Recommenders for Commerce, Content, and Community

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Abstract

Recommender systems are ubiquitous on the Internet for helping sell products—everything from automobiles to zebras (stuffed, anyway). Novel applications are emerging that use recommenders for non-Internet applications and that apply them to the problems of distributing content on the Internet and to developing online communities. Community-building is proving one of the most successful ways to create “stickiness” among customers. A vibrant community of practice around a company’s products creates a powerful barrier to competition and enables consumers to help sell and support your products.

We will briefly survey Eight Principles of Recommender Systems, illuminated by examples from research and commerce. We will use the Principles to investigate the algorithms that underlie recommender systems, the interfaces for presenting the recommendations, the best practices for deploying them—and the easiest ways to get a recommender system badly wrong. Along the way, we will consider issues of how to build a recommender community from scratch, group recommendations, and consumer privacy. We will conclude with a look at some of the most important active research areas in recommender systems.

John Riedl has been a member of the faculty of the computer science department of the University of Minnesota since March 1990. In 1992, he co-founded the GroupLens Research project on collaborative information filtering, and has been co-directing it since. In 1996, he co-founded Net Perceptions to commercialize GroupLens. Net Perceptions was the leading recommender systems company during the Internet boom. In 1999, John and other Net Perceptions’ co-founders shared the MIT Sloan School’s award for E-Commerce technology. They also shared the World Technology Award for being judged among the individual leaders worldwide who most contributed to the advance of emerging technologies for the benefit of business and society. John received a bachelor’s degree in mathematics from the University of Notre Dame in 1983. He earned a master’s degree in computer science in 1985 and a doctorate in computer science in 1990 from Purdue University. He is presently professor at the University of Minnesota.