

CS 6204 Usable Security

Fall 2009

Usable Security and Mobility

Project Overview

August 27, 2009

Challenges

Is usable security in a dynamic, mobile, and multi-user environment?

How do we maintain usable security in an ever changing environment?

Key research topics:

What is a domain or application specific knowledge and how to capture it?

What services/functionalities should be provided?

What are representative scenarios of use?

How to model and handle possibly conflicting users' security preferences and policies?

How to measure quality of usable security (QoUS)?

How to design and implement a usable security testbed?

Design and Development

Semantic web and related standards (WSDL, OWL, RDF)
Gain specific knowledge and ontologies (Protege).
Easy specification, enforcement and integration (Protu)
Seamless access through web services (SOA and RES)
User interfaces and metaphors (Google Earth).



Study. LUMENHAUS

<http://lumenhaus.com>.

LUMENHAUS is Virginia Tech's 2009 entry to the U.S. Department of Energy Solar Decathlon competition. LUMENHAUS delivers a house that is designed to live, literally and figuratively."

LUMENHAUS is highly automated.

There are many sensors and

tools available thus providing an "enriched"

environment, a place, where social interactions among users take place.

LUMENHAUS can be used in many contexts, such as residence, office, classroom, etc.

LUMENHAUS can be a part of the larger place that includes the surrounding area and other buildings.



+ EXPERIENCE THE HOUSE