Developing Elite Dangerous
Stroud, A.

Developing *Elite: Dangerous*

Allen Stroud (Buckinghamshire New University)

At the start of November 2012, David Braben and his company Frontier Developments launched a crowd source campaign to fund the making of a new videogame set in the Elite/Frontier Universe – *Elite: Dangerous* (2014). Although such funding for projects is not new, the rise of internet companies such as Crowdfunder, Indiegogo, Kickstarter and Wefund offering platforms to launch pitches for projects is a more recent development. Crowd funding remains a fringe activity, operating as a hybrid between consumer purchase and micro investment. There are few guarantees beyond trust in the organiser and there is a difficulty for both the organiser and backer in determining how much influence they have in the development choices associated with a venture.

My involvement with *Elite: Dangerous* began when I saw the Kickstarter listing on the day it started. I cast my mind back to my experiences of *Elite* (1984) and *Frontier: Elite 2* (1993). I had played them for hours. They had been an escape into another world that had allowed me to imagine what it might be like out there. I followed the crowdfunding campaign through its last days, pledging my support and finding I was not alone. Thousands of fans had come aboard and were sharing their experiences of the previous games. The last days were halcyon as we could all see the project would be successful.

One of the offered 'rewards' from the project was to write a piece of official fiction set in the game universe. A diverse collection of writers, both experienced and inexperienced, had backed sufficiently to achieve these rewards, myself amongst them, with a plan to write and publish *Elite: Lave Revolution* (2014). When the dust had settled, I contacted Frontier Developments and offered my services. My research M.A. had involved the design of worlds in fantasy and science fiction. I thought I might be able to help the company sketch-out

information for the writers so they could create fictions that would be consistent with the game environment.

Worldbuilding

As Gwyneth Jones has argued, 'one thing science fiction and fantasy certainly have in common is the imaginary world, a world that must be furnished with landscape, climate, cosmology, flora and fauna, human or otherwise self-aware population, culture and dialogue' (Jones 1999: 11). Since at least the time of Hesiod, who attempted to define the composition and origins of the Hellenistic pantheon, writers have created environments that play an active part within their work. Hesiod's project was complicated by existing stories so his 'macrotext' had to be constructed to include them. A macrotext is the framework for a specific fictional world, through which a large project of multiple outputs can be devised. It is a structured document, enabling the development of expressions that fit the fictional world, but the elements of structure are drawn together for their function, not because of a pre-determined pattern in the narrative. Although also known as a canon or plot bible, neither term really encapsulates its purpose. A world canon might include previously published work and be difficult to alter as it has already been disseminated A plot bible encompasses only plot. The macrotext is formative and evolves along with its outputs, aspiring to be everything required to be known about a world. The expressions enjoy a formative relationship with this catalogue so as to maintain consistency with all other work produced in the same fictional space.

For example, in Hesiod's *Theogeny* (c. 700 BCE) there is an early creation myth that attempts to capture and define the Gods of classical Achaea. The disparate nature of Greek society, sharing parts of their religion and culture between city state kingdoms, made for a fractured interpretation of the different aspects of their cosmology. Hesiod attempts to knit

these fractures together and, by using a creation myth, determines an absolute beginning, or *point of origin*, for all subsequent writing. In addition to this, Hesiod describes each of his defined pantheon; lending them a visual representation. This is relevant for the choice of who is present and who is not.

The *point of origin* is a practical concept when attempting to construct a macrotext. From here the writer can establish the consequential relationship that brings the events of their world to the point of their story's circumstance; the *point of departure* (see figure 1).

Point of Origin
(Place where the roots of the story begin).

→

Point of Departure
(Place where the story begins).

Many fictional creators begin this journey by posing questions, constructing an outline of their world, before consolidating it. In this process, the questions asked are just as important as the answers given, since these frame the design. The resultant document is a '42', in reference to Douglas Adams' *The Hitchhikers Guide to the Galaxy* (1978); a collation of important aspects. However, unless this process is employed exhaustively, these remain a starting-point of notes, expanding on the original inspiration behind the writing idea. By contrast, a fully-fledged macrotext is a planned construct.

Whereas, in Hesiod's case, his macrotext sought to incorporate existing works into a larger canon, in more recent times this process has been used to devise new environments. The benefit for the writer is that this larger canvas allows for many of the problems of consistency and plausibility to be worked out before starting the story and/or involving

others. The mutable nature of the document encourages change, evaluation and collaboration whilst also lending successive developments formal coherence.

The macrotext is a form of *ergodic literature*, as defined by Espen J. Aarseth, in that it is a text that that requires more than non-trivial effort to read. It is encoded to inspire other outputs which are released to a mass audience. The encoding of the work is not necessarily overt. The document may evolve and change based on the outputs it generates, but it tries to act as a bridge between each, maintaining their consistency. This temporal state is in itself a form of encoding as those accessing it cannot assume its permanence. Access to it indicates intention to produce further work. It exists between output forms and can inspire all sorts of different work, ensuring each connects and reinforces the other, creating a new form of mythopoeiac self-referentiality. It is here that transmedia storytelling finds its guide in cinematic franchises such as *The Matrix* and *Star Wars*. The macrotext defines what exists and what cannot exist. It provides mutable rules in a fictitious world of make-believe so that, in some sense, it operates as a hyperreal construction.

In the case of *Elite: Dangerous* the established canon of the game lay in its three prequels. Game manuals, gazetteers and short story anthologies formed a body of published fiction that was difficult to obtain. In addition, the third prequel *Frontier: First Encounters* (1995) had an in-game news feed, full of ongoing news events, stories and a map of hundreds of star systems, all with government types and differing trade and industry bases, much of this procedurally generated, but with a check system that maintained consistency between each player's version of the game.

The original *Elite* had constructed a set of eight galaxies with two hundred and fifty six star systems in each. However, these were procedurally generated, making them almost identical in look. The system names were allocated from a database, none of which resembled names given to actual star systems, making the whole experience a fantasy. The game's

release came with a manual containing some fictional references and a novella, *The Dark Wheel* by Robert Holdstock. In *Frontier: Elite 2* the galaxy was remodelled. A small selection of fictional systems from before were retained (these were the systems the player had started on in the previous game) but the rest were taken from astronomical star charts. The Sol system and Earth made their first appearances and the minimal backstory of the previous release was upgraded and connected to our own time period. For the first time, a galactic date referenced our own time. The game was set in AD 3200 and came with a manual, gazetteer and a collection of short stories. The gazetteer, in particular, established the backgrounds of several systems and gave a thin timeline, listing notable events that had occurred between 1993 and 3200.

Mindful of my task, to produce working background material for the game and for the fiction projects to be produced alongside it, I set about writing a more detailed historical account. I took my cue from the style of the manual, and used the tone of a history text, narrating events. Where a major event was mentioned, I examined it, looked for other references assembling all information before adding character and context to give it flavour, all the while tracking every addition I had made. I recalled history books I had read when I was younger. The ones with strong characters were always more memorable. I remained conscious that all work that I did was conceptual. Frontier Developments would take my ideas and decide what should be used and what should be rejected, but by having someone provide an initial blueprint, they could pick and choose. These draft guidebooks became the first incarnation of our macrotext.

Within this developmental process, some participants arrived to develop their novels, others to determine source material for *Elite: Dangerous*. In the franchise release accompanying the computer game there are currently eleven official novels with a role-playing game to follow. By ensuring that the older works fit into the revised background,

audiences who may have played or read them are hopefully more accepting of the new version. With such a large body of work being produced in the same setting, by so many different writers and designers, the detail and consistency of background becomes a priority to preserve the connected qualities of each artefact, so that the consumer can see them as a whole fictional entity.

The majority of writers already had ideas as to what stories they were going to tell, but often these stories were based on their own experiences of the Elite franchise and would have to be made compatible with the new game. Throughout the process, the fiction writers had access to a private forum to ask specific questions of Frontier Developments about particular aspects of the game and how it would be implemented, so as to make their stories as close to the game experience as possible. Final judgements on difficult questions would be given by Michael Brookes the executive producer of the game, in consultation with the rest of the Frontier Developments team. This consultancy remained ongoing as writers queried elements of the design that had either not yet been determined or were not thought of.

The World's Creator

The parameters afforded to a writer, working by negotiation in a world devised by someone else, are challenging. The opportunity and access have to be weighed against the restriction of not having the final say over what is or is not permissible within that world. The architect, in this instance David Braben, wishes to maintain their vision even whilst accommodating potential improvements. Similarly, the other creatives involved can only put down what they have managed to envision from the text already given.

This method of working is not new. The architect could be thought of as a wealthy patrician commissioning a sculpture for his Roman villa. Ultimately it is the patrician who must live with the sculpture, not the artist who made it. In other mediums, however, this

example is less relevant. When writing information for an online videogame, the interpretation of the architect, the writer, the design team, the programmers and finally, the consumer themselves, comes into play. When this process is multiplied to involve ten, twenty or thirty different fictional works all written by different fictional writers, the boundaries become increasingly complex. Granted, consultation is of a high priority to this process but, ultimately, someone must make decisions. As a writer involved, whether you agree or not, the architect has the right to make those decisions and you must trust that they are making them with the best of intentions for the wider fictional context.

Developing Background and Form

As we worked, the new game premise emerged. The majority of the protagonists were drawn together from the previous game publications, their back-stories updated to fit into the new game context and published in a series of guides released on the private writers' forum. By using the previous lore as a starting-point, we would reach out to knowledgeable players of the franchise and by determining the function of each component in the new game we would make it feel plausible.

Braben outlined a reversed design principle behind certain science fiction concepts in the game. For example, the use of hyperspace; with a wish to model the galaxy as accurately as possible through procedural generation, the distances involved in the game universe would be vast. To navigate them, the contrivance of hyperspace is essential, as is a fast travel in-system drive. So, Frontier looked at the design based on what they wanted the game to be able to do, compared to what was scientifically possible, and then introduced technical nova to bridge the gap between the two.

Some discussions arose around the use (or not use) of accepted science fiction nova. The contrivance of artificial gravity was a particularly difficult topic. *Elite* and its sequels

featured rotational space stations. These formed an integral part of the game experience, as every player had to learn how to dock, matching their ship to a rotating letterbox entrance. The reason for the rotation was explained in the space station's need to generate gravity. However, a great deal of the official fiction, written and published in the game boxes, ignored the concept and had pilots walking around their spaceships whilst tearing through the star systems. For me, docking the spaceship with this moving structure was a rite of passage in the old games and a requirement in the new instalment. When, however, this information was released to the wider backer community, forum comments suggested many people seemed to have difficulty in accepting a rationale of 'no artificial gravity'. The familiarity of the novum from other science fiction works meant that if we did not use it, but a different method, the latter would jar with audience expectations.

This instance is a practical demonstration of what critics such as Damien Broderick and Christine Brooke-Rose have termed the 'megatext'. The speculations of each fiction, authored by different individuals, are consumed by an appreciative audience but the rationales of pseudoscience used create expectations of convenience for new writers, as readers imagine their worlds through the contrivances of the other science fiction they have read. Brooke-Rose's original premise located megatext-like qualities in J.R.R. Tolkien. By contrast, Broderick identifies the widely different application of his mythology through the frame of the megatext, concluding that it does not apply as neatly as other science fiction examples, which build from the familiar into the unfamiliar: 'So its function is radically unlike that of any "realist" megatext. Since the megatext is not "already known", it cannot fulfil the readability requirement, but on the contrary, produces a pseudo-exoticism, much of which can be savoured simply as such, rather than tactically understood' (Broderick 1995: 59). This is where the practical concerns of world construction and communication differ between the two genres. The techniques of fantasy are more overt, often building escapist

realms that focus on the developed miasma and myth already in the mind of the reader. The connection with the real is less about possible futures and more about catharsis.

In the case of *Elite: Dangerous*, the material developed by me came from the parameters of mythopoeia outlined by Tolkien, rather than concerns for scientific accuracy, but this agenda was much more in the minds of Braben and Frontier Developments: 'I think the world has to feel believable. There are a lot of things that are part of that. Having the science right is probably for me, the top priority' (Braben 2014). We found these two approaches were not incompatible. The mythopoeic approach brought themes from the older works, creating layers of meaning for the consumer to investigate. For example, Holdstock's *The Dark Wheel* introduced several concepts and colloquialisms, some of which appeared in the original game, but also others that were beyond the technology of the time such as the 'remlok', an emergency EVA device. The development of the fictional background and new parameters of *Elite: Dangerous* meant it was an ideal component to be included. The remlok became a staple of the new fiction, activated in the game when the pilot's cockpit screen was broken and even appeared as a corporation name in the space station hangar. The remlok serves a function and is a familiar pseudoscientific convenience for the consumer. In the mythopoeia, the name, its spelling and expanded backstory links the new texts (game and written fiction) back to the original works.

A general consciousness of fantasy and science fiction has emerged amongst readers and writers of the genre. This consciousness is quite discerning, in that it will not liken space adventures to sword and sorcery quests with magical rings, but there is still an element of comparing imagined experience. A difference between the two genres lies in the interpretation of this consciousness. In fantasy it is more often seen as a support, in science fiction it can be supportive or critical, often depending on how predictive or escapist the writer is attempting to be. Where the text veers towards planetary romance, it is usually clear

the writer is not claiming any prophetic ground and the level of engagement changes. When based in science, and extemporising, the invented technology is examined in greater detail. It is up to the individual writer how they use this consciousness but their usage will be dependent on the image or interpretation that the reader will already have as to how something should work. If the writer elects to provide a different interpretation of the same idea, then they have to balance the reader's assumptions versus the value of going against them. This balancing-act will be further complicated by the relative reading experience of different audiences. That said, there is the need for gameplay to incorporate expectations of fun as well as ideas of legacy and accuracy: 'A spaceship would be silent, but X-Wing fighters aren't really spaceships, they're Spitfires and P 51s' (Roberts 2006: 27).

There is a tension in this approach, notably in the way nostalgia permeates a particular brand of populist science fiction, rather than prioritising the future thinking and rationalised visions. *Star Wars* is often cited as an example of this owing to the composition of its scenes. *Elite: Dangerous* takes the same cue, eschewing Newtonian theories of how motion in space works and taking a lead from what makes a fun experience playing a computer game, this is dogfighting inspired by World War II, noise in space and nebulas visible amidst the vast blanket of stars. These tropes are part of a particular brand of science fiction, the space opera, and are something the novels must reflect to remain part of the same fictional world in the mind of the reader. In the case of a videogame tie-in, much of the visual imagery can be drawn by the reader from their game experience. This establishes the videogame as the 'canon leader': a product which defines how all the other products will be experienced.

Unlike more literary forms, videogames are a diversion, played for entertainment and popular interest. The writers and players of games are less interested in future prediction and the exploration of the human condition, but this might be a consequence of its youth as a

past-time. The genre of the game is also applied in a different way, encompassing type of play as well as the prevalence of themes:

> Videogames can be understood as collections of visual and aural codes designed to illicit a response from the player. […] Successful playing involves reading these cues correctly and responding accordingly in order to meaningfully engage with the game text: to achieve a high score, to vanquish the enemy, to progress to the next level.
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> Players are free to ignore, misinterpret or defy these videogame cues. But the existence of such formal systems of signification points to the way games structure the seemingly unstructured interactive gaming experience. (Kirkland 2005)

The nature of an interactive medium is such that the consumer must participate in the experience in an active way to shape the narrative, transforming from reader to player and occasionally back again. The illusions of control in this regard are well documented; there are few games that offer a truly open environment to the player, those that do often favour impersonality, letting the player shape the character of their in-game participant or 'avatar'. This 'sandbox' idea offers the greatest illusion of choice owing to its lack of enforced linear path and multiple methods of keeping score. The only weakness is when a player hits the edge and the immersive qualities break down.

In the case of *Elite: Dangerous* (2014), the sandbox offered is a procedurally generated Milky Way galaxy; a vast number of space stations, planets and other features to explore and visit, potentially more than any one person could do so in their lifetime. The incredible scale of this game environment pushes the walls of the sandbox back as far as they can go. It does however create another weakness, namely the need to populate this vast arena with content. Much can be done with procedural coding, but to prevent repetition and add to the flavour of what is constructed, the work of writers in the fiction can be incorporated, tying the worlds, characters and contexts into the player's experience of the game. A concise brief

on what other outputs are covering in different media ensures greater co-ordination between them and greater chance of immersion for the player.

The Role of Fans

The Elite/Frontier community is an invoked fanbase called to support a franchise via crowd source funding and then involved in the construction of the videogame and its fiction. From the start, the pledge reward tiers gave clues as to how the supporters would be able to assist and influence the game's design. The Design Decision Forum allowed Frontier Developments' staff to propose their thoughts on aspects of the game and the fans to comment and suggest changes; the most significant of these being the proposal for in-system travel changing from a series of waypoints to a 'frameshift' drive that allows players to explore the systems they are visiting. With the writer's pack pledge offered as a backer reward for the game in the crowdfunding drive, many would-be authors ran campaigns themselves to raise the funds to afford it. These in turn found ways to involve the fans, offering additional material, early access and character names as rewards to contributors.

From the point of view of Frontier Developments, this level of fan engagement serves a dual purpose. In one sense, the level of critical engagement provides a ready-made means test. In a second, it provides a marketing amplifier as the engaged backers are predetermined to want the game to succeed. This coupled with an open attitude to posting test game footage online and embracing fan created content establishes a positive community acting to assist in the game's success. Fan involvement, though, was not always smooth. The posting of initial design proposals led to hundreds of comments in reply, all expressing different preferences for the game's themes. Gradually, as time went on, this settled down and the various forums assigned to pledge tiers now act as evaluation areas with some occasionally featuring suggestions.

The role of the writer has been to enrich and provide a story (or stories) that give a route for people electing to play the game to come up with their own narratives and imaginings attached to their gameplay. At face value, this appears to prioritise the function of stories as vehicles to draw the reader into the wider game experience and, in part, undermine the nuance of the texts themselves. However, as Jones points out:

> A typical science fiction novel has little space for deep and studied characterisation, not because writers lack the skill (though they may) but because in the final analysis the characters are not people, they are pieces of equipment. They have no free will or independent existence; to attempt to perpetuate such illusions is hopeless. (Jones 1999: 11)

When considering that the mode or form of the text prioritises characters as a function towards viewing the imagined world of the writer, or in this case the team behind *Elite: Dangerous*, then the genre lends itself to this collaborative and supportive approach. In the example of a videogame where the player's position is that of a spaceship pilot, operating the controls through a first person view, the emphasis is placed on the reader/user experience and the way in which their own story in the game echoes that of other characters in the fiction. In *Elite: Dangerous* the supportive fiction projects become 'microplots' (ones that involve personal changes to the characters) to the 'macroplot' (the world changing consequences) of the game world itself. They mirror the role of the player, who also is a microplot contributor to this vast macro-game environment of a procedurally generated galaxy. The writers can use this perspective, allying their characters with the experience the player will get in the game, thereby invoking specific imaginings. In the accompanying fiction, writers interpreted this relationship in different ways. Some were inspired by the vast expanse of the promised playing field; others looked to the histories of factions or corporations and personified them in the scheming machinations of their characters.

The Tie-in Novel

My own project, *Elite: Lave Revolution* (2014) began later than some of the others, owing to my work on the guidebooks. It is set on Lave, the original planet in *Elite*, and tells the story of how the system went from being a dictatorship in the previous games to a democracy in the new game. I elected to tell a story that would showcase some of the lore developed for the game. By choosing a start point of AD 3265, my story could narrate events leading up to the game, starting in AD 3300 and complement it. It would also act as a bridge to the previous game, *Frontier First Encounters* set in AD 3250. Lave's position in the first game had been one of power. By the second and third games it was a backwater. The novel gave me an opportunity to tell the story of why this had happened and how it would change in the future. Mindful that the primary focus was on the forthcoming game, I had no wish to tell too large a narrative, thereby drawing away attention, so the story of one planet's decline under a dictator, named in the gazetteer accompanying *Frontier: Elite 2*, seemed like a good choice.

In writing a novel with a tie-in to a videogame, the reader is likely to be a fan of the other elements of the franchise, or be introduced to the franchise through your work (which is quite a responsibility). If they are previous fans and arrive at your text from the game or other material, then the imaginations of some scenes covered by the same content, in this case the flying of spaceships, will be drawn from their experience of the game material. To some extent, an author's own experience of the franchise, for example Michael A. Stackpole, writer of the X-Wing series of novels, can insulate a tie-in fiction from potential criticisms. Unless given an unusual remit, the story must make use of the same contrivances and pseudoscience utilised by the other texts that are part of the project.

The guidebook resources and source material provided a means for me to tie in all sorts of things from the older games; small references to locations, companies, indigenous

life forms, etc. Helping to establish elements for the other writers, and developing content for my own story, not only provided further detail but also informed the procedural generated content. In general, I like writing background, history and concordance information that can be attached to a fictional story. It is this additional data that can give a story a sense of size. Appendices were famously employed by Tolkien in *The Return of the King* (1955); newspaper articles, historical accounts, police reports and email messages are, by contrast, contemporary enough to be used and adapted into a future context with some stylistic tweaks. Other examples include changes in perspective, coded messages and missing chapters. The finished result is a microcosm of the design principles outlined for the new game and fiction. *Elite: Lave Revolution* is a layered text, telling the story of individuals caught up in world revolution, in which the closing chapters and appendices provide new perspectives and embellishments on that narrative. Meanwhile, an ongoing news feed in *Elite: Dangerous* provides an opportunity to link in new stories and seed new story information. Additionally, I left some loose ends in my work to be made use of as plot lines in the videogame. The conclusion leaves room for another tale of Lave, set before the game begins in AD 3300.

Works Cited

Aarseth, Espen J. 1997. *Cybertext: Perspectives of Ergodic Literature*. Baltimore: John Hopkins University Press.

Braben, David. 2014. *Outside Broadcast Pt2 – David Braben Interview*, *Lave Radio Special Episode, March 2014*. http://laveradio.com/podcasts/LR-Bafta-DB-Interview.mp3 (accessed 9th April 2015)

Broderick, Damien. 1995. *Reading by Starlight.* London: Routledge.

Brooke-Rose, Christine. 1983. *A Rhetoric of the Unreal: Studies in Narrative and Structure, Especially of the Fantastic*. Cambridge: Cambridge University Press.

Hesiod. 2005. *The Works of Hesiod and the Homeric Hymns*, ed. Daryl Hine. Illinois:

    University of Chicago Press.

Holdstock, Robert. 1984. *The Dark Wheel*. Cambridge: Acornsoft.

Jones, Gwyneth. 1999. *Deconstructing the Starships.* Liverpool: Liverpool University Press.

Kirkland, Ewan. 2005. 'Restless Dreams in Silent Hill: Approaches to Videogame Analysis.'

    Media, Communication and Cultural Studies Association.

    http://www.meccsa.org.uk/pdfs/meccsa-ampe-1-papers/MeCCSA-AMPE-Jan05-

    Kirkland.pdf

Roberts, Adam. 2006. *Science Fiction*. 2nd edn. London: Routledge.

Stroud, Allen. 2014. *Elite: Lave Revolution*. Hull: Fantastic Books Publishing.