Chapter 6
Classifying Serious Games:
The G/P/S Model

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ABSTRACT
The purpose of this chapter is to introduce an overall classification system for Serious Games. The intention of this classification is to guide people through the vast field of Serious Games by providing them with a general overview. For example, it may appeal to teachers who wish to find games with strong educational potential though they may be outside the “edugames” field. This chapter will start by discussing the definition of Serious Games, and define them as having a combination of “serious” and “game” aspects. This theoretical framework will be used to review previous classification systems and discuss their limitations. It will then introduce a new classification that addresses a number of these limitations: the G/P/S model. This classifies games according to both their “serious-related” and “game-related” characteristics, and combines the strengths of several previous classification systems.

INTRODUCTION
During the last 10 years, an increasing number of Serious Games have been released which relate to a wide range of fields: healthcare, defense, education, communication, politics, etc. When any topic becomes suddenly available with a wide variety of options, it encourages a natural desire to classify it. And there are several studies that propose classifying Serious Games, but classification is not an all-purpose tool. And where several classification systems exist, it is usually because each system is able to fulfill only one specific need. As the focus of this book is Education, the first question is: what educational-related needs can be addressed with a classification system suited to Serious Games?
Classifying Serious Games

Several answers come to mind. The most obvious is to assist teachers by classifying games according to the cognitive skills they support (e.g. repetitive task, memory, exploration, etc.). Such systems are closely related to Instructional Design, as illustrated by the work of O’Neil (2005). In addition to the classification of games already identified as “educational”, classification systems may also be used to discover games featuring an educational potential without being explicitly labeled as “educational”. For example, in the vast field of Serious Games, many games that were not designed for “education” could be used in a classroom (Gee, 2003). Indeed, as defined by Chen & Michael (2005), Serious Games are “Games that do not have entertainment, enjoyment or fun as their primary purpose”. The “seriousness” of these games refers to a content that may well be used as teaching material by teachers. These games could also be used to teach media literacy, by showing people that video games are not “neutral” and that they could include a “serious” content (Matteas, 2008). For teachers or educators who wish to use games in this way, the question is: how can we identify games with an educational potential if they are not labeled as “educational?”

In this case, the use of an overall classification system for Serious Games may well be of assistance. Unlike systems that are focused solely on one field, such as education, overall classifications are designed to classify any Serious Game by the same set of criteria. As they provide a “broad view”, they can help teachers to identify games that are not labeled “educational” despite the fact that they may be relevant to classroom use.

Therefore, the aim of this chapter is to propose an overall classification system that teachers can use to identify easily and analyze Serious Games. After a brief discussion about the definition of Serious Games, we will explore several previous classifications. This analysis will highlight the clues that may be used to create a new system designed to analyze Serious Games: the G/P/S model. Finally, to illustrate this, a sample set of Serious Games will be classified using the G/P/S model. And in order to help teachers find games with a strong potential for education outside of the “edugames” field, classified examples will be taken from a wide range of the Serious Games markets.

DEFINING SERIOUS GAMES

A Definition of Serious Games

There are several definitions of “Serious Games”. The first formal definition of the concept would appear to have been introduced by Abt (1970). In his book, Abt presents simulations and games to improve education, both in and outside of the classroom. The examples he provides are either “mainframe computer” or “pen-and-paper” based games, as the video game industry was not yet established. Abt’s book influenced other teachers, like Jansiewicz (1973) who published a book describing a game he invented to teach the basics of US politics. Several years later, the concept of the “Serious Game” was redefined in a white paper written by Sawyer (2002). His updated definition of Serious Games is based on the idea of connecting a serious purpose to knowledge and technologies from the video game industry. In association with Rejeski, Sawyer helped to shape the current “Serious Games” industry through the Serious Game Initiative, and conferences like the Serious Game Summit and Games For Health (Sawyer, 2009). Nowadays, most recent definitions, like those of Chen & Michael (2005) and Zyda (2005), appear to stem from Sawyer’s influence. Although the general definition of “Serious Game” appears to be shared by many people, the domain boundaries of the Serious Games field are still subject to debate. As discussed by Corti (2007), the “Serious Game” industry brings together participants from a wide range of fields, such as Education, Defense, Advertising, Politics, etc. who do not always agree on what is and what is not a part...