UMass Lowell
Computer Science Colloquium
Announcement

Speaker: Dr. Catherine Plaisant, Human-Computer Interaction Laboratory, University of Maryland
Date & Time: Wednesday, Mar. 26, 2008, 3:00pm--4:00pm
Place: Olsen 311, Refreshments are served at 2:45pm

Visualizing Patterns: repetition patterns in text, and temporal patterns in Electronic Health Records

In this presentation I will discuss two current projects aimed at helping discover patterns. We are working with literary scholars to develop FeatureLens, an interface to visualize features in collections of text documents. Users explore patterns of frequently used words but also Ngrams, and more fuzzy repetition patterns. FeatureLens integrates the results of text-mining algorithms into a meaningful visual representation of a text collection. Features can be compared, and occurrences of the features are shown in context. To guide users in finding interesting patterns FeatureLens highlights features that are increasing, decreasing, have spikes etc. The second project, Lifelines2 aims to assist physicians and clinical researchers search and visualize temporal categorical data across multiple Electronic Health Records (EHRs), to support hypothesis generation and finding potential cause-and-effect relationships in patient populations. Past visualization research efforts have focused on single-record visualization or visualization of numerical data, but EHRs contain mostly categorical event data such as complaints, diagnoses, treatments, etc. which pose interesting new challenges. We will demonstrate current prototypes and report on evaluation results.

Bio:
Dr. Catherine Plaisant is Associate Director of Research of the Human-Computer Interaction Lab of the University of Maryland Institute for Advanced Computer Studies. She earned a Doctorat d'Ingenieur degree in France in 1982 in Industrial Engineering and has written over 100 refereed technical publications on diverse subjects such as information visualization, digital libraries, universal access, image browsing, help, technology for families, or evaluation methodologies. She recently co-authored with Ben Shneiderman the 4th Edition of Designing the User Interface, one of the major books on the topic of Human-Computer Interaction.

http://www.cs.umd.edu/hcil/members/cplaisant/