Considering Complexity in Emergent Narratives

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INTRODUCTION
This paper will propose a way to think of emergent narratives as narratively complex through the discussion of two case studies, *XCOM 2* (Firaxis 2016) and *Magicka 2* (Pieces Interactive 2015). Narrative complexity has been discussed across cinema and television (see Warren Buckland 2009; 2014; Jason Mittell 2015; Miklós Kiss & Steven Willemsen 2017) but remains largely unexplored in videogames. It draws from the cognitive approach (Marie-Laure Ryan 2006; Marina Grishakova & Maria Poulaki 2019) that describes narrative as a cognitive process during which the narratee is perpetually engaging with a story through a process of meaning-making and comprehension. Complexity refers to narratives that, either temporarily or permanently, challenge this process of comprehension and require meaningful cognitive effort to decipher. Narratives in other media frequently do this through devices such as nonlinearity, diegetic overstimulation and logical impossibilities (Jason Mittell 2015; Kiss & Willemsen 2017), but videogames must be approached within their own media-specific affordances. I will consider complexity in emergent narratives as appearing temporarily while the player is learning a videogame's systems. This is valuable in how it combines cognitive narratology with emergence and expands on how the concept relates to the heuristic qualities of videogames.

XCOM 2 is a turn-based strategy videogame and an effective case study in how it facilitates entertaining emergent narratives through a combination of character customisation, procedurally generated missions and mechanics that rely on random number generation (RNG). Notable is how it does not explain the abilities of its enemies, which creates narrative moments for novice players during which inexplicable and unexpected events occur. *Magicka 2* is a top-down co-op action game with a combat

Figure 1: In *XCOM 2*, after an Andromedon's health bar is reduced to zero, the Andromedon's suit will continue fighting as a new mechanical unit.

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Figure 2: Certain unique magic combinations in *Magicka 2* can unexpectedly create larger and more powerful spells

system that allows the player to combine eight different magic types into various spells. The amount of combinations and spells is so varied that it promotes experimentation and often creates complex and comedic emergent narrative moments, such as accidentally setting another player on fire or launching them off a cliff. The intentional density of *Magicka 2's* spell system and *XCOM 2's* lack of enemy descriptions alludes to a process of meaning-making that occurs in many emergent narratives.

Narrative in videogames has frequently been described through a two-fold interrelated typology of either being embedded by the developers or emerging out of gameplay systems (see Katie Salen & Eric Zimmerman 2003; Ryan 2006; 2009; Gordon Calleja 2011; Dominic Arsenault 2014). Emergent narratives, which "arise from the set of rules governing interaction with the game system" (Salen & Zimmerman 2003, 478) describes the stories that can manifest in the process of gameplay. While theoretical questions still exist around emergent narratives, such as its parameters and whether 'emergent' is the appropriate term[1], for the purposes of this paper I will consider emergent narratives as gameplay sequences that fulfill Ryan's (2006, 8) conditions of narrativity, such as existing in a spatially defined world, consisting of a causally connected sequence of events and including goal-motivated characters. This means gameplay can contain varying amounts of emergent narrativity. Emergence has been frequently discussed in 'simulation' games that create worlds "ripe with narrative possibilites" (Jenkins 2004, 128) such as *The Sims* (2000), but it can exist in any game whose gameplay fulfills enough conditions of narrativity.

I also draw from Astrid Ensslin's book *Literary Gaming* where she describes videogames as 'heuristically ergodic'. Based on Espen Aarseth's (1997) description of ergodic texts, heuristic ergodicity "applies to texts that have to be 'learned' as it were, to be read/played meaningfully" (2014, 75). The notion that videogames must be learned before they can be properly comprehended has consequences for the way emergence functions in relation to complexity and cognitive narratology. Through the analysis of *XCOM 2* and *Magicka 2* I will propose that moments of complexity occur when the player has not yet learned the systems from which narrative emerges. This means that the process of narrative comprehension is disrupted by game systems behaving in ways that the player does not yet understand. This presentation will therefore propose that moments in which the player is still learning a game system can create gameplay sequences that can be described under the term of complex emergent narrativity.

BIO

Christopher Barkman is a PhD candidate at Swinburne University of Technology in Melbourne, Australia under Prof. Angela Ndalianis and Dr. Dan Golding. Christopher's research regards the investigation of complex and puzzling narrativity within the affordances of videogames, with the eventual goal of identifying a connection between the medium and challenging storytelling techniques.

ENDNOTES

[1] Marcello Arnaldo Picucci (2014, p. 112) argues that 'emergent' suggests a "supposedly non-programmed, unpredictable nature", whereas he suggests 'computer-generated' is a better description. However, it is not within the scope of this paper to redefine the term's boundaries.

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