T-110.5220 Information Security and Usability - Final exam 21.5.2010 P 3 credits

Choose version (with or without assignments)

VERSION 1: **with** the assignments

This exam has two parts.

Answer **2 questions** from part I **and 1 analysis task** from part II.

Part I:. Answer **2 out of the 3** questions.

Question 1: One of the classical papers of usable security is Doug Tygar's and Alma Whitten's paper "Why Johnny Can't Encrypt" (http://www.gaudior.net/alma/johnny.pdf) Explain what makes this paper a classic. You can also additionally discuss in what ways the paper may be outdated.

Question 2: Describe usable security as a research field: when did it emerge and why, what kind of topics does it address, and what kind of methods does it use?

Question 3: Why do current online security indicators fail? Hint: the Schechter et al. paper "Emperor's New Security Indicators" (http://www.usablesecurity.org/emperor/) may be helpful.

Part II: Answer **1 of the 2** analysis tasks

Analysis task 1
Compare the trustworthiness of the following two sites on basis of the trust elements presented in the Cheskin: eCommerce Trust Study (http://www.cheskin.com/cms/files/i/articles//17__report-eComm%20Trust1999.pdf):

http://www.nowpublic.com/ and http://news.yahoo.com/

Analysis task 2
Turn off the sound on your computer not to disturb others, and then try out the Disney children's security game at http://home.disney.com.au/activities/surfswellisland/ You don't need to complete it, just see how it works. Discuss if and how a game-like approach could be used to educate also adult users. Why would it be needed? How could it help to tackle current problems in usable security?

VERSION 2: **without** the assignments

This exam has two parts.

Answer **3 questions** from part I **and 1 analysis task** from part II.

Part I:. Answer **3 out of the 4** questions.

Question 1: One of the classical papers of usable security is Anne Adams' and Angela Sasse's paper "Users are not the Enemy". What are the major findings of this paper and why are they so important?

Question 2: By comparing the findings of "Users are not the Enemy" against Jean Camp's paper "Mental models of privacy and security", analyse how the differences between perceived and actual risks may affect users' abilities and motivation to act securely.

Question 3: Discuss the pros and cons of various authentication mechanisms from a usability point of view on basis of Andreas Heiner's lecture. You can also make use of other course material as you see appropriate.

Question 4: The Cheskin et al study on Ecommerce Trust aimed to analyse the ingredients of online trust formation. What methods were used to gather the data? Discuss the possible strengths and weaknesses of the study.

Part II: Answer **1 of the 2** analysis tasks

Analysis task 1
Compare the trustworthiness of the following two sites on basis of the trust elements presented in the Cheskin: eCommerce Trust Study (http://www.cheskin.com/cms/files/i/articles//17__report-eComm%20Trust1999.pdf):

http://www.nowpublic.com/ and http://news.yahoo.com/

Analysis task 2
Here is a picture of a recent news article on facebook privacy management from New York Times (http://www.nytimes.com/interactive/2010/05/12/business/facebook-privacy.html) and a related article
http://www.nytimes.com/2010/05/13/technology/personaltech/13basics.html . After reading the article and observing the picture, analyse the usability problems of facebook privacy management on basis of the findings and claims presented in Smetters and Good's paper "How Users Use Access Control"

MAIN FACEBOOK ACCOUNT PAGE
■

SETTINGS PAGE
■

FACEBOOK ADS PAGE
■

PRIVACY SETTINGS PAGE
■

■ WEB PAGE ON FACEBOOK
☐ SUBCATEGORY
* PRIVACY SETTING OPTION

PERSONAL INFORMATION	CONTACT INFORMATION	FRIENDS, TAGS CONNECTIONS	APPLICATIONS AND WEB SITES	SEARCH	BLOCK LIST

SUBCATEGORIES INCLUDE:

PERSONAL INFORMATION
bio, posts, photo albums

CONTACT INFORMATION
phone numbers, e-mail and physical addresses

FRIENDS, TAGS CONNECTIONS
family, friends, activities and interests

APPLICATIONS AND WEB SITES
Facebook-enhanced Web sites

SEARCH
Facebook or public search results

BLOCK LIST
Blocked individuals

Facebook or third-party ads

PHOTOS
***** ☐   Each photo album
***** ☐   created has its own
***** ☐   settings

PERSONALIZED ADS Two additional settings not visible in the Privacy tab allow you to control how your information is shared and used with Facebook ads and third-party ads.

FRIENDS SHARING YOUR INFORMATION Even if you have changed all of your personal settings to private on Facebook, this tab allows your friends, even without their knowledge, to share your name, profile picture, gender and more with third-party Web sites and applications.

WHO CAN SEE YOU Most privacy settings come with five suboptions to decide who can see your personal information. For higher levels of privacy, select "Only Friends," or "Only Me" from the Customize tab.

Everyone
Friends and Networks
Friends of Friends
• Only Friends
Customize

INSTANT PERSONALIZATION This setting allows some Facebook partners – currently Microsoft Docs, Pandora and Yelp – to customize their sites using your personal information and the actions of your friends on those sites.
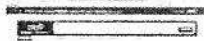
Allow select partners to instantly personalize their features with my public information when I first arrive on their websites.

ALLOW YOUR FRIENDS TO SHARE

Status updates
Online presence
Website
Family and relationship status *
Relationship details (significant other, looking for, etc.)
My videos
My links
My notes
My photos
Photos and videos I'm tagged in *
About me
My birthday
My religious and political views

Save Changes