

Adaptive harmonics:

Star Trek's Universe and Galaxy of Games

By Douglas Brown

In the rapidly growing academic discipline of games studies, we talk about *Trek* a lot. This may seem surprising since, though the franchise has had many game adaptations, none are considered outstanding, much less classics. So we consider the show's use of games and game-like experiences as emblematic of many of the pleasures, problems, and possibilities the modern games industry grapples with. The most frequent topic of discussion is immersion, where Janet Murray'sⁱ reading of a *Voyager*ⁱⁱ scene leads in to her appreciation of the games *Trek* characters constantly play in the holodeck, which has become an abiding metaphor when we try to define games and how they work. It's less the show or its games, rather the themes and ideas which the fiction made accessible, that we call upon when analysing modern videogames. Here, I'll consider the unique challenges and opportunities for adaptation to the medium of games which the franchise raises, and examine various attempts at adaptation. The show and its fan community subtly influenced the medium of games by adapting the themes and concepts which *Trek* introduced to suit the purposes of the medium rather than production of outstanding licensed games. This is perhaps best revealed in the sphere of unlicensed/fan-created games inspired by *Trek*.

Trek's distinctive approach to games was mostly inclusive, certainly ahead of its time, especially considering the prevailing climate of thought and reception as to games during the series' production. Digital Games then were perceived as little more than children's' toys or simple distractions. *Trek* and its holodeck offered up a future where games were all-

encompassing social and serious relaxation activities. Simultaneously, the perceived dangers of video game-addiction then prevalent are explored in *TNG*ⁱⁱⁱ, when aliens use an addictive game to try and take over the *Enterprise*. Aside from the iconic three-dimensional chess set which appears in several episodes, games featured in the show have not been adapted for play in real life, although the rhetoric of the holodeck is frequently deployed by those trying to sell immersive new gaming technology or the dream of virtual reality gaming.

The galaxy of Star Trek Games -

Trek has been adapted into well over 100 digital games, the earliest licensed adaptations appearing in the 1980s. Within this substantial body of work can be found the best and worst of franchise adaptation. While many titles merely leverage the branding of the show to increase their reach, some seized the opportunity to either employ *Trek* as viable inspiration for adaptation or exploit the additional fan-base offered by the license to put an innovative idea in front of a mass audience, which otherwise might not have been receptive.

That there is no single outstanding licensed *Trek* title isn't particularly unusual. Franchise game adaptations are notorious for their generally low quality and short-term content-driven marketing. Even those game adaptations which derive from a franchise built from the ground up to accommodate trans-media storytelling such as *The Matrix* do not produce top quality games. It's a rare title indeed that achieves the approval of gaming critics while maintaining the essence of the originator fiction without also alienating fans who are not themselves part of the gaming sub-culture. Arguably, only one game in the similarly sizable *Star Wars* franchise is considered a classic - *Star Wars: Knights of the Old Republic*^{iv}. Martin Picard argues of *Star Wars* that: "video games have been used for two main purposes: the recreation of the most memorable scenes from the trilogies (to be played by their fans),

and the additions of new storylines and fresh approaches”^v. Like the majority of other critically successful movie-game tie-ins, this game falls into the latter of Picard's categories; set in the franchise's expanded universe, not tied down to any specific piece of source material. Set previous to events present in any movie, the game features no characters from the films. Crucially, this game aligns elements of the franchise, here the light-side and dark-side of the force with game elements enabling effective storytelling which 'feels' like a *SW* experience. Choices which the player makes effect their characters' position relative to the light-side/dark-side binary oppositions and allow for many potential consequences. As a result, players feel closely involved simultaneously with game play, a key theme of the *SW* universe. This sort of harmonised adaptation proves most rewarding for fans and challenging for game developers.

Approaches to adaptation

In their essay on movie-games and game-movies, Krzywinska and Brown^{vi} argue that there exists a fundamental distinction of market between gamers, who want first and foremost a well-designed and suitably challenging game, and source material fans, the latter expecting if not a faithful adaptation then at least a game which aligns with the same kinds of pleasure offered by the show. Veteran designer Chris Crawford also notes this when encouraging aspiring designers to avoid film tie-in games since these audiences are so different. “Nobody is going to purchase a [franchise] game for the creativity of the game itself; they are buying it solely because of the brand. Any exertions you make to give them creative design are wasted...”^{vii} Experiencing the show, if with an added level of depth, would suffice for fans who want to revisit characters they know while experiencing the show in another medium. Often, though, this sort of focus strikes gamers as limiting, and can, without well-advertised

IP to drive such as a movie release, run the risk of not selling. In the high-stakes and hit-driven world of the late-nineties videogame industry, when most licensed *Trek* games were released, publishers tended to hedge their bets by attempting adaptations of the show to fit popular genres rather than seeking to adapt what the creators of the show would consider its essence.

More sophisticated game adaptation seeks to not merely balance the demands of competing audience types but also find ways to empower the gameplay experience – i.e., to harmonize it with the show’s themes. As Jenkins puts it “in the ideal form of trans-media storytelling, each medium does what it does best.”^{viii} Games are effective at providing spaces for exploration, interactivity, agency (the possibility and facility to act upon worlds, situations, and characters presented in the game) and feedback. This needn’t be complex yet often involves altering the game’s fundamentals. An example of this harmonious design occurs in the *Star Trek - Expeditions* board-game^{ix}. Players do not compete, rather co-operate against the game - changing the manner in which a game is approached by aligning it more closely with the show’s action. Such harmony is difficult to create in a digital game, while *Trek*’s specific themes offer both opportunities and problems for adaptation.

Ostensibly action-adventure, much of *Trek* is about individuality, relationships, and overcoming problems with diplomacy and compassion. Particularly for the Federation, violence is the last resort. This, however, can pose an awkward fit with the action-heavy space of videogames. Contrarily, the more military side of the show is ripe for adaptation as game elements, with clearly defined roles and skill-sets for characters and tensely structured combat sequences suggesting a system that could be operated or participated in by gamers. TV’s episodic nature offers a good fit for game adaptation, explaining why many licensed games capitalise upon this form to offer varied levels and compressed story arcs which suit the feedback-driven nature of gameplay. The self-contained nature of *Trek* episodes

combined with the blank canvas offered by the space exploration setting allows the games to slot into the series' continuity; many do so explicitly through the use of specific star-dates. The show's enduring themes of individual responsibility, teamwork, and courage in adversity prove more difficult to capture in a single-player videogame.

As Elizabeth Thomas, writing about the franchise's 'soul,' puts it: "Across all of the series and films, the stories of *Star Trek* stressed teamwork and co-operation, something that America was ready for in the 1960s and that it has yet to grow weary of."^xA game must acknowledge these elements - what Jenkins^{xi} defined as the '*Star Trek* meta-text' - while providing a fun, convincing simulation to capture the show's mood. Another feature of videogame adaptation isolated by Krzywinska and Brown^{xii} can be seen in the adaptation of *Trek* games. Many post-mortems or anecdotal accounts of development criticise Paramount as license holders who understood their product but perhaps didn't understand games. Steve Ritchie's anecdote of acquiring the rights for *TNG*'s pinball table^{xiii} proves emblematic:

'Getting the rights to do 'Star Trek: Next Generation' was also a challenge...Because they didn't want us to use any guns in the game. I said 'Hey, wait a minute, when the *Enterprise* is provoked, they use photon torpedoes.' I didn't set out to make them space pirates from hell, I just wanted to represent the show accurately in my game. I told them that I had been a fan of the series all my life, and I would never violate the Prime Directive ... and they came around.'^{xiv}

Understandably, Paramount frequently sought to protect their IP from being watered down with too much violence or a weak, uncertain storyline. This may explain why many of the adventure games and 'bridge commander' games suffer from inflexible narratives; even if multiple approaches to a situation can be considered or enacted by players, there is generally only one correct route through the text. Selecting any path other than the closest to the

canonical paradigm results in near-instant death. The more successful licensed titles were mainly released in 2000, considerably later on in the franchise's development, when Paramount/CBS were more experienced in liaising with game developers.

Paramount's approach to licensing was unusual in that it offered rights to many companies simultaneously rather than settling upon a coherent/exclusive deal with a single games publisher. This strategy, combined with multiple different licenses for different elements of the franchise being available,^{xv} de-stabilised the development process, leading to lawsuits between game publishers Interplay and Activision when both held different elements of the same license. By contrast, the *SW* games, though developed by different studios, were all published through Lucasarts, and as such better able to be kept consistent in terms of how the license was applied.

Licensed Star Trek Games:

Among those that take the 'designed for gamers' approach to the split-audience are some of the more critically successful *Trek* games, including *Star Trek Voyager: Elite Force*^{xvi}, which holds the highest meta-critic rating of the licensed titles^{xvii}. A first-person-shooter game, it casts the player as a new character, Ensign Munro, the game approximates an episode rather than a spin-off, using pre-rendered cut-scene material like the *Voyager* opening credits sequence (with programmers and game designers replacing the usual names). Dialogue recorded by the show's cast and a graphical user interface designed around the aesthetics of *Trek* combine with high-quality graphics and gameplay, resulting in a solid game featuring a *Trek* plot. It's easy to see why this product proved successful, since it uses a proven format and adapts the IP to fit the genre. The approach taken to adaptation: the needs of the game are always put before the demands of the franchise when the two conflict. Here,

for the example, the Borg do adapt to become immune to weapons yet are easily dispatched using an infinity modulator which the player begins the game with.

While this holds true to *Voyager's* plotline, it doesn't gel with how the Borg are generally portrayed. They lose the fearsomeness generally associated with their appearance. There's certainly more shooting in this game than even the most action-packed *Trek* episode or movie. Yet the attention to detail in terms of set and ship-design is clear; the game exploits the less action-heavy moments to make the most of the show's space by having the player walk to the transporter room themselves before missions and soak up the ambience rather than simply throw them into the next tranche of action via a 'loading' screen. Several missions are set aboard an invaded *Voyager* itself to further enhance this sense of belonging, leveraging the crucial element of familiar space described by Brown and Krzywinska when they discuss *Lord of The Rings Online's* process of adaptation and reference the map as a transitional artefact facilitating adaptation^{xviii}. A critical and commercial success, *Elite Force* offered few innovative qualities. A well-executed example of the most popular videogame genre, it did its job and effectively adapted the show's trappings. But harmony of gameplay and source material remained beyond its scope. This approach is true of many other titles which used the license as a way to distinguish their own take on a popular genre from the competition.

Another common genre for *Trek* adaptation is the space strategy game. A rare instance of an outstanding licensed board game which remoulded a genre falls into this category. *Star Fleet Battles*^{xix}, developed mechanics found in naval war-games around the *Trek* ships and weapons technology. In adapting this element of the show, *Star Fleet Battles* capitalized on the multitude of different variables a starship comprises to deepen and diversify the play of the war-game, simultaneously providing fans with substantial amounts of information on the ships. Also provided is a concrete use for all the data and minutiae of

the show's hardware, which devoted followers of *Trek* collected. *Star Fleet Battles* also revealed the power of the license to draw in fans to a genre that otherwise might seem somewhat too alien or niche, becoming the inspiration for a whole strategic space-sim videogame genre. Its core mechanic was directly adapted from the show's combat sequences: the re-routing of power to different elements of ships' weapons, shields, or propulsion. *Star Fleet Battles*' eventual adaptation into *Star Trek: Starfleet Command*^{xx} saw the inception of the longest-running series of *Trek* videogames and is regarded as a classic within a niche genre. When Jenkins discusses the multiple different potential readings of the show by different types of fans, he notes one grouping as "those that focus primarily on the program hardware or on the military chain of command, readings that are common to male computer net fans or role-playing fans."^{xxi} These readings, and this audience of readers, can perceive the real appeal of these games and relate most closely to how they harmonise with the show.

While the majority of *Trek* game adaptations fall into this 'designed for gamers' category, others attempted to adapt an episode's storyline into game form. Simon & Schuster published a series of text adventure franchise games in the late 1980's as well as a pair of 'interactive movie' style games in the late 1990's using this 'designed for fans' approach. Attempting to simulate the show through the use of text and simple graphical interface elements, these did a solid job of capturing the show's feel insofar as technology allowed. The text adventures were limited by lack of visuals, the interactive movie-games by the inflexibility of pre-shot footage, which players found their way through by completing simple input tasks. This awkwardness was alleviated via a series of warmly received graphical 'point-and-click adventure' games designed by Interplay in the early nineties. These gradually refined the concept of an 'interactive episode' (*Star Trek 25th Anniversary*^{xxii}, styled as the lost 4th season of the original series). The player controls the show's cast by selecting dialogue options and using items to solve puzzles. The Massively-multiplayer Online Role-

playing game *Star Trek Online*^{xxiii}, developed over six years at great expense, marks this approach's zenith, providing the most fully realised and open-ended *Trek* game.

Several key features of adaptation mark the game out. Missions are clumped into groups called 'episodes,' and NPC officers with different specialities are a core feature of the game, although they can be replaced by other players. Gameplay has been criticized as repetitive and shallow. Although teamwork is placed front and center, the game's ambitious design did not allow the show's themes to shine through. However, as an immersive *Trek* experience, this offers masses of content to amuse and delight fans who derive joy merely by being surrounded by the show's world.

Somewhere between these 'designed for gamers' and 'designed for fans' games fall the attempts to adapt the show's most popular elements into their own game type. Unique to *Trek* and at the heart of its TV/film incarnations is the iconic bridge scene, also action in which characters fly the ship and respond to situations together. Inspired partly by these sequences as well as the success of *Star Fleet Battles* and the *Starfleet Command* series, first *Star Trek - Starfleet Academy*^{xxiv} and then *Star Trek- Bridge Commander*^{xxv} attempted to personalise the grander scope of space strategy games. They also recreated an angle on the show begun in the early text adventures, particularly *Star Trek: the Rebel Universe*^{xxvi}. This item had allowed players to jump between the personas of several different bridge officers to operate the ship.

Bridge Commander's tag line 'You are the captain, you have the conn' displays its attempt at embodying the player within the agentic position of the main character in a show, rather than positioning players inside the skin of Picard or Data - a move which also allows primary characters to star in the game alongside the player. The game possesses a solid awareness of Star Fleet protocol, as potential captains who try to fire the weapons without first engaging Red Alert quickly realise. Giving commands to officers rather than taking up

the stations personally is necessary to co-ordinate successful missions. Opportunities for tactical action and difficult or non-violent decisions from the show also occur in the game. Moments where proving one's peaceful intentions requires a player to drop the ship's shields are memorable, the vulnerability this affords is more keenly felt in the context of a game than in the show. There is a balance, if not often a true choice, between action and more peaceful exploration. As such, these games present perhaps the most harmonious licensed adaptation. But while the range of unlicensed *Trek* games offers fewer titles, it represents a broader range of adaptive approaches.

Unlicensed Star Trek Games

Unlicensed adaptations date from long before the earliest licensed titles were produced, offering testament to the strong drive computer-literate fans feel to simulate elements. Early examples on many of the earliest computer systems paid homage to *Trek*. The multiplayer space combat game *Netrek*^{xxvii}, itself an evolution and expansion on arguably the first computer game, *Spacewar*^{xxviii}, lays claim to a host of innovations, many now commonplace features amongst games today. Arguably the first game to be played as an e-sport, this rates as the first team-game to be played remotely over the internet, allowing for logging in and persistent 'character' accounts in both competitive and co-operative multiplayer modes. Without *Netrek's* innovations, modern online gaming might look different, in part because it has been cited to break patent disputes. As a *Trek* inspired game, *Netrek* holds an important position in the history of the medium. Compared to other early *Trek* games, it features a unique angle on adaptation. The show's shared semiotic space made many of these games popular. To fans working with new technology, it'd clear how a Klingon or Romulan ship will behave or be designed. It's easy to know how shields, phasers,

and photon torpedoes will work because their properties are distinct and consistent in the show and can carry over. This shared-reference-space also enabled opportunities for articulating communication via computer. It's difficult to imagine a time before the ubiquity of online communication, yet important to give the games which heralded these innovations their due. *Netrek* used *Trek*'s semiotics to achieve this, easing players into this new form of online communication via the familiar elements of hails and distress signals. These seemed as 'natural' to a *Trek* fan as the phasers and photon torpedoes.

The modern games industry is broad enough to allow scope for 'indie' game development by teams with smaller scale budgets, ambitions, and sharper focus than the most licensed titles. In this arena, further unlicensed *Trek* references and inspirations can be found. Award winning indie game *FTL*^{xxix} takes visual inspiration from diverse sci-fi, but its gameplay is geared around the same element of *Trek* which *Star Fleet Battles* had taken up 40 years previously: The re-routing of limited power in relationship to the different systems of a spacecraft. The focus on this mechanic given by *FTL*'s limited scope created an environment where the sorts of decisions and tactics featured in episodes can emerge organically simply by allowing the players stark choices which the same system affords in the show. Re-routing power from life-support to the shields to protect the ship over its crew, or not being able to find power to return an away-team from an enemy vessel, are examples of chaotic, unfolding moments of drama created procedurally. These align closely with the series - much more-so than the complex, wide-scale combat of the licensed space strategy games.

Another indie *Trek*-inspired game is unlike any of the licensed games. *Redshirt*^{xxx} embodies the player not as a command and agency-wielding starship officer but as one of the anonymous crew-members whose role is always to die in place of a primary character. *Redshirt*'s gameplay is about interacting with other people and living life on a distant space-

station, achieved through a satirical take on social media, ‘Spacebook’. Its characters include intentionally poorly-disguised references to Vulcans and Ferengi, while puns or nods to the show are constant during gameplay. This is the only *Trek*-inspired game which plays on the long-form character-relationship angle of the *Trek* concept, much as *DS9* did in its serial approach to episode design and story arcs, focusing in on a different core *Trek* theme defined by Thomas: "*Trek* Fans, along with Gene Rodenberry, explored the classic oppositions between individual and society, reason and emotion, common sense and technology, humans and aliens"^{xxxix}. In *Redshirt*, away missions are not enjoyable adventure romps but terrifying situations where friends get killed. Unlike comic takes on the franchise such as the Space Quest series published by Sierra in the 1990’s, *Redshirt* makes serious points about fans and social media in its mechanics while also revealing elements of the show which have been ignored by licensed games despite their potential, all the while lovingly sending up the franchise. To return to Jenkins^{xxxix} and types of fan-reading, this game aligns with those who make the personal and relationship elements of the show their touchstone.

Other indie games, like *FTL* and *Redshirt*, offer testaments that a license and the visual trappings of the show is not the only way to successfully adapt *Trek* and its themes. The most ambitious/unusual *Trek*-inspired game, also perhaps the most harmonious, was built within this ‘indie’ space- if at a fringe where making actual profit from game designs appears an afterthought. Developed by a single fan, *Artemis – Spaceship Bridge Simulator*^{xxxix} does not have a license from CBS. Its ships fire nuclear warheads instead of photon torpedoes and *Trek*’s formal semiotics are out-of-bounds. However, by locating such semiotics fully within gameplay, *Artemis* functions as a truer adaptation than high-budget licensed ‘bridge simulation’ games.

Eschewing the traditional development model, *Artemis* arrives from fans. Originally a hobby-project by an experienced game designer who soliciting donations, it eventually sold

online for less than the release price of any licensed game. Feature suggestions are read and acted upon by the designer if the community of players gets behind them, and community members often pitch in to help development of the game if they possess the skills. In this sense it serves as an example of Jenkins famous 'textual poaching' activity as any of the fan activity he cites, built by a community, maintained in the spirit of fan endeavour. *Artemis* is at root designed like other 'bridge simulation' style games but boasts several distinctions. Most importantly, it occurs in a shared physical space. Made for six players - officers in communications, engineering, science, helm and tactical as well as a captain, the game requires seven computers, a projector screen, and a space where all this can be set up to mimic a starship bridge to be played correctly. Each officer has his or her own terminal. Another key innovation: the captain has no terminal, thus no direct way of effecting agency within the simulation. Instead, her role is to give commands, she reliant upon the rest of the players. This results in role-play and team-work in pressurised bridge situations as in the show, with the added social dimension of the other players rather than sterile/computer controlled characters who directly follow orders, as in *Bridge Commander*. Robins explained that "One reason *Artemis* strikes a chord is that the [*Trek*] shows have already taught everyone how to play. Not the individual buttons, but the social aspect of working together as a bridge crew."^{xxxiv}

The harmony between the show's themes and gameplay action in *Artemis*, lubricated by fans' desire for immersion, allows for the strengths of the game form to come to the fore. Providing feedback adds a framework of challenge, enforcing some of the show's themes as rules. The game wouldn't work without the show's shared reference-space; this level of reliance presents a degree of adaptation no made-for-profit/commercial game could condone. *Artemis's* adaptation of the bridge scene allows the game and its requirements to fade into the background; facilitating, rather than dominating, the role-play, which occurs between players.

Here, the show's themes - teamwork, individual responsibility, and reliance on others - are brought to the fore through gameplay. As a result, *Artemis* scores as a game by and for fans, also the purest adaptation yet created of the show's core themes. More than a novelty, it's constantly being developed and refined. *Artemis* embraces the show's non-violent diplomatic elements by allowing for dialogue, peaceful encounters, and the surrender, rather than destruction, of enemy ships.

These *Trek* inspired games with no license but substantial fan investment reveal the franchise's uncanny ability for reaching out to its audience and involving them, as noted by many fan culture/subculture scholars. (Tulloch and Jenkins, 1995) *Artemis* represents the current crest of a wave of fan game development and modification, this a constant alongside the development of licensed franchise games. Games illuminate powerful ways *Trek* semiotics can be used within ludic-contexts directly to generate understanding of a game or system within a game and instinctually to summon the show's themes via a game system designed around them. None of the other major extended trans-media franchises has a fanbase this devoted to or so long associated with gaming. Yet overall games still represent a significant unexplored frontier of adaptation for *Trek*'s ever-voyaging franchise.

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[Accessed 8 August 2014]

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- i Murray, *Hamlet on the Holodeck* Ch.1
 - ii "Persistence of Vision" (Voyager, season 2, episode 8; first broadcast October 30th, 1995).
 - iii "The Game" (TNG, season 5, episode 6; first broadcast October 28th, 1991),
 - iv *Star Wars - Knights of the Old Republic* - Bioware, Xbox, 2003
 - v Picard, "Video games and their relationship with other media" p.299
 - vi Krzywinska and Brown "Movie-Games and Game-Movies : Towards an Aesthetics of Transmediality"
 - vii Crawford, *Chris Crawford on Game Design*, p.172
 - viii Jenkins, *Convergence Culture: Where Old and New Media Collide*
 - ix *Star Trek : Expeditions* - Wizkids, Board Game, 2011
 - x Thomas "Live Long and prosper " p.16
 - xi Jenkins, *Textual Poachers: Television Fans and Participatory Culture*
 - xii Krzywinska and Brown "Movie-Games and Game-Movies : Towards an Aesthetics of Transmediality"
 - xiii *Star Trek: The Next Generation* – Williams Electronics, Pinball Table, 1993
 - xiv Smith, 'The Original Pinball Wizard'
 - xv As a case in point, the *Star Fleet Battles* board game series remains reliant on a single license given by the author of the *Starfleet Technical Manual* (Joseph, 1975) and

technically not allowed to refer to the show's title, universe, or characters, although this situation was eventually clarified by Paramount.

xvi *Star Trek Voyager – Elite Force* – Raven Software, PC, 2000

xvii A rating of 86/100, aggregated from 25 professional reviews. Available at <http://www.metacritic.com/game/pc/star-trek-voyager-elite-force> [Accessed 8 August 2014]

xviii Brown and Krzywinska., "Following in the footsteps of fellowship: Text, translation, tolkeinisation"

xix *Star Fleet Battles* - Task Force Games, Board Game, 1979

xx *Star Trek: Starfleet Command* – Interplay, PC, 1999

xxi Jenkins *Textual Poachers: Television Fans and Participatory Culture* p.97

xxii *Star Trek 25th Anniversary* - Interplay, PC, 1992

xxiii *Star Trek Online* - Cryptic Studios, PC, 2010

xxiv *Star Trek - Starfleet Academy* - Interplay, PC, 1997

xxv *Star Trek – Bridge Commander* - Totally Games, PC, 2002

xxvi *Star Trek: The Rebel Universe* - Firebird Software, Atari ST, 1987

xxvii *Netrek* - Kevin Smith & Scott Silvey, PC, 1988

xxviii *Spacewar* - Steve Russell, PDP-1, 1962

xxix *FTL – Faster Than Light* - Subset Games, PC, 2012

xxx *Redshirt* – The Tiniest Shark, PC, 2013

xxxi Thomas "Live Long and prosper " p.19

xxxii Jenkins, *Textual Poachers: Television Fans and Participatory Culture* p.95

xxxiii *Artemis – Spaceship Bridge Simulator* – Thomas Roberts, PC, 2010

xxxiv Meer, 'Boldly Going: Artemis' Thomas Robertson'