

No-one Plays Alone

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ABSTRACT

The discourses around games have tended to focus upon either their artefactual qualities or the phenomenological experience of play. In both cases, games are primarily to be understood singularly. An alternative approach, related to Foucault's archaeological methods, is to focus upon the manner in which games share player practices with earlier games. This technique can be applied to all eras of games, and is not merely restricted to videogames – indeed, a significant proportion of the player practices of videogames descend directly from the player practices of tabletop games, especially in terms of the progenitive role of tabletop role-playing games for contemporary digital entertainment. Such player practices can be broadly understood in terms of interface (how the player engages with the game), world (what the player imagines is happening), or the agency practices that connect the interface and the world.

Three propositions concerning the relationships between fictional setting and designed rule systems within games are explored, the last of which stresses the idea that 'no-one plays alone' i.e. that all play entails continuity of its practices over and above variation of those practices. These propositions are used to demonstrate three aesthetic flaws that are peculiar to, or particularly relevant for, videogames. This in turn leads to a discussion of the ways that commercially successful games have always proceeded by leveraging the existing networks of practice. The result is an alternative perspective for game design, game scholarship, or game critique, one that foregrounds the role of player practices.

Keywords: player practices, aesthetics, play aesthetics, games, fiction, rules, lineages

I. PLAYER PRACTICES

Traditional game design descends from the practices of tabletop game design, that is, writing rules, now generally called 'game mechanics' (Sicart, 2008), that are then implemented into programmed systems. This method works. But it misrepresents the practical aspects of the process by obscuring the relationship between games and players. Games are never invented from nothing: they exist as variations of successful player practices. This way of understanding games – in terms of the player practices passed on between interconnected lineages of games – runs contrary to many conventional methods of thinking about games, both in commercial development and the discourses around it.

For instance, in their seminal text *Rules of Play*, Salen and Zimmerman (2003) usefully deploy three distinct schema to carve games into rules (game mechanics), play (experience), and culture (context). Looking at games from the perspective of player practices necessarily *interrelates* these three elements: the culture of playing in a particular way is shared by both the artefacts *and* the players, who are in turn organised into a (loose) community.

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For the purpose of this paper, a ‘player practice’ is anything that a player has learned to do consistently. This includes, for instance, using the right stick on a controller to move the camera object, pressing a button to jump, smashing boxes to look for power-ups, and imagining that moving an animated ‘doll’ in a depicted space entails ‘entering’ the implied fictional world. The underlying use of ‘practice’ has a long and distinguished history in philosophy, far beyond Foucault’s (1972) discussion of discursive practices that underpins this paper, arguably all the way back to the notion of *praxis* in Aristotle.

In direct parallel to Foucault’s archaeological methods, a focus on player practices entails identifying networks of connectivity. For Foucault, statements could be linked together into networks, and the relationships between those statements within the network characterized “discourse itself as a practice” (1972, p. 42). Foucault’s ‘discursive formations’ are thus descriptions of practices that condition and influence what can be said in any given ‘enunciative field’ e.g. biology, Natural History, mathematics – they are the networks of statements *and* the practices that relate those statements. Mirroring Foucault’s terms, studying player practices highlights ‘play formations’ that condition and influence how games are both made and played within various ‘fields of play’, the implications of which will hopefully become clear as this paper progresses.

This notion of a player practice should not be confused with the (related) concept of a *community of practice* advanced by Lave and Wenger (1991). Although this *also* descends from the philosophical discussion of practices, and thus has significant similarities, Lave and Wenger’s concept is expressly about learning within a group that is personally connected by some means. Conversely, a player practice can pass down a lineage of games without the players and game developers ever forming a community of practice in Lave and Wenger’s sense. This is the case precisely because player practices can be embodied in game artefacts *as well as* in what players learn from playing with such systems. Indeed, core to the very idea of a player practice is that the process of making games entails learning player practices and then using them normatively to prescribe the construction of a new game, whether consciously or otherwise.

As noted above, thinking in terms of player practices is a significantly different perspective from thinking about games as artefacts comprised of rules. One popular academic approach is to treat games as comprised of ‘real’ game mechanics, which can be modelled mathematically, and a ‘wrapper’ of fiction, which certain scholars contend can be treated as having only secondary importance. This ontological and phenomenological bias can be found in Aarseth (2004, 2012), Kirkpatrick (2011), and many other scholars who study games, who claim that the experience of fiction will “fade into the background” once “the engagement with the game becomes an obsession with the game goals and mechanics” (Aarseth, 2012, p. 490). While this bias has in no way tarnished the quality of the academic work such scholars have conducted, I have nonetheless suggested that this peculiarly dismissive attitude towards imagined experience is rooted in the play preferences of these scholars, and cannot be taken as universal; indeed, it can be misleading if it is taken as axiomatic (Bateman, 2013a).

A significant problem with the view that games are ‘really’ crunchy mechanics and that the player ultimately discards the fictional world is that the specific game mechanics tightly constrain the ‘theme’ that can be attached. Game designers cannot simply treat the functional elements of a design as something that could be transplanted wily-nily without utterly mauling the process of game design. This ‘wrapping paper fallacy’ (Bateman, 2013b) that treats fiction as interchangeable and irrelevant (because only the systems are

assumed to matter) conceals the importance of imagined experiences for all play. This and other forms of what I have rather theatrically dubbed ‘fiction denial’ (Bateman, 2013a) obscure the material, social, and phenomenological foundations of play. If we want to understand the play of games of all kinds, we need to be open to understanding their player practices, both in terms of interface and agency, and *also* in terms of their imagined worlds, even though the latter matters more to some players than others.

Contemplating games from the perspective of their player practices is largely impossible while we treat a game purely as an artefact. Instead, we must be open to appreciating not only the way individual games are played, but the connectivity between the player practices of one game and those of the lineages it connects to, a method intimately related to Foucault’s approach to analysing discourse (Foucault, 1972), as I have discussed more completely elsewhere (Bateman, 2016). To fully explore this, we need a perspective that stresses that play is never a solitary activity, since no player can play in complete isolation from the practices of others.

II. THE RULES OF GAME WORLDS

One approach to game design, adroitly discussed by game designer Dan Cook (e.g. Cook, 2007) is built upon productive reductionist principles – splitting games into their components. This can be considered *bottom-up design*. I use this kind of technique often in boardgame design and occasionally in videogames, and it’s an effective approach in many instances. An alternative is *top-down design*, whereby the world is already established and the open question is how to support play within that setting. This is a technique I have also used, particularly on projects where the fictional world is determined in advance e.g. license adaptations.

In the case of bottom-up design practices, game developers have to be careful since by being the conduit for the final design and world, they can introduce aesthetic problems that cannot be anticipated until the artefact under development can be put into contact with players (see Section III, below, for examples). Such problems are typically solved in successful projects through iteration: people are sat down with the game and the developers learn how new players come to engage with it, using what is observed to adjust the game’s content (both mechanically and in terms of world or setting).

While the discourse of game designers provides ample opportunities for an exchange of ideas pertaining to the designed systems of games (i.e. their game mechanics), the question of the relationship between those systems and the fictional content of game worlds is one that remains ill-defined. In an academic context, it is not surprising that this has remained largely upon the side-lines since the common reluctance to take fiction entirely seriously (as already discussed) makes it harder to explore the consequences of the central role of fiction both in games (Bateman 2011) and in other artworks, a point discussed in depth by philosopher of art Kendall L. Walton (1990).

However, a discussion between myself and Dan Cook within the comments of one of our blogs (Bateman, 2013b, and Cook, 2013) opened up new perspectives upon the relationship between ‘rules’ and fiction and suggests three propositions pertaining to their interrelations worth considering more closely. It is these three propositions that I wish to discuss in the section below, before moving to the aesthetic consequences of these premises, and the implications for our understanding of both games and game design.

I shall term these propositions the Rules of Game Worlds, and identify three such rules, which are perhaps better understood as guidelines or rubrics. This discussion proceeds in accordance with my claim that rules and fiction interrelate since the former depend upon the latter, and the latter upon the former (Bateman, 2011). Thus while we can distinguish between setting and system, we have made an error if we think this is the only way, or the best way, of conceptually organising the artefactual basis of played experiences.

Incongruous Settings

A first problem Cook identifies is when the setting encourages players to understand the play of the game in a way that is contrary to how the mechanics function. Cook suggests that the setting “activates schema in the player that fail to ease understanding of the system dynamics” (Cook, 2013, no page). This gives us the first proposition concerning the relationship between rules and fiction in respect of game worlds:

First Rule of Game Worlds: Setting and mechanics must accord.

Ordinarily, the game designer wants the player to learn to play easily according to the mantra for commercial success popularised by Nolen Bushnell “easy to learn, hard to master” (Bogost, 2009, no page), and this is best attained by aligning setting and mechanics. A notable exception to this rule occurs when a game is intended to discombobulate the player, as was attempted in the insanity cut-aways in *Eternal Darkness*’ (Silicon Knights, 2002).

This word ‘schema’ that Cook deploys is taken from psychology, e.g. Piaget (1926), although it comes from philosophy prior to the divorce between the two fields, and was coined by Immanuel Kant (1781). The idea is that we have in our minds certain ways of understanding certain situations – schema, or mythologies (Bateman, 2012, 2014a) – and these come into play associatively since our memories are associative via the hippocampi (Bateman, 2014b). As a consequence, it is usually bad practice to have player’s prior associations disrupt their understanding of a game’s systems, that is, the game mechanics. Players might eventually overcome this and learn the way the game works, but in general an incongruous setting remains unsettling even after the game is learned.

Cook (2013, no page) gives an example from his game *Triple Town* (Spry Fox, 2010):

In *Triple Town*, we initially made the bears into children. Mechanically, the bears were obstacles that you wanted to remove. When they were children, many players activated the schema that they should be protected. Expectations did not match mechanics. Confusion, irritation and uneasiness results.

Part of my purpose in writing *Imaginary Games* (2011) was to stress that when we talk about the aesthetics of play it matters whether setting and mechanics (fiction and function) align. To be aesthetically satisfying to a player, it is vital to allow for this since (as Cook notes) the player’s experience is always filtered through their world. An odd consequence is that a player’s prior experiences are as much a part of their play as the game itself – and there is a style of play (and a set of design approaches that correspond to it) that make the dominant setting not that of the fiction but of the mechanics.

Mathematics Imply Settings

The second problem Cook identifies is presented as an opportunity: “self contained systems of value” provide opportunities for “a wider variety” of settings (Cook, 2013, no

page). In fact, Cook notes that certain styles of games (puzzle games, strategy games, numbers-heavy combat, to use examples that I had previously offered to him) are playable *without setting*. This leads Cook to the point that something like Chess, which is mathematical (topological) at base, is easier to transpose between settings than a game that depends on contextual content.

However, we should be careful about making assumptions about the idea of games without setting, that is, without representation since it can be objected that mathematics are already a representation (Yablo, 2002). As a result, mathematical games *already* have a ‘setting’ of a certain kind. This is what is sometimes called an ‘abstract’ theme, although this can be a misleading terminology. The implication of recognising the representational aspects of mathematics is that when a new fictional setting is applied to, say, Chess, we aren’t so much adding a setting that wasn’t there, we’re actually *merging* its mathematically-implied ‘abstract’ base-setting into a fictional one. The Chess mechanics are a little mechanical sub-world with its own representational implications that are not negotiable in the same way that any fictional content merged with it might be. Even if you changed the names of the pieces to X1, X2, X3 etc. the rules of Chess would still feel like a power struggle because that’s what they mechanically represent.

From this follows the second proposition concerning the relationship between rules and fiction in respect of game worlds:

Second Rule of Game Worlds: Any and all mechanical sub-worlds must merge with the game world.

What made the wrapping paper fallacy appealing was the recognition of two utterly distinct worlds – the abstract world of the mechanics, and the representational game world. But the former can only be removed from the latter if in itself it successfully supplies a sufficient base-setting. Chess does – it’s a spatial contest, and anything that supports that metaphor will merge with it, even contexts outside of battle like *The Simpsons* (in part because metaphors of conflict are transposable into any human or animal relations). But you can’t strip (say) bingo or a point-and-click adventure down to a plausible base-setting because the core play isn’t forming a self-contained system in the same way. Bingo relies upon its community experience (no bingo player could desire a single-player variant) and adventures rely upon their fictional content in a way that is effectively case-by-case rather than a defined and reusable system, even though the lock-and-key puzzle approach does form such a system, and recurs in many kinds of game.

It might be objected that the second proposition is the same as the first, that setting and mechanics must accord. However, not all mechanics give us base-settings, only those that form what Cook terms “self contained systems of value” (2013) or something like it. Furthermore, it is possible to merge any number of such systems provided they accord with the fictional world. Indeed, playground worlds (Bateman, 2006a) often add games-within-games because they can easily be merged. The 90s style arcade games in 90s-set *San Andreas* (Rockstar North, 2004), for instance, or gambling in *Red Dead Redemption* (Rockstar North, 2010). Merging is also possible in more aesthetically satisfying ways e.g. the circuitry-based influence game within robot-massacre classic *Paradroid* (Braybrook, 1985), which makes the game so memorable because the ‘mini-game’ in itself gives the paradigm of the entire experience of possessing and discarding droids, a style of play that went on to influence the first *Grand Theft Auto* (DMA Design, 1997).

This second rule also challenges the ‘two distinct worlds’ implied by ‘rules vs. fiction’ (Juil, 2005). Many games are one coherent fictional world and many congruent mathematical/mechanical worlds that have been merged with it, and often (but not always) with each other. Games that allow you to build or tinker with devices as well as deploying them for racing or combat also show this merging, from 80s tabletop games like *Car Wars* (1980) and *BattleTech* (Wiesman et al, 1984) to *Forza* (2005) and *Kerbal Space Program* (2011) now. It is misleading to think that the mechanical world could be built and only then ‘wrapped’ in cars, mechs, or spacecraft. Rather, at all stages the fictional world and the mechanical worlds must merge congruently, and often it is the fictional setting that informs the design of the mechanical sub-worlds.

Nonetheless, each base-setting for each mathematical sub-world is also reusable, just as character archetypes and plot tropes are reusable in narrative fiction. This ability to reuse patterns, however, does not and cannot make the base-settings more fundamental than the fictional worlds, although they can certainly be more important to a subset of players.

Play as a Practice

The last of the problems Cook identifies is one of particularly relevance to anyone with an interest in games and play. In my remarks about the wrapping paper fallacy (Bateman, 2013b), I provided the example of a sporting game as antithetical to this conceptual viewpoint because the mechanics – while necessary to their play – aren’t the locus of the player’s enjoyment. Cook (2013, no page) summarizes this issue nicely:

You can retheme/reskin a sport and it loses the vast majority of its value. The culture and the community around the game has turned into an intricate, many layered game of its own. The chants, the commentators, the game night scheduling, the tribal associations are the real game. To copy out the core mechanics and give them a new game is like copying out raw DNA and thinking you have a complete ecosystem of living and breathing organisms.

Cook suggests that building a new game bottom-up is especially challenging as it’s like “terraforming a barren world” where you must “build up culture and community from scratch” (2013, no page), stressing the immense difficulty of this task. This is correct, when considered from a bottom-up perspective. However, from a top-down perspective the problem seems radically different: the game designer still needs to build up their own culture and community, but they begin with ‘neighbouring’ fictional world cultures to provide ‘settlers’. It’s something that marketing departments recognise, although generally fail to know how to productively influence. People enjoy certain kinds of fictional worlds, and seek their entertainment within those media that deliver those specific kinds or anything like them.

The reason generic fantasy and urban horror novels are good sellers is that they already have their collective culture and community. Genre fiction forms superset fictional worlds – what I call, after Charles Segal’s (1986) observations on the interconnectedness of Greek mythological stories, a *megatext* (Bateman, 2013). Whatever the nuances of an individual book series, its mythology is rooted in a wider frame of reference, one that spans many other books and series that at first glance are entirely isolated. Mash-up movies like *Shrek* (Adamson and Jenson, 2001) – and mash-up fighting games like *Soulcalibur II* (2002) and *Super Smash Bros.* (1999) – show that they aren’t as isolated as they may first seem – they are ‘close enough’ that other worlds can be made out of collisions between their otherwise isolated content. What’s more, there are connections

between otherwise isolated fictional worlds via the people engaged with them: both the readers and the writers of genre fiction participate in the practice that sustains that genre.

Videogames are no different, but as well as participating in the practices of world (fantasy, science fiction, crime) players participate in the interface and agency practices that can be described in terms of game mechanics too. The first person shooter (FPS) is not defined by its perspective but by the practices of those players who participate in the FPS culture. The games certainly do affect this – *Halo: Combat Evolved* (2001) significantly altered the practices of the FPS (dropping the inventory in favour of just two weapons, adding vehicles), as did *Call of Duty 4: Modern Warfare* (Infinity Ward, 2007) by putting RPG-like advancement mechanics into the multiplayer mode.

However, changes to mechanics only become changes to practices when players actually like what changed and then seek more of the same. Also, some changes fork the practices into two different cultures, as *Battlefield 1942* (Digital Illusions, 2002) and its successors have done. The words used to form genre terms don't reflect the practices very well, because as *players* (if not as scholars) we're trained to see games in boxes like 'FPS' that seem to pick out the important feature but only describe how that practice split from its predecessors. The reason for the name 'first person shooter' is that most shooters in the 80s were rendered in 2D, so the 3D first person perspective was a step in a new direction.

From this follows the third proposition concerning the relationship between rules and fiction in respect of game worlds:

Third Rule of Game Worlds: No-one plays alone.

This, indeed, is a stronger proposition than the previous two, since it applies to all games, and indeed to all fictional media. Even the most dedicated solo player is embedded in interface, world, and agency practices that are sustained by a community. Even a designer who makes a game that only they will ever play relies upon many others to facilitate the making of that game (especially on an industrially manufactured device like a computer!) as well as the communities that nourished the games that taught them the practices of play they riff off. No-one plays alone, because to learn to participate in the practices of play – whether narrative, mechanical, or both – requires players to have been part of a wider culture. Indeed, Miguel Sicart (2009) suggests that to be a virtuous player, you need to recognise your relationship with other players.

This rule seems odd, since it doesn't seem to be about the relationship between rules and fiction, mechanics and setting. This is because contemporary views of our world have misled us into thinking everything is explicable in isolation. This is a hangover from the Victorian sciences and their mythology of the universe as a giant mechanism (Bateman, 2012), a view that, while often useful, can obscure the vital connectivity between things. Terms like 'emergent' and 'superorganism' try to hold onto this older perspective by ignoring complex networks and treating them as still a single thing i.e. as still isolated provided we change the scale that we look at them. There's a place for this, but there's also a place for exploring the network connections themselves, and we are currently at a time where we need the latter perhaps more than the former (see Bateman, 2014).

New game designers often seek to amaze the world with their utterly original design – which then inevitably flops. I have certainly had this experience several times. This happens primarily because playing games is not simply about isolated artefacts ('the

game’) that are played by individual players. When seemingly original game concepts take flight it’s because existing communities of players pick them up – one games journalist, for good or ill, is always talking to a community of players who must share some commonality of practice with that writer or they would not read them. This can be a common games platform (even in the 80s, games magazines succeeded primarily by being about one kind of microcomputer), or shared aesthetic values for play, or just shared values for talking about the practices of play. Specific examples can be found in the context of 80s arcade player practices (Bateman, 2015b) and the way contemporary games share continuity of practice with the last five millennia of play (Bateman, 2015a).

Cook’s terraforming metaphor is only lacking the idea that a new place to live creates a new practice from roots in *existing* practices – the terraforming is just a means to an end, and that end is settlement (something Cook clearly recognises). Understanding that your ‘settlers’ are choosing between different places to settle – different games to play – helps game designers recognise that since no-one plays alone (or, to put it another way, no-one plays in a vacuum) game developers are always recruiting their metaphorical settlers from other game worlds. A few are novelty seekers, but most find it easier to get into a game if originality is tempered with familiarity, both in the mechanics and the setting.

III. THE AESTHETIC FLAWS OF GAMES

The guidelines for creating game worlds that came out of my discussions with Dan Cook are practical principles for how the fictional world of a game (where its narratives will be set) connect with its mathematical systems (where its mechanics operate). These propositions might have more general forms that could include other artworks, but for now let us simply accept them as descriptive ‘rules’, so they can guide an investigation into how games can produce aesthetic flaws of kinds that other artworks simply do not.

Each of these propositions can be used to reveal a specific kind of aesthetic flaw unique to games – and indeed, can reveal a schism between different aesthetic values for play that lead to different kinds of aesthetic flaw. This is key to the discussion that follows, for we must appreciate that ‘aesthetic flaw’ is not an absolute claim, nor is it ‘merely subjective’: an aesthetic flaw occurs between a game and its player as a direct result of a difference in values (cf. Bateman, 2014). The arguments that follow are phenomenological, and based on observations of players, as well as observation of my own play, and are presented in the manner of Wittgenstein (e.g. 1953) more than any explicitly empirical methodology, despite entailing some empirical observations.

Ruptures

The first kind of flaw that can occur in the aesthetics of play is the one that has produced the most heat and least light in discussions of games. It is intimately tied up with the First Rule, that ‘setting and mechanics must accord’, or as I might equivalently say in line with Juul (2005), that the fiction and the rules must accord. Why does this constitute a rule?

The crucial point to understand is the one raised in connection with the Second Rule i.e. that the rules of a game, its mechanics and systems, are representations of a very particular kind – namely mathematical representations. This is important to appreciate, because we do not often acknowledge that numbers and formulae are at heart representative, despite this being well-established in philosophy of mathematics. The number ‘three’ is a representation of cardinality: every collection of three objects, like the three rules of game worlds, is thus represented by the number three. Similarly, the bell

curve ‘shape’ we depict by graphing the Gaussian function of (say) two six-sided dice represents the distribution of results from such a roll. It is precisely because mathematics can and must represent that the sciences that deploy equations (such as physics) are able to derive formulae that represent phenomena like gravity and electrical flow.

But of course, every game is also a representation in the same way that other artworks are: using Walton’s (1990) terms, they are sensory depictions, like paintings, sculpture, and music, or narrations, like books, poetry and radio plays, or hybrids of the two, such as television, comics, and films. This is precisely where the trouble starts, because whenever there are multiple forms of representation working together, there is the possibility of different aesthetic values clashing. This is precisely the problem at the root of the old narratology vs. ludology skirmish (cf. Frasca, 1999) and in recent fights over what is confusingly termed ‘formalism’ (cf. Lantz, 2015) but which seems broadly equivalent to what is usually called ludology or ludocentrism or some other ludo-prefixed neologism.

A rupture occurs when a player is enjoying a game in one aesthetic mode but their imaginary experience is interrupted by an intrusion in another mode – and there are two common examples. The first occurs for any player whose aesthetic values have formed around the mathematical representations of a game (broadly, the ludology position). Such players resent the inclusion of animated film clips (cut scenes or cinematics) since these elements do not form part of their aesthetic experience, per se. They cause a rupture in the mathematically-structured world they are enjoying by ‘forcing’ the player to operate in a narrative mode. Equivalently, a player whose experience was primarily within a depictive or narrative mode will experience a rupture whenever the mechanical system bluntly forces its way into awareness, for instance, by encouraging the player to make a decision with mechanical benefits that does not fit the imaginary world they were playing within.

Note that the same game could produce a rupture in opposing modes for different players, and that what constitutes an aesthetic flaw for someone from a ludology-style position could be an aesthetic strength for others. Despite the interruption of the mechanical play, *Final Fantasy* games from VII onwards (Square, 1997) are enjoyed by many players precisely because the extensive use of narrative cut scenes heighten the sense of connection to the world, even though this also ruptures the game experience for others.

Inelegance

The second way that games can manifest aesthetic flaws relates to the Second Rule of Game Worlds, that every mechanical ‘sub-world’ must also align with the fictional world of the game. The point here is that for most games there is not a single mechanical system feeding into the fictional experiences but rather many. As an extreme example, consider *Cooking Mama* (Office Create, 2006) with its disparate, mechanically unrelated cooking mini-games that are still united within a fictional narrative of cooking such-and-such a meal. Similarly, the classic Access Software games *Beach Head* (1983) and *Raid Over Moscow* (1984) consist of a linear sequence of self-contained sub-games with only the number of soldiers remaining carrying on from one stage to another. The component games do merge with a common fictional world – but this once-popular structure tends to feel uncomfortably clanky by contemporary aesthetic standards.

Players preferring the mathematical mode perceive *inelegance* as a direct consequence of any discontinuity between sub-worlds, such as the previously stated examples. When the systems themselves are the elements of primary importance to creating the fictional world of play, elegance is experienced if the core mechanics conspire to effortlessly deliver that

world, to produce more from less. Many strategy games are afforded this praise, although the original *Super Mario Bros.* (Nintendo, 1985) is an interesting example of elegance that does not primarily rest upon decision making. A design can be said to ‘lack elegance’, which is to say, expressive simplicity, whenever contrary conditions hold, which to be honest is the norm and not the exception in contemporary games.

Inelegance is thus the awareness of tension in the mechanical supports to a fictional game world, a sense that the pieces do not fit together like well-oiled cogs. There does not appear to be an equivalent problem for those experiencing a game in a narrative or depictive mode, although the excess of unrelated mechanics characterising inelegance is likely to cause a rupture in such a case, and inelegance may be experienced along with the rupture if the player has sufficient appreciation for mechanics.

Perplexity

The final kind of aesthetic flaw I want to draw attention to here is of a slightly different nature, and relates to the Third Rule: no-one plays alone. The essence of this rule is that an artefactual reading of games, treating them as isolated objects, is an incomplete reading of a game (Bateman, 2015b) because every game that has ever been made, or ever will be made, is situated in a network of player practices that prepare the player for that experience (Bateman, 2015a). The clearest example is the aforementioned FPS, the control scheme for which is so ingrained among the majority of contemporary players that games using modified forms of this scheme generate aesthetic displeasure. This is what I am calling *perplexity*: the experience of re-learning what has already been learned differently, or learning under conditions of insufficient information e.g. a bad tutorial.

It is perhaps worth recognizing that many of the mathematical aesthetic persuasion are also lovers of puzzle-solving, the enjoyment of which occurs within the imagined world and not to any significant degree in the mechanics. The classic text adventure was enjoyed by many of the same players who enjoy complex strategy games. Such players will enjoy picking up a game and learning to play it without instruction because they possess what I term confusion endurance (Bateman, 2014b). However, such experiences are not what I am calling perplexity, and neither is being stuck on a puzzle usually an example of perplexity (unless the player knows what to do, but cannot comprehend how the game expects them to implement the required action).

Perplexity occurs because two sets of player practices – those of the player, and those of the game’s creators – have collided instead of aligning. The most typical example occurs when the people who make the game insufficiently address the monumental problem of teaching others to play (which is also the pragmatic reason that most mainstream videogames have very similar control schemes). An interesting case is *Metroid Prime* (Retro, 2002), which has interface practices utterly different from other first person shooting games. Players who give up while learning the new control scheme have experienced perplexity in my sense; those that master the practice required by this control scheme, on the other hand, are likely to appreciate its uniqueness.

IV. PLAYER COMMUNITIES

Excluding young children, all players come to every game with their own pre-existing player practices already well-established. This small point has non-trivial consequences! *Defender* (Jarvis and DeMar, 1981) was difficult for arcade players to learn because its interface practices were nothing like the other arcade games of the late 70s and early 80s.

The computer strategy game *Steel Panthers* (SSI, 1995) uses a hex map because thirty year's earlier Avalon Hill's second edition of *Gettysburg* (1961) established the benefits of these over square maps. id software's *DOOM* (1993) and *Quake* (1996) used arrow keys rather than WASD because movement in most Western computer RPGs up to then had been controlled that way, with mouse-look creeping in as an optional alternative interface for games mounted on the Quake engine. Changes were incremental, not revolutionary, because utterly innovative practices become a barrier to play, creating negative word-of-mouth, high risk of bad reviews, and thus no eventual community.

Community is the big issue here since as already noted, no-one plays alone. Commercially successful game developers (and indie game devs who earn enough to feed themselves) have in common that they either made a game for existing communities of players, or they founded a new community around their game. In all cases, the player practices are contiguous with earlier player practices – either in terms of interface, fictional world, or agency (which is to say, the intersection between the two). The three work together, and all three are important – although in different ways to different players, who may experience a variety of aesthetic flaws as a result of their preferences.

Clashes between interface practices create perplexity; clashes between world and agency create ruptures; clashes between agency and interface generate inelegance. All discourage players from engaging in a new community, but not all are strictly game design problems (rupture in particular is often a narrative design issue). Successful game design doesn't have to minimise all these aesthetic flaws, because not all players are bothered by rupture, not everyone is sensitive to inelegance, and some players willingly persist in the face of perplexity. But it is the last of these flaws – perplexity – which is the greatest problem for games courting a community of players, because players can adopt a new game easily if its player practices are close to those they already know, and this applies to interface, world, and agency practices.

If a game's interface practices cause perplexity (by being different from player expectations, founded on prior experiences) there is a barrier erected around the game and only a minority of players will get through it. Indeed, contemporary games have developed new community practices to offset this exact problem e.g. wikis that provide detailed information about player practices expressed as game mechanics, and guides that introduce players to new practices gently. Even so, successful new games achieve their success by taking advantage of existing player practices, and only vary them to a relatively small degree, such that players can switch from an existing player community to that of the new game with minimal complications.

A few examples may be helpful. Blizzard's all-conquering *World of Warcraft* (2004) developed its practices from those of the Multi-user Dungeons (MUDs), a unique kind of game exquisitely documented by Aarseth (1997). Blizzard thus did not create a new community but rather absorbed others that were already engaged in very similar player practices. Firstly, the DikuMUDs that had near-identical practices to WoW but used a text interface, followed by much of the MUD community in general, including the other early 'graphical MUDs' like *EverQuest* (Sony, 1999). Secondly, computer RPG players, since they had very similar practices in interface, world, and agency, but usually played in single-player worlds. Thirdly, tabletop role-players, from whose player practices all these other communities descended (Bateman, 2011). *World of Warcraft* effectively monopolised the role-playing game lineages, and their communities, through high production values, careful community management, and a buffed-up version of the

practices of *Dungeons and Dragons* (Gygax and Arneson, 1974). It ultimately became such a huge player community that even the wellspring of its player practices, D&D, began to copy it, with its fourth edition rules clearly geared to appeal to the community WoW had stolen away from the table (Bateman, 2011).

Similarly, Mojang's monolithic mega-hit *Minecraft* (Persson, 2009) was readily available to a hugely diverse community of players because it used a standard interface, one that descended from *Quake*'s mouse-look combined with inventory mechanics from the computer RPG lineage, those largely added to the pool of player practices by the seminal *Dungeon Master* (FTL, 1997). *Minecraft* did not succeed by monopolising existing communities, however, but by being able to be played by a huge pool of players (thanks to its low-perplexity 'standard' interface, and a strong supply of wiki content to bridge the gap with its high-perplexity crafting system). Once it was rolling, it then supporting hugely diverse player communities thanks to the open configuration of its numerous regimes of play – from peaceful construction, to vicious permadeath that descends from early digital D&D variants such as *Rogue* (Toy and Wichman, 1980).

Significant growth in community was also fuelled by the ingenious early access business model, which *Minecraft* both invented and popularised. Unlike later schemes, Persson offered rising entry fees from a very low starting point – about \$10 when I got it, I think it'd been half that when I first saw it, and later it was \$20 and \$30. Part of my buying decision was precisely the thought that I didn't want to pay more later, and I'll wager I'm not the only one who was drawn in this way. This is one of two key reasons why *Minecraft* had to be an indie project, and couldn't have come from a publisher. The other is its low-fi visual aesthetic, very much resembling my indie flop *Play with Fire* (2006b) three years earlier, although to my knowledge there is no direct connection between the two games, nor to *Minecraft*'s immediate progenitor *Infiniminer* (Barth, 2009).

In *Minecraft*'s case, we can see how its success did not primarily come from its game design ingenuity, which merely provided the seed of appeal around which its communities gathered. Its success was rooted to continuity of player practices from the lineages of FPS (for interface) and RPG (for world and agency). *Minecraft* cross-bred and thus hybridised the two key videogame lineages, but it was its inventive business model that provided a means of growing a new community organically and thus had a far bigger part to play in its success than design innovation. This is in no way a criticism. I have enormous admiration for the variations to player practices that *Minecraft* introduced, which have still not settled into any stable configuration in the games community at large.

Equivalently, superior community maintenance was more important to *World of Warcraft*'s success than design innovation, of which it had very little – and not because Blizzard isn't full of extremely capable designers. A gainful comparison can be made with id software, the only company to get significant traction from the shareware business model. It innovated the 'standard' interface – but it built its community on pre-existing interface practices, from the Western computer RPG lineages (as noted above), and then grew a community with a non-standard business model. Only when that community was established did id get a chance to spread the now-standard mouse-look FPS interface (which also leads to twin stick controls on consoles, via other developers' variations).

V. CONCLUSION

Traditional game design works much of the time because game designers are already part of a network of practice and thus can effectively replicate and vary those player practices. Those capable of abstracting these practices into ‘rules’ or ‘game mechanics’ inevitably end up in the role of game designer since they can communicate play in the written form that helps hold big projects together. (Small teams can avoid documentation entirely in many cases, but larger games have no other reasonable option). Nonetheless, the work of games designers will succeed or fail according to how well it maintains and varies established practices. When it fails, it is often because of unresolved conflicts over precisely which practices are being replicated or modified – especially in traditional publishing relationships. But successful game design has always been embedded within the existing player communities, and new directions have worked far less often than variations on known themes, no matter what players say about what they think they want.

Traditional marketing is an even less reliable method than game design since the openly stated strategies (such as target demographics) utterly miss the point about why spending money can fuel the formation of communities. Players are already inside the communities for the various big game brands (Mario, *Call of Duty*, *Mortal Kombat*, GTA etc.) but can be enticed to play games with similar interface, world, or agency. Meanwhile, world-focussed media brands (Middle Earth, Disney, Lego, *Star Wars*, Harry Potter) provide further opportunities to bring existing player practices to their (largely zero-agency) communities, offering substantial commercial benefits – at a substantial price. Indies can’t afford to do this, so they typically just rip them off – just like the big companies, actually! *Tomb Raider* (Core, 1996) comes from Indiana Jones, just as *Halo* comes from *Aliens* (Cameron, 1986) with a Larry Niven twist, and *Call of Duty* (Infinity Ward, 2003) comes from *Medal of Honor* (Dreaworks, 1999), which comes from *Saving Private Ryan* (Spielberg, 1998) – both concurrent Spielberg-produced projects. If these examples of network connections for world-practices seem trivial, recall that even the much-vaunted *Braid* (Blow, 2008) wholly depends upon borrowing Mario’s player practices.

Foregrounding player practices is an antidote to the wrapping paper fallacy and other forms of fiction denial that treat imagined experience as secondary or irrelevant, but more importantly it allows us to better understand both the differences between players and the intimate connectivity between games and their lineages. Just as Foucault (1972) re-evaluated discourses in *The Archaeology of Knowledge* and elsewhere to explore the practices that allow certain discourses to attain to knowledge, thinking about games in terms of their associated player practices allows us to better understand what we are dealing with when we are making, studying, or critiquing games.

The three aesthetic flaws discussed above – rupture, inelegance, and perplexity – demonstrate how interactions between interface practices (e.g. controls, HUDs, online connections), world practices (representation, fiction and imagination), and agency practices (that interrelate the two) generate problems for certain players according to their personal aesthetic values on the one hand, and the player practices they have inherited from playing earlier games on the other. Indeed, these two elements are closely related, since the aesthetic values players possess seem to be inscribed by the player practices they have participated with at least as much as they are related to their temperament.

These aesthetic flaws aren’t a complete list of the ways in which a game and a player could be aesthetically misaligned. However, they serve to illustrate why certain arguments about games operate unproductively since they proceed from different

aesthetic presumptions – typically a focus on the game’s mathematical systems versus a focus upon the depictive or narrative aspects of its fictional world. There is no coherent argument for claiming superiority or even ‘home field advantage’ to either of these modes, because games operate in fairly unique ways from other media whichever aesthetic mode we consider. It was never a case of finding the ‘right way’ to analyse games: there were only ever alternative methods.

I hope this brief enquiry provides some illumination on a subject that too often lapses into dogma, and illustrates once again the core principle of all my work in games, whether as researcher, philosopher, or game designer: play is a diverse activity, and its aesthetic appreciation can never be reduced to simple master principles. Rather, successful games attain to that state because their artefacts are built around variations on the existing player practices. That’s what game design was always about – talk of ‘game mechanics’ is only a medium for the exchange of ideas. We should not let it distract us from acknowledging our intimate familiarity with the player practices of successful games, because we are all a part of at least some of these communities and networks, and always have been.

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