

A background image showing the curvature of the Earth from space, with a blue horizon line separating the dark void of space from the bright, blue and white atmosphere of the planet. The text 'ncoic' is centered in the upper half of the image.

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?

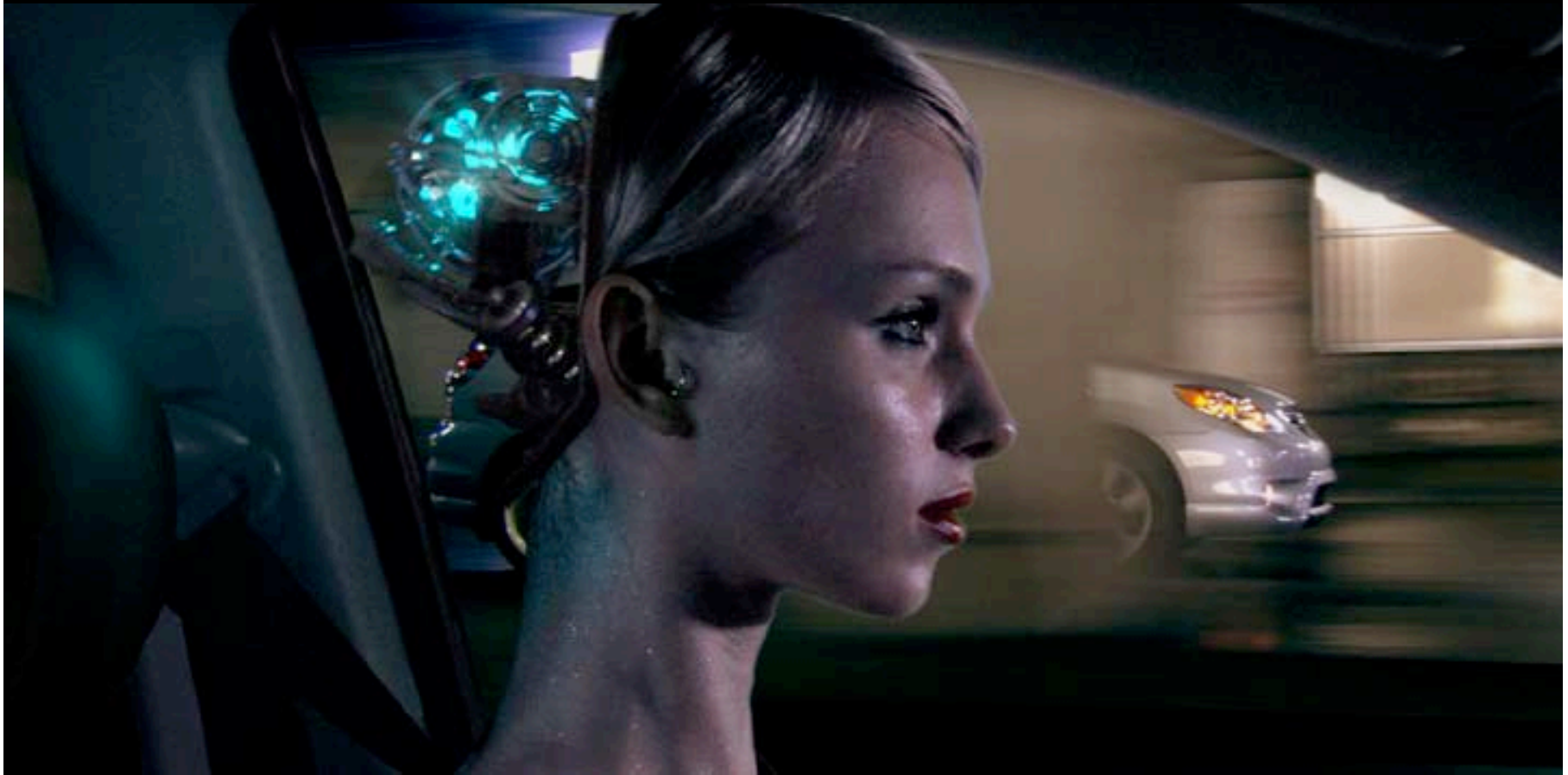
- + Convert data into something we can comprehend...
- + By developing or applying concepts...
- + Quickly relating them to instances in the world...
- + Applying and revising our world models, and...
- + Sharing our thoughts with others

How?

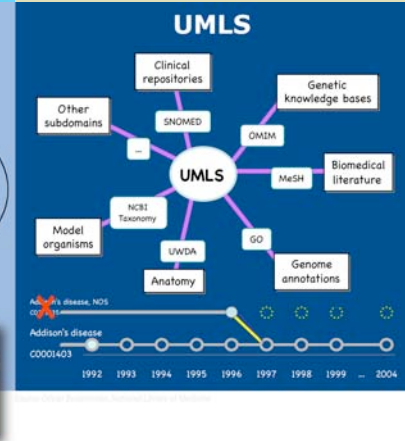
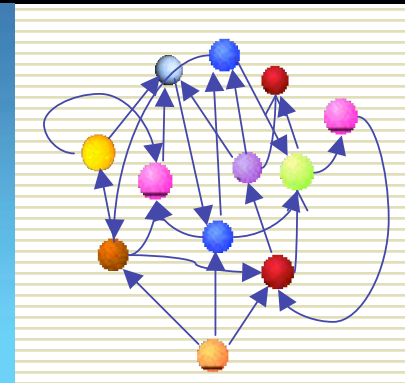
- + Identify—concept encoding
- + Generalize—organizing concepts by kind
- + Aggregate—organizing complexes into simpler concepts
- + Model Common Properties—relationships (connecting properties), & attributes (flat properties)
- + Naming Conventions— terms / phrases; language

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



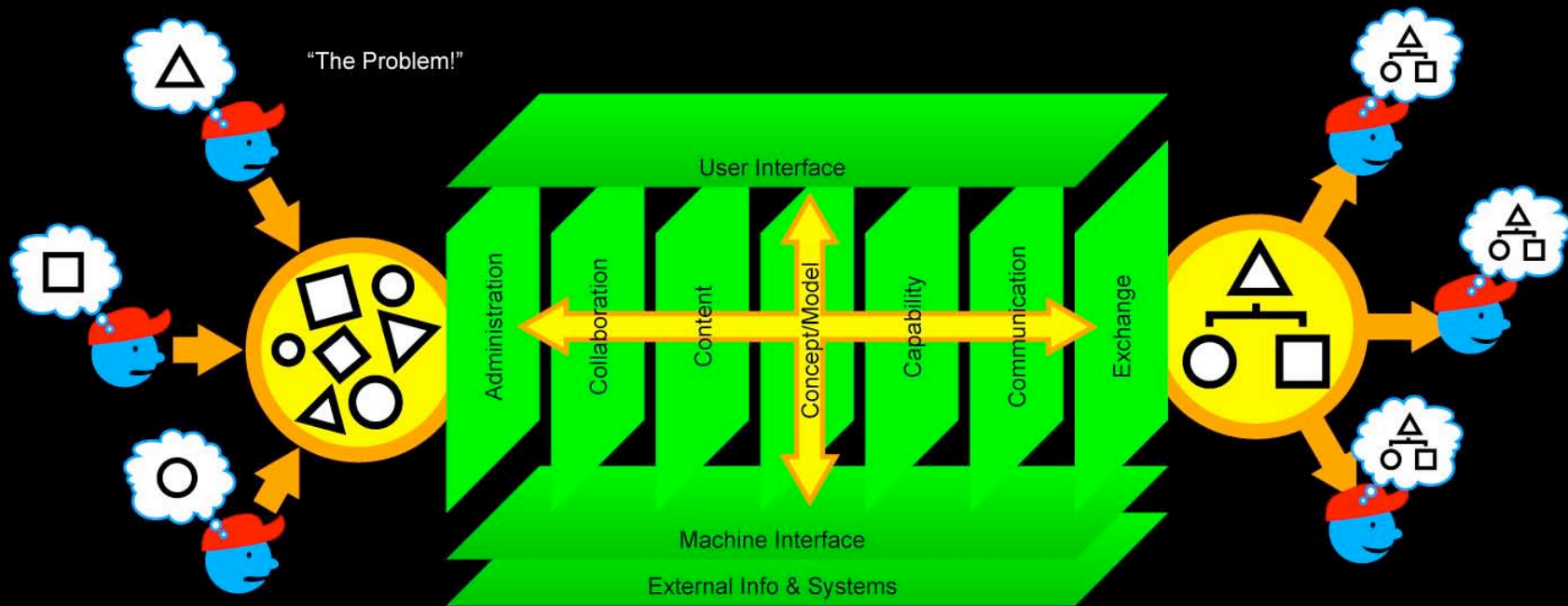
Semantics

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

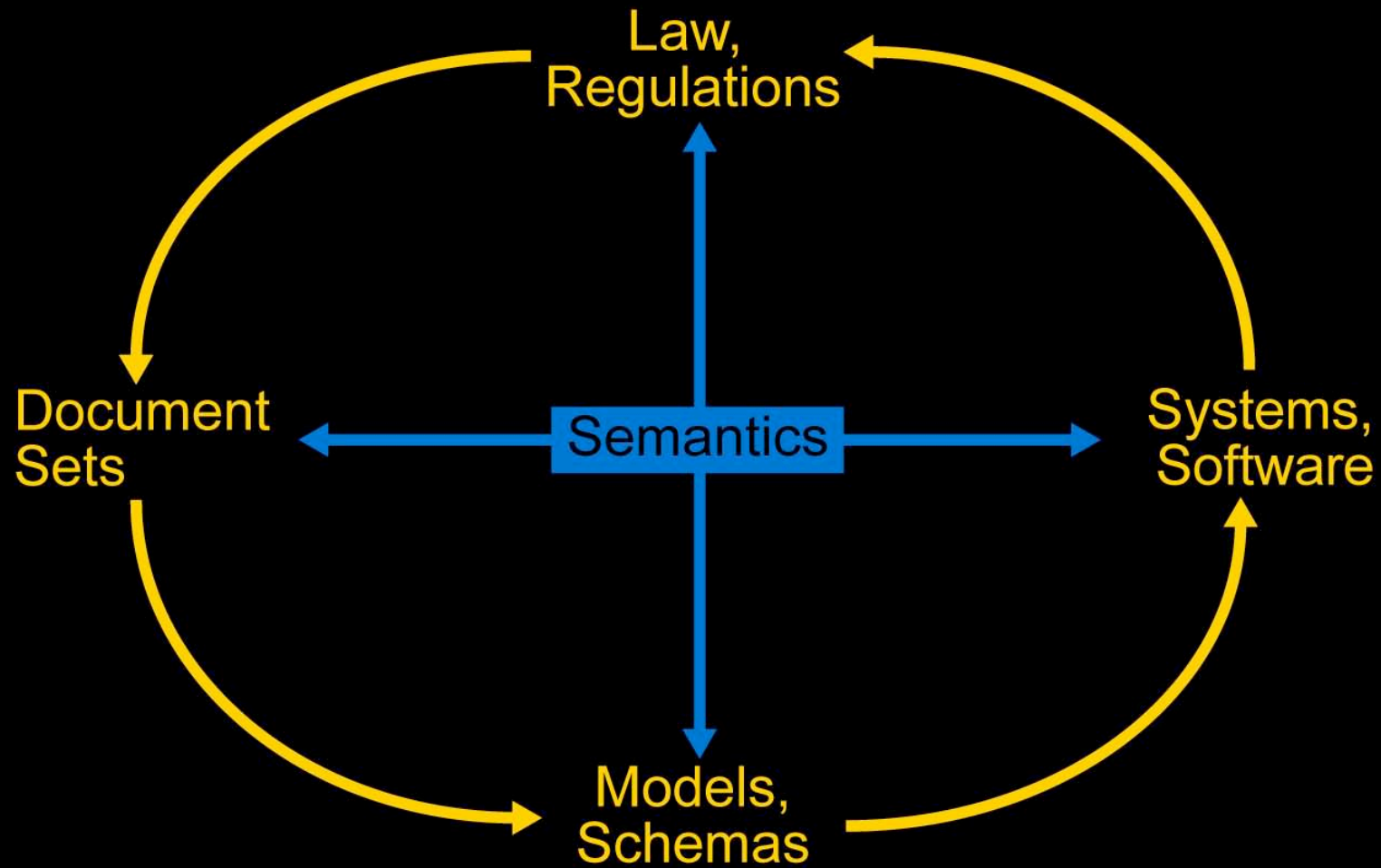
NCOIC Semantic Wiki Pilot Goal:

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



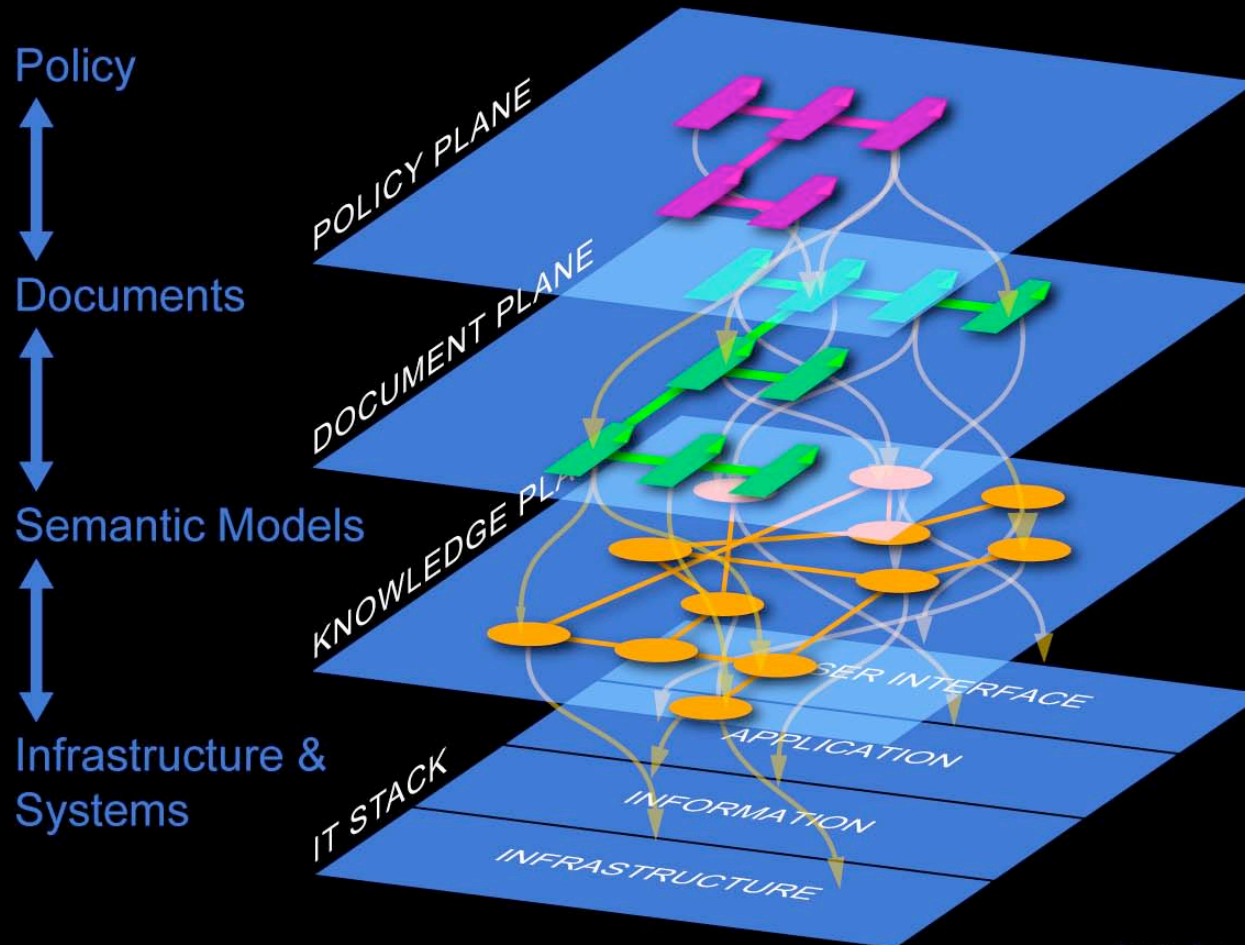
Source: Project 10X

Make knowledge interoperable...



Semantic Technologies

Make knowledge executable...



Source: Project10X

NCOIC Semantic Wiki Sample Screens

This screenshot shows the 'Welcome to the NCOIC Semantic Wiki' page. The page features a navigation menu at the top with links for 'Concepts', 'Edit', 'About', 'Issues', 'Discussions', and 'Versions'. Below the navigation, there is a search bar and a list of navigation links. The main content area contains a welcome message and a paragraph of placeholder text: 'ORIENTING TEXT HERE. POSSIBLY WHATEVER TEXT IS INTENDED FOR THE OVERVIEW PAGE ON THE CURRENT WIKI. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin mattis, arcu pretium bibendum tristique, du ligula vehicula ligula, sed gravida magna dolor vel tellus. Duis a lorem ut neque viverra laoreet. Aliquam blandit dapibus dolor. Proin justo nunc, tristique id, commodo vel, tempus non, odio. Maecenas pellentesque, lorem suscipit pretium aliquet, lectus lacus tristique urna, nec accumsan nulla nisi vel justo. Nullam eget dui vitae sem lacina congue. Vivamus urna. Etiam nunc lacus, auctor ac, lacina id, faucibus ac, ante. Vestibulum ante ipsum prima in faucibus orci luctus et ultrices posuere cubilia Curae. Etiam bibendum. Etiam a diam id non tristique molestie. Ut mollis, duis vitae lacina facilisis, massa tellus mollis neque, et consequat pede pede et quam. Cras imperdiet luctus augue.

This screenshot shows the 'Welcome to the NCOIC Semantic Wiki' page with a sidebar on the left. The sidebar contains a list of navigation links and a search bar. The main content area is identical to the first screenshot, featuring the welcome message and placeholder text.

This screenshot shows the 'Welcome to the NCOIC Semantic Wiki' page with a right sidebar. The sidebar contains a list of navigation links and a search bar. The main content area is identical to the first screenshot, featuring the welcome message and placeholder text.

This screenshot shows the 'Models' page in the NCOIC Semantic Wiki. The page features a navigation menu at the top and a sidebar on the left. The main content area contains a list of models, including 'Model A', 'Model B', and 'Model C'. Each model entry includes a brief description and a link to the model's page.

This screenshot shows the 'Meetings' page in the NCOIC Semantic Wiki. The page features a navigation menu at the top and a sidebar on the left. The main content area contains a calendar for November 2006, with a table of dates and meeting information.

This screenshot shows the 'All Documents' page in the NCOIC Semantic Wiki. The page features a navigation menu at the top and a sidebar on the left. The main content area contains a list of documents, including 'MODELING TOOLS', 'EXTERNAL DOCUMENTS', and 'INTERNAL DOCUMENTS'. Each document entry includes a title, a date, and a link to the document's page.

This screenshot shows the 'MECI Workgroup' page in the NCOIC Semantic Wiki. The page features a navigation menu at the top and a sidebar on the left. The main content area contains a group description, a list of findings and recommendations, and a list of phase one objectives.

This screenshot shows the 'John Yanosy' page in the NCOIC Semantic Wiki. The page features a navigation menu at the top and a sidebar on the left. The main content area contains a biography of John Yanosy, including his role as Chief Architect in the Rockwell Collins Government Systems organization and his involvement in the NCOIC project.

This screenshot shows the 'Mills Davis' page in the NCOIC Semantic Wiki. The page features a navigation menu at the top and a sidebar on the left. The main content area contains a biography of Mills Davis, including his role as founder and managing director of ProjectID, specializing in industry research and strategic programs.

NCOIC Semantic Wiki Demo