Can Video games be tailored to their User by procedurally creating challenging emergent gameplay and narrative experiences.

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1 Can Users Trust Computer Agents?

It's very common in video games to see a computer agent or non player character (NPC). NPC characters are in computer terms agents which will perform certain actions depending on predetermined rule sets, a simple example might be if an NPC can see the player he will attack them. However if you wished to build a procedural narrative experience it's important that NPC characters who are relevant to your plot lines are capable of more complex or varied actions. An upcoming example is the Middle-earth: Shadow of war which features procedurally created NPC characters with unique behaviours that allow users to create their own narrative experiences. [1]. It's worth noting that various studies have looked into creating a sense of trust with

NPC characters and looking at ways in which users interact with NPC's. [2] On the opposite end of this spectrum it's also worth noting ways in which NPC's or game agents could decieve or lie to a player. Once such example of this research is shown here [3].

2 How Creative can Creative Computing be for Narrative Design?

The study of social computing and computation creativity are still relatively new however the ideas of narrative creation were perhaps first realised with Kleins Novel Writer [4] back in 1973 and then in many works since [5]. Kleins system looked at creating murder mystery novels from a number of predefined options. This however is still limited and the structure will remain the same across all stories.

References

[1] "Middle-earth: Shadow of war," Monolith Productions, 2016.

[2] F. S. do Couto, C. A. Delgado, and J. C. da Silva, "A trust and reputation framework for game agents: Providing a social bias to computer players," in *Intelligent Systems (BRACIS), 2016 5th Brazilian Conference on.* IEEE, 2016, pp. 193–198.

[3] P. I. Cowling, D. Whitehouse, and E. J. Powley, "Emergent bluffing and inference with monte carlo tree search," in *Computational Intelligence and Games (CIG), 2015 IEEE Conference on.* IEEE, 2015, pp. 114–121.

[4] S. Klein, J. Aeschlimann, D. Balsiger *et al.*, "Automatic novel writing: A status report," *Wisconsin University*, 1973.

[5] P. Gervás, "to storytelling and creativity," 2009.