Deidra J. Morrison

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RESEARCH

My current academic work focuses on investigating visualization solutions to apply to the issues that information overload brings to decision making. In order to be confident and satisfied in the decisions that are made in personal, economic, or business, a person has to have as much information as they can to make informed decisions.
The problem that frequently occurs however, is that the abundance of information creates such overwhelming option degrees as to inhibit the decision making process. Also, given such large amounts of available information for decisions, the frame in which choice is presented, plays a strong role in choice patters. If information is inefficiently presented and overtaxing to negotiate, in many instances in order to avoid this anxiety, people tend to make the same decisions many times over, or choose not to decide. However this is not always the process that will lead to a satisfying relationship, financial portfolio, or business solution.
My current research seeks to apply visualization techniques to task-based decision making situations, in order to supply users with tools that will present and organize information in a way that will lessen the overload of information, and minimize the bias toward habitual decision making trends.

EDUCATION

NORTHWESTERN UNIVERSITY, Evanston, IL
McCormick School of Engineering and Applied Science
Ph.D. in Computer Science 2005 - Present
Advisor: Bruce Gooch

NORTHWESTERN UNIVERSITY, Evanston, IL
McCormick School of Engineering and Applied Science
M.S. in Computer Science 2002 – 2005
Advisor: Brian Dennis

SPELMAN COLLEGE, Atlanta, GA
B.S. in Computer Science 1998 – 2002
Major GPA: 3.5
Advisor: Andrea Lawrence

PROFESSIONAL EXPERIENCE

Graduate Research Assistant 9/2002 – Present
Northwestern University Computer Science Department *Evanston, IL*

- Implementing a Flash and PHP based social visualization tool that enables users to visualize interaction data collected from multiple media sources in order to aid them in better understanding their current decision making practices for managing and navigating their social networks.
- Implemented a MySQL database system back end to information visualization tool used to analyze news article corpuses to perform sensemaking and information analyst tasks using the collected data.
- Implemented a Perl, Java, and JavaScript based toolbar that works in conjunction with the NetLogo modeling environment that archives relevant information for users running simulations in the modeling environment, and creates an online Wiki driven environment that allows for retrieval of the archived information and the presentation of other related information or users.
- Implemented a Perl based preference prediction system that applies document clustering techniques to RSS Feed document text for the retrieval of overall document context areas.
- Developed a web log community subscription application which cataloged user interactions within web log environments and managed this information through a database system.
- Designed a Perl based application that fields specific RSS Feed information delivered from a Movable Type based publishing system.

Graduate Assistant 9/2005 – 9/2006
Northwestern University AGEP Graduate Program *Evanston, IL*

- Created web environments for the Graduate School's Alliance for Graduate Education and the Professoriate to enable dissemination of information about program details for their engineering and social sciences divisions.
- Implemented Microsoft access database solutions and forms for the use of administrative staff in organizing and collecting program participant information and event scheduling.

Research Intern 6/2005 – 9/2005
International Business Machines Corporation *San Jose, CA*

- Implemented an information visualization tool called the Term Concept Explorer that enabled users to view time serial representations of journal articles and their terms, to aid users in performing sensemaking tasks.
- Conducted a user study to evaluate the performance of users asked to perform sensemaking tasks using the paper form of an article corpus and the Term Concept Explorer tool.

Research Intern 6/2004 – 9/2004
International Business Machines Corporation *San Jose, CA*

- Implemented a Perl and JavaScript based web toolbar that enables users to create pages that would include metadata relevant to browsed web pages or intranet pages encountered for the purposes of creating more informative process execution as performed from formal process documents.
- Implemented supporting java functionality for an ongoing project to build a social navigation tool being developed by the Human Systems Research Group

Research Intern 6/2001 - 8/2001 Boston University Computational Sciences *Boston/MA*

- Conducted background research on biochemistry modeling tools Gepasi and Virtual Cell for potential visual modeling of dynamic cellular interaction
- Investigated the special purpose markup languages, SBML and CellML
- Explored possible connective purposes of markup languages to enable automated data mining of biology databases for use in the creation of visual representations using the modeling tools explored

TEACHING EXPERIENCE

CS395: Introduction to Computing and Programming *Spring 2005*
Prof. Brian Dennis

- Assisting students in project and assignment completion
- Performed class lectures when professor was absent

CS330: Human Computer Interaction – Design and Analysis *Winter 2005*
Prof. Benjamin Watson

- Assisting students in project and assignment completion
- Calculating student scores for assignments and projects
- Assisted in organization of course curriculum

CS330: Human Computer Interaction – Design and Analysis *Winter 2004*
Prof. Louis Gomez

- Assisted students in project and assignment completion
- Calculated student scores for assignments and projects
- Assisted in organization of course curriculum
- Maintained course webpage with updated course assignments and information

PUBLICATIONS AND AWARDS:

- MetaLab: supporting social grounding and group task management in CSCL environments through social translucence. Richard Tapia Celebration of Diversity in Computing Conference 2005: 20-22
- 2006 – 2007 GEM Ph.D. Science Fellow

PROFESSIONAL MEMBERSHIPS:

- Black Graduate Student Association – Webmaster (2004 -2005)
- Black Graduate Student Association – Administrative Coordinator (2003 -2004)
- McCormick Meeting of Minority Graduate Students - Recruiter (2004 –Present)
- Association of Computing Machinery of Women – ACMW Member

PROFESSIONAL ACTIVITIES:

- Peer Reviewer for 39th Annual Hawaii International Conference on System Sciences Minitrack (Media Literacy: Reading and Writing Digital Forms)
- Presenter at 2005 Richard Tapia Celebration of Diversity in Computing
- Volunteer for the 2004 Grace Hopper Women in Computing Conference
- Attendee of the 2002 Richard Tapia Celebration of Diversity in Computing
- Presenter at 2002 Tuskegee Undergraduate Science and Engineering Conference (USEC)
- Presenter at 2002 Association of Departments of Computer Information Sciences and Engineering at Minority Institutions (ADMI) Symposium

REFERENCES:

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