

## ***A look back at the First Interdisciplinary Symposium on Statistical Challenges and Opportunities in eCommerce Research***

On May 22 and 23, 2005, the University of Maryland hosted the *First Interdisciplinary Symposium on Statistical Challenges and Opportunities in Electronic Commerce Research*. The meeting was organized by Wolfgang Jank and Galit Shmueli from the Department of Decision and Information Technologies. It was supported by the National Science Foundation (ATS/01-5-24570), by the Center of Electronic Markets and Enterprises at the Robert H Smith School of Business, and by the Statistics Consortium at the University of Maryland.

Electronic commerce (eCommerce) has received an extreme surge of popularity in recent years. Not only has it changed the way we live, it has also created new opportunities for scholarly research. By eCommerce we mean any form of transaction using the internet. Examples include web-logs, music and video downloads, user groups and electronic communities, online discussion boards, open source projects, and online buying and selling. The public nature of many internet transactions has allowed empirical researchers new opportunities to gather and analyze data in order to learn about individuals, companies, and societies. Theoretical results, founded in economic and game-theoretic models and derived for the brick-and-mortar world, have often proven not to hold in the online environment. Possible reasons are the world-wide reach of the internet, its unlimited resources, constant availability, and continuous change. For this reason, and also due to the availability of massive amounts of freely available high-quality eCommerce data, empirical research is thriving.

Empirical eCommerce research is thriving, especially in the fields of information systems and related areas. However, the availability of this new type of data also comes with many new statistical challenges. These challenges have been widely overlooked in current research efforts. The main reason for this is the absence of statisticians from this field! This raises the obvious question: "Where are the statisticians?" The symposium was the first effort to bring together researchers from statistics, information systems and related fields, in order to foster communication, exchange, and collaboration.

The symposium took place over two days and featured high-caliber researchers from the different fields. The keynote addresses were given by Don Rubin (Harvard University), Stephen Fienberg (Carnegie Mellon University) and Erik Brynjolfsson (MIT). There were several interdisciplinary panels. Stephen Fienberg, Gove Allen (Tulane University) and Mary Culnan (Bentley College) discussed privacy and confidentiality issues in electronic commerce. Steve Marron (University of North Carolina), Ravi Bapna (University of Connecticut) and Chuck Wood (University of Notre Dame) discussed challenges in collecting, evaluating and using web data. Another panel discussed new research opportunities made possible by the internet (David Madigan, Rutgers University; Foster Provost, New York University; and Rob Kauffman and Mark Bergen, University of Minnesota). The workshop also featured a set of invited and contributed presentations. To foster interactivity and exchange, a presentation given by an information systems researcher was followed by a discussion initiated by a statistician, and vice versa. Another unique feature was a database of eCommerce transactions which was assembled especially for the workshop (courtesy of Chuck Wood). Research proposals by doctoral students based on this database were show-cased during a poster session. All-in-all, the combination of

different formats and opportunities for exchange allowed for a very lively atmosphere and resulted in a lot of interaction between the participants.

The positive energy created during the workshop resulted in plans to continue the event into the future. The University of Minnesota will host the workshop in 2006. The University of Connecticut and New York University are in line for 2007 and 2008. Announcements for these events and call for papers should be found soon.

The lessons learned from this workshop will be made broadly available to the statistics community. A special issue of *Statistical Science* will be guest-edited by the workshop organizers, Wolfgang Jank and Galit Shmueli. It will feature many of the topics discussed during the workshop. The special issue is scheduled to appear in early 2006.

And lastly, a thank-you note to the many, many individuals who made this event possible. Special thanks go out to the National Science Foundation, Division of Information and Intelligent Systems; Joe Bailey, director for the Center of Electronic Markets and Enterprises; Partha Lahiri, director of the Statistics Consortium; our colleagues at the Department of Decision & Information Technology and the Statistics Program; our PhD students; and the administrators at the Robert H Smith School of Business (all University of Maryland).

Wolfgang Jank & Galit Shmueli

*Some workshop impressions:*



**Picture 1: Dinner with Ed George (top of the table) and (to the right) Galit Shmueli, Ralph Russo, Wolfgang Jank, Angel Novikov-Jank, Steve Marron, David Banks, David Madigan and Foster Provost**



**Picture 2: Partha Lahiri and Galit Shmueli**



**Picture 3: Wolfgang Jank**