ncoic

NCOIC
Semantic Wiki
Pilot

The original WIKI* idea

- "A web site where anybody can create/edit a web page"
- Structure
  - is not pre-determined
  - invented & evolved by community
  - neither top down or bottom up
- Quick collaborative writing
- Non-linear hypertext

* **Wiki** is the short form for "wiki wiki web," from the Hawaiian expression "wiki wiki" meaning fast or quick.

WIKI concepts

- **Authoring via web browser —** Also, uploading of arbitrary (multimedia) content
- **Simplified wiki syntax —** Very simple markup for authors
- **Collaborative editing** — Any page can be immediately contributed to, extended, revised, corrected assuming you have the right privileges
- **Rollback mechanism —** All changes are versioned, audited and transparent to the community
- **Strong linking —** “Concepts” in text can immediately become active resources (pages/links)
- **Search —** Typically, a full text search capability

Benefits of the wiki idea

Wiki way:

+ Distinct concepts or topics are built on the fly
+ Discourse forms around or in the context of a topic
+ Eliminates serialized document work flow
+ Team or community members can immediately see commentary in the context of a topic

Versus:

+ Each person edits a copy of the document
+ A poor soul merges the results
+ Expensive file shares
+ E-mailing bulky documents
+ “Versions” of opaque documents everywhere
+ “Organizing” documents in hierarchal file system

Semantics?
It's what we do every second.

What?

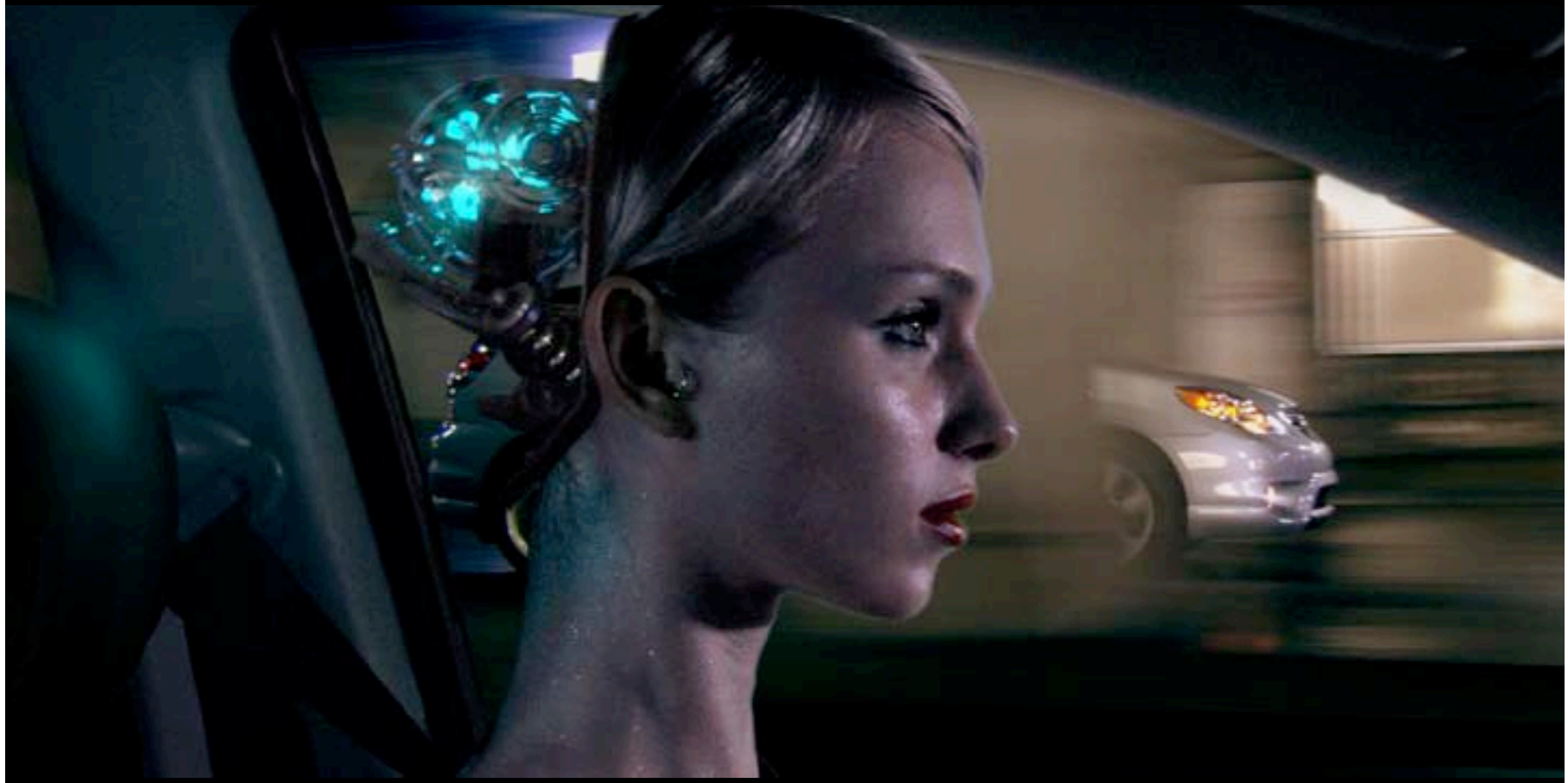
+ Convert data into something we can comprehend…
+ By developing or applying concepts…
+ Quickly relating them to instances in the world…
+ Applying and revising our world models, and…
+ Sharing our thoughts with others

How?

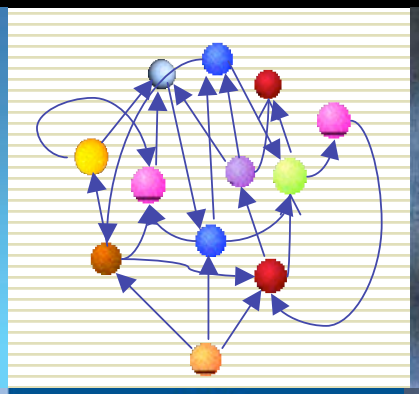
+ Identify—concept encoding
+ Generalize—organizing concepts by kind
+ Aggregate—organizing complexes into simpler concepts
+ Model Common Properties—relationships (connecting properties), & attributes (flat properties)
+ Naming Conventions— terms / phrases; language

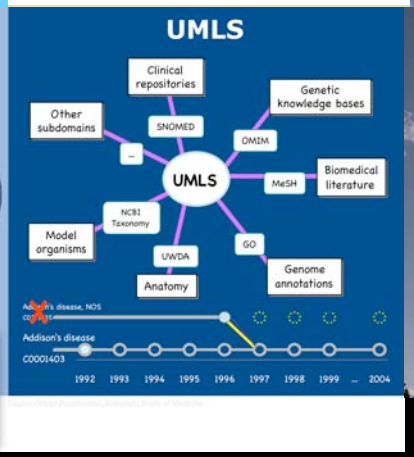
Semantic Technologies:

Represent meanings & knowledge about things so **both** computers and people can work with it



Model knowledge about infrastructure, information, behavior, & domain expertise **separately** from programs, data, & documents



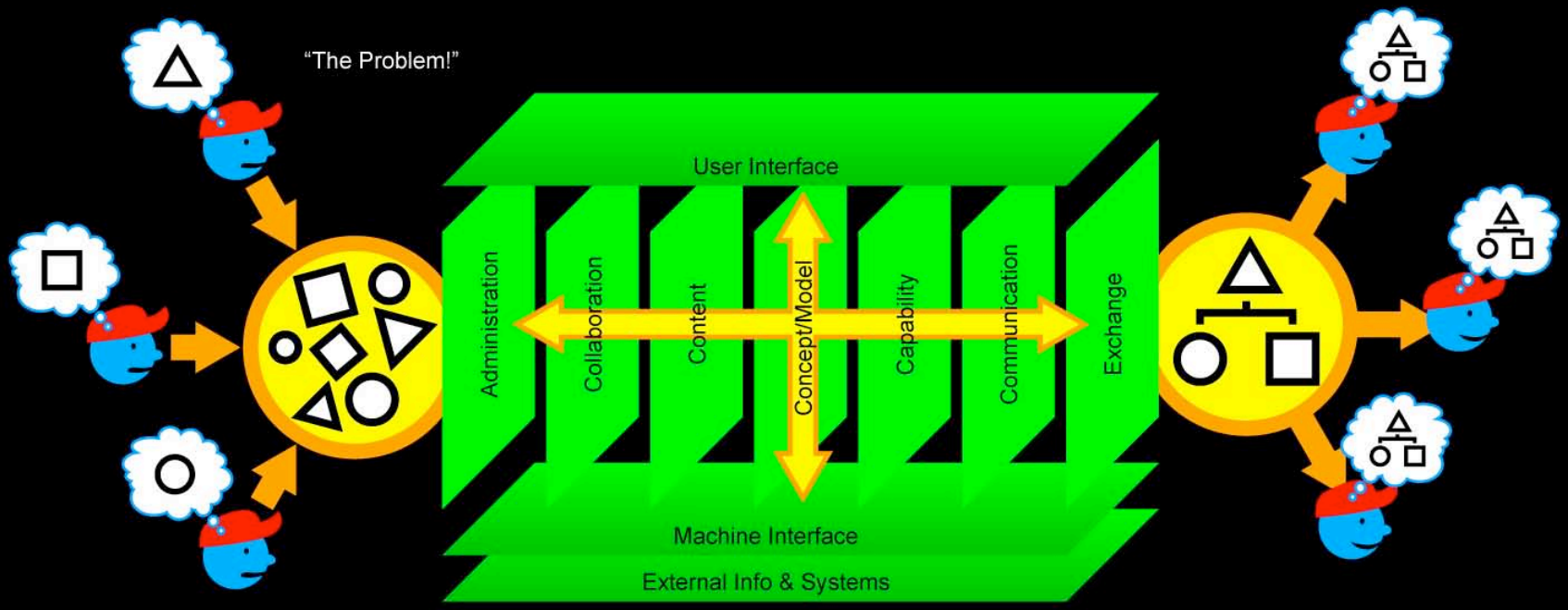


We have plenty of experience encoding our thoughts and meanings…

Natural language	Documents, speech
Visual language	Tables, graphics, charts, maps
Formal language	Models, schema, logic, mathematics, professional and scientific notations
Behavior language	Software code, declarative specifications, functions, algorithms,
Sensory language	User experience (UX), human-computer interface

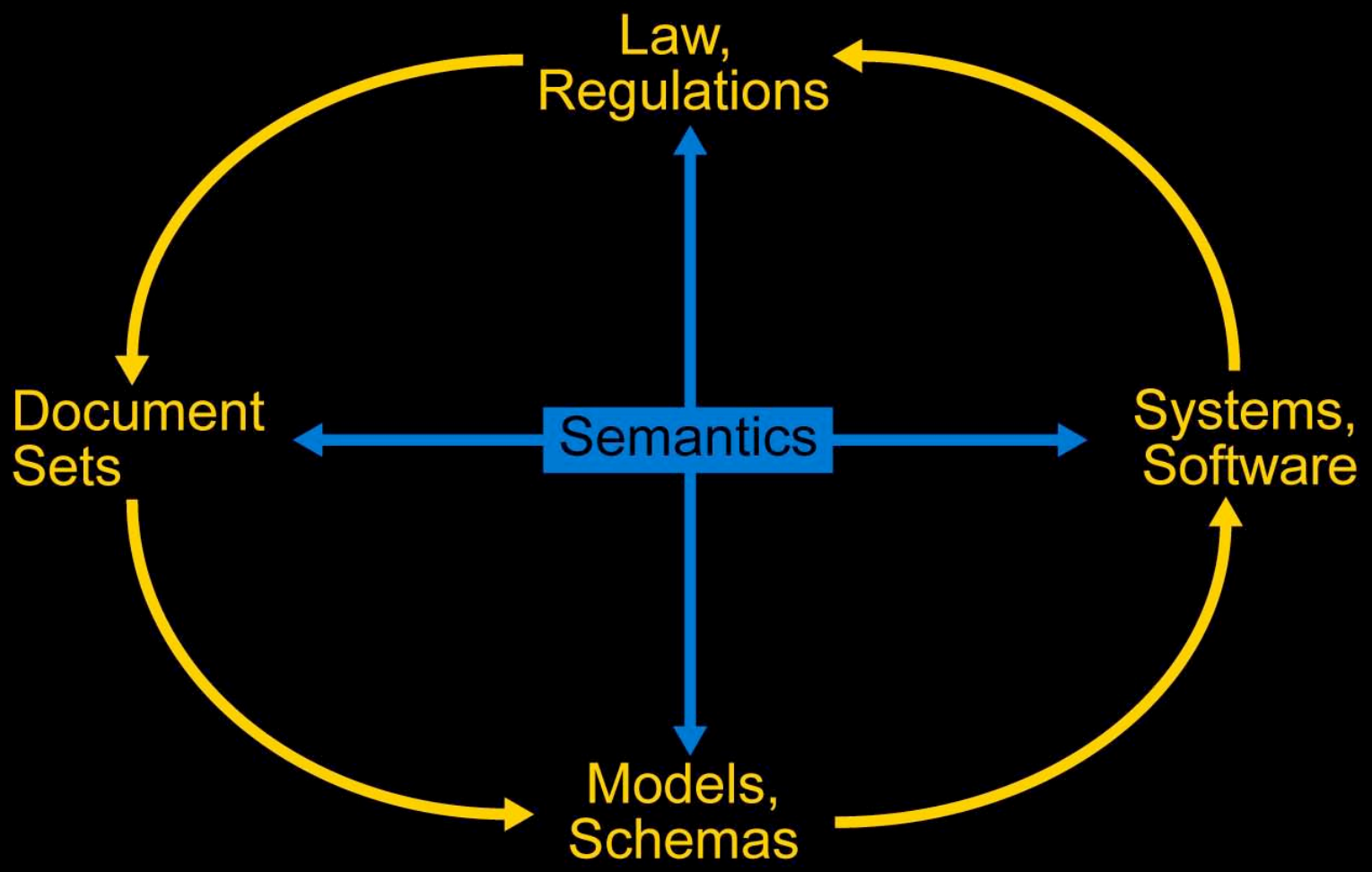
NCOIC Semantic Wiki Pilot Goal:

Manage concepts, relationships & models across NCOIC products using a semantic wiki!

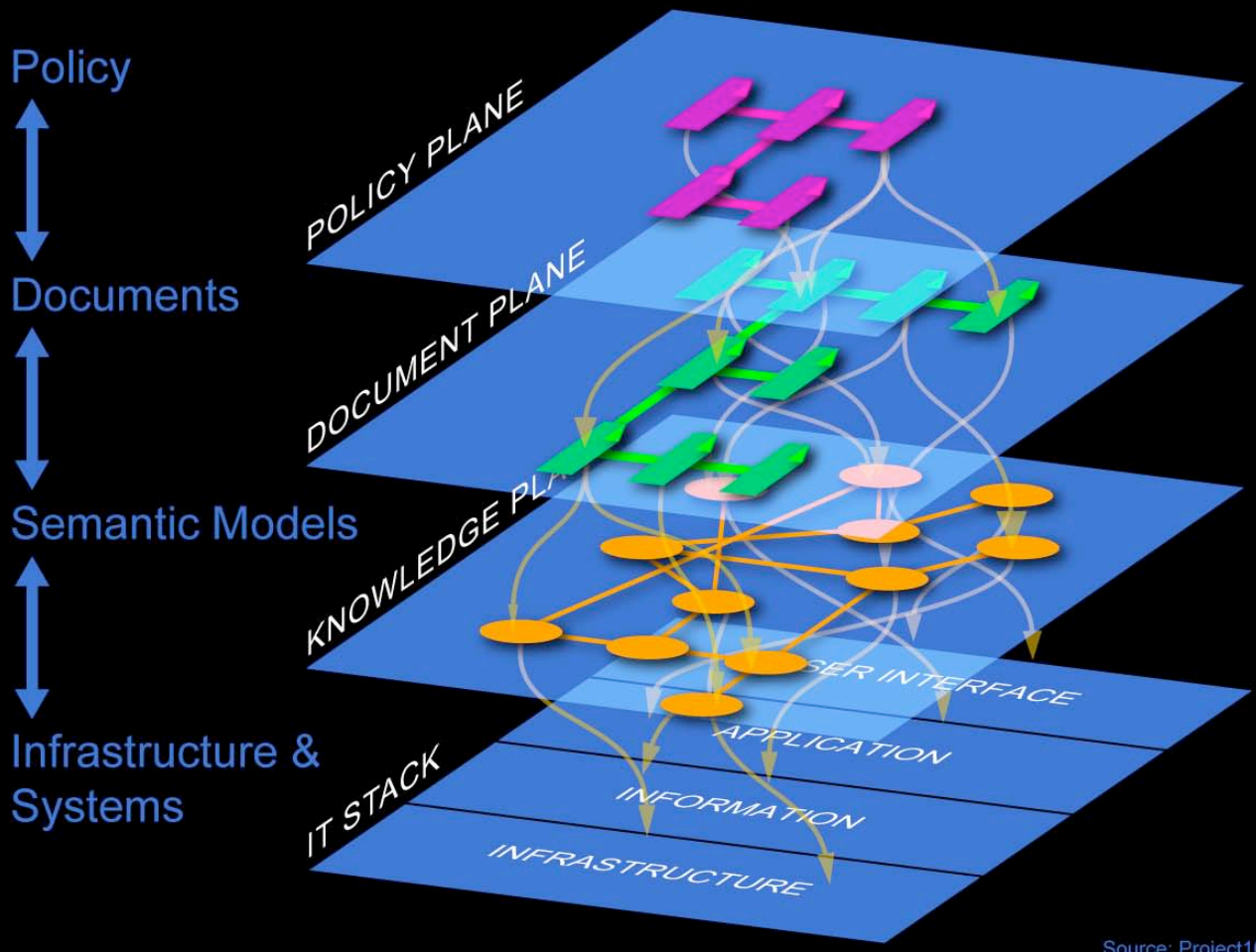


Source: Project 10X

Make knowledge interoperable…

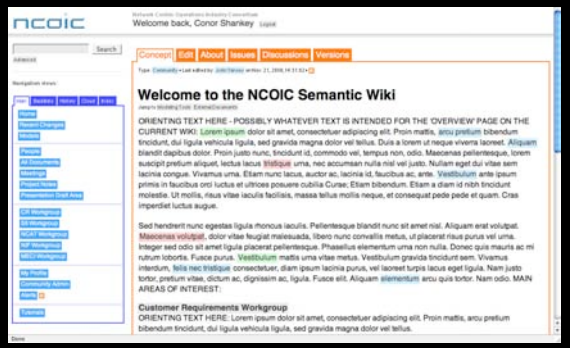


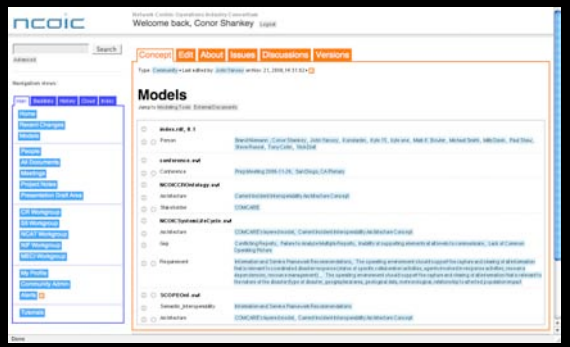
Make knowledge executable…

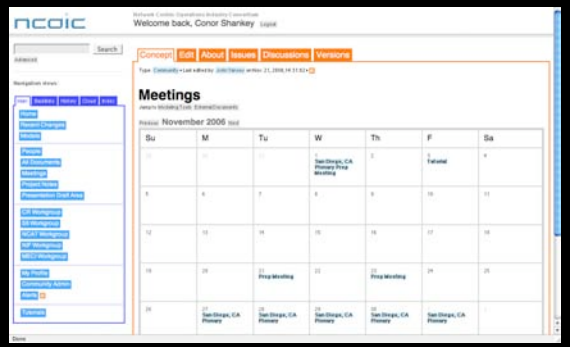


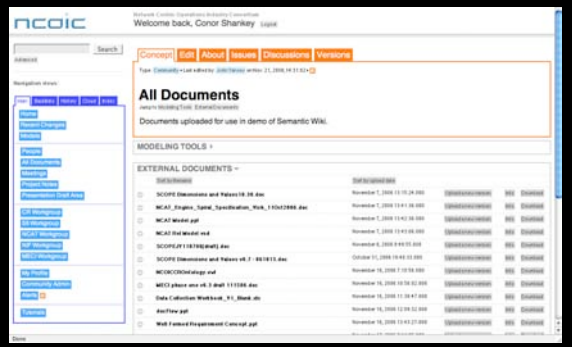
Source: Project10X

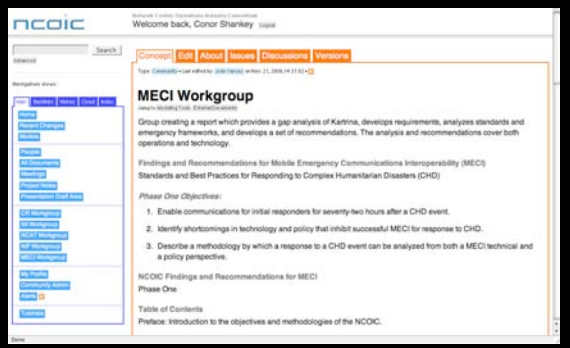
NCOIC Semantic Wiki — Sample Screens

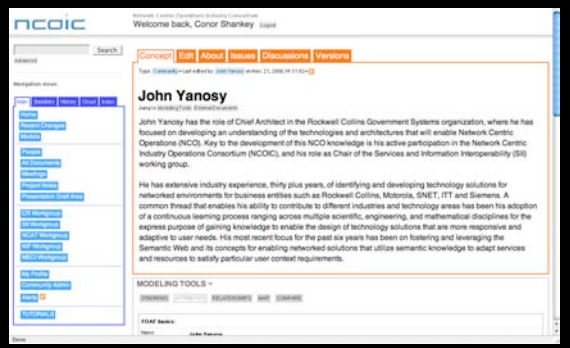












NCOIC Semantic Wiki Demo