



Vol. 11, No. 1 (2020)

<http://www.eludamos.org>

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Eludamos. Journal for Computer Game Culture. 2020; 11 (1), pp. 145–159

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MARC OUELLETTE AND STEVEN CONWAY

Introduction – The Undisciplined Discipline

Something is rotten in the state of play. ‘A Ludicrous Discipline?’ (Boellstorff 2006), ‘Forget the Magic Circle’ (Crawford 2009), ‘Videogames Are a Mess’ (Bogost 2009), ‘Against Procedurality’ (Sicart 2011), and ‘Against Game Studies’ (Gekker 2021) are the kinds of articles occurring with regularity in Game Studies, each pointing in their own way to fundamental ontological and epistemological conundrums, paradoxes, and disagreements across the field. Following Aarseth’s advice, “[d]on’t mention ‘the war’ ” (2019), we’ll also say nothing of the avalanche of papers dictating, arguing, resisting or bemoaning the most infamous of the host of binary oppositions proposed across Game Studies’ short history.

We don’t really know what we’re talking about, do we? Perhaps we should rephrase: We know what *we’re* talking about, but not what *they* are talking about. For as much as Game Studies touts interdisciplinarity, as folks such as Deterding (2017), Frome and Martin (2019), and Harviainen et al. (2018) have found in their reviews of the field, we are often siloed in echo chambers: myopic in our approaches, in our objects of study, and in our selection of topics respectively. As Graff (2016) opines, “[e]xaggerated promises and unrealistic expectations abound in the rhetoric, ideology, and political economy of interdisciplinarity” (2016, p. 778). We see also the language of neoliberalism in the promises, since the overwhelming emphasis rests on claims of progress entailed by some ‘newness’ inherent to games. Of course, progress is a self-fulfilling, self-justifying, self-perpetuating ideology. Perhaps that should have been a warning sign.

In short, none of us can agree on the rulebook for Game Studies. This is not uncommon when a new discipline emerges; indeed, it’s the rite of passage as scholars work out the goals of the field, suitable tools for the job, and objects of study. Through this period of rigorous reflection and criticism, the discipline’s metaphysical boundaries inexorably emerge: principle goals are agreed upon, the tools have been tested, acknowledged as useful or discarded, and the multitude of objects have proved amenable or impervious.

Where only syntagms once existed, a paradigm (or paradigms) emerge(s), allowing the dexterous scholar to swap out one goal, tool and object for another, and still remain within the recognised discipline. Four key benefits are immediately perceptible to the inhabitants of this new standard: 1. Now sharing a common language, practitioners can communicate ideas and issues with clarity and coherence; 2. Inherently more flexible than a syntagm, the various components of the paradigm can be swapped out and still maintain integrity; 3. The knowledge claims can be tested, contested, and expanded upon; 4. Followingly, the paradigm is

challenged, improved, or discarded for a new one as anomalies are identified, agreed upon, and investigated.

This pattern of paradigm emergence, stabilisation, crisis and revolution is of course spelled out in rigorous detail within Thomas Kuhn's landmark text, *The Structure of Scientific Revolutions* (1970). As any careful reader of the original text knows, and as many scholars have commented since, Kuhn's sociological insights are not confined to the sciences, but can be applied to many, if not all, areas of study making knowledge claims. Much like Foucault, and Heidegger before him, Kuhn pointed towards the situatedness and partiality of any knowledge and rejected the notion of linear progress towards some objectivist truth; a decidedly anti-positivist position fitting very well within much social sciences and humanities. Simply, Kuhn's concept of the paradigm should not be thought of as exclusive to science, but to knowledge (Chang 1997).

Where, then, does Game Studies find itself? In the language of Kuhn, we are pre-paradigmatic: unresolved debates over foundational issues, chaotic activities, as many conflicting theories as there are theorists. A significant issue we face is 'incommensurability', as outlined by Orman, where often our goals, tools, and objects of study:

do not acknowledge, address, or perceive the same observational data nor they have the same questions or resolve the same problems, neither they agree on what counts as an adequate, or even legitimate, explanation. Thus, 3 types of incommensurability can be respectively distinguished in Kuhn's thought - semantic, observational and methodological obstacles could be seen in comparing those theories. (2016, p. 51)

This is not a bad situation in which to find ourselves because it represents an opportunity to define the 'rules' of a field and to rethink some existing ones. Kuhn, for example, outlines how the problem of incommensurability is also what allows a paradigm to emerge (or replace an old one):

during pre-paradigm periods and during the crises that lead to large-scale changes of paradigm [...] many speculative and unarticulated theories [...] can themselves point the way to discovery. Often, however, that discovery is not quite the one anticipated by the speculative and tentative hypothesis. Only as experiment and tentative theory are together articulated to a match does the discovery emerge and the theory become a paradigm. (1970, p. 61)

In this article we offer exemplars of some fundamental issues we face in deciding upon our goals, tools and objects of study. These include an almost wilful aversion to long established paradigms in favour of innumerable syntagms. We must ask, then, how we might begin to move towards a paradigm, or a set of paradigms for the field. As a corollary, we highlight the issue of 'experience' as a key thread, commensurate with other fields and industries in recent times (Crawford et al. 2019), one which seems a particular challenge to encompass.¹

Serious vs. Distraction (Symptom 1 – Incommensurable Goals)

The difference between a pre-paradigmatic Game Studies and a paradigmatic discipline appears in one of the earliest academic studies of video games. In their germinal *Mind at Play*, Loftus and Loftus (1983) do as we might expect of psychologists: They go right to a paradigm when considering the issue of video games as an addiction forming distraction. They ask pointedly:

is the behaviour good for the person?

is the person in touch with reality?

is the person's behaviour markedly different from the norm? (1983, p. 90)

Loftus and Loftus go on to say “[t]here is no one ‘right’ way to relate to video games” but only after going through the steps of their paradigmatic approach (1983, p. 92). The answer they reach has probably been ignored for two reasons: a) it comes from psychology, which Games Studies often eschews because it brings up issues of player immersion, aggression, and so on, and b) their paradigmatic approach does not allow for either the moral or the amoral approach, approaches which have marked studies of comic books, films, soap operas, popular music, professional wrestling—that is, anything young people like more than their parents. The final sentence from the section is fantastically revealing because they compare the extreme of playing games all day, every day, to an Olympic athlete training all day every day. They refuse to declare game playing harmful, for “[i]f we did, we would also have to say the same about an athlete who trains five hours a day for ten years in order to reach the Olympics” (1983, p. 92). The dominant culture has declared one to be a waste and the other to be a heroic, aspirational quest that represents the best in us. Yet, as we highlight below, one of them has oft-commented utility across diverse environments, from commerce to the military, and it isn't the long jump.

The question of morality is often tangentially discussed both outside and within Game Studies (sometimes interwoven with ethics for design, for pedagogy, for play et cetera), and again we find siloed commentaries, conversations at cross-purposes, and incompatible frameworks. Briefly, from the simple issue of semiosis (how does it happen? To what degree? How much influence does the game exert? How much control does the player have?), to zeitgeists such as gamification, violent and sexual content, phronesis in design and so on, we find incompatible ontological positions, from Cartesian dualism to computationalism to enactivism; objectivist and constructivist epistemological frames; deontological and utilitarian perspectives.² Our concern is not the deficit of agreement: it is the distinct lack of conversation between theorists in the first instance, a clear indication of a pre-paradigmatic field (Kuhn 1970). If we cannot enter sensible dialogue on what exists, how it exists, and why it exists (or indeed, *should* exist), can we take our own findings seriously?

Similarly, immersion is a touchstone for our field, filling the pages of thousands of publications.³ We will save the reader the tedium of ‘trekking’ through the *n*th quote from certain books, and simply say the very concept is still at issue: does it exist? Where does it occur: the embodied mind or the disembodied brain? The phenomenological or the physiological body? The person or the group? All at once? Is it just a marketing term? Or is it a placeholder term for something much more

complex and spectral? Is it historically-sensitive? Is it just a re-branding of concepts from literature and film? This is not to say the questions have not been asked, or answers have not been proffered by those in our field: we're aware of and enjoy the work of many who have wrestled with these ideas. Once more we are pointing to the lack of momentum towards any kind of legible paradigm.

Simply, do we have any worthwhile answers for society? Whether we do or not, society has certainly made its own decisions. As the BBC's Tracy Logan (2004) reports, one stock trading executive asserts, "it is unlikely that we would hire someone who didn't show good proficiency at a GameBoy or online poker or similar video-type game where hand-to-eye coordination is important." Video games, then, become surrogates for simulators. Moreover, the approach of the trading houses revokes the myth of 'serious games' as a requirement for meta-cognition, or strategies for learning (Hacker 2017; cf. Ouellette 2019). As we wrote in an earlier paper, we already know that video games have changed the way sports are viewed and played (Ouellette and Conway 2018). Moreover, the fact that financial houses are using games indicates that the ultimate post-Thatcher, post-Reagan arbiter—the market—has already decided games are important and "real" for those running the economy. This also puts paid to Classics scholar Michael Zimm's (2019) casually self-assuming op-ed in which he proclaimed—a full fifteen years after Logan's report—that video games had arrived. That said, Logan was writing a full five years after van Lent and Laird (1999) declared that computer games would be the 'killer app' for AI because of the games' usefulness in military simulators. In their case, they were working on simulators for the U.S. Air Force.

By the end of the next decade, pilots would be flying drones in combat missions while at a desk and reporting high rates of fatigue and stress. As one Air Force colonel who studies the effects of 'combat' on drone pilots reports, pilots frequently face an "existential crisis" when they are suddenly ordered to kill someone whose life they have been watching on a screen, sometimes for days (qtd. in Martin 2011). When Plato writes in Book X of *The Republic* that poets should be banned because they lie and sway people's hearts, it is not because what they do is 'unreal', according to Plato's use of the term; rather it is precisely because of the very real effects of their craft. Yet, our pre-paradigmatic status still finds us wringing our hands over whether such phenomena exist in the first place.

The Real Cheat Code (Symptom 2 – Incommensurable Tools/Theory)

On that point, one of the sources of the ongoing pre-paradigmatic mode stems from the perpetuation that games are 'not real' or games are 'less than real'; an ontological Boolean without an agreed upon variable. As Kuhn writes:

[T]he proponents of incommensurable paradigms practice their trades in different worlds. [...] Practicing in different worlds, the two groups [...] see different things when they look from the same point in the same direction. (1970, p. 150)

Harris (2005) further acknowledges that the ramifications "for progressing, for making real knowledge" should not be underestimated (2005, p. 30). For, as Kuhn continues:

[T]he transition between competing paradigms cannot be made a step at a time, forced by logic or neutral experience. Like the Gestalt switch, it must occur all at once (though not necessarily in an instant) or not at all. (1970, p. 150)

We concur with Harris's observation that what is “most intriguing about the gestalt simile is that it appeals directly to perception” (2005, p. 30). We are yet to find a syntagm that entails or at least encompasses the multitudinous phenomena permeating gameplay experience, but as highlighted in the next section, reviewing the literature, there is potential for a phenomenological paradigm to emerge. We note, across the discipline's history, the persistent entreaties that games are, or are not, varyingly escapism, catharsis, serious, casual, hardcore, etc. The resistance to catharsis and escapism in game studies goes all the way to one of the earliest ‘principled’ stands about games: violence and sex. It seems we cannot allow games to serve a function that has been an accepted essential component of participatory fictions; there was, after all, a chorus since at least the moment Aristotle defined catharsis.

Thus, we cannot deny that rather than paradigms, we find more than a hint of moralizing and essentializing syntagms in some strands of game studies—Cassell and Jenkins' *From Barbie to Mortal Kombat* (2000) stands out—and an abdication of any acknowledgment that something happens to the player—Aarseth's infamous comments (2004, p. 48) disavowing the impact of Lara Croft's physique immediately come to mind. Chang (2013) explains the underlying basis for incommensurability exists because of a persistent belief that paradigms “can only be properly understood or justified within their own presupposed conceptual framework” (2013, p. 2591). Thus, we still find arguments about “emotional realism” and “moral design” in games where we would have once called these suspension of disbelief and catharsis (de Smale, Kors, and Sandoval 2017, p. 1). We cannot have it both ways. Catharsis is not the same as distraction, no more than distraction is the same as distantiation, and none have any articulated opposition to an ill-defined ‘real’.

Even so, Jesper Juul attempts to convince his reader he is solving the conundrum of ‘the real’ in his tellingly titled *Half-Real* (2005). In the opening Juul explains the title fits because “video games are two different things at the same time: video games are real in that they consist of real rules with which players actually interact, and in that winning a game is a real event” (2005, p. 1). Nowhere is this pivotal notion of the ‘real’ defined; rather, it is simply implicated in a binary as the opposite to fictional. The ‘real’ amounts to a tautology here: it's real because it's not really fictional, and it's fictional because it's not really real.

Even going along with the sophistic expression, there is more than a little slipperiness in the formulation, for Juul continues:

However, when winning a game by slaying a dragon, the dragon is not a real dragon but a fictional one. To play a video game is therefore to interact with real rules while imagining a fictional world, and a video game is a set of rules as well as a fictional world (2005, p. 1).

A quick parsing of the language reveals we could rewrite the sentence to read “the fictional object is not a real fictional object but a fictional one”. If the dragon is “not a real dragon but a fictional one” (2005, p. 1), even once more acceding to the

formulation, where and what are these real dragons? It is with tongue firmly planted in cheek that we wonder if the mythical warning, “There be dragons!” applies.

Do we require this concept of ‘real’ in Game Studies to do our work? If so, we need to identify precisely what work the term does, what its definition is, and the parameters of its application. There is a vast difference, for example, between reality described by physics, reality described by anthropology, or reality described by analytical psychology. This must be tied to the goals we set ourselves as a discipline. As Nash articulates regarding the issue of reality in sociology:

The purpose of sociology is to explain social events and processes. If explanations are tied to ontology [...] then it is necessary to decide what social entities are real and how that reality can be described and demonstrated. (1999, p. 449)

The challenge, then, becomes not reinscribing real entities as a systemic and institutionalized set of economic, political, social, and cultural hierarchies.

Perhaps, as approaches such as Latour’s, Callon’s and Law’s versions of Actor-Network Theory provide, instead of reduction to one reality, we amplify towards *realities*? This has been sketched more than a few times by Game Studies scholars (see for example Giddings 2009, Taylor 2009, Boellstorff et al. 2012) and at least shows a healthy agnosticism prior to analysis: if one can trace the effects of an entity, regardless of its material or ideational status, it meets the litmus test for ‘real’ and is worthy of description and analysis (though as has been quipped, this does not mean all things exist equally). In this instance, we agree with Chang’s (2013) conclusion regarding the tendency to conflate incommensurability with incomparability, for:

what began as a technical term of art, “incommensurability,” employed to cover a range of loosely related ideas, has led to two distinct research programs: one concerning what is properly called “incommensurability,” or the lack of a cardinal unit by which values can be measured; and the other concerning “incomparability”, or the failure of items to be ranked relatively to a covering value. (2013, p. 2603)

The failure—and the art of it—to recognize the difference remains a hallmark of a pre-paradigmatic approach. Indeed, Chang cites the importance of incommensurability in “trumping”, or instances when “one value is always as good as, or better than, any instance of the other” (2013, p. 2593). Beyond its importance in *Euchre*, trumping becomes particularly salient in Game Studies when theorizing ethical concerns, particularly disparities between duty and utility. These are issues that remain among the foremost thoughts of game scholars in the absence of a paradigm.

Press Start? (Symptom 3 – Incommensurable Objects of Study)

Where then, do we start? What objects of study are suitable for our field? One interesting avenue for Game Studies, emerging in the early 00s and becoming a tangible vector in the past decade, is a movement towards the phenomenological; a focus upon lived experience and the matter of meaning. Mol et al.’s literature review

(2017) offers a concise mapping of this trajectory, and for a few favorites among many, see Krzywinska (2006), Bayliss (2007), Crick (2011), and Gualeni and Vella's recent book (2020). Historically, we can describe an outwards movement here of the 'magic circle' of analysis, from a focus on game typology, behavior, design, rules, mechanics and narrative (we won't mention the war), to now encompass player, context, lifestyle, gender (as described in Harviainen et al.'s three waves [2018]) and so on, reaching a point where, as Crawford sagely advised, we might be better served to 'Forget The Magic Circle' (2009).

One of the problems, if we were to adhere to a dogmatic phenomenology—and we are tempted—would be the many important relationships we miss in focusing upon our experience of being-in-the-(game)world. What of the relationships between other things that matter, such as network ping, the genre of first-person shooters and tournament policy; character designs, animation, and fan fiction? The list could go on endlessly (and, if it wasn't obvious, this is a key problem of the pre-paradigm).

What, then, are the vertical and horizontal bounds of our objects of study? For example, vertically, do we analyse the game's scripting, character models, shaders and emerging technologies such as the implementation of raytracing. If so, do such analyses also include, or at least sit alongside and interact with, analyses of player behaviour, physiological measurements, developer practices, government policies? Horizontally, we seem to agree this notion of 'game' exists, alongside software, hardware (or 'platform' as one trajectory of Game Studies describes), the player, the context, the infrastructure, and so on. Of less certainty is how far we go in either direction. We know the axes intersect intriguingly the moment we consider time and space. Games can stretch or compress either in ways that other media still struggle to match.

As mentioned earlier, some theorists have shown how Actor-Network Theory, if combined with phenomenological approaches, can offer a robust way to start sketching our boundaries. Philosophers such as Graham Harman (2011) have already provided a map, offering articulate versions of objects and the ways in which they are generative of realities. It is here, of course, where we might hit upon the problem of 'epistemological chicken' (Collins and Yearley 1992), as our skepticism towards the realest 'real' escalates towards an infinite regress, and we fail to establish the boundaries originally sought. As Collins and Yearley advise however, "how do we choose our epistemological stance? The answer is to ask not for the meaning but for the use" (1992, p. 308). We find ourselves then, back at the question posed earlier: before we decide what uses we have for the concepts populating our field, we must decide on our goals as a discipline, and how we anticipate our knowledge relates to society, culture and industry.

To loop back to the prolific concept of 'real', we find it repeatedly used in the public sphere, weaponized both for and against digital games, to say nothing of its volatility in other areas of life. Do we as a discipline have something to contribute? In this regard one interesting vector of Game Studies has been its consideration of identity. Nicholas and Agius (2017) convincingly argue an unspoken principle of Western society is its privileging of the masculine as the master signifier, the ground zero where all other significations derive their meaning in relation.

Controlling people's fantasies has been used as an excuse for the privileging of masculinity and male characters in a host of video games, and this often transubstantiates into claims of 'real' games and 'realism' as coterminous with masculinity. One need only recall the reaction to the last two *Battlefield* games (EA DICE 2016, 2018) and having playable characters that are women. Suddenly, the weapons porn of the games are completely overlooked in some quest for a version of realism that privileges the default white, western masculinity. Therein lies the problem. Any presumed identification is always already based on a privileged position. It also offers a similarly narrow understanding of identifications that occur in and through the process of imagination.

As John Ellis (1982) notes in his contribution to the Film Studies debates, the identification with the hero is one among many, including:

the identification of self with the various positions that are involved in the fictional narration: those of hero and heroine, villain, bit-part player, active and passive character. Identification is therefore multiple and fractured, a sense of seeing the constituent parts of the spectator's own psyche paraded before her or him. (1982, p. 43)

Yes, this reference to Film Studies is offered acknowledging it will draw reactions arguing Game Studies is different despite the obvious pre-paradigmatic parallels.

We do not disagree. Quite the contrary, we would argue that there are more not fewer potential identifications! Here, we would point out especially but not exclusively simulators like the *Forza Motorsports* games (2005-), *Football Manager* (Sports Interactive 2005-present), and *Farming Simulator* (Giants Software 2008-present). We should also turn to the world of historical reenactors and their relationship with the world because, as Jenny Thompson (2004) finds in her ethnographies, player behaviour during the reenactment has material effects in not only the reenacting world, but also in the 'real world'. Most simply, players agree they are performing in a particular way. But play, whether inauthentic or not, matters in terms of the reputation of a given player. Indeed, Thompson finds that players make no distinction between in-game and out-of-game behaviours and traits. As one might assume, the "reality-based community" of the reenactors does meet many unrealized needs and dreams of the performers (2004, p. 278). However, who are we to denigrate or dismiss those needs? Can we so easily dismiss them knowing that LARP (live-action roleplaying) is being used as a training and mediation tool (Tissier-Desbordes and Visconti 2019). Moreover, one of us enjoys playing *Farming Simulator* with a child who dreams of big machines while his father reminisces about working the family farm back home. Must we necessarily pathologize nostalgia as inauthentic, or worse? We only ask because game scholars seem equally and contradictorily alarmed by the use of *Full Spectrum Warrior* (Pandemic Studios 2004) and *America's Army* (United States Army 2002) as overt recruitment tools, an eventuality presciently speculated in *The Last Starfighter* (Castle 1984). Likewise, the 9/11 hijackers did practice on *Flight Simulator*. We cannot and should not individualize and pathologize. This only serves to obfuscate the systemic, which is a persistent pre-paradigmatic mode.

Conclusion – Press to Continue?

All games teach. We haven't talked about teaching yet for myriad reasons. First, ours has been a meta-analysis of the pre-paradigmatic status of Game Studies, its problems with incommensurability and incomparability. Second, such an analysis is pointed towards an understanding of what the pre-paradigmatic discourses teach us about the state of the discipline. Third, following from the opening pair, we have avoided diving deeply into any one particular example in favor of taking a wider view. Sometimes the genre speaks through the text, not the other way around. We also want to avoid the distraction of edge cases, strawmen, and 'what about'. As cited above, these are precisely the terrain of any pre-paradigmatic field. Trumping, which we discussed earlier, is not the same as leapfrogging. People who play games—sometimes for a living—should know better than that. And this is why we have waited until the very end to talk about teaching and learning. As much as this has been somewhat cathartic for us, we also recognize a particularly disturbing strain of incommensurability in the refusal to learn.

This refusal manifests itself in two distinct and almost willfully pre-paradigmatic ways. First, there is a stunning circularity, not only as we enumerated above but most pressing in the domain of teaching and learning. As if London trading houses or U.S. Air Force simulators, both the busiest in the world, do not exist, Kurt Squire writes in 2003 that video games are:

[A] maturing medium and industry [but] [...] have been ignored by educators. When educators have discussed games, they have focused on the serial consequences of game play, ignoring important educational potentials of gaming. (2003, p. 49; see also Squire 2008)

Ignoring the argument that serial aspects are a key learning process and outcome in their own right, we find this claim more than a little disingenuous, and not only because Squire then goes on to cite the fact that games outsell Hollywood and have for a while; that he cites Provenzo's (1991) germinal study of games.

Rather, it is the repetition, the circularity, and the simultaneous assertion that games are 'maturing' and having found something 'never before seen'. It is as if the one paradigm of Game Studies is borrowed from games themselves: the so-called 'USP', or unique selling point, the newest 'most realistic' version yet.⁴ Tellingly, Squire has made this claim elsewhere. In 2003, writing with Henry Jenkins, Squire makes the case for games as participatory and fun. But as recently as 2018, he writes of "forging new partnerships to maximize impact" for educators and researchers. Beyond the deterministic tautology that games are fun, there is something hollow in these claims, and the fact they cite James Gee (2003) is more than a little telling. In the roughly twenty years since he wrote his popular text, Gee has been cited over 15,000 times (and we've just added one more). In thirty years Provenzo has been cited just over 1,100. In nearly forty years Loftus and Loftus have been cited 542 times according to Google Scholar. The field isn't deciding. The field is circling, in part, by making the same claim and citing the same people. What gets buried is that Gee emphasizes his own category of "good games", stocked with a roster of his choosing, based on criteria of his devising. While this is clearly a successful publication strategy, it does little to advance the field. Perhaps we have forgotten that

games are about discovery as much as they are about accumulation. It seems our only dominant paradigm is the persistent position of ‘I know best’.

Lest our argument here is interpreted as doing the same, let’s make this very clear: We are tired too, and probably equally guilty. This fatigue is an accumulation of playing the same games over and over again. We are not interested in providing answers at this point, only questions for the field. *Mother, may I*, and *Simon Says* are not particularly fun games—and that’s the point of them. They are didactic games teaching obedience to a singular, rigid syntagm; suitable metaphors for Game Studies in its pre-paradigmatic phase. However, we prefer the risk of *Statues*, the wit of *Charades*, the frisson of *Qwirkle* (McKinley Ross 2006)—complex, emergent, competitive, but also cooperative play spawning from a set of simple, thoughtful rules. As a field, perhaps it’s time we cooperate to set some of our own.

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Notes

- ¹ This is key because as with any field, the industry responds to institutional and to audience expectations. The audience—here, in the figure of the increasingly mythologized and individualized ‘player’ or ‘gamer’—can and will experience the text in idiosyncratic ways. Game Studies seems reluctant to acknowledge this and instead favours ‘indie’ games on the one hand and deterministic readings on the other.
- ² Here, for example, we could get bogged down in a detailed examination of the popular conflation—both in scholarly and in lay pieces—of ‘pointsification’ with gamification. Simply put, a quiz out of ten is ‘gamified’ under the rubric that tallying points makes something a game.
- ³ Using Microsoft Academic at the time of writing, from the year 2000 onwards there are 2,278 academic publications using the keyword “immersion”. See <https://academic.microsoft.com/search?q=game%20studies%20immersion&f=&yl=Y%3C%3D2021&syl=Y%3E%3D2000&orderBy=0>.
- ⁴ More than a little of the current discussion takes its inspiration from Frye’s (1957) *Anatomy* when he writes of the myth of newness and McLuhan’s (1964) chapter on “Automation” when he discusses the effects of automation on teaching and learning. He leaves these to the end.