ONLINE WORKSHOP ON PRIVACY USING social lab A SOCIAL ENGINEERING WARGAME

Jon Núñez, Pablo Garaizar, Deusto Institute of Technology, University of Deusto Ulf-Dietrich Reips, University of Deusto, Ikerbasque, Basque Foundation for Science

INTED 2013 Valencia, Spain, March 5th, 2013
Social networking is the new emailing texting IMing blogging photo sharing ...

(see Meeker, Devitt, & Wu, 2010)
Social networking seems to be easy...
...but plenty of unforeseen problems.

Gary Cooper, 47, pleaded guilty at Winchester Crown Court to the sexual grooming and rape of a 12-year-old girl from Hampshire. He was sentenced to 15 years in prison.

Cyber-bullying highlighted in death of 9-year-old girl

Actress Sofia Vergara's Personal Photos Hacked or Stolen Via Mobile

Facebook Investigating How Million Users' Email Addresses For Sale

Japanese banks hit by phishing

A police investigation uncovered

Hacked or Stolen Via Mobile

Million Users' Email Addresses For Sale

Japanese banks hit by phishing

A police investigation uncovered
Learning about privacy is hard.
Privacy concerns are boring
It's not easy to balance the trade-off between security and usability.
Most of the materials are children-oriented
Social Lab tackles some of these problems providing a social engineering wargame
Social engineering

The art of manipulating people into performing actions or divulging confidential information.
It works because there is no patch for human stupidity
Purpose of the game

Learn some of the techniques used by social hackers

Prevent these kind of attacks in real social networks
Wargames

Security challenges in which players must exploit a vulnerability in an application or gain access to a system.
Wargames

“hacker sandboxes”
Social engineering wargame

A privacy challenge in which players must gain access to user profiles in a "social sandbox" (a fake social network)
How to play Social Lab
1. Sign up

http://en.sociallab.es/signup
Welcome to Social Lab!

Social Lab is NOT a real social network. If you want to know what it is, click here ;)

Sign in

Username

garaizar

Password

Remember

Sign in

http://en.sociallab.es/sigin
Welcome to Social Lab!

Your first assignment as a social hacker will be to become a friend of Alice Johnson.

Good luck! ;)

Social Lab (less than a minute ago)

3. Solve social challenges

http://en.sociallab.es/profile/messages
All the challenges are **automated profiles with fake personal information**...

(disclaimer: no privacy was harmed in the making of this site)
... but real interactions between players are also possible

(and can affect the results of the game)
Each time a friendship request is made, Social Lab checks if it involves an automated profile and if that is the case, it schedules a task.

http://en.sociallab.es/profile/request/id/2
Currently, Social Lab provides a 10-level wargame of increasing difficulty.
Using Social Lab's challenges we designed an online workshop on privacy.
Online workshop on privacy using Social Lab
by Catedra Telefónica - Deusto

Curriculum:

**SECTION 1**
ARE YOU AWARE OF YOUR ONLINE PRIVACY?
- **LECTURE 1:** Your Digital Identity
- **LECTURE 2:** Signing up
- **LECTURE 3:** Social Lab: Basic usage

**SECTION 2**
CREATING A PROFILE IN SOCIAL LAB
- **LECTURE 4:** Level 1
- **LECTURE 5:** Level 2
- **LECTURE 6:** Level 3
- **LECTURE 7:** Level 4
- **LECTURE 8:** Level 5

**SECTION 3**
SOLVING THE PRIVACY CHALLENGES
- **LECTURE 9:** Level 6
- **LECTURE 10:** Level 7
- **LECTURE 11:** Level 8
- **LECTURE 12:** Level 9

**SECTION 4**
ASSESSING YOUR ATTITUDE TOWARDS ONLINE PRIVACY

Hosted at Udemy

http://udemy.com/social-lab
Digital Identity and Privacy on Social Networks

Online workshop on privacy using Social Lab, a social engineering wargame
Tutorials

http://udemy.com/social-lab
Internet Privacy Questionnaire linked to Social Lab’s workshop

* Required

PART I - Privacy behaviour factor loadings

General Caution *

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you shred / burn your personal documents when you are disposing of them?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you hide your bank card PIN number when using cash machines / making purchases?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you only register for websites that have a privacy policy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you read a website’s privacy policy before you register your information?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you look for a privacy certification on a website before you register your information?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you read license agreements fully before you agree to them?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assessments (Buchanan, Paine, Joinson, & Reips, 2006)

http://udemy.com/social-lab
Currently we offer:

A free online workshop on privacy using Social Lab:
- Slideshows
- Tutorials
- Assessments

Demo servers:
- English version: http://en.sociallab.es
- Spanish version: http://es.sociallab.es
- German version: http://de.sociallab.es
- Basque version: http://eu.sociallab.es

Info about the project:
- http://www.sociallab.es

Social Lab's code:
- https://github.com/txipi/Social-Lab
References


References

- Nooriafshar, M. The Evolution of Learning Methods and Facilities with a view to Internationalising Education. Faculty of Business, University of Southern Queensland, pp. 4-5.


References


Data from the first 100 users

181 friendship requests between players
(26 accepted, 7 rejected, 148 pending)

101 status updates

629 messages between players
(13 public, 616 private)

Distribution of achieved challenges:
All rights of images are reserved by the original owners*, the rest of the content is licensed under a Creative Commons by-sa 3.0 license

* see references in each slide