**From a community of practice to
an international association:
the specific role of the IAOA
and its accomplishments so far**

Ontolog Presentation
26th May 2011

http://ontolog.cim3.net/cgi-bin/wiki.pl?ConferenceCall_2011_05_26

Overview

Panel Discussion: Value of IAOA Membership

1. What is IAOA? (Nicola Guarino)
2. What has IAOA accomplished so far? (John Bateman)
3. IAOA Membership, 2010-2011 (Laure Vieu)
4. FOIS 2010 and FOIS 2012 (Michael Gruninger)
5. Ontology Summit 2011: Making the Case for Ontology, April, 2011 (Leo Obrst)
6. IAOA Summer Institute 2011, July 2011 (Werner Kuhn)
7. New Committees, Special Interest Groups (Giancarlo Guizzardi)
8. Future IAOA Activities and Issues, IAOA Advisory Board

Open discussion:
expectations and answers - Why should I join IAOA?

Mission statement

"The Association is a non-profit organization the purpose of which is to promote interdisciplinary research and international collaboration at the ***intersection of philosophical ontology, linguistics, logic, cognitive science, and computer science***, as well as in the applications of ontological analysis to ***conceptual modeling, knowledge engineering, knowledge management, information-systems development, library and information science, scientific research, and semantic technologies*** in general."

www.iaoa.org

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IAOA is addressed to:

- **Computer scientists and IT professionals** aware of the desperate need of a sound interdisciplinary approach for building future generation socio-technical systems;

- **Cognitive scientists, linguists and terminologists** aware of the subtle interplays among ontology, language, and cognition;

- **Philosophers** who have an interest in applying their analytical tools to technology advancement.

IAOA:
a unique combination of key aspects

- Interdisciplinarity

- Cooperation between academy, industry, and communities of practice (with an eye on education)

- Scientific authoritativeness

- Openness

- Legal status

- Transparent governance

The challenges of *interdisciplinarity, language and cultural diversity, openess, and interoperability*

Working at (and in…) the *interfaces* among different
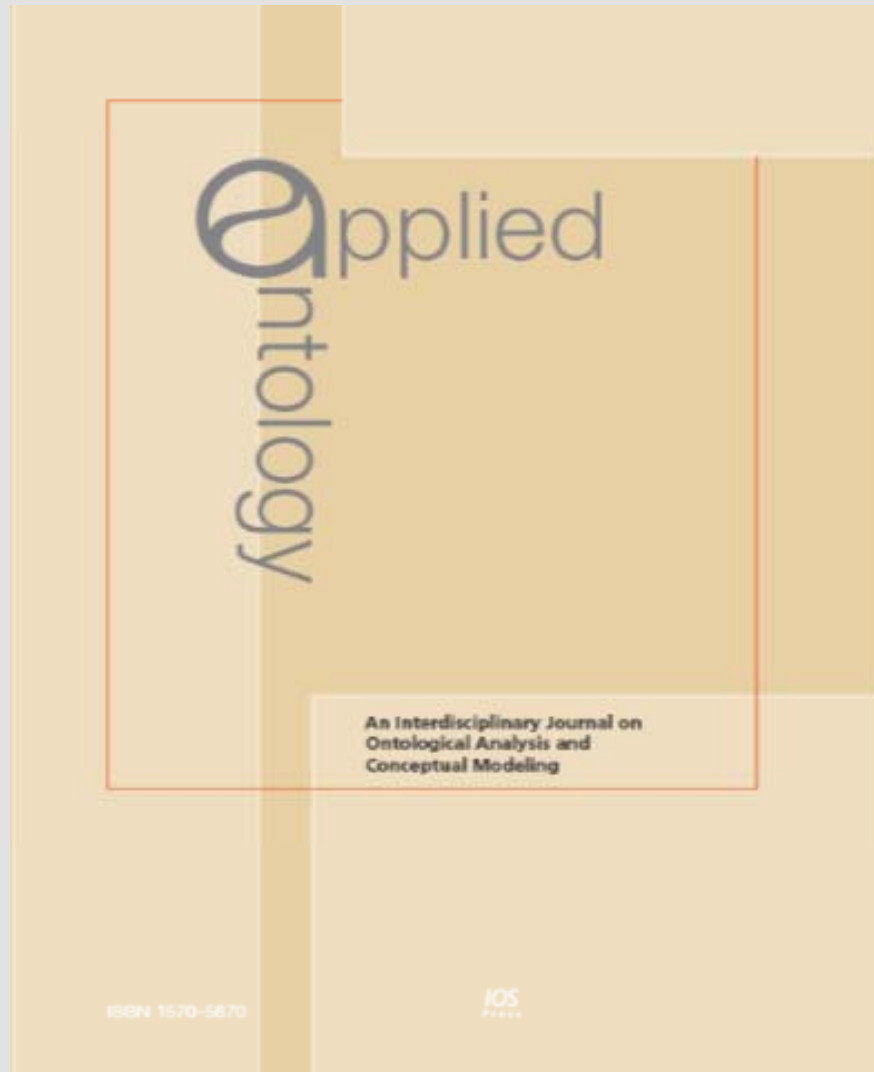> Disciplines
> Cultures
> Languages
> Socio-technical systems

…is **HARD**!

- Anyway, these are the main challenges of modern, global, networked society

- Ontologies are certainly intended to address such challenges, and ultimately can contribute to *mutual understanding, social awareness* and *collaborative participation* to the huge socio-technical system which is modern society

Applied Ontology
Interdisciplinary Journal on Ontological Analysis and Conceptual Modelling
now indexed by all major citation services

Editors in chief:
Nicola Guarino
ISTC-CNR
Mark Musen
Stanford University

IOS Press
Amsterdam, Berlin, Washington, Tokyo, Beijing

www.applied-ontology.org

What has IAOA accomplished so far?

The principal activities of the IAOA until now have been to **establish structures and mechanisms** for supporting its members so as better to be able to take Formal Ontology and its Applications further.

Areas involved:
- Special Interest Groups: definition and first instantiations
- Linking with relevant ontology-related events workshops
  - IAOA-central events: FOIS, planning for regular ontology 'summer schools' and 'institutes'
- Association Committees: for activities across areas
- Website, mailing lists and wiki for circulating information among members
- Establishing communication channels with standardisation bodies to ease member access and combined participation
- Various benefits for members...

Structures in place

- **Special Interest Groups:**
  - "The function of a SIG is to pursue significant long-term activity in a technical area within the broad field of the Association."
    (The IAOA bylaws [in preparation])
  - The association is actively encouraging self-organising groups to form, so as to bundle and focus ontology-based work in specific areas.
  - Activities of SIGs may include:
    - scientific meetings, conferences, etc.
    - journal special issues (e.g., in *Applied Ontology*)
    - dedicated webpages and mailing lists
    - organised exclusively for educational and scientific purposes
    - dedicated to openness and participation by the community

How to set up a SIG

1. Proposal to the Executive Committee
   o determining the area
   o identifying the principal actors (at least 10 members)
   o showing conformance to the association's charter and commitment to openness and formal ontology
2. Setting up a committee of at least two elected officers plus a liason officer for reporting back to the Association
3. Formulating a charter:
   o mission statement
   o (optionally) further specific regulations
4. Initial period of 6 months to get going
5. Annual reports back to the Association
6. Partial financial autonomy can be considered (as long as activities are part of the SIG activities and for SIG members)

Structures in place

- **Regional Chapters**
  - for specific geographical areas
  - conditions similar to those for SIGs

- **Committees**
  - similar to SIGs in structure and aims, but explicitly aimed *across* research areas
  - established by the Executive Council
  - may involve direct input from SIGs
  - examples:
    - education
    - outreach
    - standardisation

More details in the Association Bylaws

Active Standing Committees

- Publicity, Image and Visibility Committee
- International Promotion Committee
- Membership Committee
- ByLaws Committee
- Infrastructure (website, etc.)
- *Ontology registry and repository*

see: 'Ontology Community' page of the IAOA website.

Structures in place

Two kinds of support structures for events related to Ontology and its Applications have been defined:

- **IAOA events**
  - events directly (co-)organised by the Association
  - reductions in participation fees for members
  - limited support for attendance on application
  - publication agreements established by the Association (currently IOS press)

- **IAOA supported events**
  - mutual sharing of information
  - IAOA website carries information on the event and circulates information to the member list
  - IAOA provides PR material folder for distribution at the event

Structures in place

**How to become recognised as an
IAOA supported event**

- application to the Executive Committee,
  showing relevance to the aims of the Association
- an organiser should be a member of the Association or be
  championed by a member of the Executive Committee
- a report on the event should be provided back to the
  Association afterwards
- information archived on the Association website

**IAOA support indicates that the event has been evaluated
as relevant and appropriate with respect to the aims of the
Association (quality assurance)**

Structures in place

IAOA events include:

- o FOIS 2010 (Toronto), 2012 (Graz, Austria)
- o OntologySummit2011 (January 20 - April 19, 2011)
- o Formal Ontology Meets Industry - FOMI 2011 **(Delft, July 7-8, 2011)**
- o Workshop on Modular Ontologies - WoMo 2011 **(Ljubljana, August 1-12, 2011)**
- o IAOA Summer Institute **(Fiesole, July 17-23, 2011)**
- o IAOA Executive Council Elections **(***Virtual***, May 2010)**

Structures in place

- **IAOA supported events include:**
  - Ontology between Philosophy and Computer Science (**Nancy, July 19–26, 2011**)
  - International Conference on Biomedical Ontology - ICBO **(Buffalo, NY, July 26-30, 2011)**
  - OBML 2011 - Ontologies in Biomedicine and Life Sciences **(Berlin, October 6-7, 2011)**

  - Workshop "Philosophy & Engineering - Formal knowledge facing history, technology and materiality" (Chambéry, May 2011)
  - AOW 2010: The Sixth Australasian Ontology Workshop (Aidelaide,Dec 2010)
  - 3º Seminário de pesquisa em Ontologia no Brasil (Florianopolis, August 2010)

Structures in place

- **Advisory Board**
  - o invited top experts (10-20) in fields overlapping or adjacent to the concerns of the Association
  - o advising the Executive Council on strategies, initiatives, election and ballot procedures.
  - o stimulating coherence and continuity in ongoing IAOA activities
  - o Current members:
    - **Anthony Cohn (University of Leeds), Antony Galton (University of Exeter, UK), Pat Hayes (IHMC, USA), Ian Horrocks (University of Oxford, UK), Christopher Menzel (Texas A&M University, USA), Mark Musen (Stanford University, USA), John Mylopoulos (University of Toronto, Canada), Barry Smith (University at Buffalo, USA), John Sowa (VivoMind Intelligence, USA), Chris Welty (IBM Research, USA)**

- **Executive Council**
  - o day-to-day running of the Association
  - o making decisions that fall within the conditions of the Association's Mission
  - o taking more substantive decisions to the membership
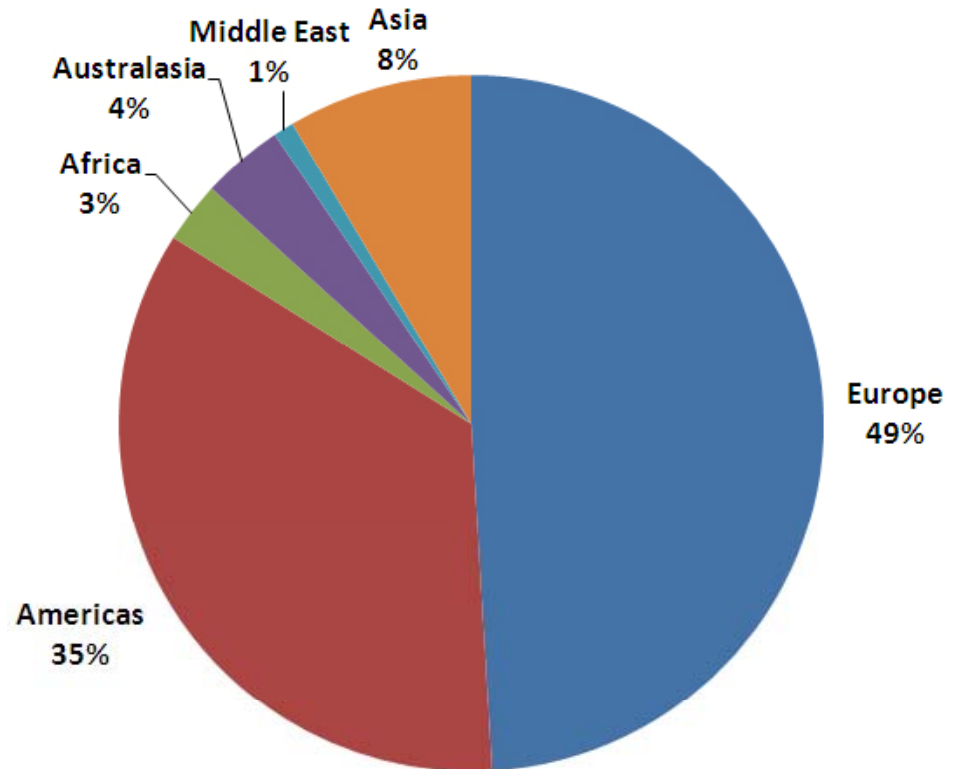
The IAOA membership as of today

106 members: 82 Regular, 10 Student, 5 Institution, 9 Honorary (Advisory Board)

From 25 countries:

52 Europe
37 Americas
9 Asia
4 Australasia
3 Africa
1 Middle East

Quite faithful:

63 renewals between 2010 and 2011,
and some are still late!

Pie chart:
Europe 49%
Americas 35%
Asia 8%
Australasia 4%
Africa 3%
Middle East 1%

New for 2011: improved fee scheme

- varied fees according to country's economic development (UN and WB's classification)
- reductions for members affiliated to an institutional member.

Benefits attached to membership

- Free on-line access to:

  - all *Journal of Applied Ontology* issues
  - now included in the Science Citation Index!
  - FOIS proceedings
  - FOMI and WOMO proceedings, and possibly others in the future

- Participating to and getting reductions on IAOA events

- Promoting IAOA supported events

- Being part of the community:

  - Member's mailing list

  - Member's on-line news bulletin (to come)

- Participating in Committees and SIGs

International Conference on Formal Ontology in Information Systems

FOIS explores the multiple perspectives on the notion of ontology that have arisen from such diverse research communities as philosophy, logic, computer science, cognitive science, linguistics, and various scientific domains.

FOIS is intended to be an interdisciplinary forum in which to explore the interplay between the theoretical insights of formal ontology and their application to information systems and emerging semantic technologies.

International Conference on Formal Ontology in Information Systems

FOIS 2010 (Toronto, Ontario, Canada)
- Keynote Speakers:
  Francis Jeffrey Pelletier, John Bateman, Alan Rector
- Workshop on Ontology and Education
- Workshop on Modular Ontologies (WoMo)

FOIS 2012 (Graz, Austria)
- colocated with ICBO (International Conference on Biomedical Ontologies, July 21-24)

FOIS: 24-27 July 2012

Ontology Summer Institute 2011 - co-organized by IAOA and Vespucci.org

- Vespucci Summer Institutes are intense research and learning retreats, facilitated by "experts" on a topic
- July 17-23, 2011: Process Ontology
  - facilitators: Antony Galton, Michael Gruninger, David Mark, Werner Kuhn
  - in Fiesole (Italy): http://vespucci.org/site
- in depth discussions of questions like
  - what things go under the name of "process"?
  - how do existing process ontologies relate to each other?
  - how to specify states, processes and events in terms of simpler ones?
  - how to design domain-specific process ontologies from foundational ontologies?
- application and selection process for 2011 is closed:
  - 35 + 4 participants
  - from PhD students to full professors to industry managers
  - from 20 countries
- "slow food for thinking" - you have to be there!

Ontology Summit 2011 - co-organized by IAOA

- 3 Month Virtual Ontology Summit activities: mailing list discussions, panel sessions, surveys, research studies, ...

- 2 Day Symposium, April 2011, NIST: face-to-face, panel

- Communique: http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2011_Communique
  - How Do You Make the Case for Ontologies?
  - Use Cases
  - Ontology Usage Framework
  - Value Spectrum for Ontologies
  - Grand Challenges?
  - Strategies for Making the Case

- **Next Ontology Summit 2012: Suggest a Topic!**

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Ontology Summit 2011 - statistics

- Co-organizers: 6
- Organizing committee Members: 20
- Advisory Committee Members: 114
- Co-sponsors: 64
- [ontology-summit] list subscribers: 406
- Communique co-editors: 16

- Virtual organizing sessions: 11
- Electronic Messages exchanged: 1220
- Virtual community sessions: 15
- Two-day Symposium registrants: 95
- Presentations made: 93
- Communique endorsements: 94

Special Interest Groups (SIGs)

- SIGs are meant to constitute the scientific backbone of the association
- We have now the emergence of the first IAOA SIGs
  - The first to be enacted in the *IAOA SIG on Ontologies and Conceptual Modeling.*
  - The first activity of this SIG is the workshop on Ontologies and Conceptual Modeling (Onto.Com) at the 30th International Conference on Conceptual Modeling (ER 2011) - http://www.inf.ufes.br/~gguizzardi/ontocom-2011/
- Other SIGs now in the process of being launched include the areas of:
  - Biomedicine
  - Geospatial
  - Architecture & Design

IAOA International Outreach Committee

- General Objective is to promote ontology research and education worldwide, in particular, by fostering region-specific scientific communities in the area
- Specific Activities include:
  - Support to Region-Specific Community Building Events (possibly in local language)
  - Support to the creation of Region-Specific Literature addressing Region-Specific Challenges (possibly in local language)
  - Fostering region-specific communities of practices
- Activities now being pursued in Asia and Latin-America

IAOA Education Committee

- Proposed scope of the committee:
  - Address aspects of education for ontology engineering, applied ontology, and related disciplines and practices
  - Address accreditation and certification issues related to ontology education and practice
  - Address events and programs such as ontology summer schools, PhD consortia/Doctoral Colloquia/Student Exchanges, etc.
  - Provide resources for an IAOA ontology education portal
  - Investigate authoring/editing a text book/handbook on ontology engineering, etc.
- Chairs (Antony Galton, Fabian Neuhaus) and Proposed sub-committees:
  - Accreditation and certification (Fabian Neuhaus)
  - Text book/handbook (Antony Galton)
  - Summer school (Werner Kuhn)
  - PhD consortia/doctoral colloquia/student exchanges (Robert Hoehndorf)
  - IAOA ontology education portal (??)

IAOA Standardization Coordination Committee

- A new emerging committee of the association which aims at coordinating activites related to the contribution to Ontology-Based Standards
- Thus, we welcome researchers involved in existing Ontology-Based Standardization activities to actively participate and contribute to this committee
- Important overlap with SIG activities
  - SIGs can recommend that the Association offer support to Ontology-Based Standards as long as they are aligned with the goals of the association (scientific authoritativeness, openness, among others).

Future IAOA activities and issues

With the foundations offered by the structures and initiatives already in place, the Association is ready to take its next steps towards making Formal Ontology and its applications both more well known and better accepted as a 'technology to be reckoned with'...

And for this:
the participation and active initiative of members is the key!

- **joining established SIGs or starting new ones**
- **joining in in in the activities of the Committees**
- **organising workshops, institutes, schools**
- **establishing connections with other Associations**

Discussion: where next?

what should we be doing?