Ontology Summit 2011 Symposium
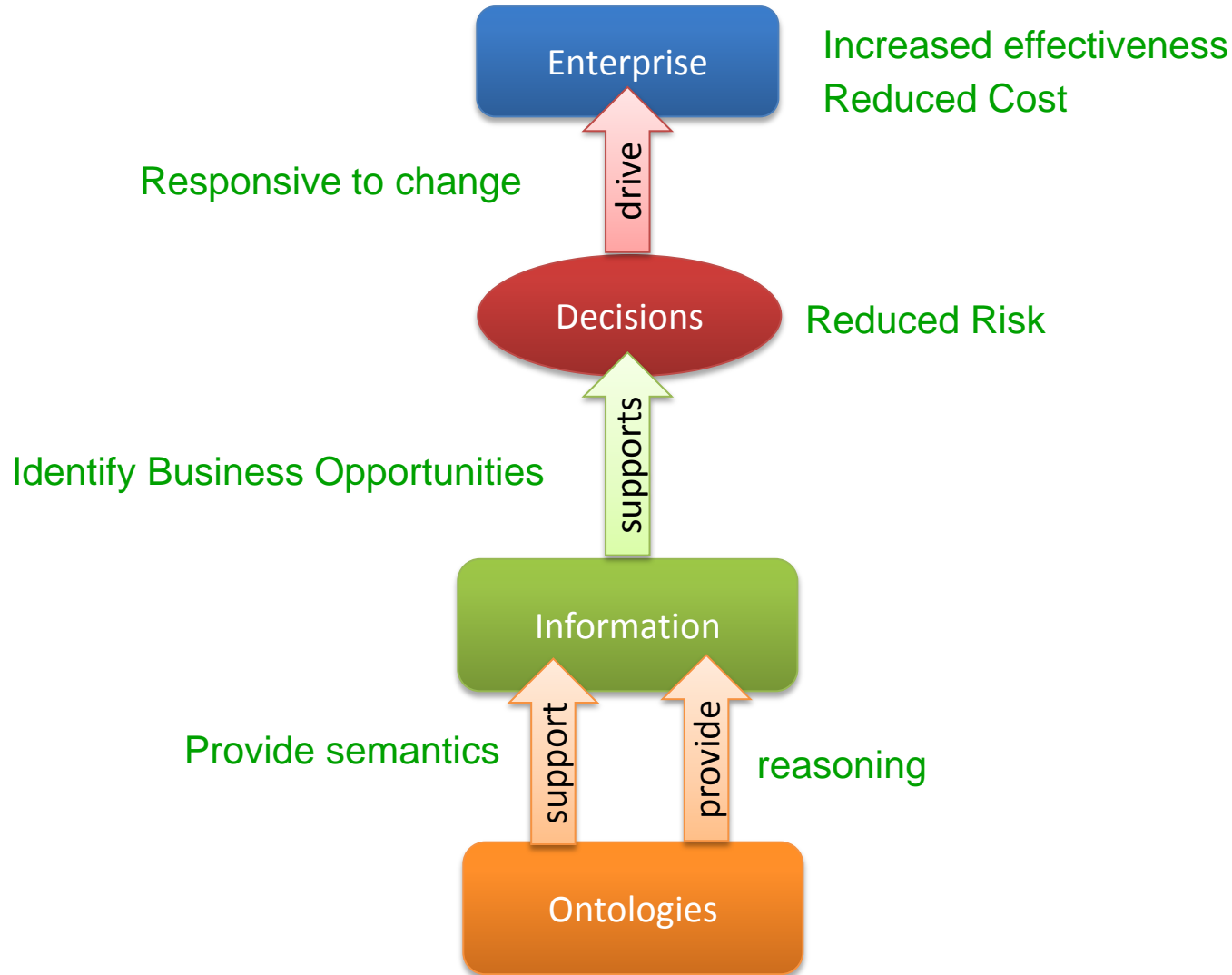April 18-19 2011

Strategies for Making the Case

Matthew West & Peter Yim

'Francis Ford Coppola said, "The secret to making a good movie is getting everyone to make the same movie." So it is with enterprises and that's what ontologies do.'   Jack Ring

No commercial case for ontology

- There is no commercial case for ontology per se.

- Ontology is a tool - one needs to make a case for using this tool to solve some problem(s).

- Examples of problems:
  - Semantic web interoperability
  - Legacy modernisation

- One issue is that 'ontology' in its many forms has multiple uses across multiple problems.
  - This will NOT sell – you need to pick a use/problem.

Why bother with Ontology?

Enterprise

Increased effectiveness
Reduced Cost

Responsive to change

drive

Decisions

Reduced Risk

supports

Identify Business Opportunities

Information

Provide semantics
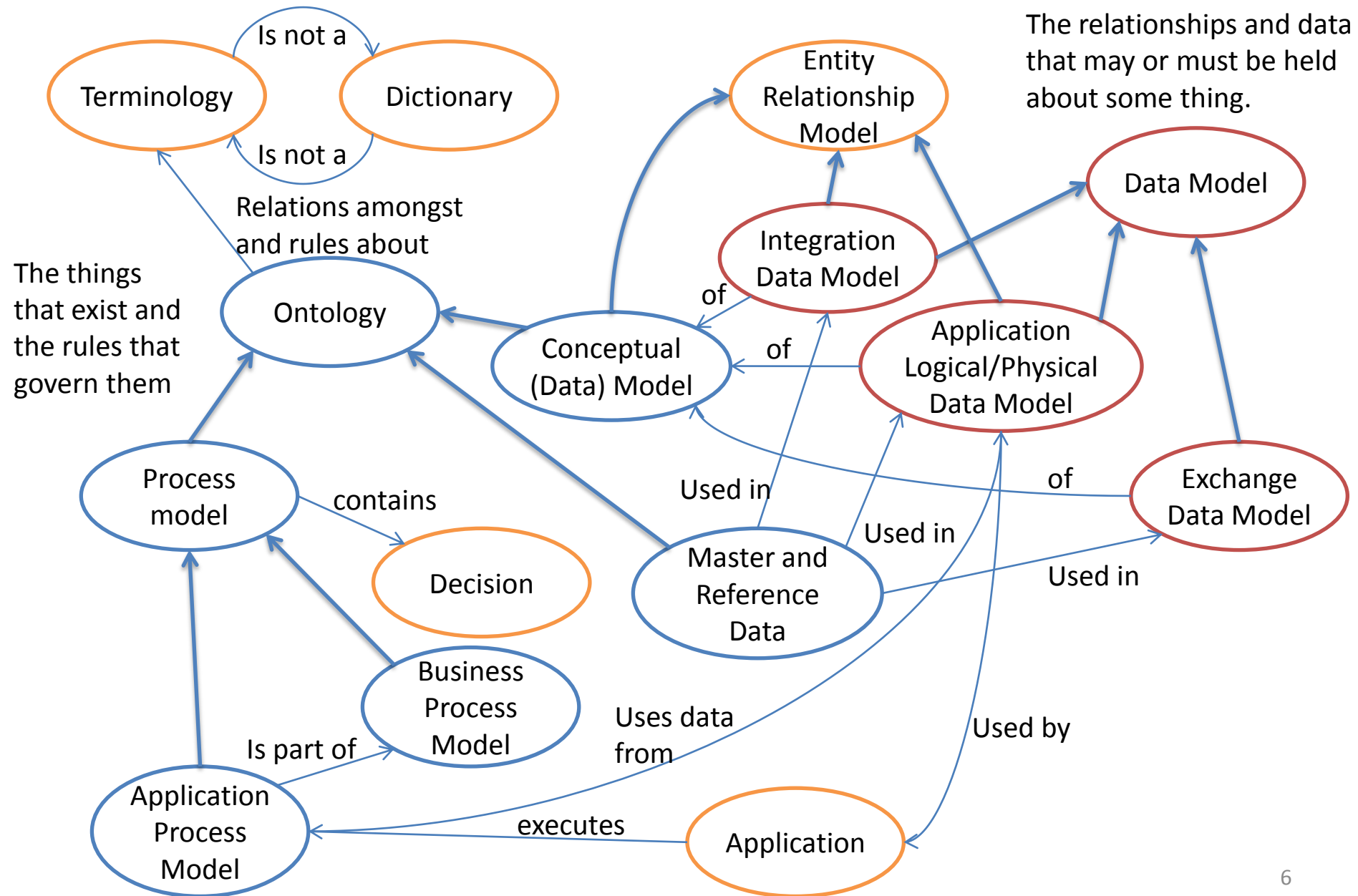
support

provide

reasoning

Ontologies

Two types of business case

- Incremental - Doing the same thing better
  - Data integration
- Disruptive - Enabling something new
  - Siri

- Ontology itself is never the objective
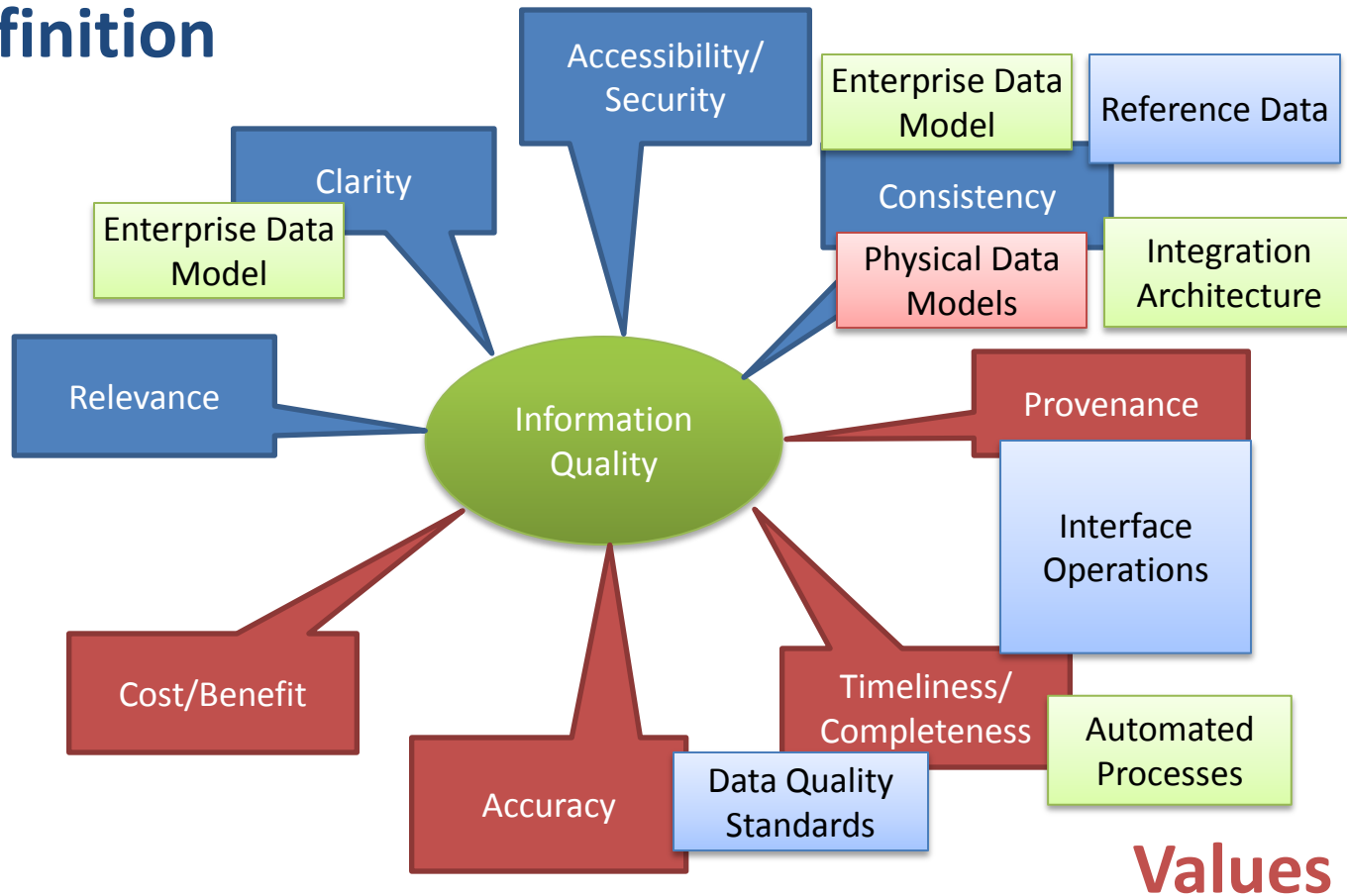
Some Strategic Areas

- Follow the data trails:
  - Volume trail: what's growing fastest?
  - Value trail: what's worth more?
  - Integration trail: where do data flows need to interface (across industries, legal systems, disciplines)

Ontology in Information Systems

The relationships and data that may or must be held about some thing.

The things that exist and the rules that govern them

Relations amongst and rules about

- Terminology
- Dictionary — Is not a / Is not a
- Entity Relationship Model
- Data Model
- Ontology
- Integration Data Model
- Conceptual (Data) Model — of
- Application Logical/Physical Data Model — of
- Process model — contains
- Decision
- Master and Reference Data — Used in / Used in / Used in
- Exchange Data Model — of
- Business Process Model
- Application Process Model — Is part of
- Application — executes / Uses data from / Used by

Ontology supporting information

Case in Point - MDM

- Master Data Management is an area where ontologies can play a key role

- By master data management (MDM**)** we mean those methods and tools that help us to manage both structured and unstructured data, specifically the authoritative control values the organization defines

- The purpose of MDM is to provide authoritative control over the collection and management of data to facilitate access, quality-assurance, traceability, maintenance and reliability across the organization, and in particular across all of its many applications

- Master Data Management generally focuses on the core entities of an organization and defines a standard set of attributes and values for those entities
    - Examples: country, regions, employee ID, organizational unit, business process, strategic initiatives, products and product lines

Value of Ontologies to MDM

- Two simple truths
  - While every organization may need MDM, not every organization can afford MDM because it cannot afford a large technical team
  - While we'd like every ontology to be universally applicable, a well developed ontology can be business specific

- An easy win for moving ontologies into the mainstream function in organizations is to use them to manage the organization's master data

- Ontology tools and methods very closely mirror MDM tools and methods but at a substantially reduced level of investment

- MDM is a way of enticing an organization to consider ontologies

Who do we need to make our case to?

We need a (slightly) **different message for each of the different audiences.** These are categories of people we need to 'Make our Case' to:

(i) **Policy Makers / Strategic Decision maker** … convincing them that this is the strategic direction to go

(ii) **Budget Holders / Business Decision Maker** … to get the work funded

(iii) **Technology Decision Makers** (CIOs, Architects, etc.) … convincing them that this is the approach (at a higher level)

(iv) **Technology Implementers** (engineers and developers) … convincing them that this is the approach (at the implementation level)

(v) **Users/consumers of the technology** … create the trust and the buzz, as they will be driving the needs

(vi) **Educators** … to produce the people with the right skills to actually do it (when the market is there)

**What are the different (customized) message we need for each of the above folks?**

Pragmatic vs Visionary

- The Pragmatic

  - We need to put food on the table!

- The Visionary

  - (as in the JF Kennedy "We choose to go to the moon … We do these things not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills …)

  - Steve Jobs vs Bean counters …

Beyond Logic

Why are we still here trying to "Make a Case?"

... remembering that the Dartmouth Summer Research Conference on Artificial Intelligence actually took place in 1956 ...
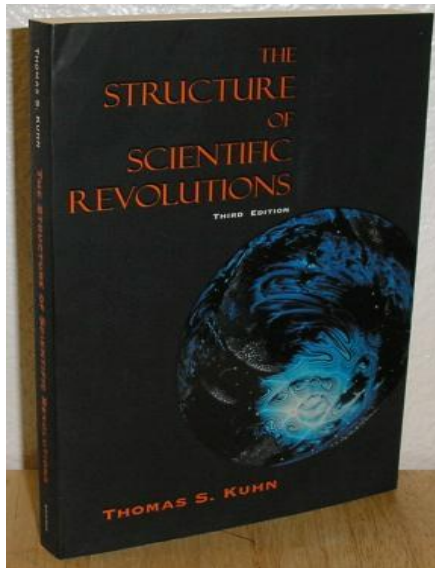
- I believe Thomas Kuhn has our answer, in "The Structure of Scientific Revolutions" (1962, with his 1969 postscript)

- *maybe* ... Ontology is still at Kuhn's "pre-paradigm" phase

My favorite sound bite: *"Ontology promises to be the driver for the next paradigm shift. If you think personal computing, and the Internet have been disruptive, wait and see what Ontology can bring about."*

Beyond Good Work:

Technology Filters and Lenses that help us identify what might be important in the future … (excerpt) IFTF/2006

- The Right People are Involved
- The Application Fills a Strong Need
- The Tyranny of the Installed Base
- Overcoming current Limits

- Market readiness
- Technology Capacity
- Timing
- Global Social and Economic Trends
- … with a bit of Luck!

Link to other resources:

http://ontolog.cim3.net/cgi-bin/wiki.pl?OntologySummit2011_MakingTheCase_Synthesis

"An ontology is like a contract's fine print, one of those things which require a very precise technical jargon, which you might ignore in many cases, but which can save your business in critical situations..."

Nicola Guarino