

# **Lessons Learned from Virtual Organizing for the Ontology Summit 2007**

Presented by Ontolog: Steve Ray, Peter Yim, Frank Olken,  
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At the Collaborative Expedition Workshop (CEW#63) entitled:

## **Towards Stable Meaning and Records Preservation in Information-Sharing: Building the Way Forward Together**

at National Science Foundation,  
Arlington, VA

July 17, 2007

(v 0.75)

# Driving Challenge

There is great variance in the use of the term “ontology” to mean:

Thesaurus

Taxonomy

“Folksonomy”

Conceptual model

Formal logic model

Logical domain theory

XML schema

...

...making it difficult to combine, compare and contrast work done by the community

# What to do?

Bludgeon the world into using a single definition

or

Provide a means of identifying what kind of “ontology” you are talking about

# Mechanism

1. A vigorous three-month online discourse on the subject matter
2. Collaborative development of strawman structures to characterize all of these possibilities
3. A two-day face-to-face workshop and symposium (Apr. 23~24, 2007 at NIST, Gaithersberg, MD, as part of their Interoperability Week program)

# Proceedings Archived

- The virtual process were conductor on Ontolog Forum's collaborative work environment - which consisted of an archived mailing list, a wiki and a shared file (webdav) workspace
- Entire proceedings were archived, all contents accessible from a web browser (with fine grain accessibility), indexed for full text search, tagged with metadata and openly available
- Refer to the OntologySummit2007 home page at: <http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2007>

# Unprecedented Level of Involvement

(as far as Ontolog is concerned)

- **An organizing committee of 12** (from NIST, Ontolog, MITRE, NSF, NLM/NIH, W3C, NCOR, Stanford KSL & SMI, TagCommons, IBM Research and LOA-Italy)
- **50 co-sponsors** (from 9 countries, including research institutions, standards groups, university departments-from Philosophy to Computer Science, major corporations to independent consultants, and web 2.0 entities)
- **about 25% of the 360 Ontolog members were engaged in this initiative**
- **52 individuals from 34 different constituencies responded to the online survey**
- **57 people endorsed the Summit Communiqué**

# Reflections from the Panel

- Steve Ray

# Result

- An “ontology framework” was produced
  - Semantic dimensions
  - Pragmatic dimensions
- Serves as a working starting point for future discussions



# What worked well

- Many points of view were aired and recorded, efficiently
- Global participation
- High productivity – more was accomplished than could have been in a simple 2 day workshop

# What didn't work well

- The online discussion got derailed at times
  - Dominance of strong voices
- The original objective was sometimes sidelined in favor of arguing about the definition of the word “ontology”
- We lost some subscribers during the high intensity discussions due to the volume of traffic

# Lessons learned

- Starting a meeting online is an effective and time-efficient means of getting a lot of position statements recorded prior to a face-to-face meeting
- A good moderator is still very useful, even during online discussion, to maintain focus on the objective(s)

# More lessons learned

- The wiki is excellent for synthesizing results as they emerge (both online and face-to-face)
- A good “gardener” is essential for a good wiki

# Reflections from the Panel

- Peter Yim

# Outline

- What is “Ontolog”  
(a.k.a. “Ontolog Forum”)
- Ontology Summit 2007
  - Challenges & Opportunities
- Reflections

ONTOLOG (aka. Ontolog Forum) est.  
Apr.2002  
our "*dialog in ontology*"

- **Membership** - 360; from 20 different countries (as at mid Apr-2007)
- **Users** - from 115 cities globally, generating ~3000 visits and ~13,000 hits on our site per day
- **Hosted** on the CIM3 collaborative work environment infrastructure
- **Charter** - Ontolog is an open, international, virtual community of practice, whose membership will:
  - Discuss practical issues and strategies associated with the development and application of both formal and informal ontologies.
  - Identify ontological engineering approaches that might be applied to the UBL effort, as well as to the broader domain of eBusiness standardization efforts.
  - Strive to advance the field of ontological engineering and semantic technologies, and to help move them into main stream applications.
- **Activities:**
  - Weekly conference calls of active members
  - Monthly virtual Invited Speaker events
  - Scheduled Technical Discussions
  - Specific Projects: like [CCT-Rep], [Health-Ont], NHIN-RFI response, Upper Ontology Summit, Event podcast, Ontologizing the Ontolog Content, Ontology-driven Applications Inventory, Database & Ontology, Ontology Measurement & Evaluation, [ONION] ... OntologySummit2007
  - Resides on a virtual collaborative work environment which serves as a dynamic knowledge repository to the community's collective intelligence
- **We welcome your participation** – see: <http://ontolog.cim3.net/wiki/>
- **Questions?** talk to any of our 3 co-conveners - PeterYim; LeoObrst & KurtConrad

# Ontolog – an open CoP



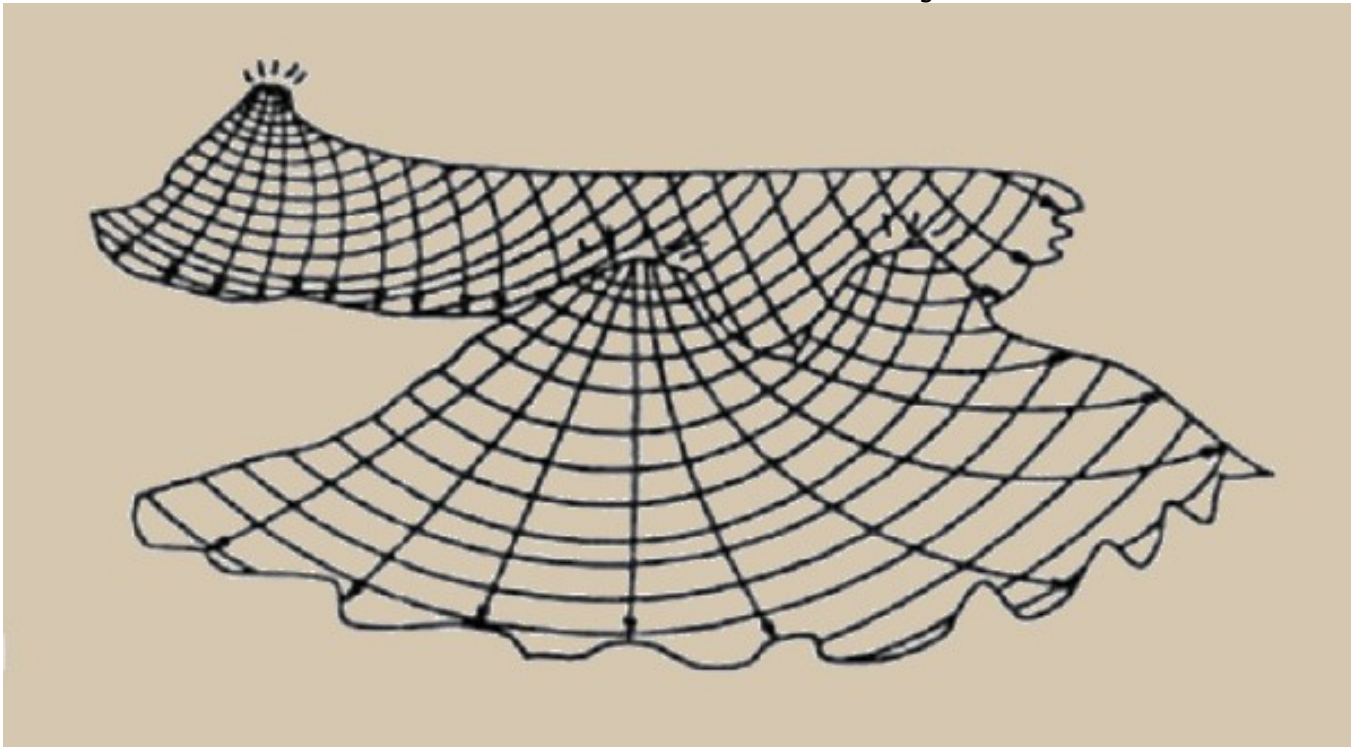
*Caption: John McCarthy having a dialog with Doug Engelbart at a tavern ... with 'the fishnet' on the wall*



# introducing: The Fishnet Organization

An Organizational Form that the CWE aims at Supporting – leading us toward  
Open Virtual Enterprises

these are temporary (or semi-permanent) hierarchies, that emerge out of the CoP's, which capitalize on distributed capabilities to achieve specific purposes; when those purposes are achieved (or when the opportunities no longer exist), they disband, and the resources (people, knowledge, skill sets) are returned to the CoP's where they come from.



**Source:** Institute for the Future: *Johansen, R., Swigart, R.* Upsizing the Individual in the Downsized Organization

# Ontolog (Visitors) Users

ClustrMaps for <http://ontolog.cim3.net>



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visits since 12 Jun 2006, updated daily

# Ontolog's key Differentiation

Activities are community driven; we are neutral, open, and we are not answerable to anyone, except for (explicitly) our charter & IPR policy, and (implicitly) our own professional integrity.

*We are adamant about collaboration, sharing and open knowledge  
... and are trying to spur organic or emergent behavior  
in the community and our project teams*

# Reflections on OntologySummit2007 <sup>(1)</sup>

- The 'Planned' Goals and Processes were often misunderstood or ignored – the myths:
  - that it was a 2-day conference
  - that the debate was on “what *is* or *isn't* an ontology”
- Probably a good 70% of all work was done within the last week (despite the fact that we started the program more than 3 months before the final face-to-face event)
- Deadlines were totally ignored

# Reflections on OntologySummit2007 (2)

- In the end ... everything worked out beautifully, in a quality that exceeded all expectations
- It only goes to show that this is a truly human process at work ... the spontaneity, the innovative, organic and emergent activities and behavior *is* what we are hoping to see happen
- (to some of us, at least) I believe we have a ***strange attractor*** here in this ***complex adaptive system*** called the world wide web

# Reflections from the Panel

- Frank Olken

# Reflections from the Panel

- Ken Baclawski

Ontology Summit 2007  
Population Framework and Survey  
Analysis

Ken Baclawski



# Objectives

- Outreach to the communities that have an interest in ontologies
- Collection of terminology related to ontologies from as many communities as possible
- Understand the different types of artifacts that fall broadly within the range of ontologies
- Ultimately help develop better methods for comparing, combining and mapping ontologies to one another.

# Mechanisms

1. Survey solicited via broadcast to Ontolog and other collegial mailing lists.
2. Respondants' input collected via a web form, with results openly available on wiki and in csv and xls format
3. Survey analysis/synthesis presented on the wiki
4. Presentation at face-to-face workshop
5. Group breakout session at workshop
6. Followup with detailed assessment criteria on the wiki

# Results

- Reached more than twice as many communities as originally anticipated
- Much larger diversity of terminology than previously realized
- The framework dimensions were revised based partly on the population analysis
  - Dimensions were added/dropped
  - Assessment criteria were tested and refined

# Unexpected Benefits

- The original focus was on assessment criteria for ontology artifacts.
- The survey also helped to understand who was participating in the summit:
  - Large number of communities
  - Large variety of domains
  - Diverse collection of ontology artifacts
- Concerns and issues of the communities were articulated prior to the summit
  - Avoided neglecting any communities
  - Helped foster an atmosphere of inclusiveness at the summit

# What worked well

- The survey was very effective at meeting its objectives
- The survey had many unexpected benefits
- The wiki enabled effective communication of complex survey analyses that would be difficult to convey over a mailing list.
- Improved productivity at the workshop

# What didn't work well

- Survey design could have improved, if given more time for community input
  - Respondents did not always understand what was being asked
  - Responses were often misplaced
- A skilled analyst is necessary to extract and organize survey data
  - Questions were necessarily open-ended
  - One must expect the unexpected

# Lessons learned

- Surveys can be complementary to online discussions and other collaborative tools
- Use of break out sessions was very helpful for improving productivity at the meeting

# Ontology Summit 2007

## Preparatory List Discussion

Doug Holmes



# List Discussion

- Dedicated [ontology-summit] list (distinct from [ontolog-forum])
- Combined Event Planning, Administration and “Content” discussions between Jan 18 - April 30
- ~ 40 “threads”; about half related to Planning/Admin and half to Content
  - about 400 messages were exchanged on the [ontology-summit] forum
  - Another ~1200 messages were exchanged on [ontolog-forum]
- Produced the survey and “influenced” the Draft Communique

# Casual Observations

- Content Discussions in the [ontology-summit] list merged, more or less seamlessly with the [ontolog-forum]
  - Discussion on the summit list sparked subsequent discussions on the forum
  - Some then re-surfaced on the summit list in a different thread
- The summit list attracted some “new” participants, but most discussion was among the “veterans”

# Personal Observations

- A surprisingly broad range interests - related to the announced topic - were revealed in the survey
- A much larger number of people were interested in [and attended] the Summit than was evidenced on the list
- Probably due to the “social dynamics” of a list, a small number of respected “voices” dominate the conversation which
  - tends to focus the conversation [good thing for event]
  - tends to restrict introduction of a broader perspective [possible bad thing if that is a goal of the event]

# Reflections from the Panel

- Denise Bedford

# Reflections from the Panel

- Susan Turnbull

**Discussion / Q & A**