



Lessons learned from teaching ICT security in schools; don't let them suffer in silence
ENISA summer school 2011

BEE SECURE
TRAINER

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Agenda

- Who are we?
- What do we teach?
- Whom do we teach?
- Problems related to surfing
- Problems related to chat
- Problems related to social networks
- Problems related to mobile phones

Who are we?



❖ BEE SECURE – *awareness raising*

- ▶▶ Campaigns, events, fairs
- ▶▶ courses, workshops

"target: citizens of all ages"



❖ CASES - *good practice*

- ▶▶ Adapted methodologies
- ▶▶ Coaching
- ▶▶ Labels, guides

"target: public & private sector"



❖ CIRCL – *national CERT*

- ▶▶ Incident response
- ▶▶ Coordination of incidents
- ▶▶ Information exchange
- ▶▶ Networking - nationally et internationally

"target : IT department"



Who are we?



powered by



What do we teach?

- ❖ *The risk concept*
 - ▶ Vulnerabilities, threats and impacts
- ❖ **Vulnerabilities**
 - ▶ Human vulnerabilities
 - ▶ Technical vulnerabilities
- ❖ **Threats**
 - ▶ What vulnerabilities do they exploit
- ❖ **Behaviour**
- ❖ *Technical measures*



Whom do we teach?

- ❖ *Children 9-10 300 a year*
 - ▶▶ Role based games

- ❖ **Children 11-12: 1000 a year**
 - ▶▶ concepts
 - ▶▶ Technical vulnerabilities

- ❖ **Children 13: 7.000 a year**
 - ▶▶ concepts

- ❖ **Teachers: 100 a year**

- ❖ *Parents: 500 a year*



Problems related to surfing

❖ Internet is not the school playground

❖ Fraud

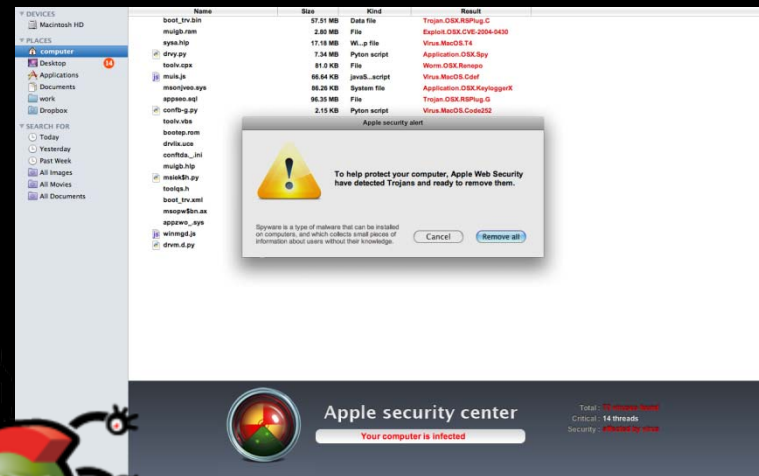
❖ Rogue AV

❖ Infected downloads

❖ Porn - spam

❖ Phishing

❖ Flash and other plugins



REDTUBE™

This website contains sexually explicit material.

ENTER

EXIT



Problems related to chat

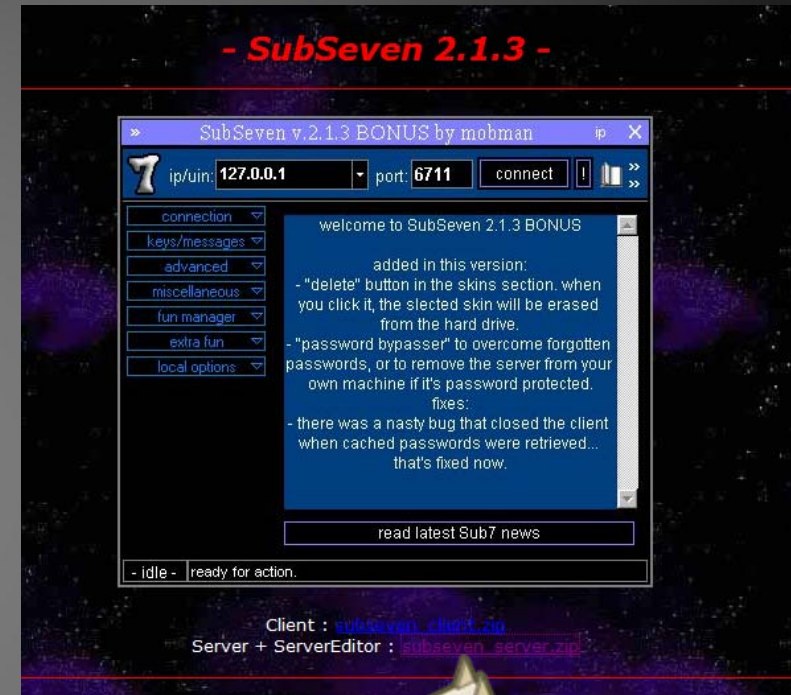
- ❖ Msn, icq minor problems until it's usage is prohibited
- ❖ Weak passwords
- ❖ Chat roulette
- ❖ Video chat
- ❖ Accept infected content
- ❖ Id theft
- ❖ Open chat rooms – nicknames like lolita13, bunny 14
- ❖ Bullying



Problems related to chat - perpetrator



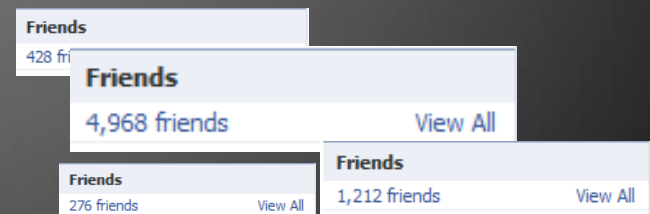
- ❖ Grooming
- ❖ Id theft by password guessing
- ❖ Video chat – with recording and publishing
- ❖ Sending Trojans, malware – spy on girls in bedrooms
- ❖ Defamation



Problems related to social networks

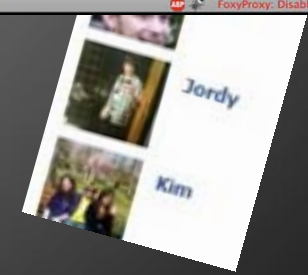
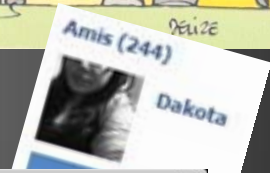
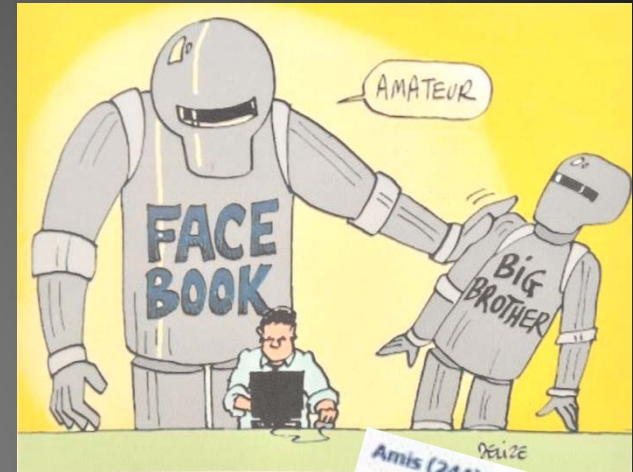


- ❖ From 10 years on
- ❖ Weak and reused passwords
- ❖ Accounts not properly configured
- ❖ "Friends" race: 300 - 1300
- ❖ Disclosure of private data – no use of group-policies
- ❖ Photos
- ❖ Chat
- ❖ Bullying



Problems related to social networks - perpetrator

- ❖ Grooming
- ❖ Id theft by password guessing + session hijacking
- ❖ Profiling of entourage
- ❖ Grooming
- ❖ Photo posting - defamation
- ❖ Bullying



Problems related to mobile phones

- ❖ "Smart" phones
- ❖ No AV, no firewall, no filters
- ❖ Bluetooth, WiFi
- ❖ Infected content, apps
- ❖ Fraud
- ❖ Theft, loss



Problems related to mobile phones - perpetrator

- ❖ Spyware, Trojans
- ❖ Super-Bluetooth
- ❖ Bullying
- ❖ Session hijacking (firesheep, faceniff)

Super Bluetooth Hack 1.08 new version



by **sujeshtc**
added 25 Nov, 2007, 5:09PM

Download



File Information

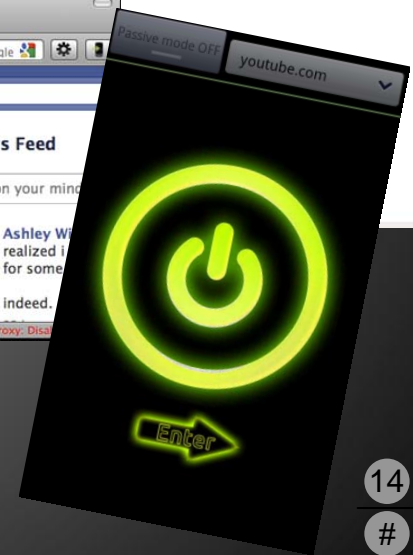
Popularity	3836494 download 169 favourites	Filetype	jar
Tags		Filesize	110.65 KB
		Folder	Multimedia
		Version	1

Honors

#17 Most Popular [Softwares](#) All Time
#100 Most Popular Softwares March 2010

Other Information

Program to control and read informations from other phone
more in new version
Connect via BT/irda



Where do they get help

- ❖ *Parents and/or teachers will prohibit the use of*
 - ❖ *Internet*
 - ❖ *Chat*
 - ❖ *Mobile phones*

- ❖ *Consequence is*
 - ❖ *They will continue to suffer in silence and they will warn everybody about not telling the adults*

- ❖ *“NO” – is no help, but a further punishment*

What can help

- ❖ *Teach **more** than Excel and Word*
- ❖ *You can loose more valuable things than money !*
- ❖ *Teach the real stuff – when they need it*
- ❖ *Teach with the help of experts*
- ❖ *13 is already too old*



<http://xkcd.com/>



www.bee-secure.lu

www.cases.lu

www.circl.lu