



Ontologies, Web 2.0 and Beyond

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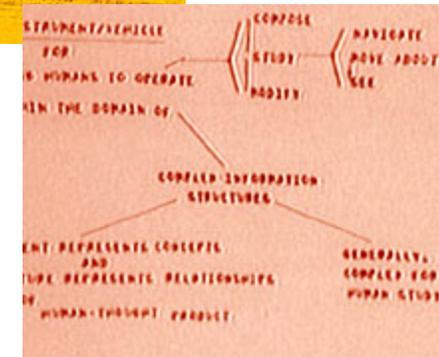
outline

- situate ontologies in Web 2.0 and Semantic Web
 - characterizing the space of ontologies
 - Confluence of social and semantic web ontologies
-

Doug Engelbart, 1968



"The grand challenge is to boost the collective IQ of organizations and of society. "



Tim Berners-Lee, 2001



“The Semantic Web is not a separate Web but an extension of the current one, in which information is given well-defined meaning, better enabling **computers and people** to work in cooperation.”

Tim O'Reilly, 2006, on Web 2.0



"The central principle behind the success of the giants born in the Web 1.0 era who have survived to lead the Web 2.0 era appears to be this, that they have embraced the power of the web to **harness collective intelligence**"

The Google logo, featuring the word "Google" in its signature multi-colored font.

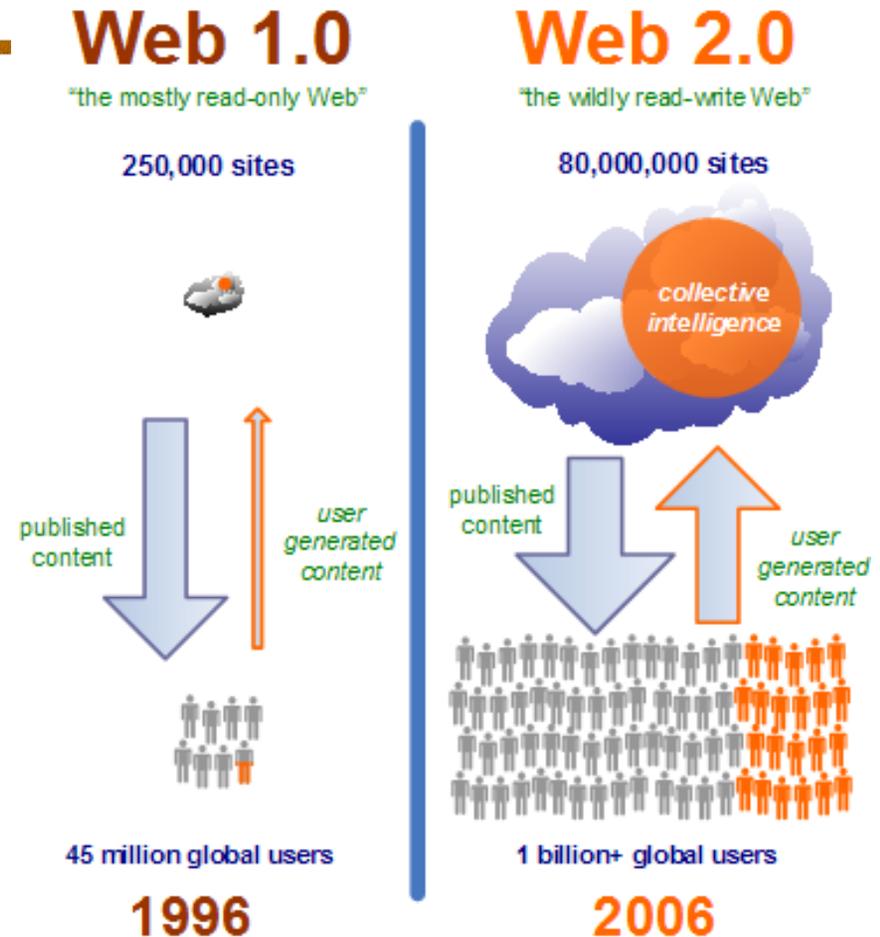
The YAHOO! logo, featuring the word "YAHOO!" in a purple, serif font.

The eBay logo, featuring the word "eBay" in a stylized, multi-colored font.

The amazon.com logo, featuring the word "amazon.com" in a black, sans-serif font with a curved arrow underneath.

Web 2.0 is about *The Social Web*

- 1 billion people connect to the Internet
- 100 million web sites
- over a third of adults in US have contributed content to the public Internet. - 18% of adults over 65



Is “Collective Intelligence” the wisdom of clouds?

06 africa amsterdam animals april architecture art august australia autumn baby
barcelona beach berlin birthday black blackandwhite blue boston bw california
cameraphone camping canada canon car cat cats chicago china christmas
church city clouds color concert day dc dog england europe fall family festival
film florida flower flowers food france friends fun garden geotagged
germany girl graffiti green halloween hawaii hiking holiday home honeymoon hongkong
house india ireland island italy japan july june kids lake landscape light live london
macro may me mexico mountain mountains museum music nature new newyork
newyorkcity newzealand night nikon nyc ocean october paris park party people
portrait red river roadtrip rock rome san sanfrancisco scotland sea seattle september
show sky snow spain spring street summer sun sunset sydney taiwan texas
thailand tokyo toronto travel tree trees trip uk urban usa vacation vancouver
washington water wedding white winter yellow york zoo

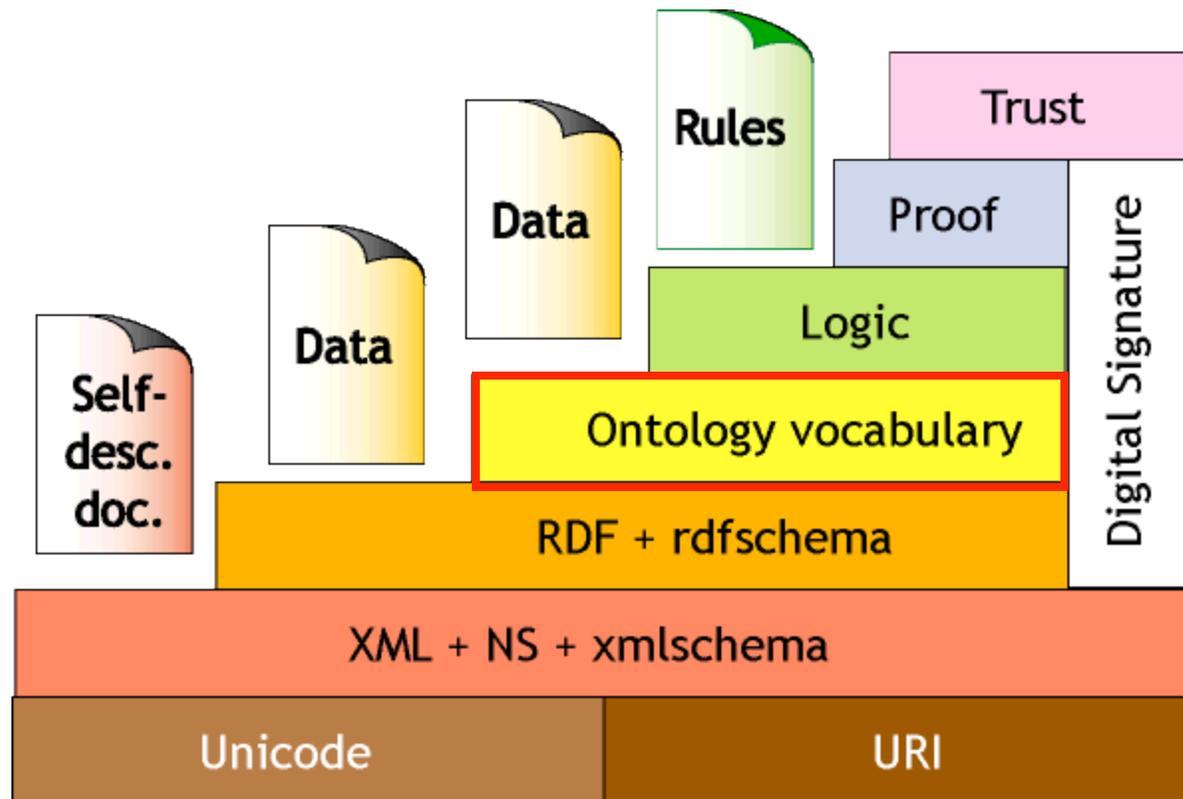
Roles for Technology

- capturing everything
 - storing everything
 - distributing everything
 - many-to-many communication
 - **creating value from the data**
 - PCs, cameras, mobile phones
 - databases and cheap storage
 - Internet and Web
 - Internet, Email, and collaboration software
 - **Web 1.0: ecommerce, search**
 - **Web 2.0: social software**
 - **Web 3.0: Semantic Web**
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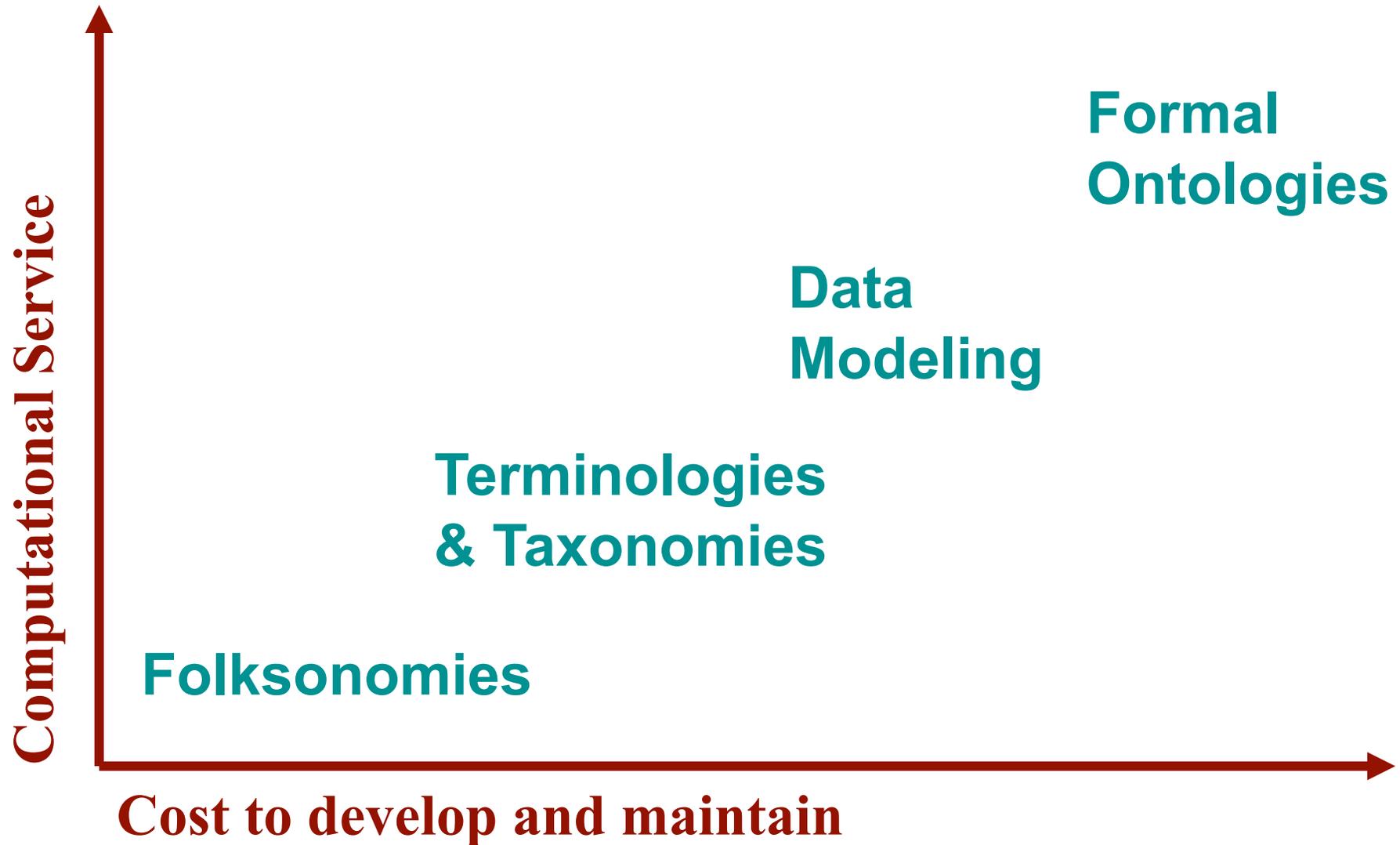
Killer App for Web 3.0: “Collective Knowledge” Systems

- provide useful information
- based on human contributions
 - *augmented with structured data*
- from multiple, heterogeneous sources
 - *integrated meaningfully*
- which gets better as more people participate.

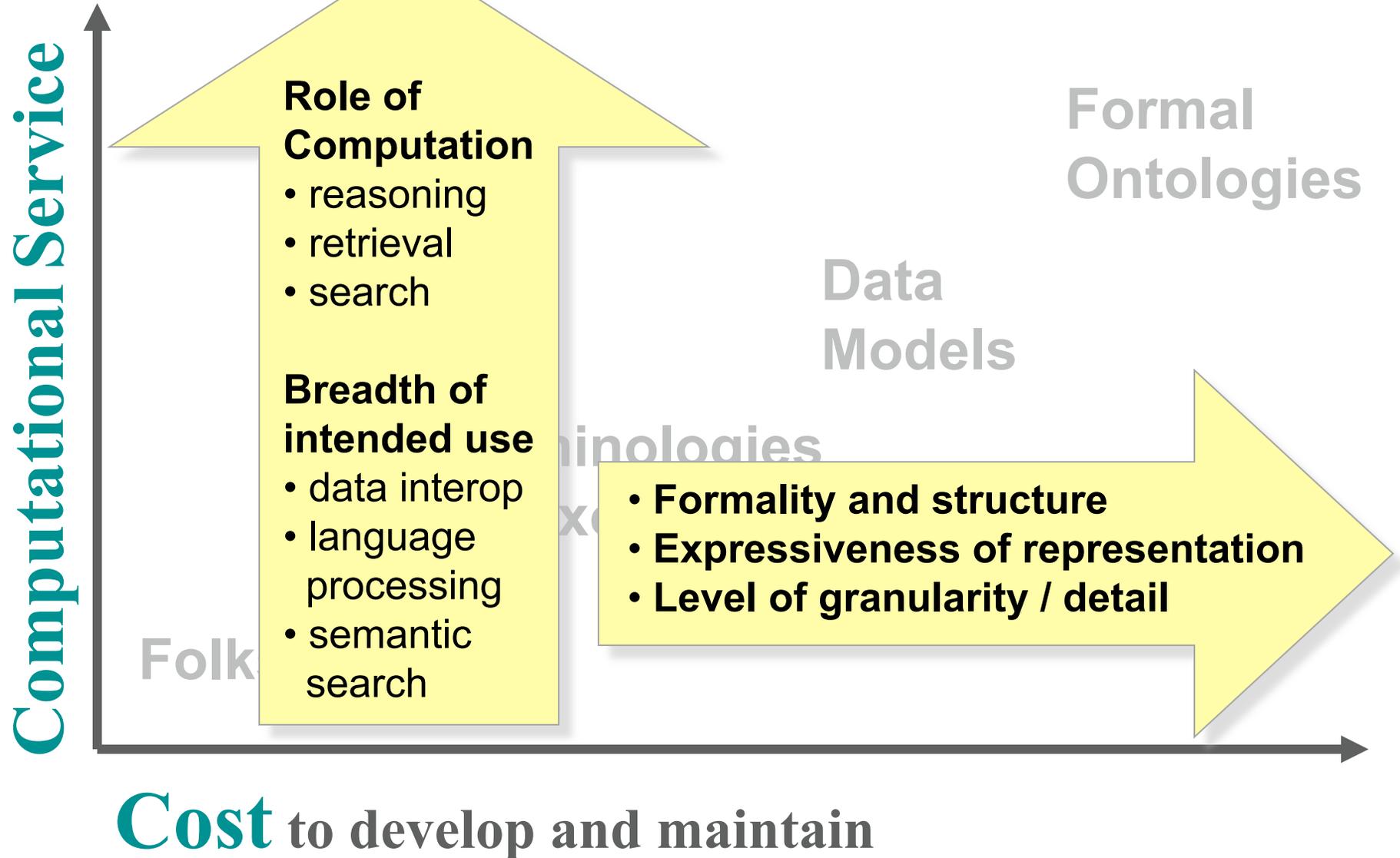
Place of Ontologies in the Semantic Web Stack



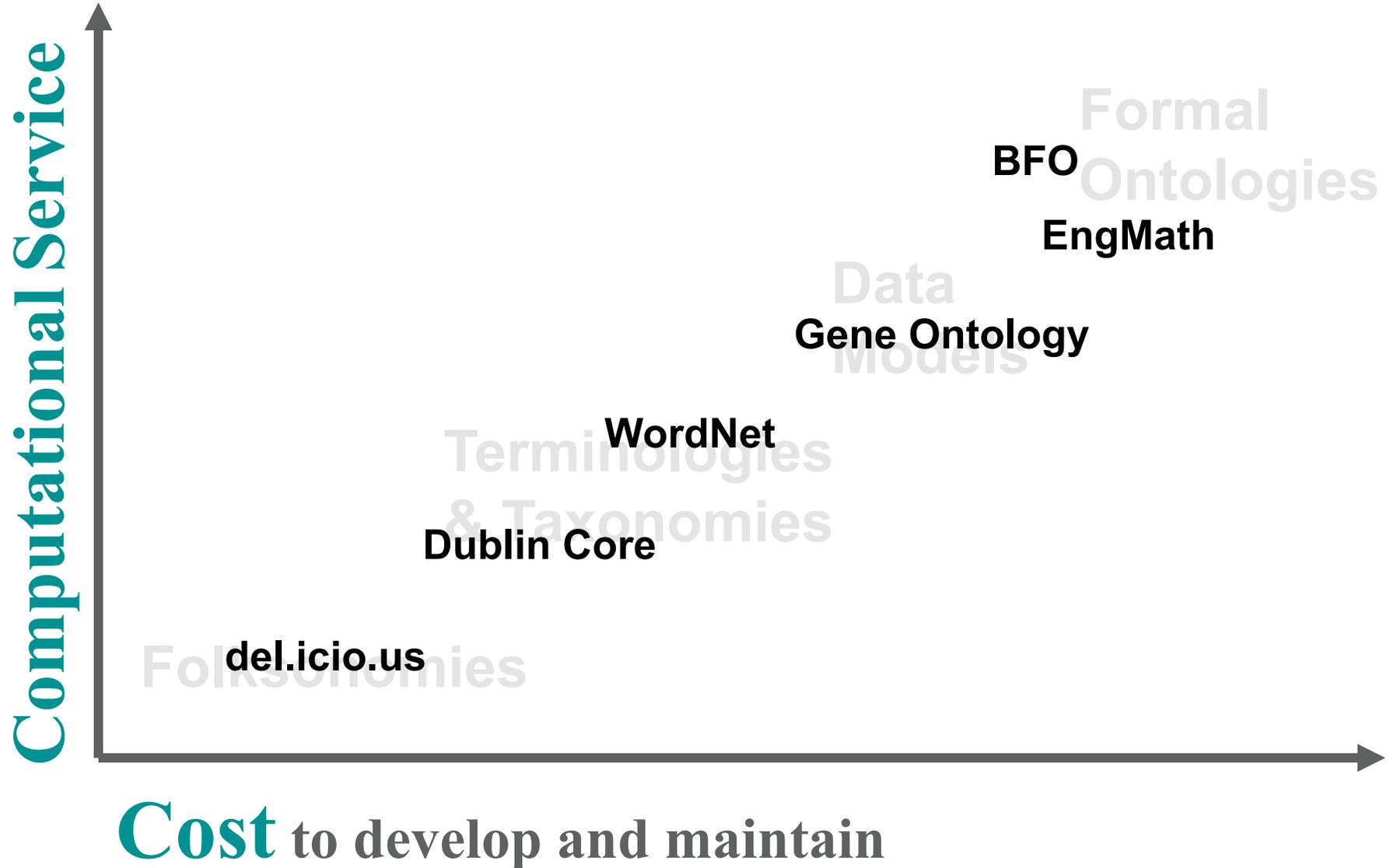
Space of Ontologies



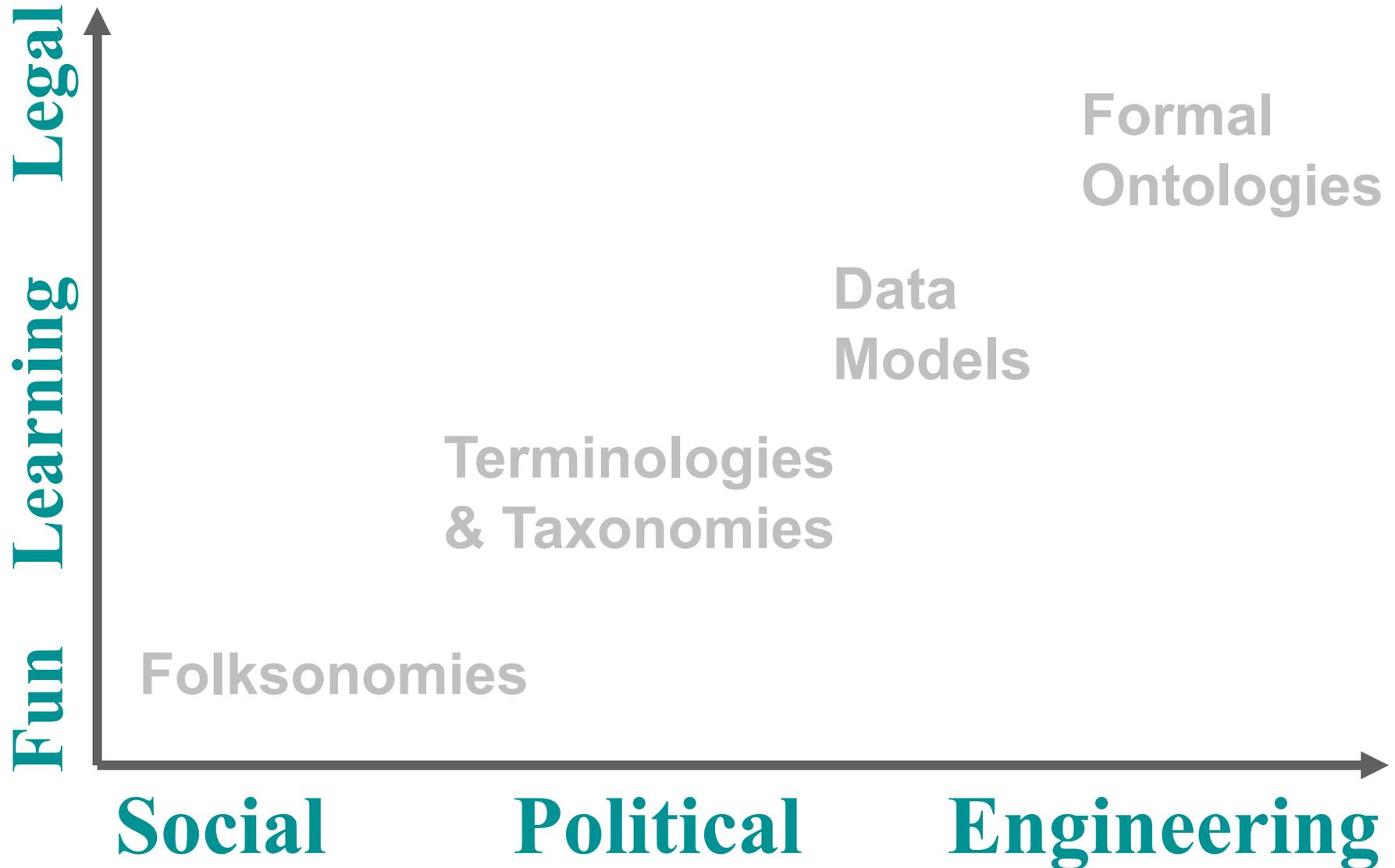
Interesting Correlations



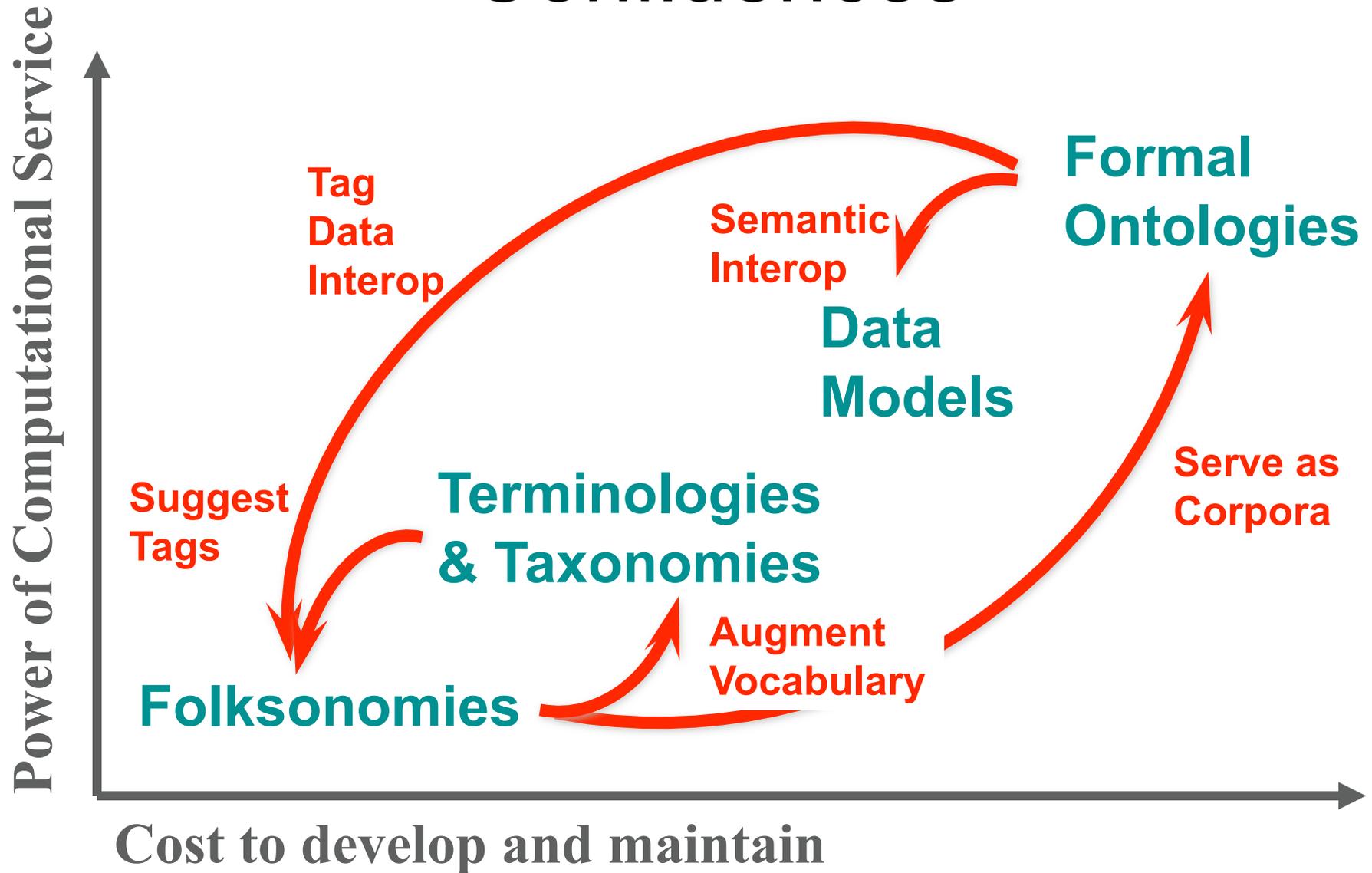
Example Ontologies



Ontology Design Methodologies



Confluences



What will the future look like?



Graffiti



Art

