

Principles and fundamentals of security methodologies of information systems - Awareness raising

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M2SSIC-Metz

- 1 Awareness
 - Why is awareness (raising) important?
- 2 Targets
 - Home users
 - Organisations
 - (Local) government
 - Media
- 3 How to raise awareness
 - Plan & Assess
 - Execute & Manage
 - Evaluate & Adjust
 - Obstacles to success
- 4 Beyond awareness raising
 - If Kuebler-Ross would do security

Awareness

The OCDE principles for creating a "culture of security" include **awareness** as first point, the second principle (**responsibility**) is however at least as important:

Awareness Participants should be aware of the need for security of information systems and networks and what they can do to enhance security.

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Awareness Participants should be aware of the need for security of information systems and networks and what they can do to enhance security.

Responsibility All participants are responsible for the security of information systems and networks.

Why is awareness (raising) important?

Companies or any other organization cannot protect the *confidentiality*, *integrity*, and *availability* of information in today's highly networked systems environment without ensuring that all people involved in using and managing IT:

- Understand their roles and responsibilities related to the organizational mission;

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- Understand the organization's IT security policy, procedures, and practices; and
- Have at least adequate knowledge of the various management, operational, and technical controls required and available to protect the IT resources for which they are responsible.

Targets

Who are the targets ?

- Citizens / home users / employees

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- Managers / directors / decision takers

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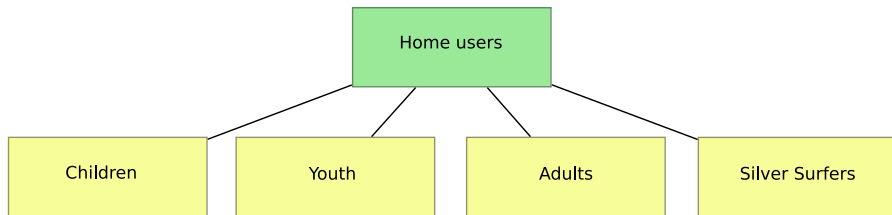
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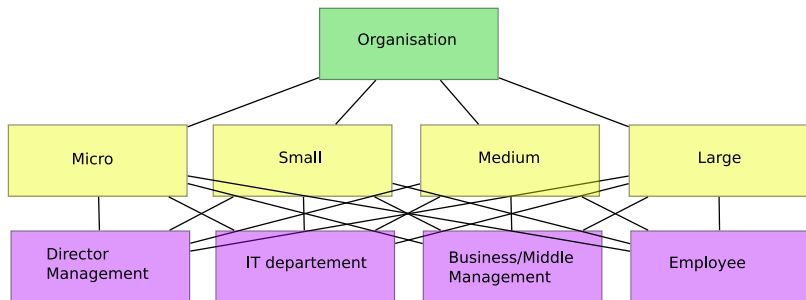
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- *Media*
- (Information security sector)

Home users



Organisations



(Local) government

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- They can act as awareness agents for citizens and schools

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- sensitize employees in order to foster an "information-security culture"

Media

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- media lobbies on public issues and legislation

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- Make media aware of the need for ICT-security due to society's increasing dependency on ICT
- Ensure that media assumes social responsibility and enforces its "Public service" commitments as the "4th state power"

How to raise awareness

An awareness programme/campaign has to be seen as a long term investment in the culture of security, be it on a company, national or international level. To be effective it should have a life-cycle (design, develop, implement, evaluation) and be **specific**, **realistic** and **mesurable**.

- Plan & Assess

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 - via interviews / questionnaires

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- Define goals and objectives
 - run a cost benefit analysis
 - identify programme benefits

Communication strategy

- 1 Define communication objectives

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- 2 Perform target group analysis & identify suitable media
- 3 Identify key communication messages
- 4 Assign roles and responsibilities
- 5 Develop detailed communication plan

Target groups and message

- Establish message for a specific target group

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- Establish message for a specific target group
- Detail message

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- Establish message for a specific target group
- Detail message
- Test message

Channels of Communication

- Brochure or Magazine

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- Comic

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- Event (fair, meeting, seminar, conference)

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- eNewsletter
- Newspaper
- Phone

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- Leaflet or fact sheet
- eNewsletter
- Newspaper
- Phone
- Poster

Channels of Communication

- Radio

Channels of Communication

- Radio
- Screensavers

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- SMS

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Channels of Communication

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Channels of Communication

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Plan & Assess

- Take a change management approach

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- Document lessons learned

Execute & Manage

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Evaluate & Adjust

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- (Re-launch the programme)

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- 11 Lack of management support

Beyond awareness raising

The learning continuum:

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- 6 Communication (*I'll tell others*)

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- 6 Communication (*I'll tell others*)
- 7 Development (*I'll help enhance it*)

The learning continuum



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- *"My email is totally useless with all this SPAM!"*

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⑤ Acceptance

- *"You're right this security policy is indeed useful!"*

Examples

showing some video examples

Awareness raising topic

- make groups of 2

Awareness raising topic

- make groups of 2
- choose a topic from:

Awareness raising topic

- make groups of 2
- choose a topic from:
 - botnets

Awareness raising topic

- make groups of 2
- choose a topic from:
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 - social engineering

Awareness raising topic

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 - XSS

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 - children ≤ 12

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 - 12 \leq teens ≤ 17

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- prepare "message" and channels
 - same/similar message
 - multiple channels (one "physical", one "electronic")
- define indicators for measurement

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 - silver surfers ≥ 50
 - municipality employees
- prepare "message" and channels
 - same/similar message
 - multiple channels (one "physical", one "electronic")
- define indicators for measurement
- present next week in class

- choose a target audience
 - children ≤ 12
 - 12 \leq teens ≤ 17
 - silver surfers ≥ 50
 - municipality employees
- prepare "message" and channels
 - same/similar message
 - multiple channels (one "physical", one "electronic")
- define indicators for measurement
- present next week in class
- be creative