Keynote Talk

Data Mining in the Online Services Industry

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Abstract
The online services industry is a rapidly growing industry with a worldwide online ad market projected to grow from $48 billion in 2011 to $67 billion in 2013, of which 47% will come from display advertising and 53% from search advertising. Online Services Division (OSD) within Microsoft is a leader in the consumer cloud space today with a strong portfolio of a set of 3 mutually reinforcing businesses: Search, Portal, Advertising. They are supported by a shared foundational asset of Intent & Knowledge Stores and a shared technology platform supporting large scale data and high performance systems. MSN (Portal) and Bing (Search) generate the content, traffic and data, that make for an exciting fertile environment for large scale data mining practice and system development. Our advertisers are thus given more valuable targeting opportunities and better ROI, which in turn, provide better economics, usability data, and allows for a higher quality services for our advertisers and experience for our users. The ability to transform data into meaningful, actionable insight is an important source of competitive advantage for OSD. The data mining initiatives within the division continue to strive for excellence around the following goals: actionable insights through deep data analysis, data mining and data modeling at scale and with speed, increased productivity from deployed large scale data systems and tools, improved product and service development and decision making gained from effective measurement and experimentation, and a mature data culture in product teams that made the above possible. With many technical and data challenges ahead of us, we are committed to utilizing our huge data asset well to understand the need, intent, and behavior of our users for the purpose of serving them better.

Categories & Subject Descriptors: H.2.8 [Database Management]: Database Applications - Data Mining

General Terms: Algorithms

Bio
As president of Microsoft's Online Services Division (OSD), Dr. Qi Lu leads the company's search and online advertising efforts. Dr. Lu oversees the OSD Research & Development team which has responsibility for the evolution of Microsoft's search, portal and advertising services; the Online Audience Business Group; and the Advertiser and Publisher Solutions Business Group. Dr. Lu reports to Microsoft chief executive officer Steve Ballmer.

Prior to joining Microsoft, Dr. Lu spent 10 years as a Yahoo! senior executive. His roles included serving as the executive vice president of engineering for the company's Search and Advertising Technology Group where he oversaw the development of Yahoo!'s Web search and monetization platforms and vice president of engineering responsible for the technology development of Yahoo!'s search, e-commerce and local listings of businesses and products.

Before joining Yahoo!, Dr. Lu worked as a research staff member at IBM's Almaden Research Center and Carnegie Mellon University and was a faculty member at Fudan University in China. He received his bachelor of science and master of science in computer science from Fudan University and his Ph.D. in computer science from Carnegie Mellon University. Dr. Lu holds 20 U.S. patents.