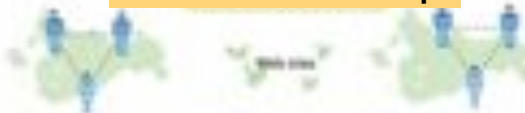Virtual Goods

Open Digital Rights language

NICTA

A Framework for the Policy-Oriented Web in Social Networks

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NICTA

April 2009 "The Future Of The Social Web"
FORRESTER
The Five Eras Of The Social Web

Era of Social Relationships

Era of Social Functionality
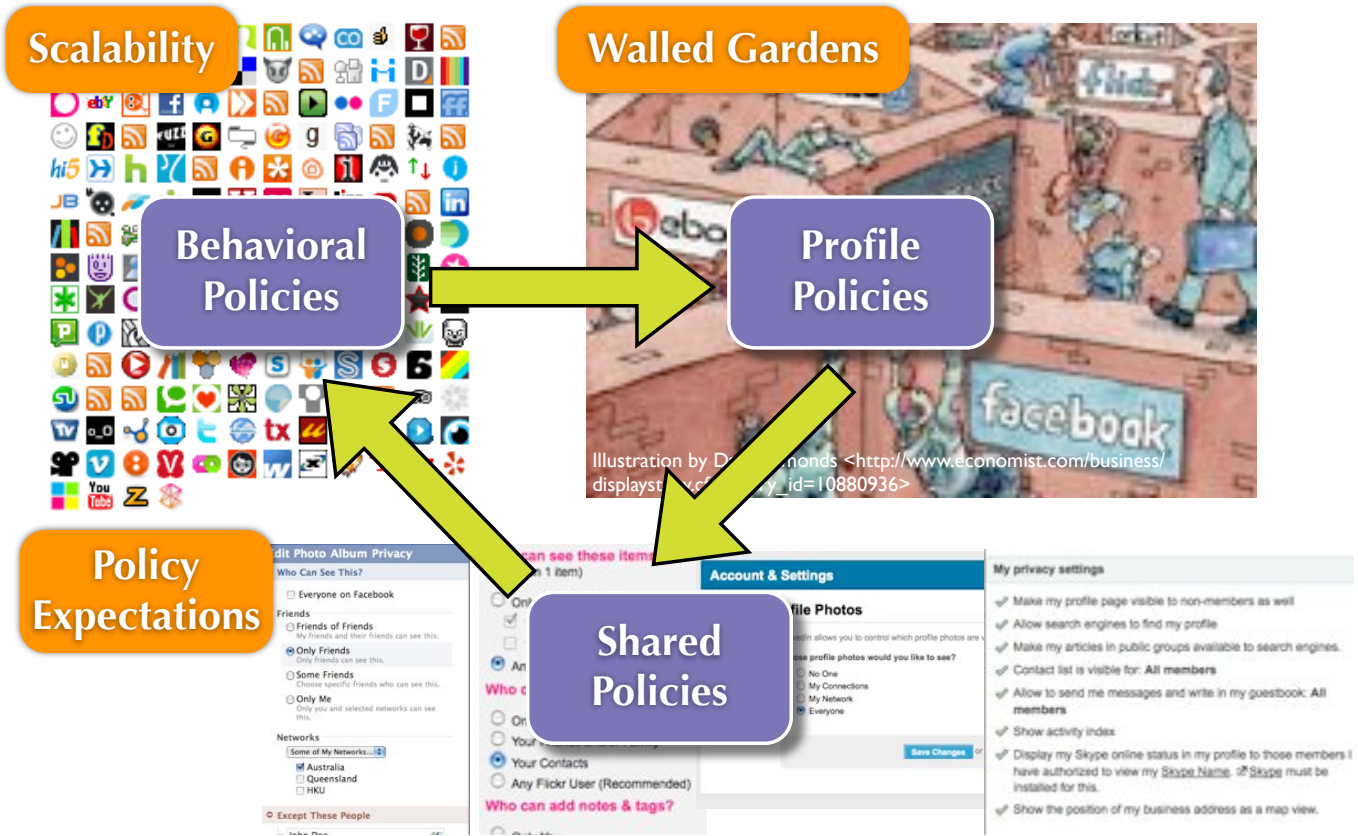
Era of Social Colonization

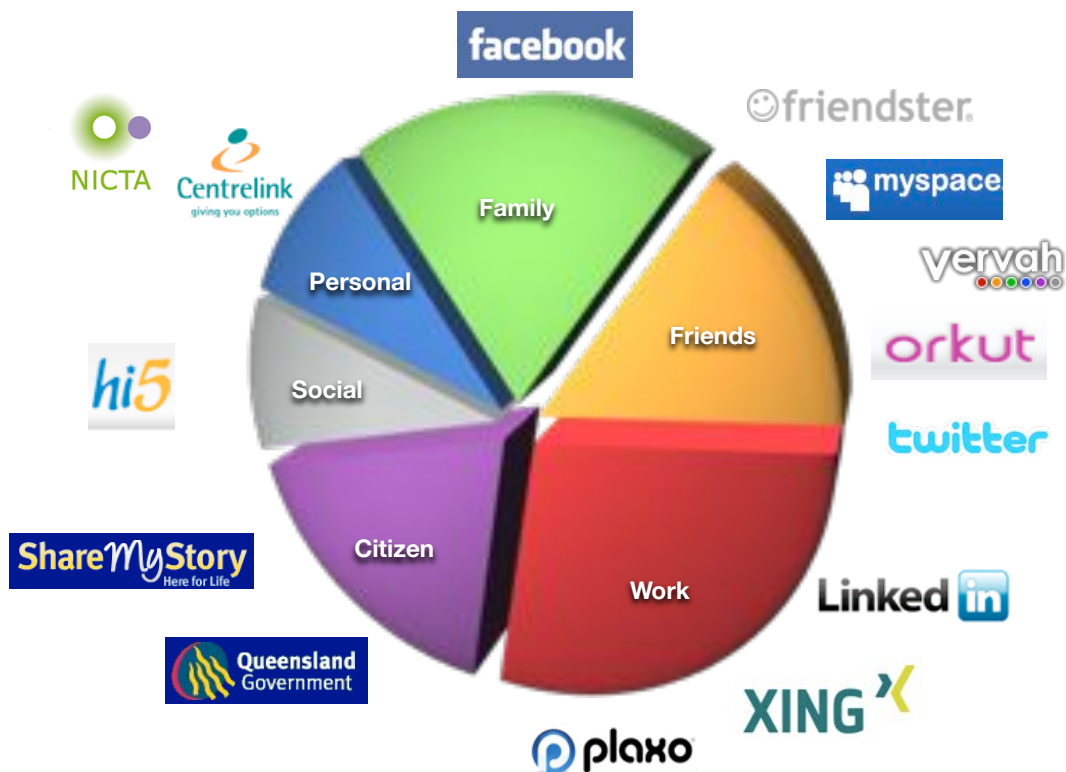Era of Social Context

Era of Social Commerce

- **Community context:** affiliation with those who share similar interests
- **Location-based context:** mobile or consumer-specified location and time.
- **Social context:** influence from trusted peers
- **Behavioral context:** consumer actions on the Web or network
- **Preferences context:** what consumers say they want

Social Net Challenges

Scalability

Walled Gardens

Behavioral Policies

Profile Policies

Policy Expectations

Shared Policies

Illustration by D... ...onds <http://www.economist.com/business/displayst... ...y_id=10880936>

Your Profile Pie

Family

Personal

Social

Citizen

Friends

Work

Policies!

NICTA

Google   Yahoo   AOL   Facebook   Wikipedia   Craigslist   Photobucket   NYT   EBay   Amazon   Ask   Web MD   Cuil   Inquick

Microsoft

Scale is 1:20 (5% of actual size)

Created by the Common Data Project
www.commondataproject.org

Today: Aggregators

NICTA

cliqset beta

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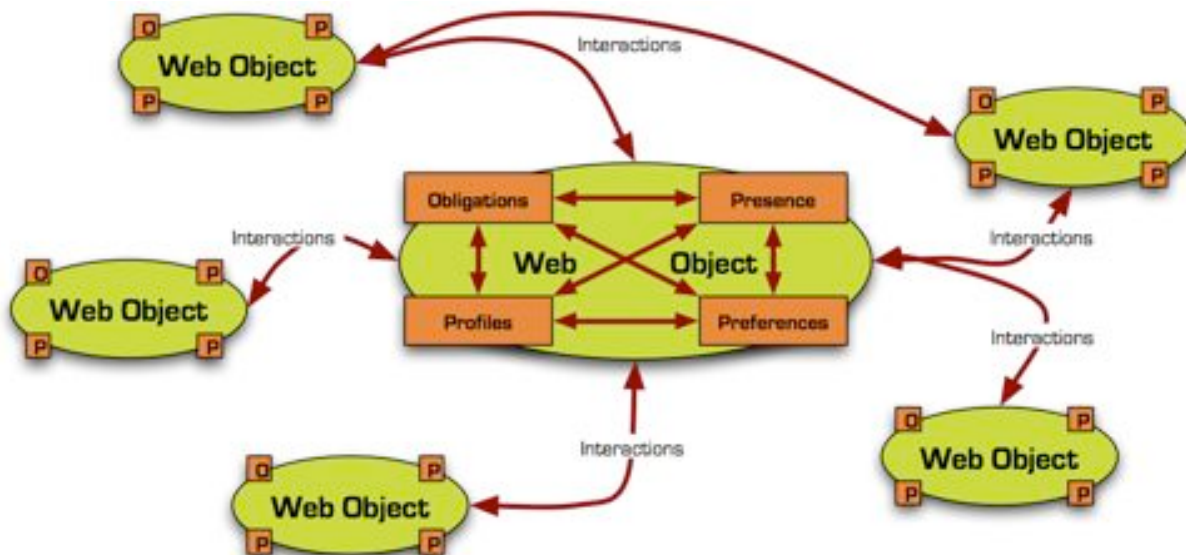
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(ii) the user ID associated with your Cliqset Site profile.

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(b) Developer Agreement. Before providing any information to any Developer or Social Networking Application through the Cliqset Application, Cliqset requires each Developer to enter into an agreement (a "Developer Agreement"), which, among other things, strictly limits their collection, use, and storage of Cliqset Site Information. Our standard Developer Agreement consists of the Cliqset

Cliqset API

Services | Messaging | Activities | Profile | Relationships | Contacts

Terms of Service | Privacy Policy | API Documentation | Blog | Contact

The Current Web

- **There is no support for Policies in the current Web Architecture**

Key Challenges

- **Policy Expression**
  - **how to unambiguously define the terms and conditions of a policy**
- **Policy Transparency**
  - **how to ensure all parties are aware of the policy and its implications**
- **Policy Conflict**
  - **how to detect potential incompatibilities between dependent policies**
- **Policy Accountability**
  - **how to track policy exceptions and obligations**

SN Use Case

- **Use Case from W3C Future of Social Networks Workshop (Jan 2009):**

  - **"Alice wants to give access to her wedding pictures only to people that are fellows on both Flickr and Twitter and that have a blog she commented at least twice during the last 10 days."**

  - **<http://www.w3.org/2008/09/msnws/papers/ trustprivacy.html>**

- **Focus on obligations on people**
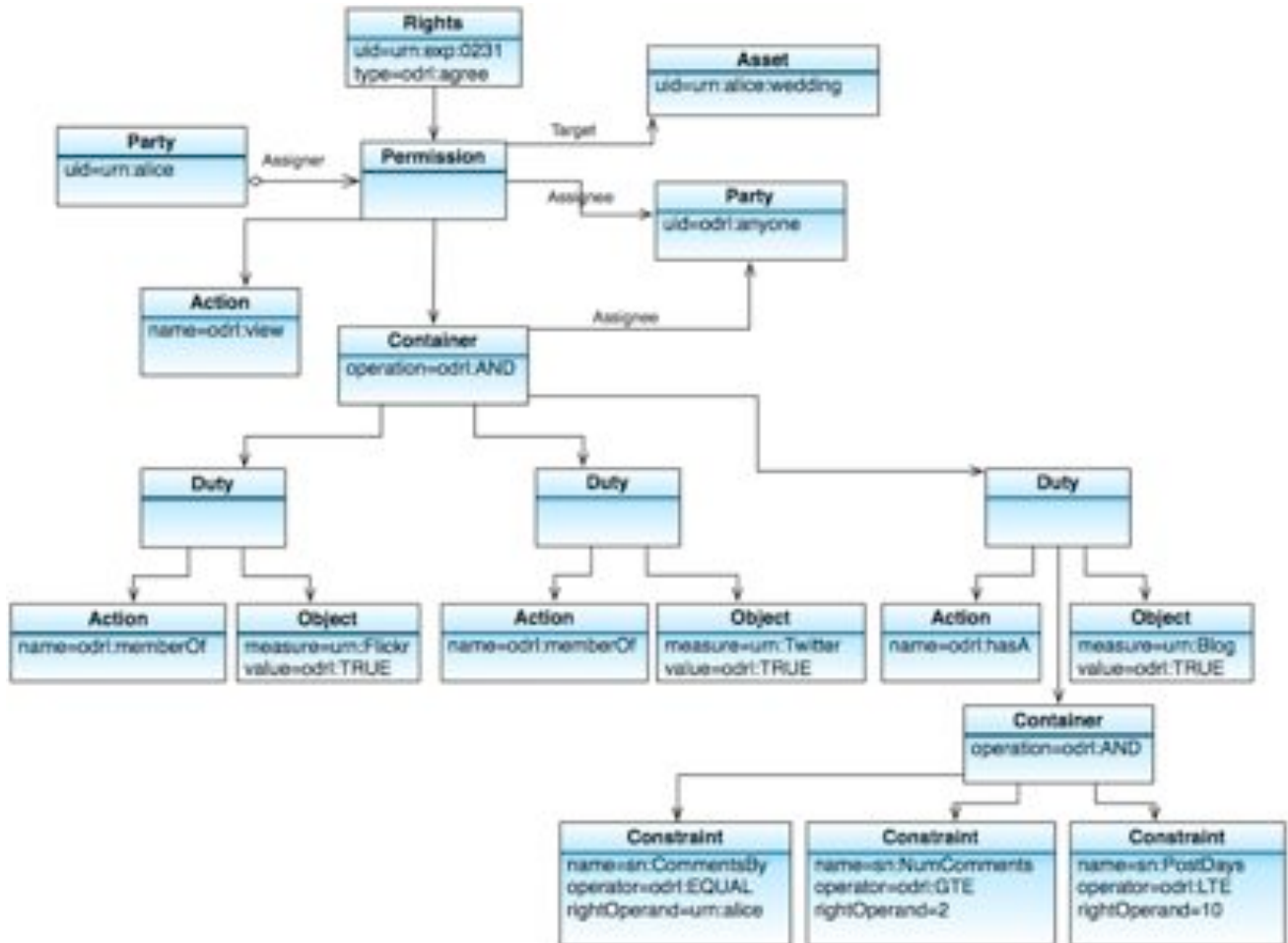
Formalisation

- **Today: Policy management (eg privacy & rights) are site specific and provide no conflict detection services**

- **Expressive Policy Language with conflict detection and resolution**

- **Combine Deontic Logic (to capture norms) with Rule-based non-monotonic logic (defeasible logic to capture exceptions and priorities**

- **Computational feasible and scalable reasoning for dynamic (time based) policies**
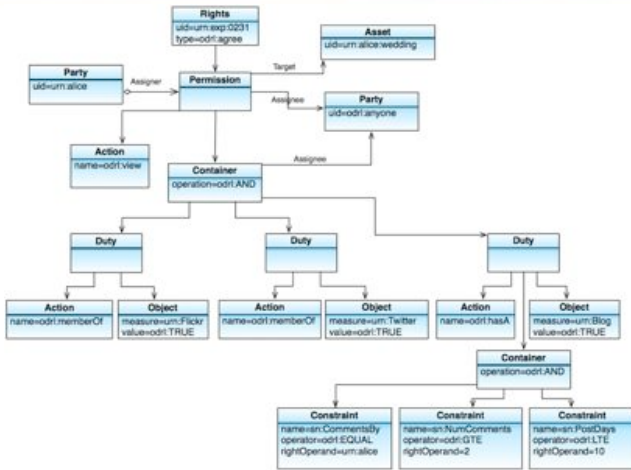
$$p_1 : wedding\_photo(x), flickr(y), twitter(y),$$
$$blog(z,y), posted(a,z,t_1), posted(a,z,t_2),$$
$$t_1 > Now - 10, t_2 > Now - 10 \Rightarrow P_y access(x)$$

Demo SPINdle
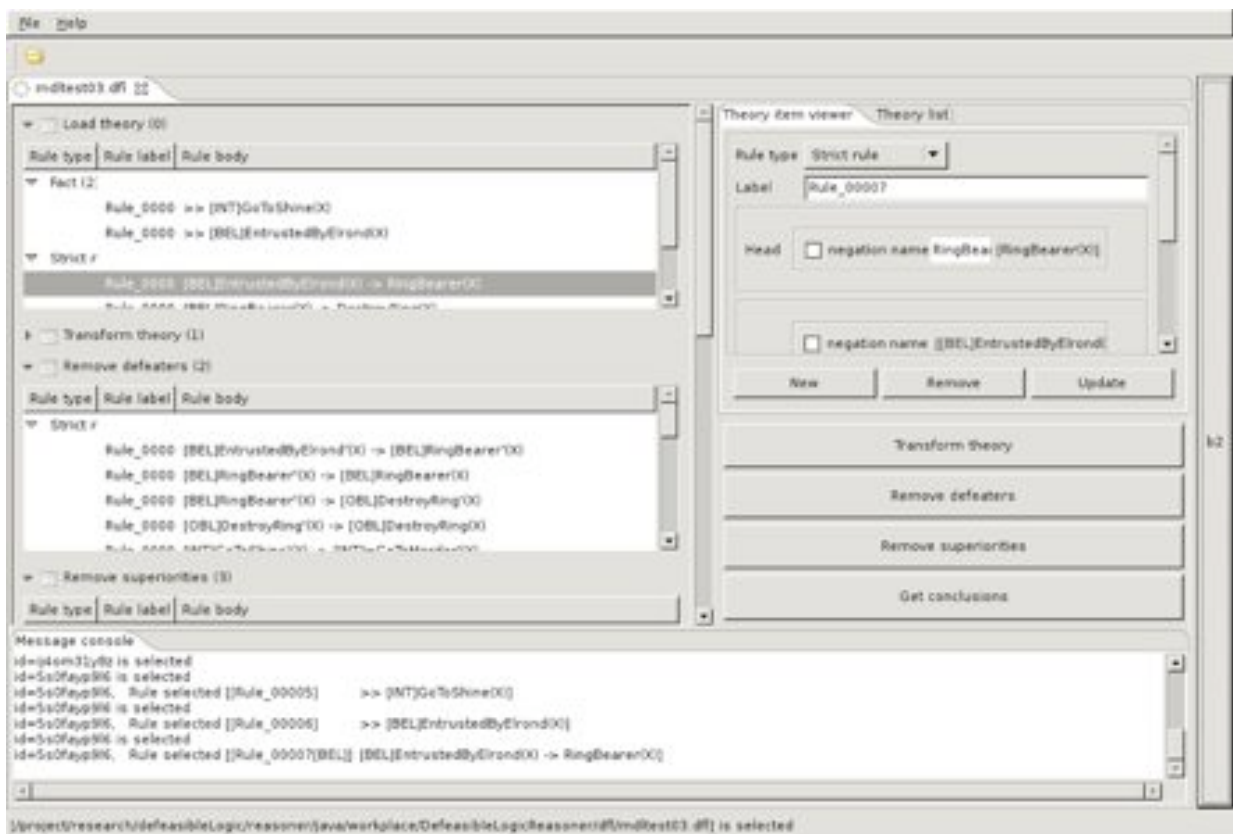
Next Steps

- **W3C Social Web Incubator Group**
  - http://www.w3.org/2005/Incubator/socialweb/
- **W3C Policy Languages Interest Group**
  - http://www.w3.org/Policy/pling
- **Propose a new Working Group**
  - **Web Policy Language**
  - **Simple**
  - **Standardised**
  - **Browser-Aware**

Policy Commons

SN	Policy Terms	Policy Type	Constraints
FaceBook	See (eg view Photos)	Permission	Only Me; Everyone; Only Friends; Some Friends; Friends of Friends; All my Networks; Some of my Networks
FaceBook	Profile Sections (eg Basic, Personal, Wall posts, etc); Contact Information Sections (eg Phone, Address, etc); Search Discovery	Privacy	Everyone; My Networks and Friends; Friends of Friends; Only Friends; Customise
FaceBook	Search Results (eg what is shown in results)	Privacy	My Profile Picture; My Friend List; A link to add me as Friend; A link to send me a message; Pages I am a Fan of
FaceBook	Recent Activity (what gets shown to friends)	Privacy	Wall Posts; Comment/Like a Note; Comment/Like a Photo or Album; Comment/Like a Video; Comment/Like a Link; Changed Relationship Status; Remove Profile Info; Post on a Discussion Board; Add a Friend; Chats

	Policy Terms	Policy Type	Constraints
Flickr	See Items	Permission	Only You; Anyone; Your Friends; Your Family
Flickr	Comment; Add Notes/Tags	Permission	Only You; Your Friends and/or Family; Your Contacts; Any Flickr User
Twitter	Follow Updates	Privacy	Only People you approve; Any Twitter User
LinkedIn	Profile Photo visibility; Status Update visibility	Privacy	Everyone; My Network; My Connections
LinkedIn	Profile Sections (eg Current Positions, Past Positions)	Privacy	Public; Private
LinkedIn	Profile Views (other people's)	Privacy	Name Only; Anonymous Information; None
LinkedIn	Notify Status Updates; Notify Profile Updates	Privacy	Yes; No
Plaxo	Profile Information (About, Work, Home, Jobs, Edu)	Privacy	Everyone; All Connections; Business Connections; Family & Friends; Only Me; Customize

ODRL Core

ODRL Core

- **ODRL Version 3.0** then builds on "W3C WPL 1.0" and adds all the extensions for a full Policy Language

- The ODRL Core Metadata can be used as (one of the) many vocabularies

- People-focussed constraints and duties

  - Only the content owner (ie no one else)
  - Specific (named) friends and colleagues (both allowed and not allowed)
  - Family members
  - All direct friends or colleagues
  - Your second level friends or colleagues (ie friends of friends)
  - All Groups (that the content owner is a member of) or some Groups
  - Everyone (ie public)

http://spin.nicta.org.au