The Long Tail of Educational Interests and Resources

I am bullish about the prospects for open educational resources for many reasons, knowing full well the “tinkering toward utopia” concerns of historians of education. Today, constrained by the centralized control of statewide textbook adoption, more and more teachers (as well as parents and learners themselves) are choosing open educational resources to meet the customized needs and interests of their local situations. Part of the drive within the open education resources movement is to support such agency, while other arguments are economical, especially in the developing world and in underserved regions of the United States.

I predict that other global technological and business trends will make their way into serving the purposes of learning and education as they merge with open educational resources. Specifically, as uses of Web-scale software services have grown, the data collected from 1 billion Web users globally have increased in value tremendously, creating new marketplaces, and establishing new forms of personalizing the user experience. In 2006, Wired magazine editor Chris Anderson influentially described the “Long Tail” marketplace phenomenon emerging with these new technological capabilities. The Long Tail refers to the group of customers that purchases hard-to-find items. Anderson noted how Web-based companies such as Amazon, Netflix, and now Apple iTunes, can sell small volumes of niche items to a great many buyers, unlike retail stores that are constrained by limited shelf space and the need to sell large volumes for a smaller number of popular items (“hits”). A key technological capability that makes the Long Tail model work is the success of data-driven “recommendation engine” software that uses the aggregated purchasing and browsing patterns of users to guide them to similar items they may like. Many Amazon book purchases come via this route, and over 60% of Netflix video rentals arise from such recommendations.

The relevance of the Long Tail phenomenon to education should be evident: Learners might conceivably be engaged from a point of interest in their learning trajectories to learn content that is not based on the “hits” now represented by published textbooks or traditional pedagogical channels. As the costs of online publishing go down, the quality of learning object metadata improves, and search engines make it easier to find learning “niche” content, a different ecosystem of learning materials could evolve. This trend moves educational publishing from mass markets to millions of niches for learning resources that are defined by large-scale user interaction data.