The Places of Technology: Mobile Computing and the future of the Internet
German-American Seminar 2014-15, University of Minnesota and University Münster

Report
31Jan2015

The wide-spread, often ubiquitous presence of mobile information devices and applications, particularly involving SmartPhones, has led to wide-ranging and significant changes in how we organize our daily lives and has led to the growth of whole industries that barely existed 10 years ago. Place/location figures frequently in our use of mobile technologies: 30% of all Google queries are related to place; there are each month 500 million mobile Facebook users; 11% of all internet traffic comes already from mobile users.

For the seemingly global uniform nature of the equipment and applications, significant differences exist as different cultures negotiate the possibilities and changes evident in privacy abuses, gaps in access, and challenges for visually impaired people, among others. Neither our cultures nor our legal systems have been able to keep up with changes. Fundamental differences exist in attitudes and legal frameworks between Germany and the US that this seminar engages.

The Fall/Winter 2014/15 seminar took on these issues with an emphasis of creatively understanding fundamental privacy issues and developing applications to offer potential users more control over their locational privacy. This involved organizing the seminar around three distinct parts. In September, we met in Minnesota to review background readings on location privacy, hear and discuss presentations from researchers working on these issues at the University of Minnesota, and lay the groundwork for group application development. Through early December, students worked in three groups on the development of application prototypes and began preparation of reports in the form of white papers that can also become the basis for further research publications. In mid-December we met in Münster to complete application prototype development, draft reports, present and discuss applications and results. Final reports and revisions to applications were submitted in mid-January.

Organized in three groups, the students presented three prototype mobile applications that both protect and inform their users about privacy-related issues. SeeCTV uses an online-map to show where users map the location of CCTV cameras. Users can add additional cameras or confirm and alter existing camera information. Additionally, users can choose between high and low navigation to generate a route with either high levels of surveillance or low levels of surveillance from any origin to destination. QR2GO supports the user creation of QR-codes for specific locations. Printed and posted QR codes can be used by others for navigation using Android mobile devices without the need to disclose their location. Locator provides functions to anonymize location by various types of regions and allow for custom levels of accuracy. The full results are available at:
http://www.uni-muenster.de/Geoinformatics/en/sitcom/events/locationPrivacy.html

The comparative perspectives that participants brought to the seminar led to some profound interactions and learning. As students describe in their assessments of their learning the course and the approach to interdisciplinary learning opened up new perspectives and broadened the appreciation of the social sciences and programming. The expected sensitization to cultural aspects of interdisciplinary work occurred. This aspect can be enhanced in future course by moderating more discussions that focus on cultural distinctions and provide exercises.