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Chapter XVI

Designing Online Games Assessment as "Information Trails"

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Abstract

Online retailers make successful use of sophisticated online tracking mechanisms to profile their customers in order to understand their buying habits. Online multiplayer games make use of similar technologies to keep track of gamers' activities, for better management of in-game resources and to settle disputes. However, educators looking to online games as a learning tool lack a similarly powerful strategy to help them reconstruct users' gaming decisions in order to understand the learners and make effective use of games as a teaching/learning tool. Moreover, it is necessary to develop an assessment component for online games to measure its effectiveness, or the return of investment. This chapter outlined a strategy to design the much-needed assessment into online games as "information trails."

Introduction

Follow the White Rabbit. ~ Trinity, *The Matrix* (1999)

The anonymity during the early days of the Internet prompted cartoonist Peter Steiner (1993) to pen, "On the Internet, nobody knows you are a dog." Today, the Internet is far more advanced and far less anonymous than it once was. For example, because Web users expect certain conveniences, like the "Back" and "History" functions, when surfing the World Wide Web (WWW), Web browsers must be sophisticated enough to keep track of the user's online activities. As people click on the Web links to "jump" from one Web page to another, they inevitably leave behind a series of online "footprints" detailing their actions and movements. When harvested from the Web servers, such information becomes the evidence of users' interaction with the WWW services.

The pervasiveness of computing devices, the increasing ownership of personal computers, the near ubiquity of the Internet, and the prevalent use of *cookie* technology have made it easy for Web sites to "remember" and correctly identify every returning visitor (Coleman, 1999). Instead of "blanket marketing" to the once faceless, nameless online customers, retailers can now "target" their online marketing efforts by uniquely profiling each customer based on their browsing behaviors when using the company Web site. The online advertising industry has indicated that they will mine even "more information about individuals" in time to come (Glasner, 2005a). Even though privacy and ethics are legitimate issues, because such information is already being collected of everyone who uses the Internet, the purpose of this chapter is to recommend harnessing the technology rightly for use in education.

The following section presents an overview of online tracking technology, followed by a discussion about online games and education. This is followed by the conceptual framework for the information trail and how the information trail may be designed into games for assessment. Last but not least, a case study using an existing online game is described before the final concluding remarks.

Online Tracking Technology

Tracking Customers in Online Commerce

Peter Drucker (1994) once predicted that an age of "Knowledge Economy" is coming when *knowledge* will become a much sought after and tradable commodity. In today's world, personal data obtained from Web sites' "user registration" (e.g. demographic data, e-mail addresses), Web server logs (e.g. browsers used and IP addresses at time of login), cookies (e.g. categories of merchandise favored, referrer Web sites), and user feedback (e.g. from usability and satisfaction surveys) have all become acceptable sources of revenue. Even virtual game items and monies, such as Linden dollars (currency used in an online game