Towards the Policy Aware Web

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REWERENCE WG on Policies

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Policy-aware web: Should we care?

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- Should industry & business care about policies?

- Isn't it just a European problem?
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  - Yes: to avoid trouble + to attract customers

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- Should industry & business care about policies?
  - Yes: to avoid trouble + to attract customers

- Isn't it just a European problem?
  - No, it's not just about privacy laws
  - It's business
What kinds of policies?

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  - A girl wanted to show her pictures to everybody
  - *...not to see it included in advertisement*
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- Usage policies
  - How information is supposed to be used
  - Generalizes both DRM and privacy
  - Not so much *really usable* out there...
Will the community accept a policy-aware web?

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  - Neither every possible (ab)use of their information
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  - Can users write their own policies?
  - Can useful policies be deployed?
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- Trust is crucial as well
  - “Is it worth to put some effort on privacy protection?”
  - Any guarantees that a system will keep its promises?
Usability

- In the most general case (no assumption about users)
  - Users can't write their own policies
  - Even with *extremely* simple languages
  - Even with the nicest graphical interfaces
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Still, in technical settings more expressive languages have a role
- Management of complex systems
- Real policies are simpler than they should be because **proper policy support is lacking**
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- Still, in technical settings more expressive languages have a role
  - Management of complex systems
  - Real policies are simpler than they should be because proper policy support is lacking
- Different requirements for different user categories
- No single policy language will do
Will users trust a policy aware web?

- Currently no strong link between
  - Published “formal” policies
  - System behavior

- Poor policy documentation / explanation, ambiguities
  - Hard to understand what the system is promising
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- Lots of work needed – what is the right approach?
  - Legislative work, raising people's awareness, ...
  - Security in system analysis and design
  - Ex-post compliance checks / certification
  - Dynamic monitoring and filtering, ....
Will Semantic Web help?

- Better information management systems?
  - e.g. semantic classification of sensitive information
  - Semantic information filtering
  - High-level specifications rather than ad-hoc programming

- Better documentation / explanation facilities!
  - Protune's experience
Future work

- More on usable policies
  - Assisted via machine learning techniques?
  - Other semantic techniques?
  - Novel policy management methods?
  - Cover usage specifications

- More on compliance
  - Alignment of enforced policies with published policies

- Laws + accountability
  - The only way of enforcing usage policies?
Conclusions

- Policy-aware approaches may have major impact on web applications
- Is there enough attention outside universities?
  - To really novel aspects, I mean
- Still looking for the right approach(es)
  - Any suggestions?