

Date: Friday, October 7 2005

Time: 10:00 a.m. –11:30 a.m.

Place: 102 Business Building

PRESENTATION ANNOUNCEMENT

"Segmenting Customers from Population to Individuals Using Data Mining
Methods: Does 1-to-1 Live up to its Promises? "

To be presented by

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Much interest has developed in the marketing and data mining communities over the last decade in learning individual models of customer behavior for applications in 1-to-1 marketing, personalization and CRM. Although there have been many claims made about the benefits of 1-to-1 marketing over the traditional segmentation methods, there has been little scientific evidence provided in this regard. In this talk, various customer segmentation strategies are examined and the segmentation approaches using hierarchical clustering methods are studied. For these approaches, various predictive data mining models are built on population segments and the predictive performances of the aggregate, segmentation and 1-to-1 models are compared across a broad range of empirical conditions. The results show that the 1-to-1 significantly outperforms the aggregate modeling approach for our data. It is also shown that the 1-to-1 generally dominates the segmentation approach. However, the best segmentation models using the right clustering techniques dominate the 1-to-1 models for the "low-volume" customers performing few transactions. Moreover, in the latter case, the peak performance of the segmentation models is usually reached at the finest granularity levels strongly skewed towards the 1-to-1 scenario, thus supporting the case of micro-segmentation of customer bases. All these results provide empirical validation for the benefits of the 1-to-1 marketing. However, they also demonstrate that the 1-to-1 modeling may not always be the best method for all CRM applications, where an alternative micro-segmentation approach may outperform it, especially in the applications having many low-volume customers.

Alexander Tuzhilin received Ph.D. in Computer Science from the Courant Institute of Mathematical Sciences, NYU. His current research interests include knowledge discovery in databases, personalization and CRM technologies. He published over 60 papers in the IEEE Transactions of Knowledge and Data Engineering, ACM Transactions on Information Systems, ACM Transactions on Database Systems, ACM Transactions on Modeling and Computer Simulation, Management Science, Information Systems Research, INFORMS Journal on Computing, Communications of the ACM, and several other computer science, IS, marketing and OR journals and refereed conference proceedings. He currently serves on the Editorial Boards of the IEEE Transactions on Knowledge and Data Engineering, the Data Mining and Knowledge Discovery Journal, the INFORMS Journal on Computing, and the Electronic Commerce Research Journal. He also co-chaired the Program Committee of the IEEE International Conference on Data Mining (ICDM) in 2003 and is a co-chair of the 2005 International Workshop on Customer Relationship Management that brings together researchers from the data mining and marketing communities to explore and promote an interdisciplinary focus on CRM.