SIOC in Action
Representing the Dynamics of Online Communities

Pierre-Antoine Champin       Alexandre Passant
LIRIS, Lyon                   DERI, NUI Galway

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What It Is All About
SIOC-actions Vocabulary
Applications and perspectives

Structure of the Talk

- What it is all about
- SIOC-actions vocabulary
- Applications and perspectives
The goal of the semantic web / linked data movement is to make the content of the web more usable by machines. But the web evolves continuously.
focus on published inter-linked documents (static and dynamic)
  - institutional and personal homepages
  - online databases
  - e-commerce

HTML → RDF
The Rise of the Blogs

- focus on User Generated Contents (blogs, wikis...)
  - aggregators
  - mashups
- RSS, Atom → FOAF, SIOC...
The Social Web

- focus on social interactions, awareness (status, walls, micro-blogging)
  - more aggregators, more mashups
  - ubiquitous (mobile, contextual) applications
  - “social games”

- activitystrea.ms, Twitter annotations, Apple Ping
  → SMOB, Opengraph, SIOC-actions...
Example activity feed

**Peter T.** in Newcastle Upon Tyne:
Wrote a tip @ **Pizza Express**: Two for one mains with free starter for Orange Wednesday. Then over to the Odeon for 241 on film.

**Aznarr B.** in Kuala Lumpur, Malaysia:
Unlocked the 'Photogenic' badge.

**Jon N.** in Singapore:
Became the mayor of **Fundamo Asia Office**.

**ginp p.** in City of San Fernando, Central Luzon:
Wrote a tip @ **Spa in the city**: Try spa in the city home service 9617606

**Teguh Mukti S.** in Malang, Jawa Timur:
Became the mayor of **Omahku tercinta**.

source: [http://foursquare.com/](http://foursquare.com/)
source: http://rdfs.org/sioc/spec/
The Event Ontology

source: http://motools.sourceforge.net/event/event.html
An action is an **event** in which a **user** of an online service acts upon one or several **objects** of that service.

<table>
<thead>
<tr>
<th>RDF term(s)</th>
<th>constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>subclass of event:Event</td>
</tr>
<tr>
<td>who</td>
<td>sioc:has_creator event:agent</td>
</tr>
<tr>
<td>when</td>
<td>dc:created event:time</td>
</tr>
<tr>
<td>what</td>
<td>sioca:object</td>
</tr>
</tbody>
</table>
Agent and Time: Syntactic Discrepancies
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Online translator

http://champin.net/wsgi/siocat/
Unified queries

- a Wikipage
  - a1
    - 2010-08-31
    - PA Champin
  - a2
    - 2010-08-26
    - A Passant
  - a3
    - 2010-08-20

PA Champin, A Passant  SIOC in Action
Unified queries

PA Champin

A Passant

a SVN repo

2010-08-28

2010-08-13
Unified queries

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- PA Champin
  - a4
    - 2010-08-28

- A Passant
  - a5
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Timeline:
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- 2010-08-26
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- 2010-08-28
- 2010-08-13
The added value of linked data

- specialising the vocabulary
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- e.g. deriving subproperties of sioca:object with verbs from activitystrea.ms
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- linking actions to the LOD cloud
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- linking actions **from** the LOD cloud
  - anybody can add information about actions
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- specialising the vocabulary
  - e.g. deriving subproperties of `sioca:object` with verbs from `activitystrea.ms`

- linking actions to the LOD cloud
  - e.g. DBpedia concepts for Wikipedia pages
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- linking actions from the LOD cloud
  - anybody can add information about actions
  - e.g. “like” button for actions?
Conclusion

- actions are becoming first class citizens of the social web
- the web of linked data can leverage the potential of action-based applications
- we propose a vocabulary and a translation service to achieve that
  - http://rdfs.org/sioc/actions
  - http://champin.net/wsgi/siocat/

Thank you for your attention – Any questions?