

Security and trust for ubiquitous communication

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1. The principle of distribution
2. A problem confronting software
3. Distributed authentication
4. Open source
5. Important problems

1. The principle of distribution

The purpose of **ethical principles** and the problems with the normative principles Philosophy provides.

The principle of distribution.

Example from sport.

The principle's contributions to the five (?) modalities.

Examples of its application ...

2. A problem confronting software

Types of software and the dynamics facing 'security software'.

Dynamics of security software; so specify its **security conformance**.

Compare with: **software re-use**.

Changing context; so specify its functional conformance.

Can the principle of distribution help?

Examples: propriety in the home; spam?; security?

3. Distributed authentication

The problem: bootstrapping authentication.

The appropriate model: modifying Dolev-Yao 1983 to allow empirical interaction.

Distributed protocols ...

... and their formal proof and security conformance.

UK DTI's FORWARD project.

4. Open source

Shrink wrapped versus open source software:

centralised v. distributed: production/management/availability/ ...

UNU-IIST's Open Computing Initiative.

Negroponte's \$100-laptop project.

Functional conformance? Security conformance?

5. Important problems

1. Applying the **principle of distribution**:
in which of the modalities?
2. Consider the idea of **security conformance**,
investigate new and appropriate models of attack
and classify software accordingly.
3. Invent **protocols** to keep pace with ubiquitous communication;
and for changing control in times of crisis in a distributed
system.
4. Open source meets (partially) centralised use;
establishing its **conformance**?

... involving academia.