

Web-Instrumented Man-Machine Interactions, Communities, and Semantics*

a proposal for a joint research team between INRIA Sophia Antipolis –
Méditerranée and I3S (CNRS and University Nice Sophia Antipolis).

(*) “wimmics” comes from “wimi”, a variety of roses.





members

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- Isabelle Mirbel, MdC, HDR (UNS)
- Peter Sander, Pr. (UNS)
- Andrea G. B. Tettamanzi, Pr. (UNS)
- Serena Villata, RP (INRIA)

Post-doc:

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- Elena Cabrio (CORDIS)

Research engineers:

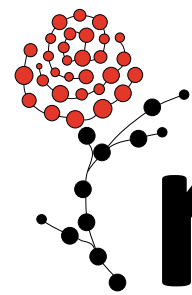
- Julien Cojan (INRIA, Ministry of Culture)
- Christophe Desclaux (Boost your code)
- Amosse Edouard (I3S)

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5. Khalil Riad Bouzidi, 3rd year (UNS-CSTB)
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7. Papa Fary Diallo, 1st year (AUF-UGB-INRIA)
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9. Maxime Lefrançois, 2nd year (EDSTIC-INRIA)
10. Nguyen Thi Hoa Hue, 1st year (Vietnam-CROUS)
11. Nicolas Marie, 2nd year (Bell-ALU, INRIA)
12. Rakebul Hasan, 1st year (INRIA ANR-Kolflow)
13. Oumy Seye, 2nd year, (INRIA Rose Dieng allocation)
14. Imen Tayari, 3rd year (UNS-Sfax Tunisie)

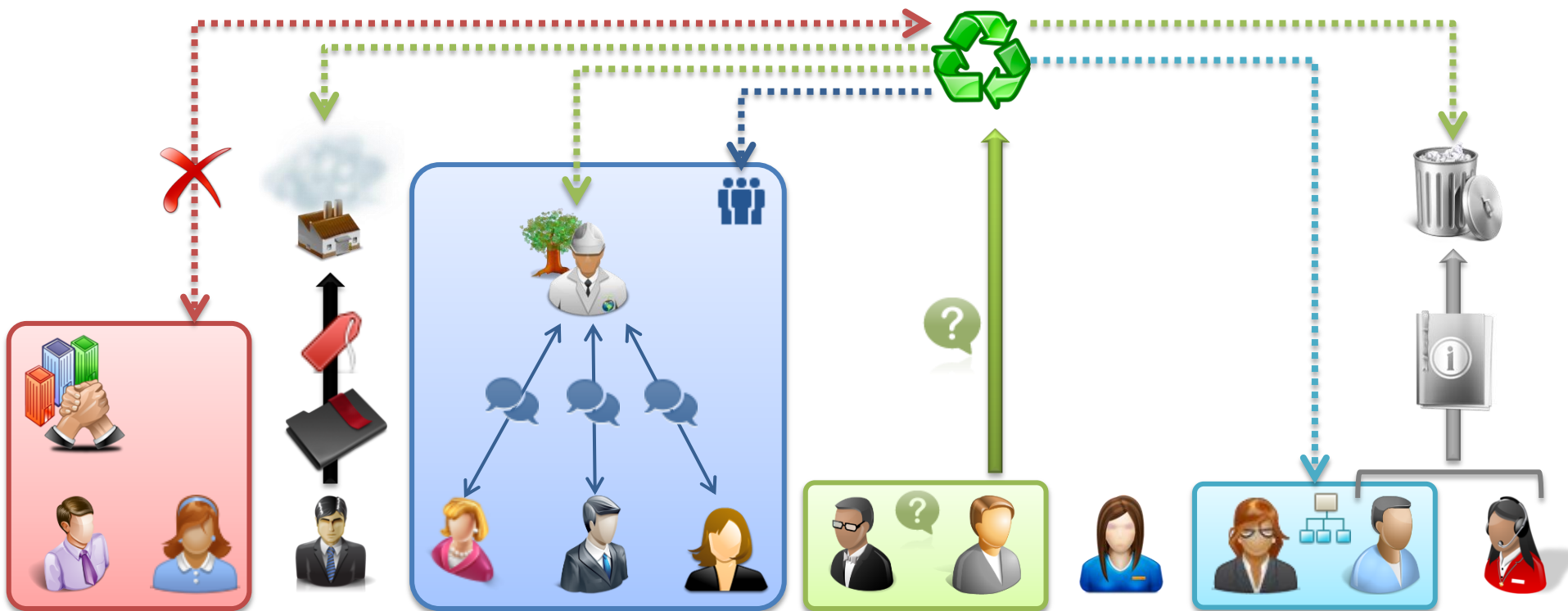
Assistants:

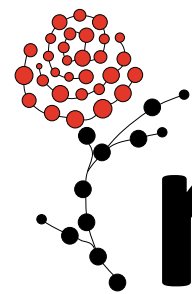
- Christine Foggia (INRIA)
- Sarah Choulet (I3S)



research problem

socio-semantic networks: combining formal semantics and social semantics on the web

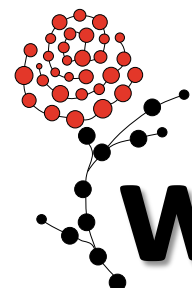




research fields

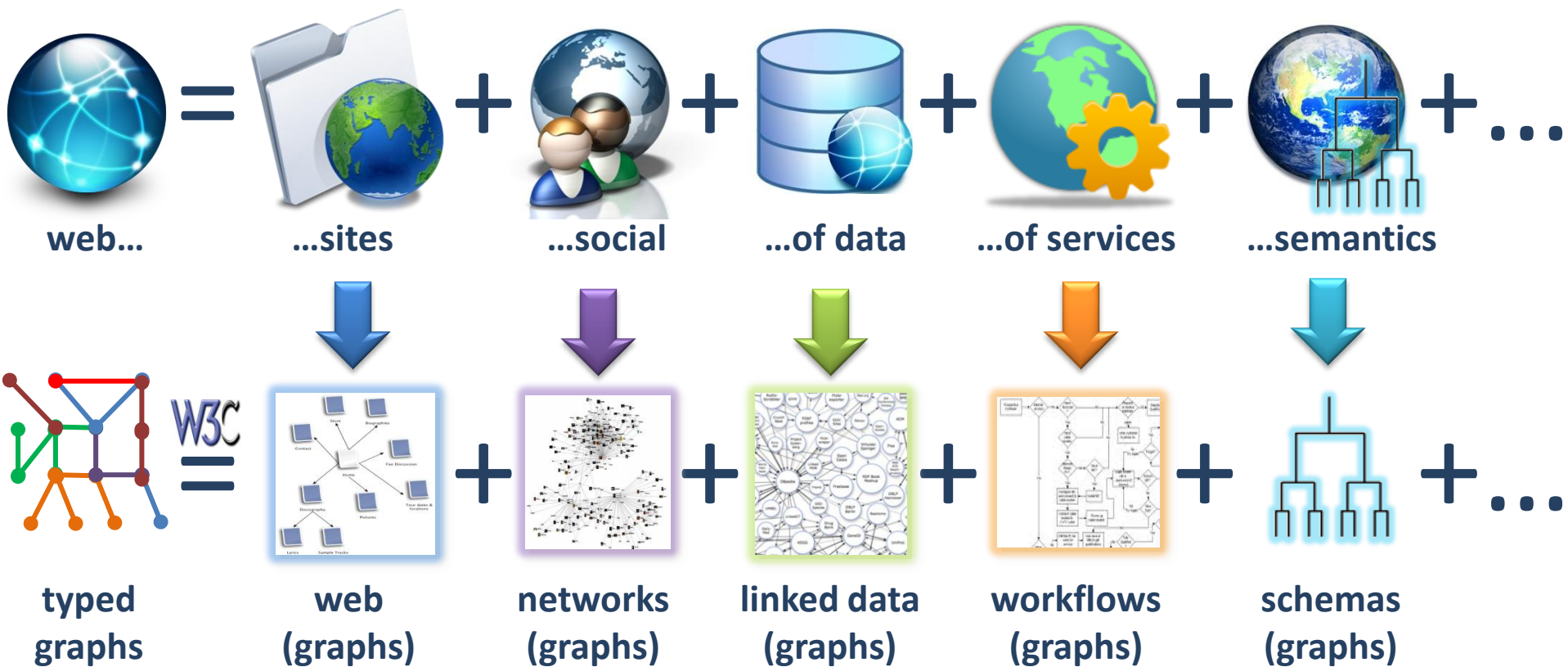
socio-semantic networks: combining formal semantics and social semantics on the web

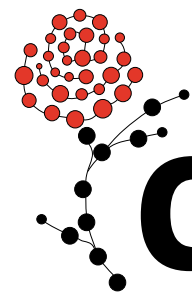
- web-supported epistemic communities
- model and support actors, actions & interactions
- graph-based representation & reasoning



web landscape and graphs

(meta)data of the relations and the resources of the web

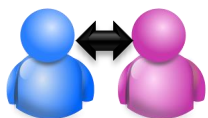




challenges

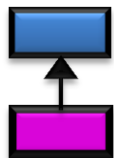
analyzing, modeling, formalizing and implementing graph-based social semantic web applications for communities

① multidisciplinary approach for analyzing and modeling

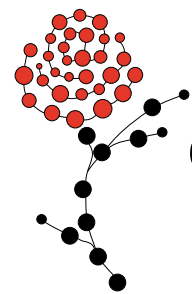


- the many aspects of intertwined information systems
- communities of users and their interactions

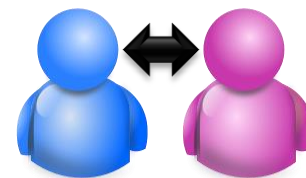
② formalizing and reasoning on these models



- new analysis tools and indicators
- new functionalities and better management

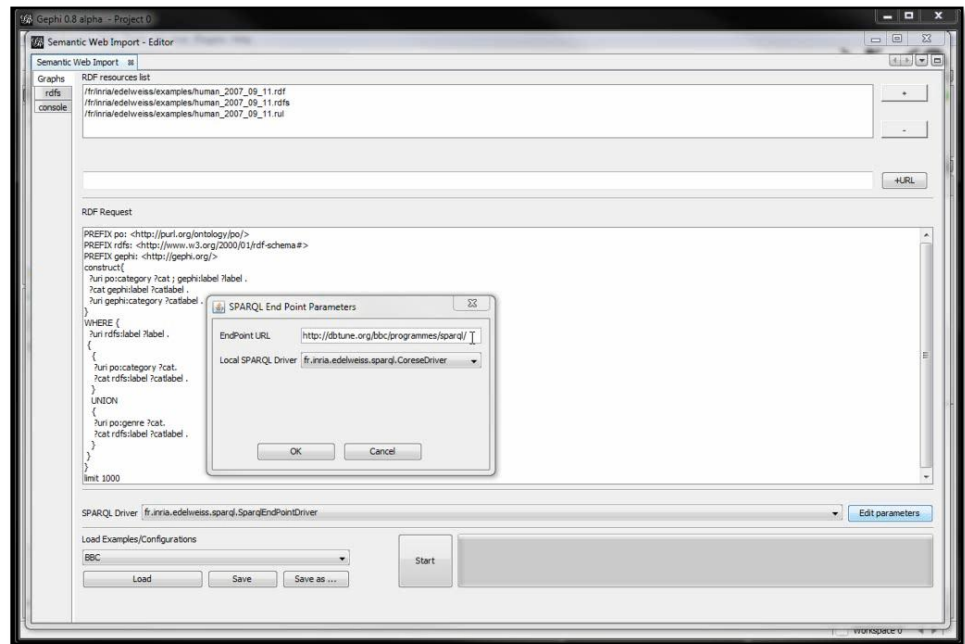
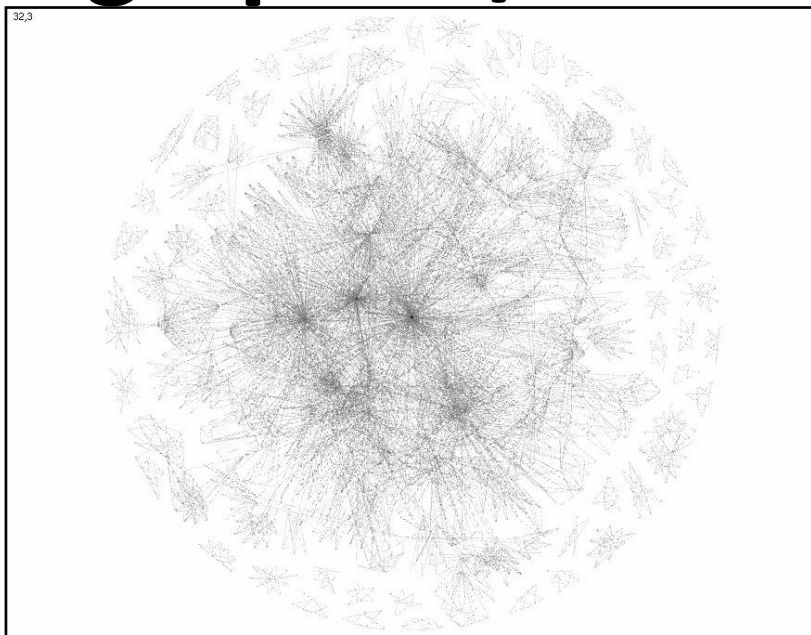


interactions



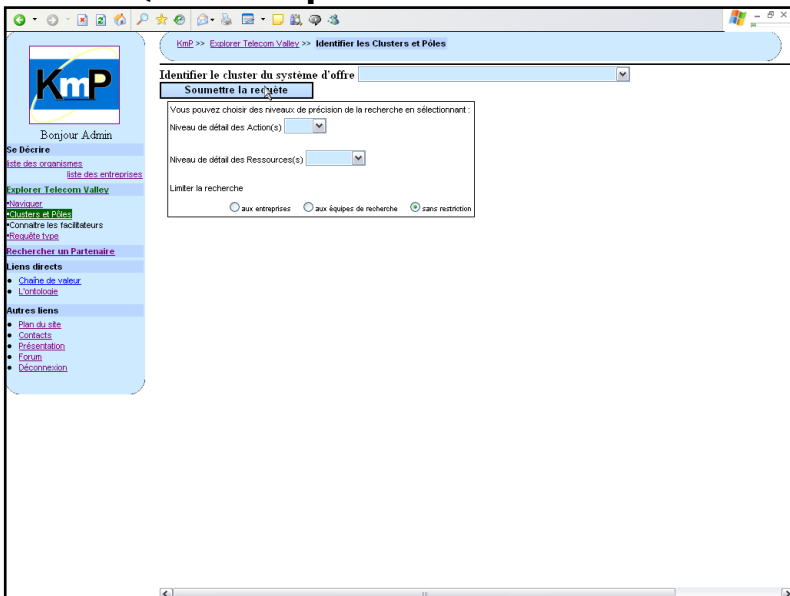
- analyzing & modeling communities and interactions through social semantic web app.
- interacting with dynamic semantic web app.
- improve interactions with systems getting more and more complex?
methods: requirement models, persona, emotions, spec. schemas
- reconcile formal stable semantics & negotiable social semantics?
methods: collective persona, participatory, mixed models
- reconcile local contexts and global world-wide virtual machine?
methods: ontologies, rules, parameterize, named graphs, empirical

graph of/in interaction



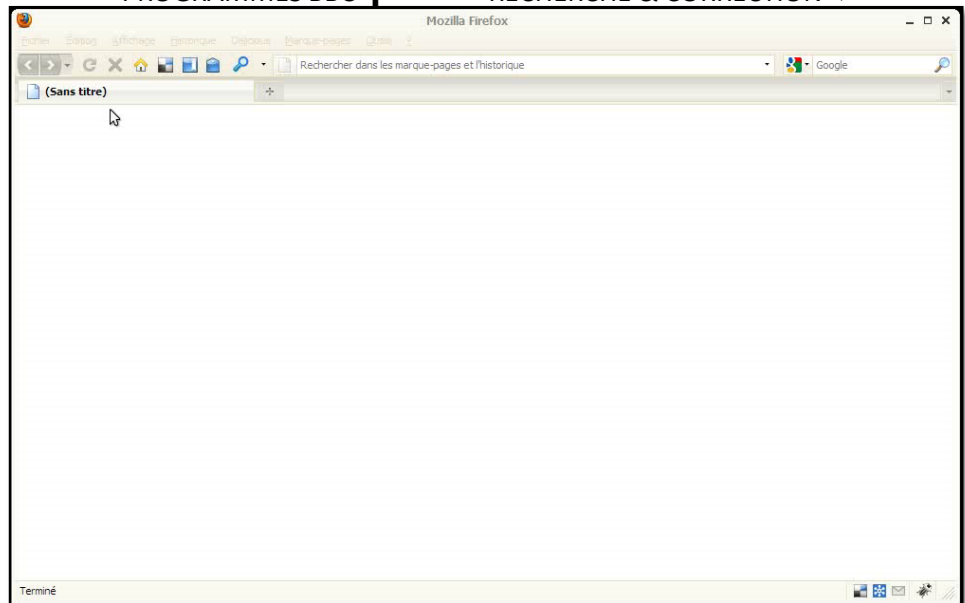
THÉMATIQUES ADEME ↑

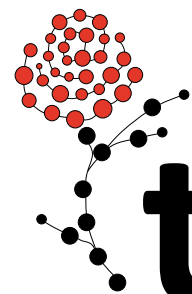
TELECOM VALLEY SOPHIA ↓



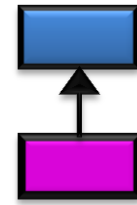
PROGRAMMES BBC ↑

RECHERCHE & CORRECTION ↓





typed graphs



- formalizing models and implementing social semantic web applications
- calculating on heterogeneous typed graphs of the web
- what kind of formalism is the best suited for such models?
method: abstract language, semantic network, typed graphs
- analyze typed graph structures and their interactions?
method: abstract machine, parameterized operators, non-logic
- support different graph life-cycles, calculations & characteristics?
method: standards, workflows, mixed operators, time, explain



CORESE/ KGRAM

Corese/KGRAM GUI - v2.4.2.6 - 2010-11-11

File Edit Engine Debug ?

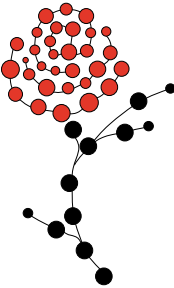
System +

Loaded files: Debug Reload

Logs:

```
reset...
RDFS/Rules : 0.00 s
Load Triples : 488
Load Relations : 423
Load Concepts : 135

done.
```

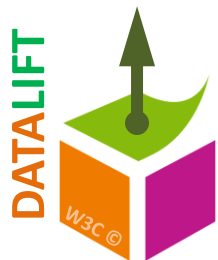


projects



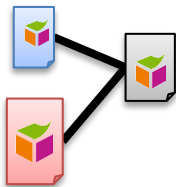
isicil.inria.fr (ANR)

- enterprise social networking
- business intelligence, watching, monitoring
- communities of interest, of practice, of experts



datalift.org (ANR)

- from raw public data to interlinked data and schemas
- a platform and documentation to assist the process
- validation on real datasets



kolflow.univ-nantes.fr (ANR)

- reduce the overhead of communities building knowledge
- federated semantic: distributed blackboard for man-machine coop.



dbpedia.fr (Ministry of Culture)

- extract and publish data and facts from French version of wikipedia

● ● ● Labex UCN@SOPHIA

The logo for 'diffusion' features a stylized molecular structure with red spheres and black lines on the left, followed by the word 'diffusion' in a large, bold, black sans-serif font.

diffusion



Master IFI: from KIS to Web

- gradual changes to the courses
- then replace the master by a new one

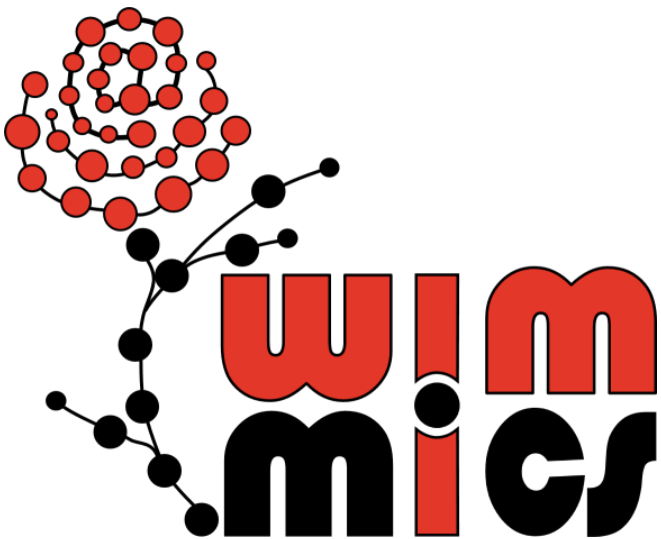


Standardization participation

- Working groups: RDF 1.1, SPARQL 1.1
- INRIA Advisory Committee Representative



Open-source and CeCILL-C free software



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