

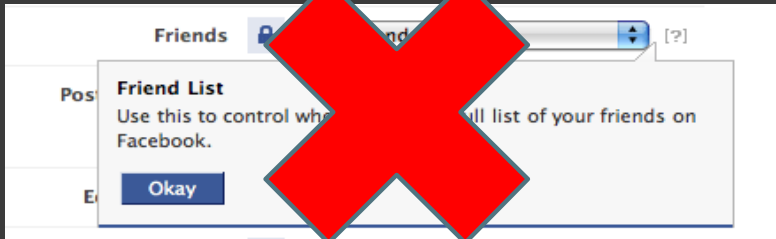


VALUE-SENSITIVE AGENT- ORIENTED SOFTWARE ENGINEERING

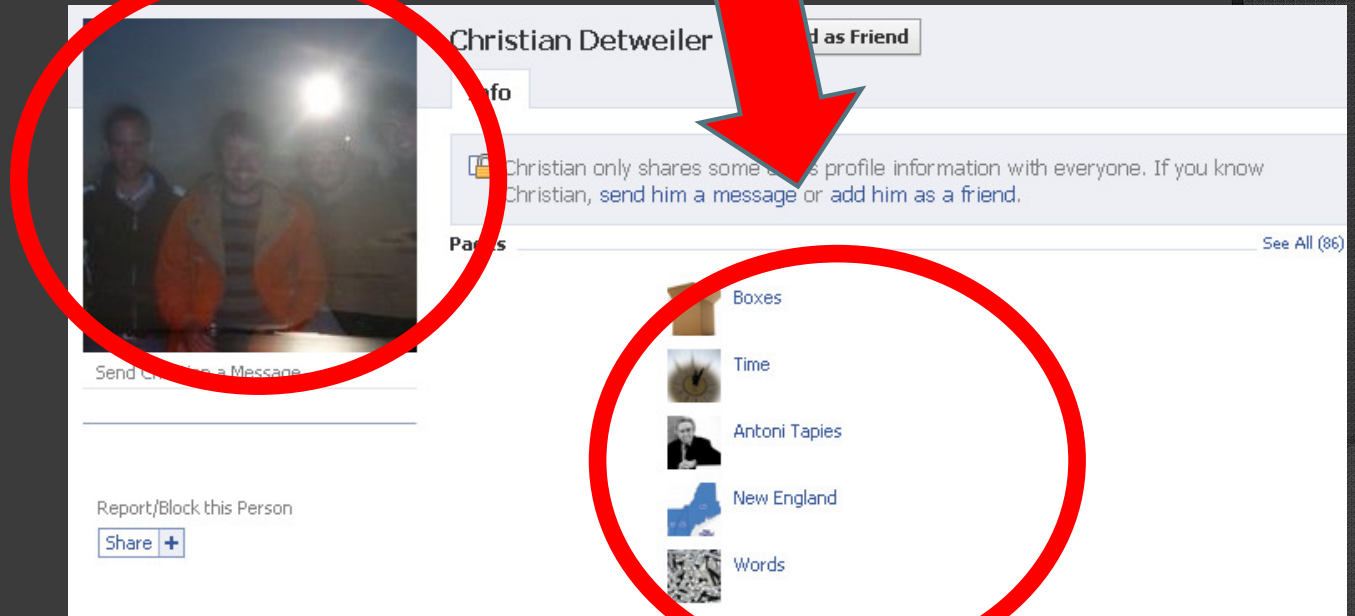


Christian
Detweiler

Facebook



Public info

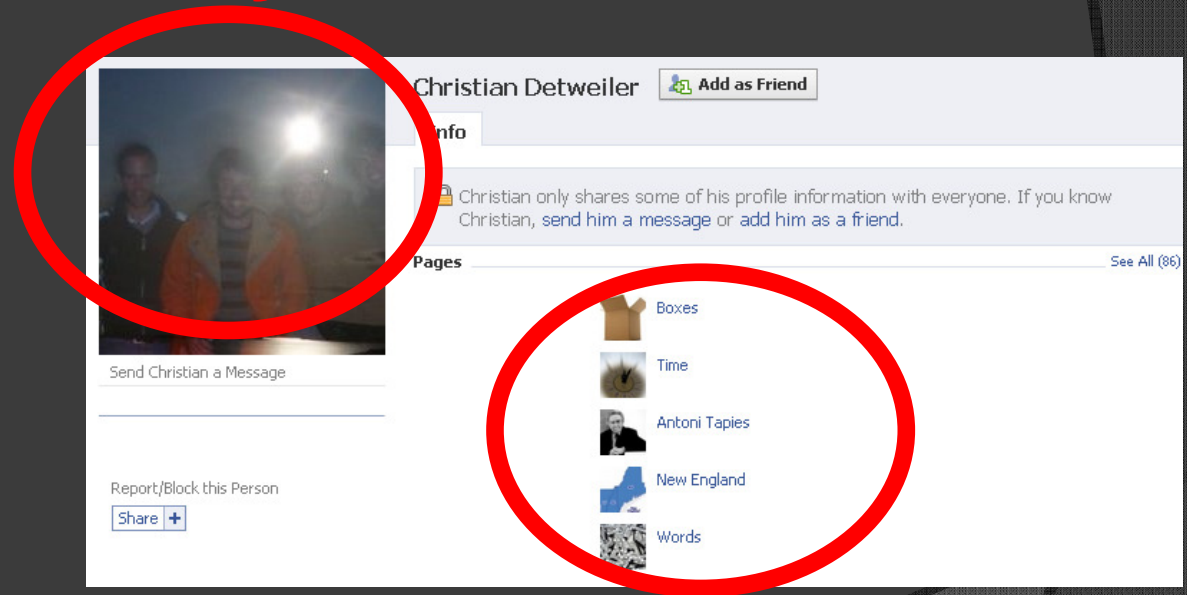
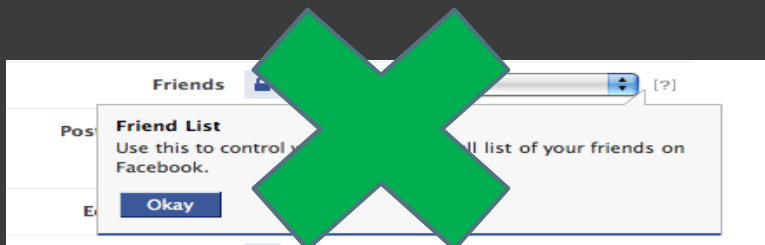


Values ignored!

Facebook and values

Privacy!

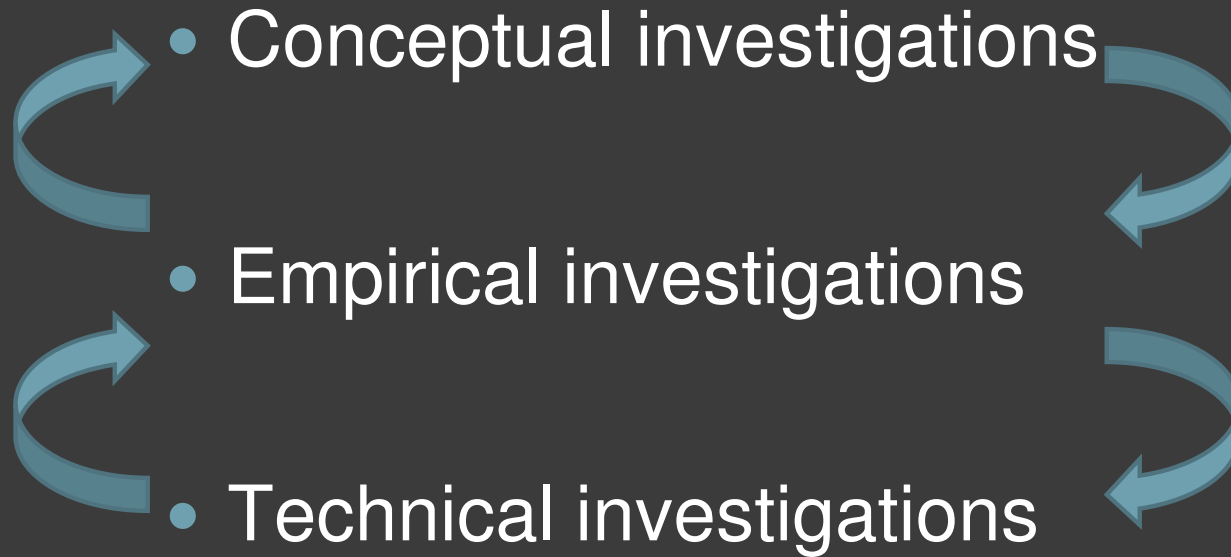
Autonomy!



Openness?

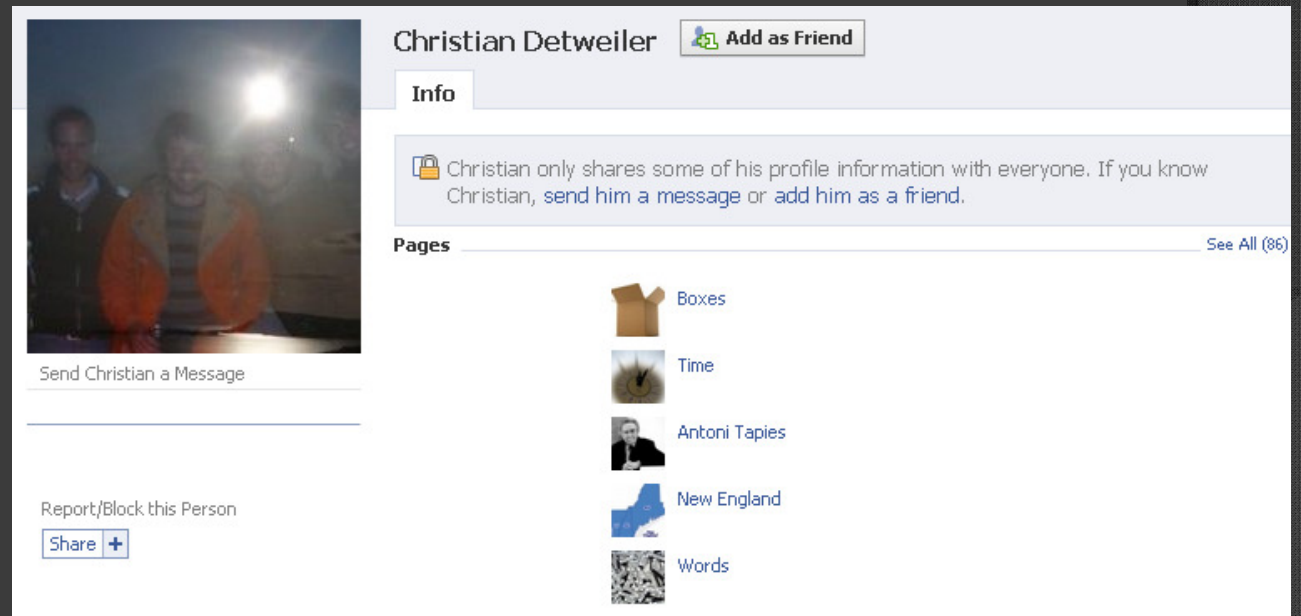
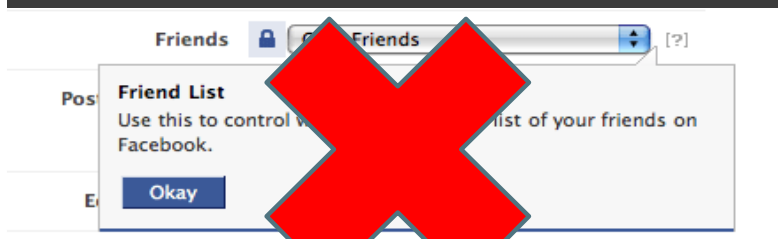
Value-Sensitive Design

Friedmann, 1997

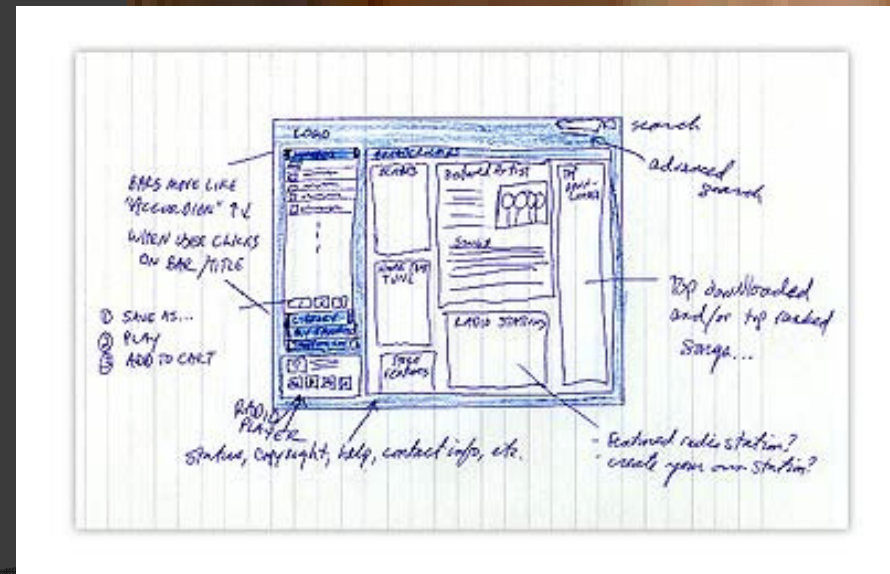
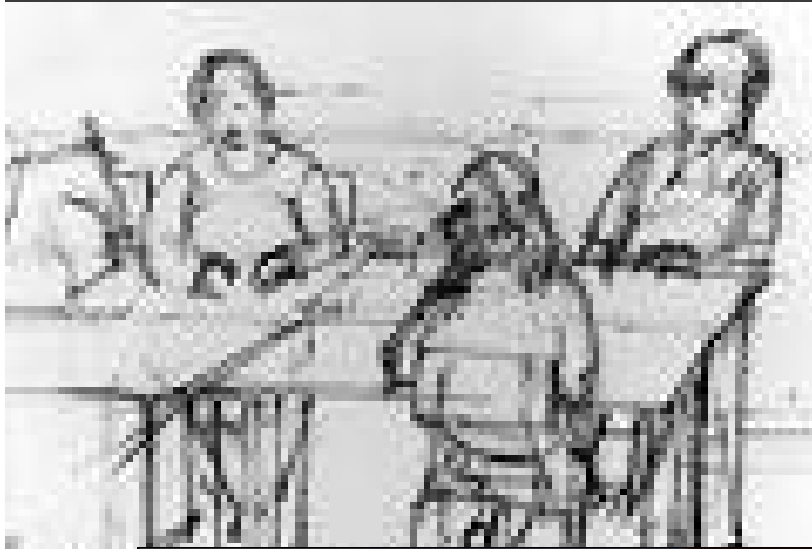


Conceptual investigations

- New product → Context of Use!
- Stakeholders?
- Harms and benefits?
- Underlying values?



Empirical Investigations



Technical Investigations

Values

Existing tools

Develop new tools

Privacy

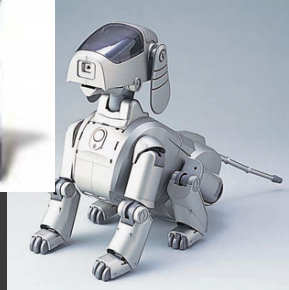
Welfare

Safety

Autonomy

Property

Supports
or
Hinders?



How???

AOSE methods

- TROPOS
- Prometheus
- GAIA
- MaSE

No values!

Tropos

- Stakeholders
- Stakeholders' (soft and hard) goals & goal dependencies



Hard goals:

- satisfiable;
- clear criteria;
- Functional



Soft goals:

- satisficeable;
- no clear criteria
- Non-functional

Conference management system

- Stakeholders: authors, reviewers, program committee, ...
- Harms: abuse of reviewers, abuse of authors, ...
- Benefits: high quality of papers
- Values: privacy, freedom from bias, intellectual property, ...

Values as Soft Goals?

Values vs Soft-goals

◎ Value:

- Something important to someone
- Harmful/morally wrong if violated; beneficial/right if upheld
- Good/Bad (evaluative)

◎ Soft-goal:

- Satisficeable: nice if achieved
- No clear criteria
- Non-functional

Conference:

Privacy → Blind Reviewing

- ⦿ Leave out acknowledgments, author names, and affiliations.
- ⦿ When referring to one's own work, use the third person, rather than the first person.
- ⦿ Avoid any information that would identify the authors or their institutions.

Violation consequences

- Some loss in quality
- Some abuse of reviewers
- Some abuse of authors

Not in design!

Big deal?

Difference in importance



Nice holiday

Privacy

Soft goals?

No difference!

Conclusion

- Current AOSE methods are not value-sensitive
- Value violation consequences cannot be represented
- No way to distinguish values from other non-functional requirements.
- Harms/benefits of system AND users AND environment are lacking

Then How???