes eye contact.

ALICIA
Yeah. And you?

Gideon thinks about it a moment.

GIDEON
I killed her father. She killed my wife. Seems easy enough after that doesn't it? But it isn't.

Alicia sits next to him. Gideon is a moment before speaking.

GIDEON (CONT'D)
"The enemy of my enemy is my friend."

Alicia smiles at that.

ALICIA
Who taught you that?

GIDEON
An old friend. Our new enemy.

Gideon gets up to check the window.
INT. FACILITY - NIGHT

Sebastian grits his teeth at Alicia and Gideon. Sebastian watches their interaction and grits his teeth before walking away.

EXT. APARTMENT - NIGHT

A drone circles the bar outside. It begins to hover closer and scans the building. An infrared scan reveals Gideon and Alicia speaking.

Suddenly, it gets hit by something below hard. Turning, it sees Chord about to release a blast wave. It begins to exit the scene but is blasted once more before escaping.

INT. APARTMENT - NIGHT

Chord hurries into the apartment, flinging some clothes at Gideon and puts some groceries on the table.

GIDEON

Hey!

Chord shushes him with a gesture and signs.

CHORD

(signing)

I just saw one drone. Outside.

Gideon’s eyes widen.

CHORD (CONT’D)

(signing)

I damaged it and it took off.

ALICIA

Wha..

Gideon and Chord both gesture for her to silence.

GIDEON

(signing)

What’s the play?

ALICIA

(signing)

He knows we’re here. He must!

GIDEON

(signing)

How!? There’s no way to track....
The realization hits them both at the same time. They turn to see Gideon’s face device on the far table.

GIDEON (CONT’D)

(whispers)

No way...

CHORD

Perfect way to track you. Sends a signal to me. I get you. I already trust her.

Face suddenly appears.

FACE

Is there a problem?

CHORD

Run a self diagnostic.

Face looks down momentarily.

FACE

Systems are nominal.

CHORD

We leave it here. It wouldn’t know if it was tracked anyways.

She turns to Gideon.

GIDEON

Do you get what you need from her? In the car?

CHORD

Source code? Yeah— I just need some help from her now.

Chord nods to Alicia.

GIDEON

Let’s go than.

The trio begins to turn and exit when a voice echoes from the device and first disrupts, then completely breaks through the Face projection. Sebastian stands full frame in center of the room.

SEBASTIAN (O.S.)

Wait!

The three stop.
GIDEON

I knew it.

Chord nods in agreement before turning. She begins to rub her hand and arm.

SEBASTIAN

Gideon, you disappoint me. Apparently, one beating isn’t enough to get the lesson through that big, bald head of yours.

GIDEON

We’re listening. What do you want?

SEBASTIAN

Talissa. You have a device that holds a certain unique source code. I’m interested in. No, don’t look surprised. I’m well aware of your little exploits into preventing my nanos from...well...you know. I’m offering a trade. As you’re no doubt aware, you’re trapped. Trapped in this time. This place. This life. Trapped.

Cideon and Chord look at each other. Chord turns to approach the window while listening to Sebastian. She conceals her hand and notices it “displacing”.

SEBASTIAN (CONT’D)

It’s a different feeling...being a step out of time, isn’t it? So here it is- bring me the device with the source code you’ve been working on, and I’ll take you back.

GIDEON

How?

SEBASTIAN

The message Gideon. I sent you back with a message for me the first time. Me, the younger me, has been building the machine since then. Since Talissa was just a child. You know- when you killed her father.

Chord turns and throws a nearby cup through the hologram. Sebastian laughs.
SEBASTIAN (CONT'D)
I'm listing coordinates and times.
I'll be there tmrw. Think of it.
You have my word—home and a clean
slate. Or stay here. Think it over.
You have a day.

The trio look at one another, obviously disturbed by the
news.

FADE OUT.
EPISODE 6

FLASHBACK

- Young Talissa escapes while her dad is killed.

- An older Talissa walks along train tracks disheveled. She hides when she sees a drone fly overhead.

- An older Talissa eats, cold and huddling in rags.

- Talissa watches it rain under a shanty shack. She eyes a paper with Gideon and Sebastian’s picture with the headline “Titan industries” before throwing it down. She grits her teeth and begins to test her abilities once more.

- It’s a clear day. She stands stronger and blasts bottles on a log.

- A rabbit hops in the forest and is suddenly blasted by Chord.

- Chord approaches and stops to analyze her kill, breathing heavily. Transition to older Chord. She aims at a generator with an elaborate rifle. And Pulls the trigger. A blast is heard. Chord exits the scene leaving a burning Titan industries building in the distance.

INT. APARTMENT - NIGHT

Chord is looking at Gideon and the team.

CHORD

We can’t do what he wants.

GIDEON

No kidding. What’s he talking about? Your device.

CHORD

The nanomachines. I’ve been working on a way to stop them. To turn them off. It’s all here.

She holds up her face device.

GIDEON

Does it work?

CHORD

No. Not quite. I’m close but…

She shakes her head.
GIDEON
Sebastian. He’s got to have a weak point. Some way we can get at him without him seeing.

CHORD
You would know. He’s you’re...boss...

ALICIA
Hey...

CHORD
Whatever.

Face activates.

FACE
Gideon.

GIDEON
Yeah.

FACE
She’s right. (beat) you “should” know. You just can’t remember.

GIDEON
What are you suggesting?

FACE
She could jump start your memories, your nanos. She’s teh only that could!

CHORD
Wait, what?

FACE
Her nanos...it’s the same technology, just a different model. The interface could create enough of a spike to re-jog your nanos into reviving your memories.

GIDEON
Oh hell, no!

CHORD
Oh, it’s not like I want to help you at all!

Silence. Alicia clears her throat.
ALICIA
Whatever happened to “the enemy of my enemy is my friend?”

Gideon scowls at her, stops for a moment and begins to approach Chord.

GIDEON
He can’t win. If it can work...
(beat) Just...do what you gotta do.

Gideon lays down. Chord approaches and looks to Face.

FACE
Just, holds your hands close to his temples and let the nanos do the rest.

She kneels close and does so. Instantly, small ripples and waves begin to pulse forth, interacting with Gideon’s nanos near his temple.

EXT. CYBER DREAMWORLD – DAY

Gideon awakes and immediately sees the red headed girl from before.

GIDEON
Who are you?

NANOS
I told you. I’m you.

GIDEON
Yeah... that’s what I figured. I need your help. If you’re really me, you know why.

NANOS
We know.

The nanos lean in close once again. Gideon begins grimacing in pain as the effects take hold.

INT. APARTMENT – NIGHT

Gideon’s eyes open and he sees Chord and Alicia.

CHORD
Something’s wrong.
ALICIA

What?

CHORD

I dunno... feedback from the displacement? Feedback?

FACE

The nanos. You’re experiencing interfacing difficulties.

ALICIA

Why?

CHORD

It’s the tech isn’t it? Different model types.

FACE

(trails out)

Yes, his are a different model and design...(where Talissa’s originated from her father.)

INT. FACILITY – FLASBACK

Gideon and Sebastian are watching projection screens of various facilities being destroyed and sabotaged. Sebastian slams a nearby desk and waves them away.

GIDEON

(signs)

Sir? What would you like me to do?

SEBASTIAN

(signs)

Oh stop!

He gestures and his eyes briefly alight. The air ripples briefly.

SEBASTIAN (CONT’D)

I want her caught Gideon.

GIDEON

Easier said then done, sir. I thought I had her on the roof...but she’s quick. (beat) Sir, may I ask- why is she important?

SEBASTIAN

Her father. Her damned father! She knows things better left alone.

(MORE)
SEBASTIAN (CONT'D)
But there is something to be done
Gideon....Come. Look!

The image begins to distort and Gideon comes to.

EXT. CYBER DREAMWORLD - DAY

Gideon is on the ground. He looks up and sees the nanos representative staring at him.

NANOS
Did you see enough?

GIDEON
I...no. Once more.

NANOS
Are you sure? This process could kill you.

Gideon thinks and nods, decisively. The nanos try once more. Gideon grimaces and his eyes begin to flare up.

INT. APARTMENT - NIGHT

Chord is beginning to grimace. Her own eyes begin to alight.

ALICIA
What’s wrong?

CHORD
It’s him. I’m...I’m seeing...what he’s sees!

She stares ahead, eyes aglow.

Images flash by of:
- Gideon’s wife.
- Gideon speaking to Michael Bryant (ep.2)
- Gideon speaking to a different girl (ep.2)
- Gideon overlooking a burning city.
- Gideon overseeing an army
- Gideon entering the time displacement machine.
- Gideon killing Chord’s father.
- Gideon speaking to Face about Chord’s father.

INT. FACILITY - FLASHBACK

The scene picks up. Sebastian activates a 3-d blueprint of the time displacement machine.

SEBASTIAN
This. This is our key to everything. The beginning, the end. All of it. She has no idea, Gideon.

Sebastian turns to face him.

SEBASTIAN (CONT’D)
No one does, and I owe it all to you old friend.

Gideon angles his head, questioning.

SEBASTIAN (CONT’D)
You gave me this yourself. Or more appropriately, you will one day.

INT. CYBER DREAMWORLD - DAY

Gideon sits in a world of infinite white. He is silent, tears run down his cheek.

NANOS (O.S.)
You saw enough?

Gideon nods.

GIDEON
I caused this. I...

NANOS
Not quite. Our programming influenced your behavior.

GIDEON
But it was me...my actions...

The girl brushes Gideon’s cheek. Instantly, the world begins to shake.

INT. APARTMENT - NIGHT

Chord grits her teeth, eyes still aglow. Tears run down her face also.
INT. CYBER DREAMWORLD - DAY

Gideon sees a blurred feminine figure off in the distance.

GIDEON
(whispers)
Alice?

On the other side of him, the Nanos image distorts and breaks up. She holds out a hand.

NANOS
Gideon. Take our hand. You can no longer stay here.

Gideon turns to look at the figure.

GIDEON
Alice!

NANOS
You have to leave, Gideon. It’s time for us to go.

GIDEON
(whispers)
What if I don’t want to go?

NANOS (O.S.)
We are a part of you. We always will be.

Images flash by:
- Alice says “I love you”
- Gideon fighting Sebastian
- Gideon screaming

INT. APARTMENT - NIGHT

Chord is on the floor. She opens her eyes. Gideon is already up and leaning against the wall, withdrawn. Alicia tends to Chord.

ALICIA
Are you okay?

Chord nods. She catches Gideon’s eye.
GIDEON
(sings)
You saw?

Chord nods.

GIDEON (CONT’D)
(sings)
He’s arrogant. It’s his flaw.

Chord nods again.

GIDEON (CONT’D)
(Sings)
What should we do?

Chord sits up

CHORD
I have a plan.

The three stare at each other, uncertain of the future.
Episode 7

INT. APARTMENT - NIGHT

Gideon begins to approach Chord.

GIDEON
He can’t win. If it can work...
(beat) Just... do what you gotta do.

Gideon lays down. Chord approaches and looks to Face.

FACE
Just, holds your hands close to his temples and let the nanos do the rest.

She kneels close and does so. Instantly, small ripples and waves begin to pulse forth, interacting with Gideon’s nanos near his temple.

Gideon eyes begin to roll back.

ALICIA
He’s out.

Chord nods. Alicia looks to him and back.

ALICIA (CONT’D)
This must be weird.

Chord looks to him and back.

CHORD
I was young when he took my father. I hated him for most of my young life. Until I came here.

Alicia looks at Chord and then Cideon.

ALICIA
He told me. But then why?

CHORD
I woke up here with no memory. The nanos in me are different. But there was a friendly face.

Chord looks at the Face hologram.
CHORD (CONT’D)
She guided me when I first woke up.
She told me about him, about him
being misled. And that I had to
trust him, or at least not kill
him.

Alicia looks at Chord.

CHORD (CONT’D)
It’s a long story.

Face’s image projects nearby. Chord notices and starts
speaking.

CHORD (CONT’D)
I woke up here with no memory,
And then, it slowly started to come
back. What I could do. And before
you know— there he was. Just like
she said.

Chord looks at Face.

CHORD (CONT’D)
And I was alone again. I dropped my
device that night, so, I had to
start building a new one. A
different one, but this time, this
would have a code. Something from
my past. A way to interfere with
the nanos.

She looks at Face.

CHORD (CONT’D)
Go ahead.

Face closes her eyes and mathematical formulas and codes fill
the air. Alicia is awe struck at first.

ALICIA
These numbers. This code. This one,
right here. I was working on this!

The air begins to ripple around Chord. She is beginning to
displace again. She flickers away briefly and is instantly
back.

ALICIA (CONT’D)
(whispers)
What the hell!
Chord grimaces, but she still manages to keep the connection with Gideon going, obviously pained.

CHORD
What’s happening to you?!

CHORD (CONT’D)
The jumping. It affected me differently. Just a second.

Chord has to place her head to the floor and take deep breaths. She rises, forehead sweaty.

CHORD (CONT’D)
It jumps me around and back, when I least expect it. Now, back to it.
Face!

Face closes her eyes again and a terminal forms of light in front of her.

CHORD (CONT’D)
Ms. Kimbell, have you finished your equations yet?

Alicia looks at the code, and then back to Gideon.

ALICIA
And if I haven’t? What do you want with it?

Chord looks back to Gideon, who is starting to look troubled. The equations vanish. The waves emanating from Chord’s hands fluctuate in intensity.

CHORD
Something’s wrong.

ALICIA
What?

CHORD
I dunno... feedback from the displacement? Feedback?

FACE
The nanos. You’re experiencing interfacing difficulties.

ALICIA
Why?
CHORD
It's the tech isn't it? Different model types.

FACE
Yes, his are a different model and design than from where Talissa's originated - with her father.

Chord grunts and her waves amplify greater. She is putting a lot of effort into this.

CHORD
I need that equation, Kimball!

ALICIA
What are planning to do with it?

Chord grimaces with pain. She grits her teeth and snarls her answer.

CHORD
I'm gonna unleash the virus to kill both of these bastards. Ahhhh!

Chord screams. Her own eyes begin to alight.

ALICIA
What's wrong?

CHORD
It's him. I'm...I'm seeing...what he's seen!

She stares ahead, eyes aglow. Alicia turns to Face.

ALICIA
Do something.

FACE
I can't. I can't interrupt the interfacing process.

Moments pass. Chord grits her teeth, eyes still aglow. Tears run down her face also.

CHORD
(whispered)
No. He wants it...He wants to die...

Her eyes flare brightly and she collapses.
INT. APARTMENT - NIGHT

Chord is on the floor. She opens her eyes. Gideon is already up and leaning against the wall, withdrawn. Alicia tends to Chord.

ALICIA
Are you okay?

Chord nods. She catches Gideon's eye.

GIDEON
(signed)
You saw?

Chord nods, cheeks streaked with tears.

GIDEON (CONT'D)
(signed)
He's arrogant. It's his flaw.

Chord nods again.

GIDEON (CONT'D)
(Signed)
What should we do?

Chord sits up. She looks to her device and the other face device. Alicia catches that and nods to her.

CHORD
I have a plan.

The three stare at each other, uncertain of the future.

- At the end, chord has an idea (Chord changes the source code between face devices to trick Sebastian. She also adds the message to spare/ aid Gideon when he arrives. She tries to tell herself "time is stronger then you think")

Episode 8

EXT. IONA BEACH - DAY

The trio drives towards Iona beach. Chord is in the back seat lost in her thoughts.
Alicia frets with her hair in nervous anticipation and Cideon drives with an unreadable, grim visage.

GIDEON
We’re getting close.

Chord catches Gideon’s eye in the rearview and nods. She holds the Face tablet device in her hand sternly. She thinks back to the night before...

INT. APARTMENT – NIGHT FLASHBACK

The trio look at Chord.

GIDEON
What’s your plan?

Chord takes the phone device and places it in the next room. She powers up the clock radio and raises the volume. And returns to the others.

CHORD
Just in case.

The others nod.

CHORD (CONT’D)
(Hushed tones)
Arrogance. It’s his weakness. He wants the tablet device so badly because he thinks the code to shutting down the nanos is in there.

GIDEON
Yeah? Is it?

CHORD
Yeah- but it doesn’t have to be the only one.

ALICIA
What are you saying?

CHORD
Be delusional enough to think his plan is our only option. Let’s just give him what he wants- just not in the way he wants it.

Cideon cracks a smile and the two share a moment.

EXT. IONA BEACH – MORNING
The team arrives and as they park, two nearby drones uncloak momentarily revealing the team is being watched. The trio looks at one another.

They park and exit the car. Gideon takes the lead and points out Sebastian in the distance.

ALICIA
Gideon.

She doesn’t have words. Gideon nods to her. He’ll be careful. Chord begins walking, but she slows, obviously troubled.

ALICIA (CONT’D)
What’s wrong

CHORD
Nothing. It’s fine.

Alicia is disturbed but continues on. Chord lifts her hand to reveal it displacing once more. She looks around and struggles to hide it.

Sebastian approaches closer and calls out.

SEBASTIAN
Gideon. So nice to have you back. I assume you have it?

Gideon looks back to Chord.

SEBASTIAN (CONT’D)
Ah! Talissa. This meeting has long been overdue. (beat) You’ve proven to be quite troublesome, young lady.

Sebastian stares at Chord who in turn stares right back.

SEBASTIAN (CONT’D)
You have you’re father’s eyes. Shame about him. You see- I really wanted to have you killed and not him. I already had stolen most of his research, unfortunately, Gideon was...more effective than I thought.

The final confrontation begins between Gideon and Sebastian. Sebastian manages to get Gideon as a hostage and headlock.
Cideon recognizing his fate, thinks of his wife and the actions taken to get to this point. He activates his laser through his side, stabbing Sebastian as a result.

Chord "jumps" back and finds Gideon bleeding on the ground. She takes Sebastian's device and begins uploading the self-destruct sequence. Alicia (Tara) is there to help revive Gideon.

Sebastian warns Chord that activating the device will kill them all (it will subdue all the nanomachines, including her own—thus killing her) to never be. She thinks back on the message from her younger self ("time is stronger than you think") and decides gain is worth it and activates the device ending the nanotech threat and the future-past.
Episode 8

EXT. IONA BEACH – DAY

The trio drives towards Iona beach. Chord is in the back seat lost in her thoughts. Alicia frets with her hair in nervous anticipation and Gideon drives with an unreadable, grim visage.

GIDEON

We’re getting close.

Chord catches Gideon’s eye in the rearview and nods. She holds the Face tablet device in her hand sternly. She thinks back to the night before...

INT. APARTMENT – NIGHT FLASHBACK

The trio look at Chord.

GIDEON

What’s your plan?

Chord takes the phone device and places it in the next room. She powers up the clock radio and raises the volume. And returns to the others.

CHORD

Just in case.

The others nod.

CHORD (CONT’D)

Hushed tones

Arrogance. It’s his weakness. He wants the tablet device so badly because he thinks the code to shutting down the nanos is in there.

GIDEON

Yeah? Is it?

CHORD

Yeah— but it doesn’t have to be the only one.

ALICIA

What are you saying?
CHORD
He delusional enough to think his plan is our only option. Let’s just give him what he wants—just not in the way he wants it.

Gideon cracks a smile and the two share a moment.

EXT. IONA BEACH - MORNING

The team arrives and as they park, two nearby drones uncloak momentarily revealing the team is being watched. The trio looks at one another.

They park and exit the car. Gideon takes the lead and points out Sebastian in the distance.

ALICIA
Gideon.

She doesn’t have words. Gideon nods to her. He’ll be careful. Chord begins walking, but she slows, obviously troubled.

ALICIA (CONT’D)
What’s wrong

CHORD
Nothing. It’s fine.

Alicia is disturbed but continues on. Chord lifts her hand to reveal it displacing once more. She looks around and struggles to hide it.

Sebastian approaches closer and calls out.

SEBASTIAN
Gideon. So nice to have you back. I assume you have it?

Cideon looks back to Chord.

SEBASTIAN (CONT’D)
Ah! Talissa. This meeting has long been overdue. (beat) You’ve proven to be quite troublesome, young lady.

Sebastian stares at Chord who in turn stares right back.

SEBASTIAN (CONT’D)
You have you’re father’s eyes. Shame about him. You see— I really wanted to have you killed and not him.

(MORE)
SEBASTIAN (CONT’D)
I already had stolen most of his research, unfortunately, Gideon was... more effective than I thought.

Chord remains silent. She grips the tablet device tightly and Sebastian takes notice. Her right hand is slightly behind her back, lightly displacing.

CHORD
You ruined my life. All of our lives. Our past, our future.

SEBASTIAN
Ruin? I “saved” it! Now there’s order! Purpose! You know what? This is a waste of time. Give me the device. If you want to go back and have any semblance of a normal life, you’ll hand the device over NOW!

CHORD
Here’s your device!

Chord throws the device and immediately blasts Sebastian with one of her waves. Sebastian is knocked back, stunned and Chord lifts her hands seeing the displacement going in intensity.

CHORD (CONT’D)
No!!!

Chord displaces. Gideon spots the tablet on the ground at the same time Sebastian does. They both start running towards it. Gideon picks up the tablet device first, only to have it kicked out his hands. Sebastian activates his laser saber and Gideon does the same, parrying Sebastian first volley.

EXT. BUILDING - FLASHBACK - NIGHT

Chord looks around and tries to catch her berrings. She instantly takes notice of her past “self” walking out of a building, slightly dazed.

She begins to follow from a slight distance and looks around.

Around the corner, she takes notice of Gideon, stalking her former self.

Gideon begins to charge after the stunned Chord of this timeline. The past Chord turns and blasts him. Our Chord, shrouded in black, begins closing in, upon seeing Gideon beginning to get up again and blasts him from behind.
Gideon collapses. The stunned Chord stumbles off and drops her phone device which holds Face. Our Chord checks on Gideon to see if he’s still alive. Immediately, her hand begins to tremble and displace again. She begins to leave and displaces as she runs.

EXT. IONA BEACH — DAY

Gideon and Sebastian continue to targe blows. Alicia watches from a distance, inching closer to the device. Sebastian notices her advances.

SEBASTIAN

No!

Sebastian manages to send a wave blast, between blows, knocking Alicia to the ground, unconscious.

GIDEON

Alicia!

The moment is enough to unbalance Gideon and allow Sebastian to get the upper hand. He manages to swing through Gideon’s defenses and spin him about into a headlock, saber ready to pierce his temple. Chord displaces 5 feet away just then.

Alicia begins to come around and catches sight of the fight.

SEBASTIAN

Say Goodbye Gideon.

Gideon, fearful of this moment, begins mouthing a phrase.

SEBASTIAN

What!?

GIDEON

(whispers)

It’s worth it.

INT. APARTMENT — FLASHBACK — NIGHT

Chord is close to Alicia.

CHORD

I need your help. I need to know the last of the theorem.

Alicia looks at Chord and Gideon.
ALICIA
But it could kill you. If it really disrupts the nanos and the nanos are a part of you.

GIDEON
The plan is to save our future. If it can work - it’s worth it. All of it.

Alicia looks to her purse and pulls out a small notebook.

ALICIA
Here. This is the last of it.

Chord smiles.

GIDEON
What’s that?

CHORD
Funny is all. How such a big idea could fit into such a small book.

Gideon nods. Chord flips through the book.

CHORD (CONT’D)
It is worth it, right?

GIDEON
It’s worth it.

EXT. IONA BEACH - FLASHBACK - DAY
Gideon begins to maneuver his hand over his side shoulder.

SEBASTIAN
Sorry to say it, Gideon. But this- is the end!

Just then, Gideon activates his laser sword slicing through his shoulder and burning through Sebastian at the same time. The pair scream in pain.

CHORD
Gideon!

Chords voice trails off as she disperses once again. Alicia staggers to reach Gideon. Sebastian remains unconscious. Alicia begins to immediately tend the wound.
EXT. BUILDINGS – FLASHBACK – NIGHT

Chord displaces and staggers. Her hand is still trembling and displacing. She catches sight of herself once more.

      CHORD
      (to self)
      No! No, no, no, no, no.

Chord pulls out the phone device and book. She looks at the two and drops to the ground to begin scribbling something within the pages of the theorem.

The words “TRUST GIDEON! IS NOT YOUR ENEMY!” She begins to close but reconsiders and writes: “TIME IS STRONGER THAN YOU THINK.”

Chord watches her former self collapse and begins to approach. Her former self collapses. Our Chord, shrouded in black, plants the phone device and book.

Once more she runs off to quickly displace.

EXT. IONA BEACH – DAY

Chord displaces back next to the tablet device. She picks it up and quickly runs over to Gideon.

      CHORD
      How is he?

      ALICIA
      Weak. But the nanos are already sealing his wound.

Sebastian begins to come around 10 feet away. Chord at Gideon and shares a look.

      GIDEON
      Do it.

      ALICIA
      What?

Chord nods and begins to activate the device.

      ALICIA (CONT’D)
      What are you doing!?

Sebastian rises up.
CHORD
This can end. Now - before any of it even begins.

ALICIA
No! You can't. You said it wasn't safe.

GIDEON
We said it wasn't safe to us.

SEBASTIAN
Do it. You do it now and we all die. (coughs) I know what you're thinking. I saw the source code. I know what you're thinking. But it won't happen. It will short all the nanos everywhere - including us! All you'll do is kill yourselves! Is that what you want?

Chord hesitates.

SEBASTIAN (CONT'D)
No home. No way back! No, nothing!

Chord goes back and gets a confirmation screen.

SEBASTIAN (CONT'D)
No! TALISSA! WAIT!

Chord turns.

SEBASTIAN (CONT'D)
No father. No anyone. No timeline. It all ends. The paradox - it's too much Talissa. It all ends.

Chords look to Gideon, Alicia and back. Images flash by:
- Chord as a child, running from Gideon.
- Chord entering the time displacement equipment.
- Chord killing Gideon's wife.
- Chord hugging her father.

Chord turns to Gideon and Alicia.

CHORD
I'm sorry.

Gideon nods.
Chord turns to face the machine.

SEBASTIAN
No! TALISSA!

Chord activates the device. A machine hum begins and Chord’s eyes glow. Suddenly, her world goes black.

FADE OUT.
Appendix B

Floor Plans
Appendix C

Complete Credits

<table>
<thead>
<tr>
<th>EP 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>writer/director</td>
<td>Ryan Atimoyoo</td>
</tr>
<tr>
<td>Actors</td>
<td></td>
</tr>
<tr>
<td>Tara Pratt</td>
<td></td>
</tr>
<tr>
<td>Aliya Tarmo</td>
<td></td>
</tr>
<tr>
<td>Ben Hansen</td>
<td></td>
</tr>
<tr>
<td>Michael Bryant</td>
<td></td>
</tr>
<tr>
<td>Christen Traversy</td>
<td></td>
</tr>
<tr>
<td>Romald Hivert</td>
<td></td>
</tr>
<tr>
<td>Shawna Welsh</td>
<td></td>
</tr>
<tr>
<td>Cindy Lou Potter</td>
<td></td>
</tr>
<tr>
<td>Co-writer/assoc Producer</td>
<td>Jay Bhatt</td>
</tr>
<tr>
<td>Dop</td>
<td>Christopher J Fisher</td>
</tr>
<tr>
<td>Sound Mixer</td>
<td>Derek Mascenhares</td>
</tr>
<tr>
<td>Cam B Op</td>
<td>Brian Hansen</td>
</tr>
<tr>
<td>2nd Ad/Clapper</td>
<td>Amy Nazarewich</td>
</tr>
<tr>
<td>1st AD</td>
<td></td>
</tr>
<tr>
<td>key hair/makeup</td>
<td>Sara Huggins</td>
</tr>
<tr>
<td>PA/crafty</td>
<td></td>
</tr>
<tr>
<td>key grip</td>
<td>Janelle Day</td>
</tr>
<tr>
<td>P.A</td>
<td></td>
</tr>
<tr>
<td>2nd Unit Clapper</td>
<td>Ashley Mendoza</td>
</tr>
<tr>
<td>Stills</td>
<td></td>
</tr>
<tr>
<td>Mixer</td>
<td></td>
</tr>
<tr>
<td>Composer</td>
<td></td>
</tr>
<tr>
<td>makeup hair</td>
<td></td>
</tr>
<tr>
<td>EP 2</td>
<td></td>
</tr>
<tr>
<td>writer/director/actor</td>
<td>Ryan Atimoyoo</td>
</tr>
<tr>
<td></td>
<td>Sinead O’Flynn</td>
</tr>
<tr>
<td>Role</td>
<td>Name</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Cam op</td>
<td>Cameron Watts</td>
</tr>
<tr>
<td></td>
<td>Chris Wolfinger</td>
</tr>
<tr>
<td></td>
<td>Tomas Cain</td>
</tr>
<tr>
<td></td>
<td>Eric Lwis</td>
</tr>
<tr>
<td>Composer</td>
<td>Mark Saltman</td>
</tr>
<tr>
<td>Cam B op</td>
<td>Rob Hunt</td>
</tr>
<tr>
<td>Grip</td>
<td>eileen francis</td>
</tr>
<tr>
<td>Sound</td>
<td>Shaun Lang</td>
</tr>
</tbody>
</table>
Appendix D

Schedule

Production Episode 1

Sept 1-Dec 15 Pre-production

- Location scouting (Sept 1-Oct 15)
- Casting (Oct. 15 - Nov. 15)
- Crew hires/Production meetings (Nov 1 – Dec 15)
- Equipment consolidation (Dec 1 – Jan 15)

Jan. 16-30 Principal Photography

Feb. 1-March 25 Post Production phase 1

- Transcoding and rough assembly (Feb. 1- Feb. 20)
- VFX shot output (March. 1-15th)
- VFX Asset consolidation (plates, environment maps, etc)(March 16-20)
- Stock Footage purchasing (March 20- 25)

April 5-15 Post Production phase 2

- Director notes, producer notes
- Rough Cut
- VFX R & D 1/3
- VFX shot delivery 1/3

August 16-30 Post Production phase 3

- Fine cut
- Final Notes
- VFX R & D 2/3
- VFX shot delivery 2/3

October 4 Post Production phase 4

- VFX R & D 3/3

- VFX shot delivery 3/3

- Titles
November 5 Post Production phase 5
- Locked Cut due
- Credits
- Delivery for post audio and finishing

Dec 6-20 Post Production phase 6
- SFX and dialogue audio work
- ADR session 1 of 2
- Mixing

Dec. 20- Jan 15 Post Production phase 7
- ADR session 2 of 2 Mixing
- Colour Correction and finishing

Feb 15- Post Production
- Final Audio deliverables due

March 15 – Final Deliverables due

Production Episode 2

June 1-August 16 Pre-production
- Location scouting (June 1-20)
- Casting (June 21- July 1)
- Crew hires/Production meetings (June 1 – July 25)
- Equipment consolidation (Aug 1 – Aug 15)

August. 16-30 Principal Photography

Sept. 1-Sept 5 Post Production phase 1
- Transcoding and rough assembly (Feb. 1- Feb. 20)
- VFX shot output (March. 1-15th)
- VFX Asset consolidation (plates, environment maps, etc)(March 16-20)

Sept 5-15 Post Production phase 2
- Rough Cut (Sept.10)
- VFX R & D 1/2

Sept 16-30 Post Production phase 3
- Fine cut
- VFX R & D 2/2
- VFX shot delivery 1/2

October 4 Post Production phase 4
- VFX shot delivery 2/2
- Titles

Oct 5 Post Production phase 5
- Locked Cut due
- Credits
- Delivery for post audio and finishing

Oct 6-20 Post Production phase 6
- SFX and dialogue audio work
- ADR session 1 of 2
- Mixing

Oct. 20- Nov 15 Post Production phase 7
- ADR session 2 of 2 Mixing
- Colour Correction and finishing

Nov 30- Post Production
- Final Audio deliverables due

Dec 15 – Final Deliverables due
Appendix E

Budget

<table>
<thead>
<tr>
<th>WORKING TITLE</th>
<th>Paradox Episode 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCTION COMPANY</td>
<td>Gear Room Productions</td>
</tr>
<tr>
<td>EXECUTIVE PRODUCER(S)</td>
<td>Ryan Alimoyoo</td>
</tr>
<tr>
<td>PRODUCER(S)</td>
<td>Ryan Alimoyoo</td>
</tr>
<tr>
<td>DIRECTOR(S)</td>
<td>Ryan Alimoyoo</td>
</tr>
<tr>
<td>WRITER</td>
<td>Ryan Alimoyoo</td>
</tr>
<tr>
<td>PRODUCTION MANAGER</td>
<td>TBD</td>
</tr>
<tr>
<td>PRODUCTION ACCOUNTANT</td>
<td>TBD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>HD</th>
<th>PREP PERIOD</th>
<th>2 WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LENGTH</td>
<td>12 MINUTES</td>
<td>SHOOTING PERIOD</td>
<td>5 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>POST PRODUCTION</td>
<td>9 weeks</td>
</tr>
<tr>
<td>FIRST DAY SHOOTING</td>
<td>6/1/2015</td>
<td>DELIVERY</td>
<td>12/17/2015</td>
</tr>
<tr>
<td>LOCATION / STUDIO</td>
<td>Capilano University - lossa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNION(S)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| SCENARIO DATE | 11-Nov-15 |
| DRAFT NUMBER  | 1         |

BUDGET PREPARED BY:
NAME: Ryan Alimoyoo
SIGNATURE: 
TELEPHONE: 
<table>
<thead>
<tr>
<th>account</th>
<th>category</th>
<th>CASH</th>
<th>IN-KIND</th>
<th>DEFERRALS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Star rights /Acquisitions</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>02</td>
<td>Scenario</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>03</td>
<td>Development Costs</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>04</td>
<td>Producer(s)</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>05</td>
<td>Director</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>06</td>
<td>Stars</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL &quot;A&quot;</td>
<td></td>
<td></td>
<td></td>
<td>300.00</td>
</tr>
<tr>
<td></td>
<td>PRODUCTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Cast</td>
<td>300.00</td>
<td>0.00</td>
<td>0.00</td>
<td>300.00</td>
</tr>
<tr>
<td>11</td>
<td>Background Performers (Extras)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Production Staff</td>
<td>160.00</td>
<td>0.00</td>
<td>0.00</td>
<td>160.00</td>
</tr>
<tr>
<td>13</td>
<td>Design Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>14</td>
<td>Construction Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td>Set Dressing Labour</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>16</td>
<td>Property Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>Special Effects Labour</td>
<td>140.00</td>
<td>0.00</td>
<td>0.00</td>
<td>140.00</td>
</tr>
<tr>
<td>18</td>
<td>Makeup/Hair Labour</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>19</td>
<td>Camera Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>20</td>
<td>Electrical Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>22</td>
<td>Sound Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>23</td>
<td>Transportation Labour</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>24</td>
<td>Production Office Expenses</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>25</td>
<td>Studio Expenses</td>
<td>60.00</td>
<td>0.00</td>
<td>0.00</td>
<td>60.00</td>
</tr>
<tr>
<td>26</td>
<td>Location Office Expenses</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>27</td>
<td>Site Expenses</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>28</td>
<td>Unit Expenses</td>
<td>300.00</td>
<td>0.00</td>
<td>0.00</td>
<td>300.00</td>
</tr>
<tr>
<td>29</td>
<td>Travel &amp; Living Expenses</td>
<td>50.00</td>
<td>0.00</td>
<td>0.00</td>
<td>50.00</td>
</tr>
<tr>
<td>30</td>
<td>Transportation</td>
<td>50.00</td>
<td>0.00</td>
<td>0.00</td>
<td>50.00</td>
</tr>
<tr>
<td>31</td>
<td>Construction Materials</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>32</td>
<td>Props</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>33</td>
<td>Special Effects</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>34</td>
<td>Animals</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>35</td>
<td>Wardrobe Supplies</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>36</td>
<td>Camera Equipment</td>
<td>300.00</td>
<td>6,000.00</td>
<td>0.00</td>
<td>4,700.00</td>
</tr>
<tr>
<td>37</td>
<td>Electrical Equipment</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>38</td>
<td>Grip Equipment</td>
<td>0.00</td>
<td>1,500.00</td>
<td>0.00</td>
<td>1,500.00</td>
</tr>
<tr>
<td>39</td>
<td>Sound Equipment</td>
<td>400.00</td>
<td>0.00</td>
<td>0.00</td>
<td>400.00</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>40</td>
<td>Second Unit</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>41</td>
<td>Stock</td>
<td>300.00</td>
<td>0.00</td>
<td>0.00</td>
<td>300.00</td>
</tr>
<tr>
<td>42</td>
<td>Production Laboratory</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL PRODUCTION &quot;B&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Editorial Labour</td>
<td>0.00</td>
<td>800.00</td>
<td>0.00</td>
<td>800.00</td>
</tr>
<tr>
<td>44</td>
<td>Editorial Equipment</td>
<td>460.00</td>
<td>1,000.00</td>
<td>0.00</td>
<td>1,460.00</td>
</tr>
<tr>
<td>45</td>
<td>Video Post Production (Picture)</td>
<td>1,600.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1,600.00</td>
</tr>
<tr>
<td>46</td>
<td>Video Post Production (Sound)</td>
<td>400.00</td>
<td>0.00</td>
<td>0.00</td>
<td>400.00</td>
</tr>
<tr>
<td>47</td>
<td>Post Production Laborator</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>48</td>
<td>Film Post Production Sound</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>49</td>
<td>Music</td>
<td>260.00</td>
<td>0.00</td>
<td>0.00</td>
<td>260.00</td>
</tr>
<tr>
<td>50</td>
<td>Titles/Opticals/Stock Footage/Visual Effects</td>
<td>100.00</td>
<td>250.00</td>
<td>0.00</td>
<td>350.00</td>
</tr>
<tr>
<td>51</td>
<td>Versioning/Closed-Captioning</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL POST PRODUCTION &quot;C&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL &quot;B&quot; + &quot;C&quot; (PRODUCTION AND POST PRODUCTION)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Unit Publicit</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>53</td>
<td>Legal/Insurance</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>54</td>
<td>Corporate Overhead</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>SUBTOTAL OTHER &quot;D&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SUBTOTAL &quot;A&quot; + &quot;B&quot; + &quot;C&quot; + &quot;D&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL PRODUCTION COST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AMOUNT REQUESTED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
## Budget Details

**BUDGET DATED:** 5/11/2015  
**Preliminary or Final:** 

<table>
<thead>
<tr>
<th><strong>WORKING TITLE</strong></th>
<th>Paradox Episode 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCTION COMPANY</strong></td>
<td>Gear Room Productions</td>
</tr>
<tr>
<td><strong>EXECUTIVE PRODUCER(S)</strong></td>
<td>Ryan Atimoyoo</td>
</tr>
<tr>
<td><strong>PRODUCER(S)</strong></td>
<td>Ryan Atimoyoo</td>
</tr>
<tr>
<td><strong>DIRECTOR(S)</strong></td>
<td>Ryan Atimoyoo</td>
</tr>
<tr>
<td><strong>WRITER</strong></td>
<td>Ryan Atimoyoo</td>
</tr>
<tr>
<td><strong>PRODUCTION MANAGER</strong></td>
<td>TDD</td>
</tr>
<tr>
<td><strong>PRODUCTION ACCOUNTANT</strong></td>
<td>TDD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FORMAT</strong></th>
<th>HD</th>
<th><strong>PREP PERIOD</strong></th>
<th>2 WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LENGTH</strong></td>
<td>12 MINUTES</td>
<td><strong>SHOOTING PERIOD</strong></td>
<td>5 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>POST PRODUCTION</strong></td>
<td>9 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FIRST DAY SHOOTING</strong></th>
<th>6/1/2015</th>
<th><strong>DELIVERY</strong></th>
<th>12/17/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOCATION / STUDIO</strong></td>
<td>Capilano University - bosa</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UNION(S)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SCENARIO DATE</strong></th>
<th>11-Nov-15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DRAFT NUMBER</strong></td>
<td>1</td>
</tr>
</tbody>
</table>

**BUDGET PREPARED BY:**

- **NAME:** Ryan Atimoyoo  
- **SIGNATURE:**  
- **TELEPHONE:**


<table>
<thead>
<tr>
<th>account</th>
<th>category</th>
<th>CASH</th>
<th>IN-KIND</th>
<th>DEFERRALS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Staff rights /Acquisitions</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>02</td>
<td>Scenario</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>03</td>
<td>Development Costs</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>04</td>
<td>Producer(s)</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>05</td>
<td>Director</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>06</td>
<td>Stars</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>TOTAL &quot;A&quot;</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>300.00</td>
</tr>
<tr>
<td></td>
<td>PRODUCTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Cast</td>
<td>300.00</td>
<td>0.00</td>
<td>0.00</td>
<td>300.00</td>
</tr>
<tr>
<td>11</td>
<td>Background Performers (Extras)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Production Staff</td>
<td>150.00</td>
<td>0.00</td>
<td>0.00</td>
<td>150.00</td>
</tr>
<tr>
<td>13</td>
<td>Design Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>14</td>
<td>Construction Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td>Set Dressing Labour</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>16</td>
<td>Property Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>Special Effects Labour</td>
<td>140.00</td>
<td>0.00</td>
<td>0.00</td>
<td>140.00</td>
</tr>
<tr>
<td>18</td>
<td>Makeup/Hair Labour</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>19</td>
<td>Camera Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>20</td>
<td>Electrical Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>22</td>
<td>Sound Labour</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>23</td>
<td>Transportation Labour</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>24</td>
<td>Production Office Expenses</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>25</td>
<td>Studio Expenses</td>
<td>60.00</td>
<td>0.00</td>
<td>0.00</td>
<td>60.00</td>
</tr>
<tr>
<td>26</td>
<td>Location Office Expenses</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>27</td>
<td>Set Expenses</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>28</td>
<td>Unit Expenses</td>
<td>300.00</td>
<td>0.00</td>
<td>0.00</td>
<td>300.00</td>
</tr>
<tr>
<td>29</td>
<td>Travel &amp; Living Expenses</td>
<td>50.00</td>
<td>0.00</td>
<td>0.00</td>
<td>50.00</td>
</tr>
<tr>
<td>30</td>
<td>Transportation</td>
<td>50.00</td>
<td>0.00</td>
<td>0.00</td>
<td>50.00</td>
</tr>
<tr>
<td>31</td>
<td>Construction Materials</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>32</td>
<td>Props</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>33</td>
<td>Special Effects</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>34</td>
<td>Animals</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>35</td>
<td>Wardrobe Supplies</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>36</td>
<td>Camera Equipment</td>
<td>300.00</td>
<td>5,000.00</td>
<td>0.00</td>
<td>4,700.00</td>
</tr>
<tr>
<td>37</td>
<td>Electrical Equipment</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>38</td>
<td>Grip Equipment</td>
<td>0.00</td>
<td>1,600.00</td>
<td>0.00</td>
<td>1,600.00</td>
</tr>
<tr>
<td>39</td>
<td>Sound Equipment</td>
<td>400.00</td>
<td>0.00</td>
<td>0.00</td>
<td>400.00</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>Total</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>40</td>
<td>Second Unit</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>41</td>
<td>Stock</td>
<td>300.00</td>
<td>0.00</td>
<td>0.00</td>
<td>300.00</td>
</tr>
<tr>
<td>42</td>
<td>Production Laboratory</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PRODUCTION “B”</strong></td>
<td></td>
<td></td>
<td></td>
<td>4,060.00</td>
</tr>
<tr>
<td>43</td>
<td>Editorial Labour</td>
<td>0.00</td>
<td>500.00</td>
<td>0.00</td>
<td>500.00</td>
</tr>
<tr>
<td>44</td>
<td>Editorial Equipment</td>
<td>450.00</td>
<td>1,000.00</td>
<td>0.00</td>
<td>1,450.00</td>
</tr>
<tr>
<td>45</td>
<td>Video Post Production (Picture)</td>
<td>1,500.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1,500.00</td>
</tr>
<tr>
<td>46</td>
<td>Video Post Production (Sound)</td>
<td>400.00</td>
<td>0.00</td>
<td>0.00</td>
<td>400.00</td>
</tr>
<tr>
<td>47</td>
<td>Post Production Laboratory</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>48</td>
<td>Film Post Production Sound</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>49</td>
<td>Music</td>
<td>250.00</td>
<td>0.00</td>
<td>0.00</td>
<td>250.00</td>
</tr>
<tr>
<td>50</td>
<td>Titles/Visual Effects/Stock Footage</td>
<td>100.00</td>
<td>250.00</td>
<td>0.00</td>
<td>150.00</td>
</tr>
<tr>
<td>51</td>
<td>Versioning/Closed-Captioning</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL POST PRODUCTION “C”</strong></td>
<td></td>
<td></td>
<td></td>
<td>950.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL “B” + “C”</strong> (PRODUCTION AND POST PRODUCTION)</td>
<td></td>
<td></td>
<td></td>
<td>3,110.00</td>
</tr>
<tr>
<td>52</td>
<td>Unit Public</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>53</td>
<td>Legal/Insurance</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>54</td>
<td>Corporate Overhead</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td><strong>SUBTOTAL OTHER “D”</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td><strong>SUBTOTAL “A” + “B” + “C” + “D”</strong></td>
<td></td>
<td></td>
<td></td>
<td>3,410.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL PRODUCTION COST</strong></td>
<td></td>
<td></td>
<td></td>
<td>3,410.00</td>
</tr>
<tr>
<td></td>
<td><strong>AMOUNT REQUESTED</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
</tr>
</tbody>
</table>

**NOTES:**

---

94