STATEMENT OF TEACHING INTERESTS

I consider teaching not only as a significant and rewarding part of my career, but also as a source of constant personal growth and development. Encouraging students to be critical and skeptical while actively seeking knowledge promotes a constant re-evaluation of my own knowledge and perceptions. The most rewarding moments are the smiles of pride on the faces of people when they understand something new, the awakening of interest for a formerly unknown topic, and finally the experience of being taught as a teacher. I am very much committed to foster intuition and the gradual conversion of information into knowledge that interconnects more abstract concepts across fields. Connecting the material with applications in the students’ lives and fitting information into a context helps students retain material. It also helps build critical thinking skills by showing students how to form these connections. The field of information systems, and data mining in particular include a large number of real-world problems that can be used in a very active learning process.

My strong computer science background enables me in addition to standard IS topics (e.g. systems analysis and design, E-commerce, strategy) to teach a variety of technical courses including databases, security, Web-based technology, multi-media, telecommunication, programming and algorithms.

My general teaching interests concentrate on the technical foundations and applications of information systems to support business processes and management. In particular I strongly believe that many businesses can greatly profit from intelligent information systems, provided that domain experts and users understand their advantages and benefits, ramifications for applicability, and potential limitations. My personal experience with large information systems in corporations suggests that the major barrier for a successful use of information technology is the lack of usability of the system on one side and lack of technical understanding of the potential users on the other. The task of education has to address both sides, ensuring the technical understanding of users as well as the knowledgeable investment and implementation of information systems through management. Beyond the economic implications, I am particularly interested in communicating the implications of current advances in machine learning and data mining research to the design and capabilities of intelligent information systems for applications such as financial risk management, information retrieval, and customer relationship management. Additional topics, which I consider valuable for business majors, include the implications of electronic payment systems, and the role of intelligent information systems on monitoring, fraud detection, and privacy.

My initial exposure to teaching obligations evolved mostly around competitive sports. Acting as a trainer in different disciplines of horse-riding required beyond the communication of knowledge, the reinforcement of personal responsibility, and design of person-specific learning experiences. While still an undergraduate student at Technical University Darmstadt, I was given the rare opportunity to become a teaching assistant for an undergraduate math curriculum. My duties ranged from conducting review sessions, to grading tests and projects. At the Stern School of Business, I was solely responsible for redesigning and teaching of the undergraduate course “Technical Foundation of Computing Systems” and lecturing half of the undergraduate course “Telecommunication and Coordination Technology”. The latter was not rated, but my teaching rating for the former was 5.7 out of 7, well above the average of 4.4 for this technical core course. I was also charged with the design of modeling assignments using the MATLAB programming environment for the graduate course “Data Mining in Finance.” A particularly challenging and task was the design of lectures for the doctoral research seminar “Topics in Knowledge Discovery and Machine Learning.” This included the compilation of relevant research articles, design of small projects, and guidance of interactive discussion.