



SDSU
presents
a thesis defense for
Master of Science
degree in
Computer Science

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12:00pm
GMCS 405

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Designing a Better Authentication Model

Abstract

This thesis investigates various authentication systems and identifies problems with them. The primary objective of this work is to devise a solution to improve usability of authentication systems without compromising security of the user. This thesis focuses on four main problems associated with current authentication systems. First major problem is that password policies commonly being used are stringent and inflexible. They are misleading and give minimal consideration to usability. Second, authentication systems do not provide useful feedback and support to the users, during the process of creating password. Third, password policies force users to create strong passwords but do not provide any solution to remember them. Finally the security questions being commonly used by current authentication systems are insecure. Answers to most of these questions are available at online social networks. Additionally most questions do not have definitive answers, which is confusing for the users. The research questions explored in this work are why are passwords difficult to remember? Are password suggestions sufficient? Do users need more help? Can there be better password policies? Can there be a better way to design authentication system? This thesis discusses issues in current authentication systems, refers solutions provided by current industry research and proposes an effective design as a solution to above mentioned problems.

Thesis Committee

Alan Riggins, Thesis Chair, Department of Computer Science
Carl Eckberg, Department of Computer Science
Janet Bowers, Department of Mathematics & Statistics