Negotiating Business and Political Realities in an Ontology Project

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Overview - Gary Carlson Consulting

Gary Carlson Consulting provides ontology, taxonomy and information management consulting services. The most important aspect of our services is the business driven perspective we bring to every project. When combined with our knowledge of industry best practices and our extensive experience, we understand the components relevant to our clients' business goals, and are able to design and implement information solutions to meet their short and long term needs.

Our primary offerings include:

- Ontology / Taxonomy Development, Governance, Integration and Maintenance Strategy
- Information Infrastructure Analysis
- Training and Best Practices Workshops
- Solution Design
- Request for Proposal Development for Taxonomy/Ontology Tools

Partial List of past and current clients

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Overview

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- The business complexities, dependencies and realities of ontology projects
- Organizational readiness checklist
- Utilizing an Ontology in an enterprise requires much more than building the ontology

Not a Definition

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Ontologies are an opportunity for an organization to codify and express their expertise, goals and particular view of the world.

The process of codifying can be painful and politically difficult.

Expressing a the ontology consistently often brings significant IT challenges.

Preamble

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This presentation is primarily concerned with enterprise ontology projects.

Where “enterprise projects” refer to projects impacting or dependent upon multiple business units and / or where the ontology is going to be expressed or used in more than one technical system, user interface or reporting infrastructure.

Ontology Projects

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Are:

- Complex
- Expensive
- Forever

They require:

- Resources (People and Technology)
- Organizational Readiness

Complexity

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Besides designing and building the ontology the following all add to the complexity of the project:

- Technology / System Integrations
- Organizational Alignment
- Workflows
- Governance

Sample Inputs for an Ontology Project

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Source	Details
Business Objectives	Business problems that are going to be addressed in the project and why an ontology is the best way to do that
Existing information	In depth analysis of the existing information and the processes that deliver it to the website
IT infrastructure	In depth analysis of the applications and integration points storing and managing the information
Internal workflows & governance	Review of the creation and editorial process
Industry best practices	Incorporation of lessons learned and best practices in the industry.
Internal expertise of the employees	Extensive interviews with employees who are “on the ground” as these insights are often the quite valuable.
Legal	Review of any legal implications or requirements if there are regulatory or compliance issues involved

Ontology Assessment

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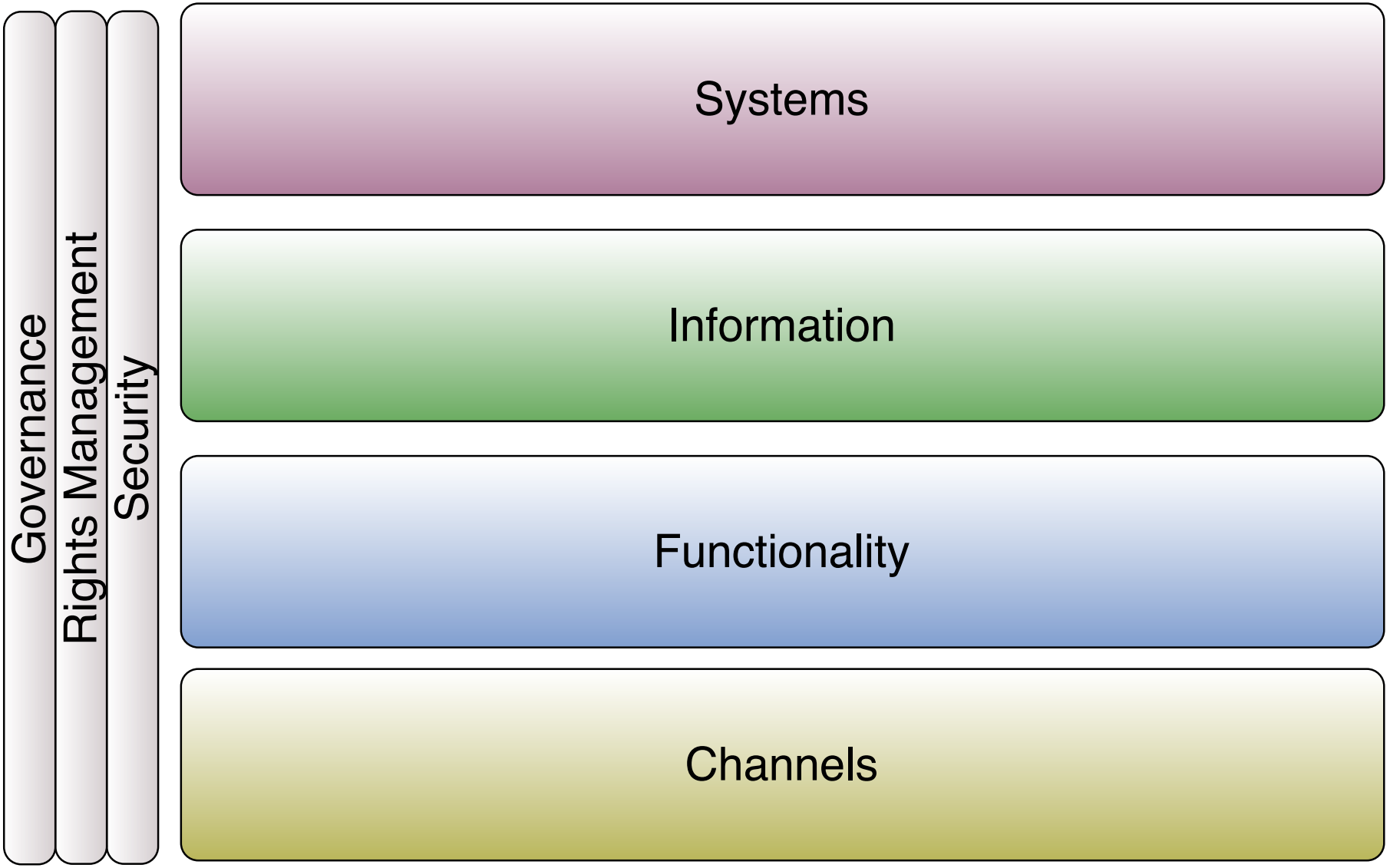
Model	• Size of ontology • Complexity • Localization requirements • Different content types
Usage	• User research • Change management & workflows • User personas
Integration and Re-use	• Technical environment • Integration of offerings • Multi-channel usage • Localization of user experience

Layers of an Ontology Project



Expenses

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Technology

- Hardware and systems to store and manage the ontology
- Integrations with other systems

People

- Ontologists
- Developers
- Stakeholders
- Legal / compliance
- Marketing
- Sales

Ontology Projects - People

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People	Roles
Ontologists	Obviously need to be able to create and manage the ontologies, but also need to be able to articulate the value of the ontology to the business. Very few organizations make money with the ontology
Developers	Will be required to help implement and integrate the ontology. Appropriate skill sets are necessary. Also need more than just one person (low bus factor)
Stakeholders	Probably do not understand or care about ontologies. They care about what the ontology can do for them
- Legal / Compliance	In regulated industries these teams may have large impacts on the workflow and governance of the ontology as well as the potential content.
- Marketing & Sales	Are probably very interested in the insights and integrations that an ontology may allow and can provide excellent requirements for a project.

On-going

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Annual maintenance costs are often equal to or greater than the initial start up cost

- Staffing for on-going maintenance and development
- Hardware
- Software
- etc

Organizational Impacts

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Often need to cross business units

- Governance and workflows need to address this
- Lines of communication may not be optimal for an ontology project
- Current processes may need to be broken and re-built

May have impacts on organizational structure (where does the ontologist live?)

Organizational Impacts

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Resources

- Need new skill sets for developers
- General understanding of ontology concepts across the organization
- New technology

Checklist - Are You Ready?…

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Strong business justification

Executive sponsorship

Organizational alignment (readiness)

Project management

Strong Business Justification

Can you put a dollar amount on the benefits the ontology will bring?

NOT the ontology itself

Is this an academic “good idea” or a critical revenue, brand or efficiency initiative?

- **Revenue** – market intelligence, time to market (pharma), customer segmentation
- **Brand** – customer service, targeted information
- **Efficiency** – faster access to information by knowledge workers, better system/information integration with open standards, information lineage

For Government and non-profit organizations alignment with organizational mission or efficiency is critical

Justifying the Cost

How is the ontology going to make money or save money for the organization?

- Revenue
- Customer Satisfaction
- Technical Integrations
- Compliance
- Operational Efficiency
- etc

Example Business Justification – Retail

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These are sample success criteria for a project designed to increase on-line sales and average order value for a retailer with strong web and store based sales. Work was primarily focused on the website.

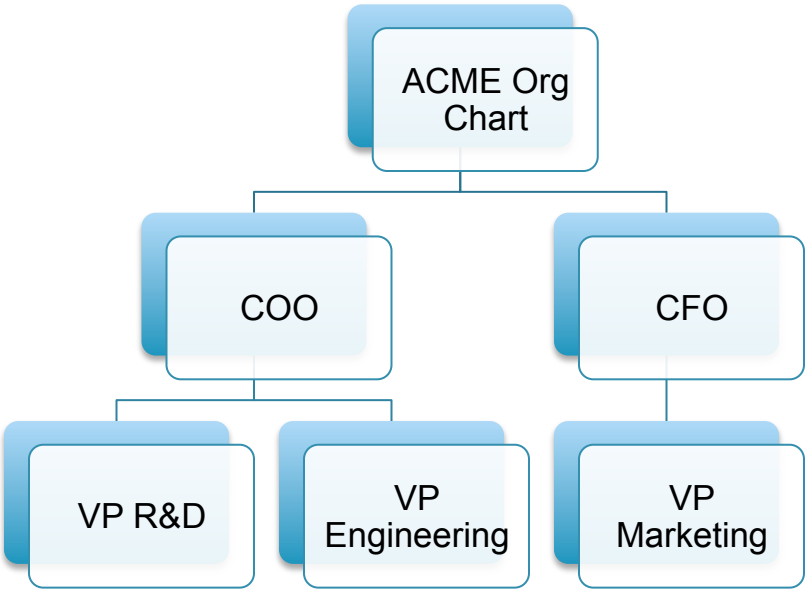
- Increased revenue caused by a larger number of people getting to product pages
- Reduced involvement of developer/production resources in updating of content or relationships between content
- Reduce the number of customers leaving the site because they could not find what they were looking for
- Increase in the number of paths that a customer can take to get to products

Executive Sponsorship

As these projects cost money, require cooperation (and often budget) across business units, and often require organizational change, an executive sponsor is essential.

Look to the sponsor to:

- Align the project with other organization goals and initiatives
- Justify the costs and validate the benefits to other executives
- Help smooth cross business unit issues
- Respond to the need for organizational change



Organizational Alignment – IT

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- Are processes in place to support new applications, databases, programming languages and system integrations?
- Are existing enterprise applications (ERP, CRM, etc) up to date and capable of new integrations. Is there staffing and expertise to create the integrations?
- How fluent is the IT team with data or information integration, taxonomies, content management, etc?
- Is the organizational mindset one that embraces training and support for new technologies?
- Are they already using ontologies (or at least taxonomies) elsewhere?
- Is open source software a viable option?
- Do the compensation structures encourage (or atleast allow for) the required change?

Organizational Alignment – Business Owners

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- Are the Sales, Marketing, Finance or Research teams open to new ways of interacting with information?
- Is there training available to support transition to more
- Do compensation structures in alignment with new workflows or ways of doing business?

Organizational Alignment - Executives

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- Do executives understand the value of information in a meaningful way?
  Do not expect them to understand the value of ontologies
- Will the need for long term funding resonate?
- Is there a culture of training and process development?
- Is there an openness for organizational change?
  - Resources
  - Organization Structure
  - Compensation plans
  - Etc
- Is their a culture of innovation within the organization?

Project Management

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- Identifies costs, resources and risks upfront
- Drives communication within and across the different organizational units
- Let ontologists be ontologists
- Will hopefully help evangelize

Wrap up

Building the Ontology is one thing. Building out an infrastructure to take advantage of it and operationalize it is a far more complex problem to solve.

“Knowledge has a value and a discovery cost, each to be counted and weighed”

James Gleick, *The Information.* page 87

Questions

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