

COMPUTER SCIENCE COLLOQUIUM

THURSDAYS AT NOON

SALAZAR 2016

FEB. 09	Chris Hoofnagel, Boalt School of Law, University of California, Berkeley, CA BEHAVIORAL ADVERTISING: THE OFFER YOU CAN'T REFUSE In 2009 and 2011, we surveyed top websites to determine how they were tracking consumers. We found that advertisers were using persistent tracking technologies that were relatively unknown to consumers. Two years later, we found that the number of tracking cookies expanded dramatically and that advertisers had developed new, previously unobserved tracking mechanisms that users cannot avoid even with the strongest privacy settings. These empirical observations are valuable for the political debate surrounding online privacy, because the descriptive informs the framing and assumptions surrounding the merits of privacy law. In the political debate, "paternalism" is a frequently invoked objection to privacy rules. However, our empirical work demonstrates that advertisers use new, relatively unknown technologies to track people, specifically because consumers have not heard of these techniques. Furthermore, these technologies are used to obviate choice mechanisms that consumers exercise. Advertisers are a powerful force for the erosion of legal privacy protections, and increasingly, we demonstrate, they are also a force that robs consumers of any technical ability to avoid online profiling. Our work inverts the assumption that privacy interventions are paternalistic while market approaches promote freedom. We empirically demonstrate that advertisers are behaving in highly paternalistic ways in order to keep consumers in the dark on privacy practices, and to make it impossible to avoid online tracking. Advertisers are so invested in the idea of a personalized web that they do not think consumers are competent to decide to reject it.
FEB. 16	Michael Doherty, University of the Pacific, Stockton, CA AUTONOMOUS MOTION FOR VIRTUAL HUMANS: CHALLENGES AND POSSIBILITIES Creation of autonomous characters capable of human-like motion in virtual environments would appear to be achievable given available techniques in animation, artificial intelligence, and robotics. There are many examples of realistic motion in current applications, such as VR training simulations and video games. However, these current applications are limited in the sense that the range of possible behaviors is obviously restricted, resulting in strict limits on what the characters are capable of doing. In this talk, we'll examine the aspects of the problem that make arbitrary human-like motion difficult, and explore potential solutions that are currently being developed. From there we will attempt to extrapolate what will become possible as technology evolves and research continues.
FEB. 23	Kenneth Loudon, San Jose State University, San Jose, CA HOW SAFE DO PROGRAMMING LANGUAGES NEED TO BE? Throughout the history of programming language design there has been friction between the "freedom" and "discipline" camps: some prefer fewer programming rules, others want language-enforced compliance. In this talk, I will examine the notion of safety (or lack thereof) in programming languages and its relation to programming effort. I will also review some famous software disasters that indicate that "safe" languages rarely are as safe in practice as they are supposed to be. Indeed, the enforcement view appears to be waning, as perhaps it should. What should take its place? The answer should be obvious, with obvious but largely ignored consequences for computer science education.
MAR. 01	Robert G. Plantz, Sonoma State University, Rohnert Park, CA SOFTWARE FOR SELF-PUBLISHING EBOOKS As ebooks become more popular we are learning that formatting for an ereader differs from a printed page, especially with science and technology books. I will discuss some of the issues and the free software for self-publishing an ebook. For example, LaTeX, docutils, docBook, Sigil, Sphinx.
MAR. 08	Ron LaPedis, Seacliff Partners International, San Bruno, CA WILL FULL DISK ENCRYPTION KEEP MY DATA SAFE? There are many questions surrounding the topic of protecting sensitive information, and volume level and full disk encryption (FDE) seem to come up quite often as the answer. But are we asking the right questions? This colloquium will show you why FDE will not protect your data most of the time and will give you a tutorial of encryption technologies, validations, and injection points.
MAR. 15	Robert Bruce HOW TO WRITE YOUR FIRST ANDROID APP Writing applications (apps) for the Android-based smart-phone market need not be difficult. In this presentation, you'll learn about the Android development process and dissect a real-world text-messaging app the author published in the Android marketplace using Java and XML (eXtensible Markup Language).
MAR. 22	Ellen Spertus, Mills College, Oakland, CA IMPROVING THE WORLD? THERE'S AN APP FOR THAT. With the rising availability of increasingly powerful mobile phones worldwide, apps are growing in popularity and importance. Google's App Inventor for Android was created to harness that enthusiasm and to meet human needs and desires by enabling non-programmers to easily create apps in a visual development environment. Ellen Spertus, one of the members of the App Inventor team and a faculty member at Mills College, will demonstrate App Inventor, present stories of how it has been used to inspire and empower students and hobbyists, and detail other ways that mobile apps are changing the world.
MAR. 29	SPRING BREAK / NO LECTURE.
APR. 05	Jason Shankel, The Stupid Fun Club PROTOTYPING GAMES As budgets, schedules and quality standards in software projects grows, so do the cost of mistakes and course changes. The speaker will describe the essential role of prototyping in software game development.
APR. 12	Michael J. Freiling, PhD, CFA, Concepctrics, Lake Oswego, OR MANAGING PAYMENT RISK IN THE ERA OF DIGITAL BUSINESS Digital business is rapidly evolving from simple e-commerce sites into complex networks that impact all aspects of the business value chain. Electronic payment systems are key components of this infrastructure, and managing the risks associated with electronic payments is a critical element in preserving the trust and integrity necessary to continued successful operation. In this talk, we will survey the infrastructure for electronic payments, the risks associated with electronic payments, and the countermeasures that firms engaged in digital business can take to manage these risks, especially in the area of detecting and combating fraud.
APR. 19	Sophie Engle, University of San Francisco, San Francisco, CA UNDERSTANDING THE INSIDER THREAT The insider threat is growing in importance, but remains difficult to define and model. Much of the problem stems from the difficulty of making a strict division between an "insider" versus an "outsider". To counter this, we focus on access—required by both insiders and outsiders to execute an attack—to define the problem. Specifically, we look at access at different levels of abstraction: the types of access that an individual should have, the types of access an individual is configured to have, and the types of access an individual actually has given the implementations of the security controls in place. By examining how access differs at these different levels, we are able to better define and capture the insider threat.
APR. 26	STUDENT PRESENTATIONS / SHORT PRESENTATIONS OF RESEARCH CARRIED OUT BY SONOMA STATE COMPUTER SCIENCE STUDENTS.
MAY. 03	END OF SEMESTER CELEBRATION / AWARDS PRESENTED TO SONOMA STATE COMPUTER SCIENCE MAJORS.



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Parking is usually available in Lots "E" and "F" and costs \$2.50

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