

Anticipatory Gaming: Governing Emerging Technologies through Digital Media

Jesse Bernard Shedd

An emerging technology is a significant technological development in a previously undiscovered area within a field, that will considerably affect the world and society. These technologies often have a plethora of unknowns that generate complex questions with ambiguous and subjective answers concerning how it could affect society. While we as a society cannot experience an emerging technologies affects on a society until it is available to the public, we can prepare for them. One proposed way to do this is through the anticipatory governance process.

The anticipatory governance process proposes bringing together scientists, engineers, social scientists, and the interested public in collaboration, during an emerging technology's development, to create foresight, inform reflection on a technology's potential societal effects, with the goal of informing policy decisions on an emerging technology (Barben et al. 2008). The definition of the process suggests it works best when there is significant participation by the relevant parties in creating foresight and reflection and participating in discourse. Increasing participation in the process requires a medium that can reach a large audience, foster collaboration between the relevant parties, generate foresight and stimulate reflection on a technology's potential effects on society.

Video games, specifically role playing games (RPGs), that focus on an emerging technology are wide spread enough to foster significant collaboration between the relevant parties, and contain features that form anticipatory governance for an emerging technology. In an RPG the player steps into the life of a character in a fictional world. Through this avatar the player explores the topic of the game in various ways including dialogue with non-player

characters (NPCs) and decisions that directly effect to the game's world. If an RPGs topic is an emerging technology, then players would be able throughly explore and think about, the technology itself, the stances on it, and the potential effects of it. This is because RPGs contain features that allows players to examine an emerging technology as a tool, to learn about different stances on it through NPCs, and to make decisions on it that shape the world of the game. These features help generate foresight, foster collaboration and public engagement and stimulate reflection, all necessary to informing the anticipatory governance process.

In this paper I demonstrate RPG's potential to inform the anticipatory governance process through a case study of the 2011 release Deus Ex: Human Revolution (DX:HR), which revolves around the emerging technology of human enhancement technology. Building up to the case studying I will define the anticipatory governance process and it's parts, and further examine principles of video games that aid in the creation of the process. From my findings from the case study I will elaborate on the features that allow DX:HR to inform the anticipatory governance process, suggest improvements to other games that examine emerging technologies, and advocate for the creation of more video games that inform the anticipatory governance process.