



# Managing Records in Cyberspace

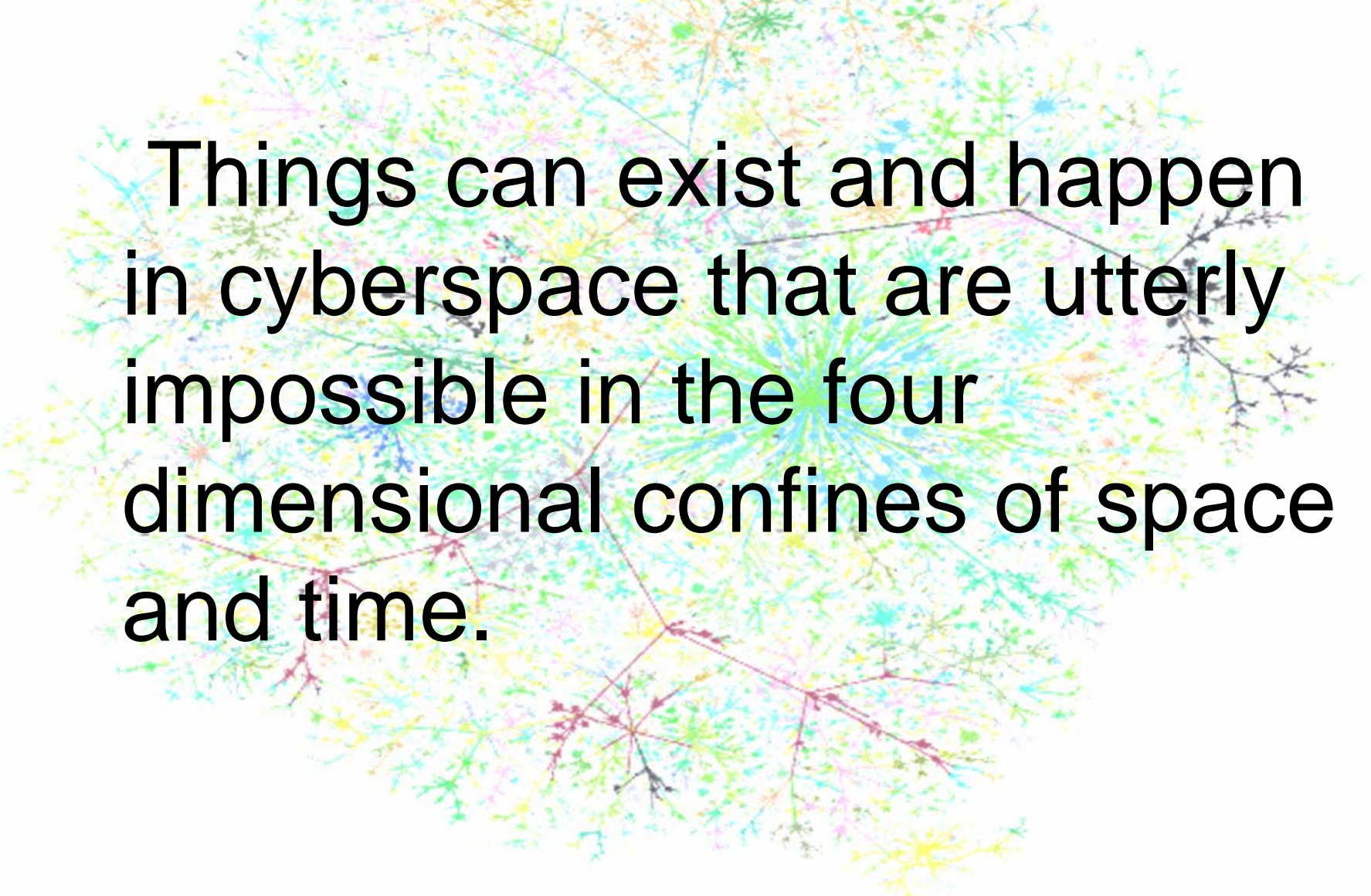
16 October 2009

Ken Thibodeau, Director  
Center for Advanced Systems & Technology  
National Archives & Records Administration (U.S.)

VOYAGING TOGETHER  
ASA ARANZ PARBICA Joint Conference

# Cyberspace: the 5<sup>th</sup> Dimension

Things can exist and happen in cyberspace that are utterly impossible in the four dimensional confines of space and time.





# **Knowledge Space for Managing Records**



# Records Expertise in Cyberspace

## ❖ Know when and be able to

- APPLY established knowledge or techniques when they are valid independently of the context in which applied;
- DISCARD any knowledge or technique that is not applicable beyond the context of hard-copy records;
- ADAPT concepts or techniques that are basically sound but have not been articulated appropriately for cyberspace;
- DEVELOP new concepts and techniques that respond to what is new and different in cyberspace.

# Apply “RECORD”

❖ APPLY the essence of the traditional concept of record:

- Information created, received, and maintained as evidence and information by an organisation or person, in pursuance of legal obligations or in the transaction of business.

» ISO 15489

- a document, or an object, in any form (including any electronic form) that is, or has been, kept by reason of:
  - (a) any information or matter that it contains or that can be obtained from it; or
  - (b) its connection with any event, person, circumstance or thing.

» Commonwealth of Australia Consolidated Acts. Archives Act 1983, Part I, Section 3.

# What's an Electronic Record?

DISCARD notion of a record as a physical object or a fixed inscription on a physical medium



# Adapt to Accommodate Electronic Records' Differences

## 1.0 Introduction

Increasingly, these records are created and maintained in electronic formats. To continue to fulfill its mission, NARA needs to respond effectively to the challenge posed by the diversity, complexity, and enormous volume of electronic records being created today and the rapidly changing nature of the systems that are used to create them. The Electronic Records Archives (ERA) will be a comprehensive, systematic, and dynamic means for preserving virtually any kind of electronic record, free from dependence on any specific hardware or software. ERA, when operational, will make it easy for NARA customers to find records they want, and easy for NARA to deliver those records in formats suited to customers' needs.

To ensure the success of ERA, NARA must have an Acquisition Strategy (AS) that clearly establishes the framework within which detailed acquisition planning and program execution will be accomplished. The AS is integral to communicating this strategy to ERA key stakeholders. This AS is a description of how NARA will acquire the ERA system, and once approved, should reflect the Archivist of the United States' decisions on all major aspects of the acquisition. This AS is an updated version that provides further detail on ERA's acquisition and contracting approach, program management framework, and support strategy.

1/12/06

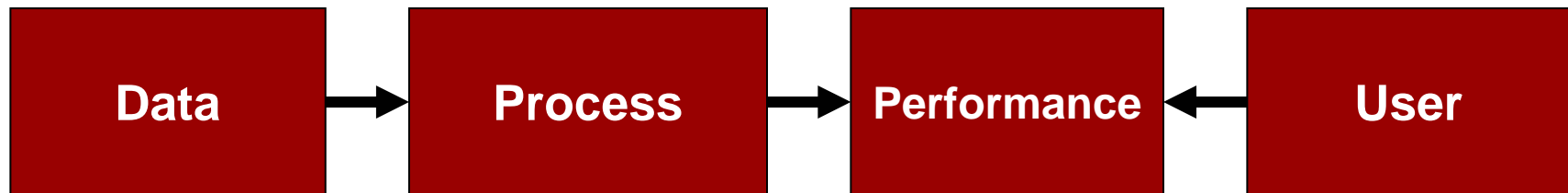
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ERA.DC.AS.5.1.DOC



# Adapt “RECORD”

- ADAPT to account for empirical and operational differences in cyberspace

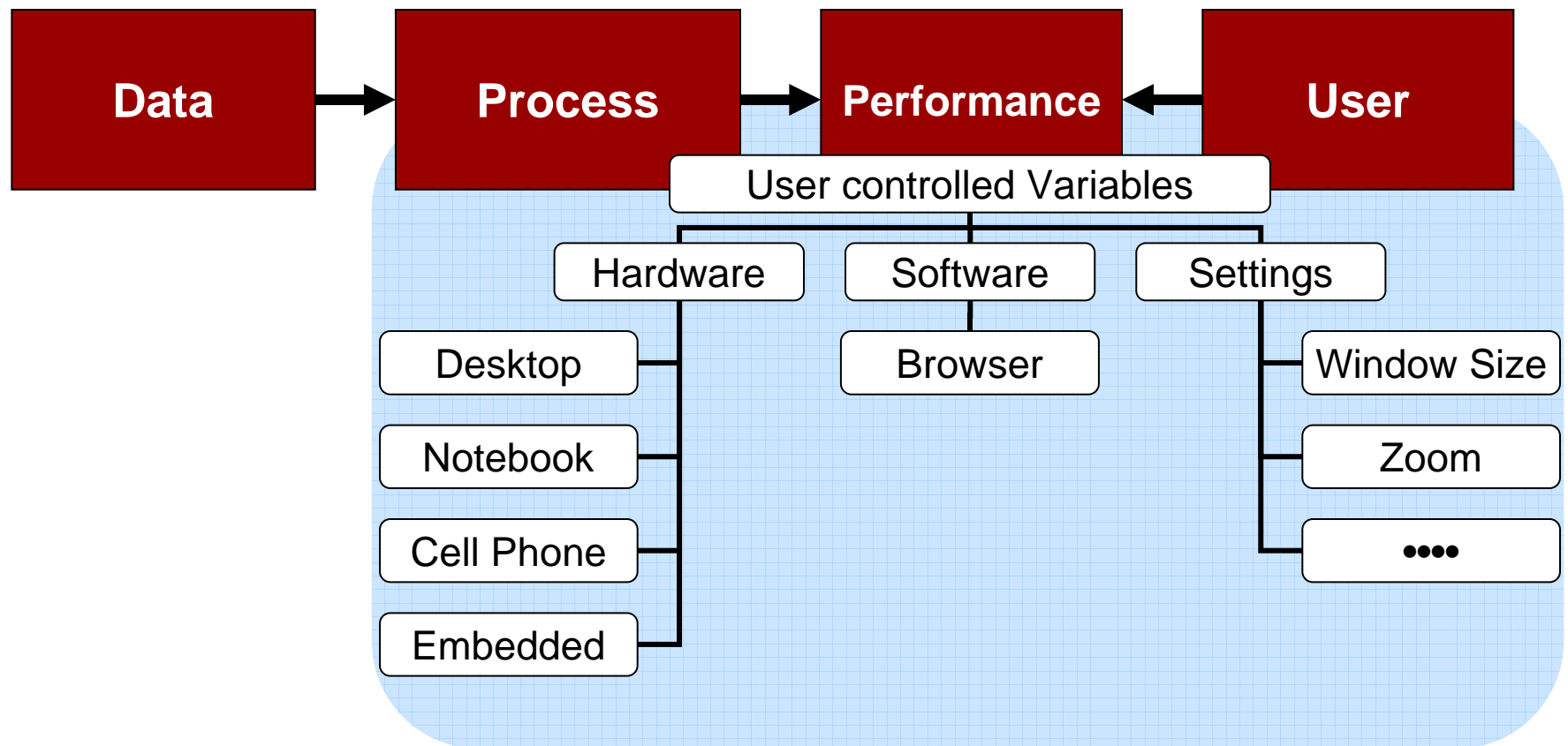


**“digital records are fundamentally performances and not objects”**

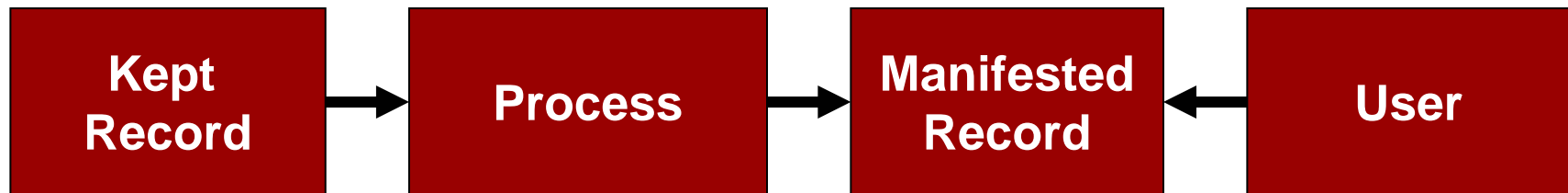
Performance Model – Source and Process Components

Helen Heslop, Simon Davis, Andrew Wilson. An Approach to the Preservation of Digital Records. *National Archives of Australia*. December 2002

# Adapt “RECORD”

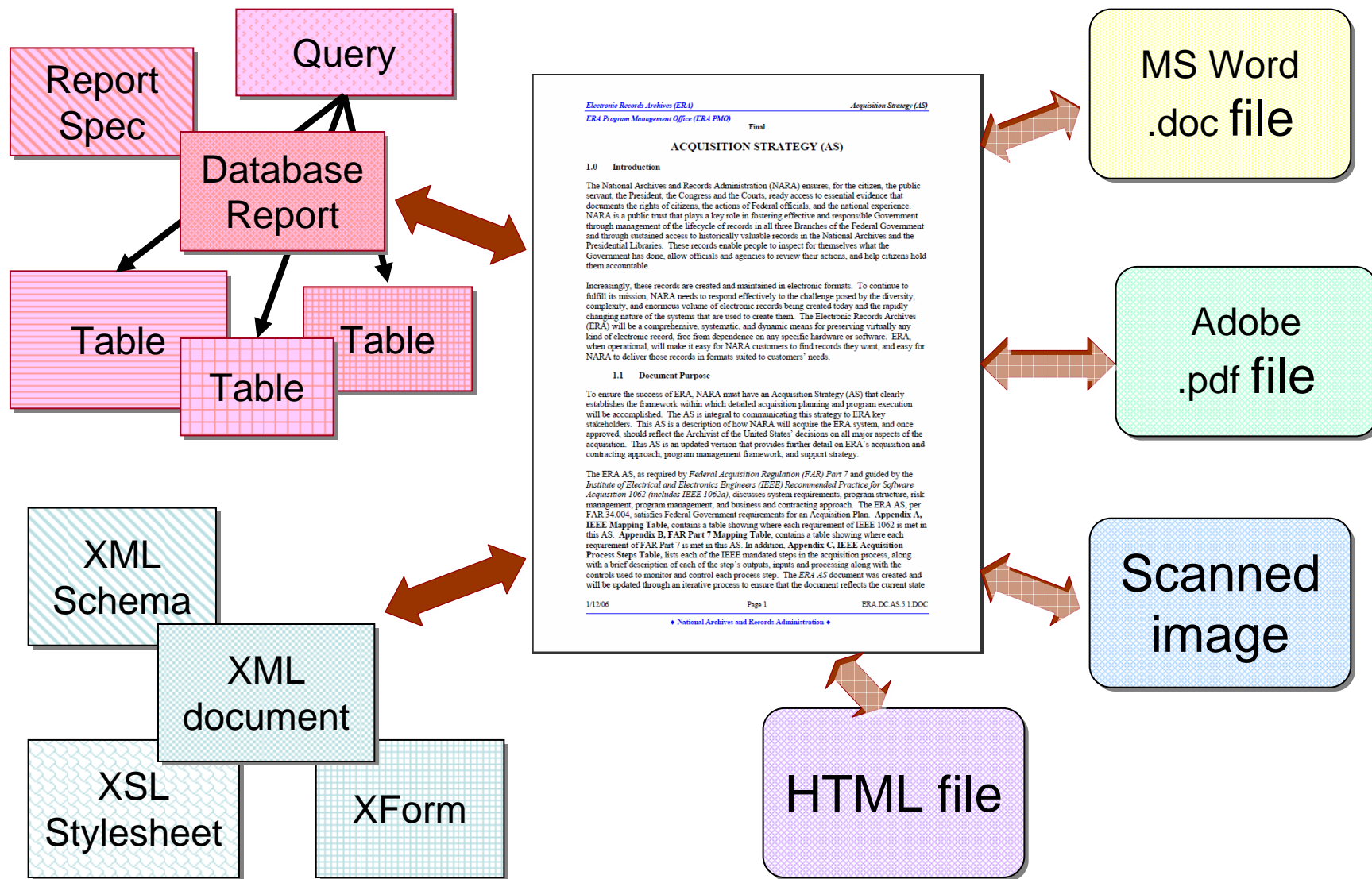


# Adapt “RECORD”

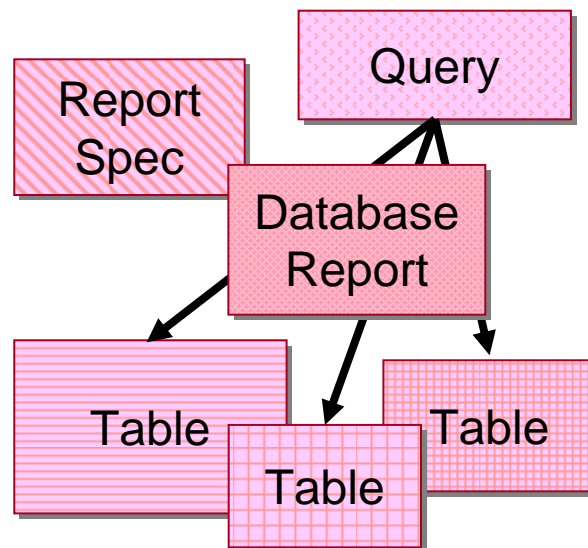


- We need to apply records management to the data that is kept to enable the performance of an electronic record.
- Records management must ensure that the performance manifested to a user from a kept record is authentic.

# One Record, Many Representations

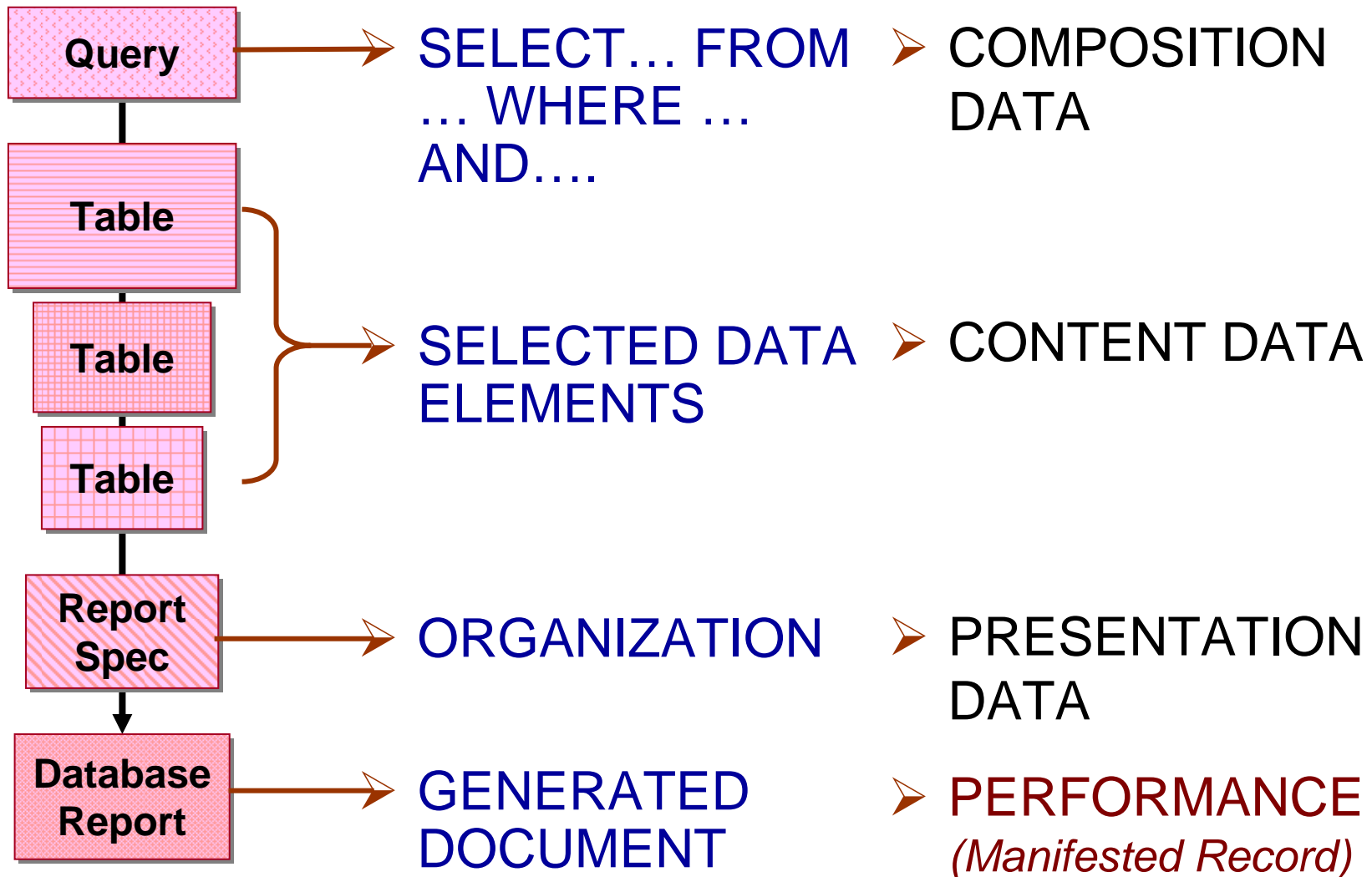


# Performance Decomposition

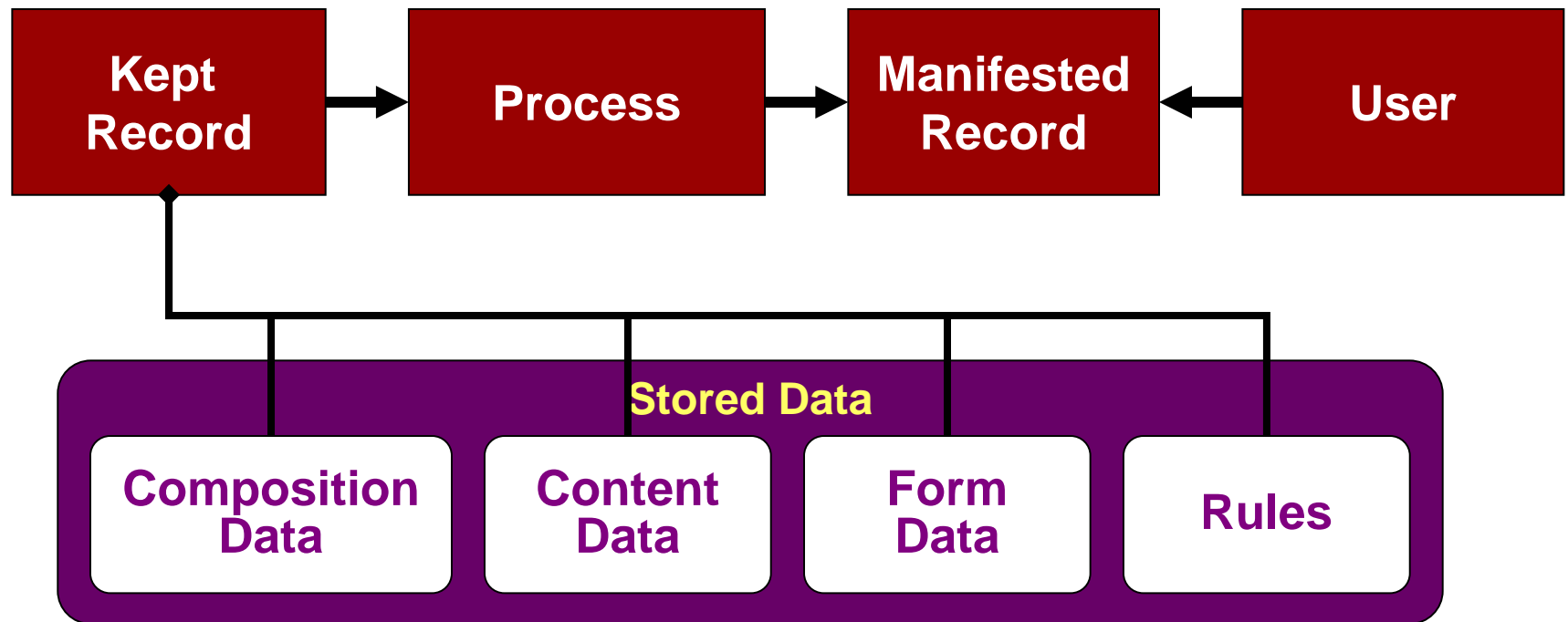


Textual document manifested from a database

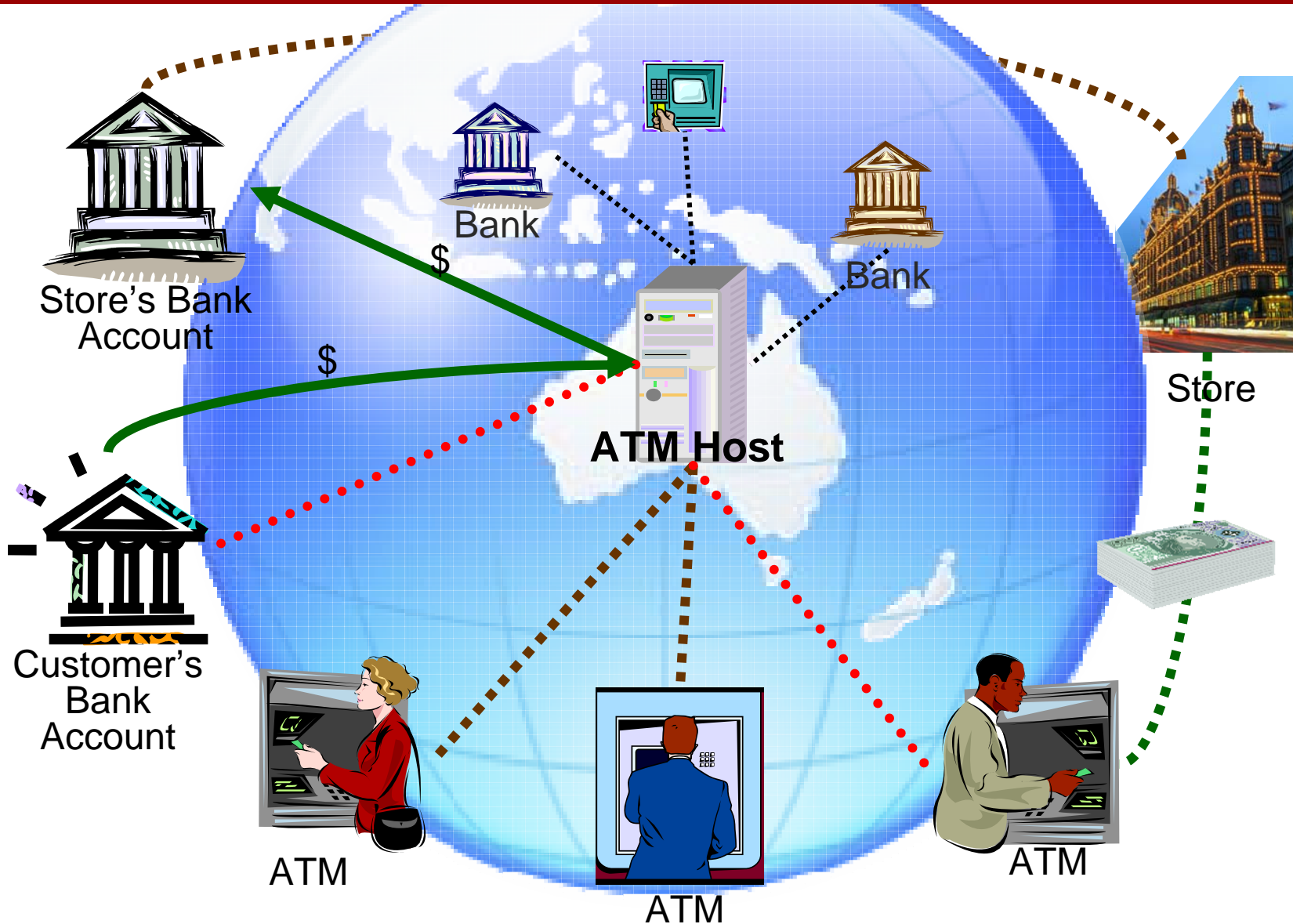
# Performance Decomposition



# Develop “RECORD”



# ATM Transaction Records



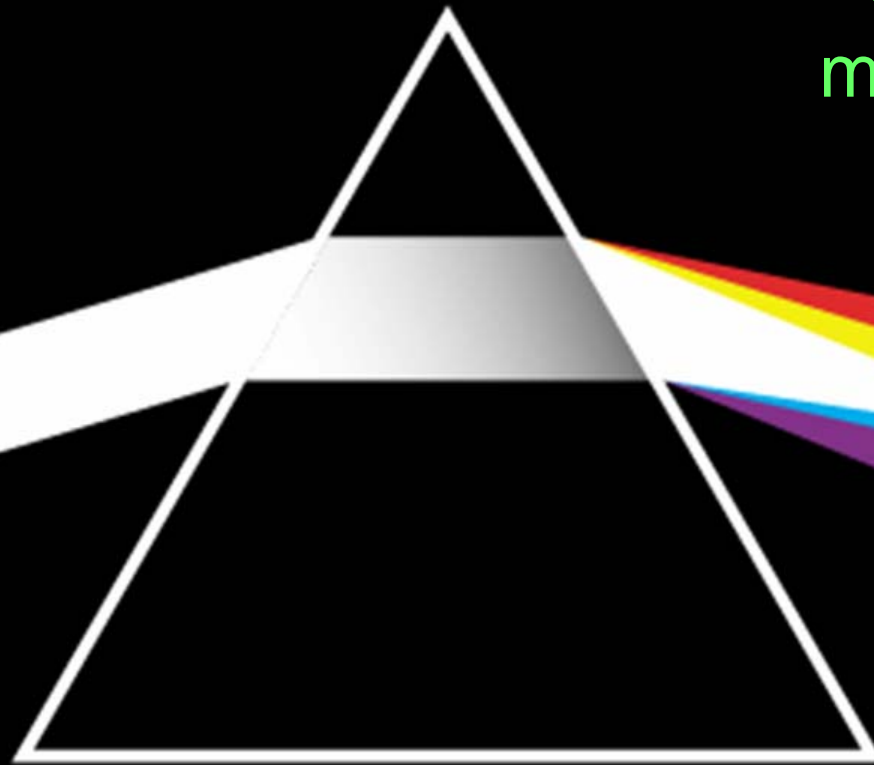
# Possibilities for Record Expression

Exactly as  
originally  
presented

Optimally to  
meet business  
need

**Traditional**

**Electronic**



# Online Sales Application

The collage illustrates the Amazon.com online sales application interface from 2001. It features several overlapping browser windows:

- Amazon.com: Online Shopping for Electronics, Apparel, Computers, Books,...**: The main homepage with navigation links, a search bar, and promotional banners for BlackBerry phones and 'The Stuff of Thought' book.
- Amazon.com: The Stuff of Thought: Language as a Window into Human Na...**: A product page for the book 'The Stuff of Thought' by Steven Pinker, showing its price (\$10.40) and availability.
- Amazon.com: Recommended for You - Mozilla Firefox**: A page showing personalized recommendations for the user, including books and movies.
- Amazon.com - Your Account - Mozilla Firefox**: A user account page for 'Kenneth Thibodeau' with sections for Orders, Payment, Settings, and Digital Content.

The interface includes a top navigation bar with links like 'Shop All Departments', 'Search', and 'Cart'. The bottom of the collage shows the 'Frequently Bought Together' section and the 'Complete Your Series' section, suggesting related products to the user's current selection.

# Spectrum of Retrieval & Presentation

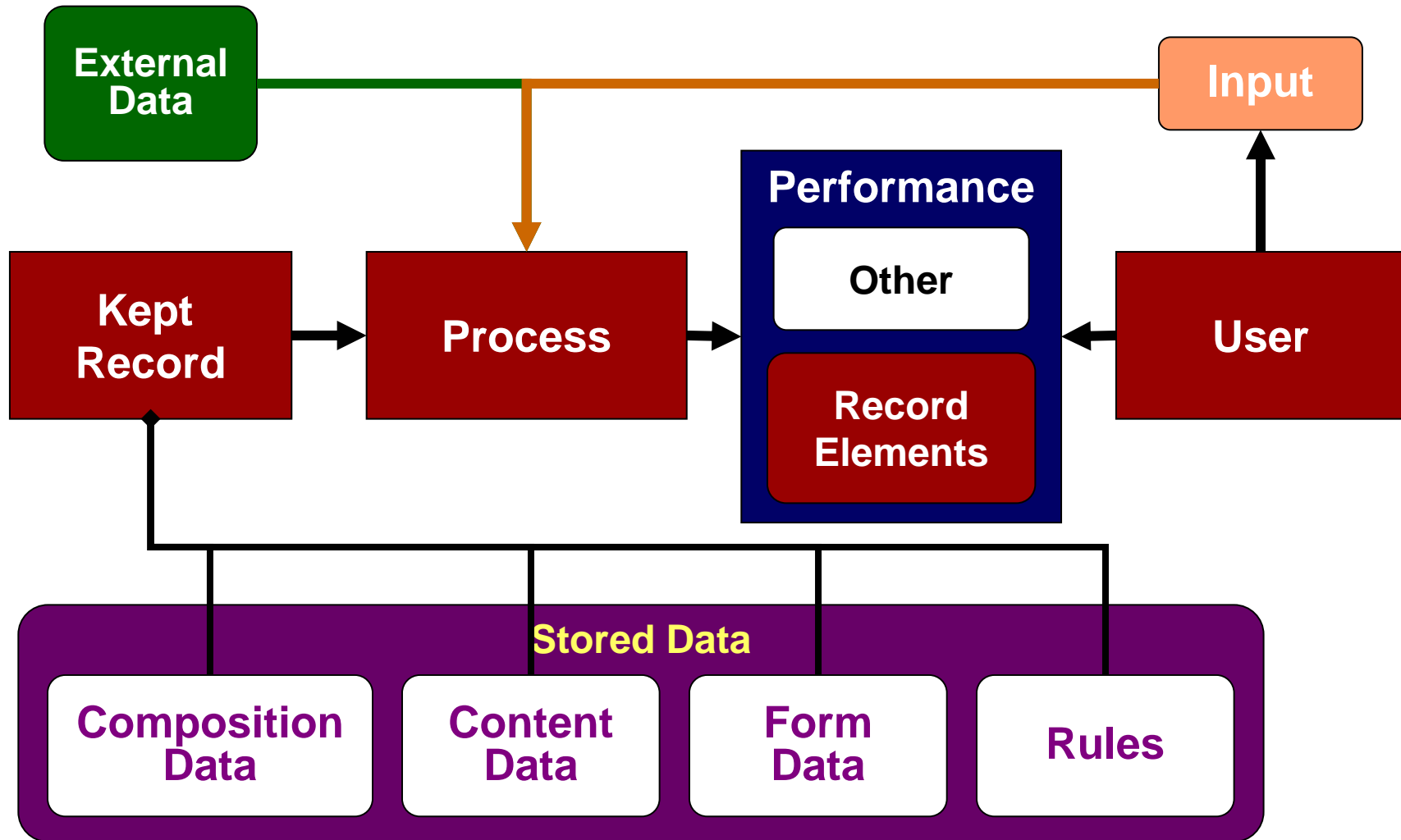
Select information  
from any relevant  
records

Taylor  
presentation to  
meet specific  
needs



Optimally to  
meet business  
need

# Develop "RECORD"



# Technical Competency

## ❖ Technical Expertise

- The ability to develop, deploy, apply, and adapt technological solutions
- Internal focus on technology itself
- Emphasis on in-depth knowledge of technologies used in specific cases
- Must be supplemented by technical judgment to determine the goodness of any 'solution'

## ❖ Technical Judgment

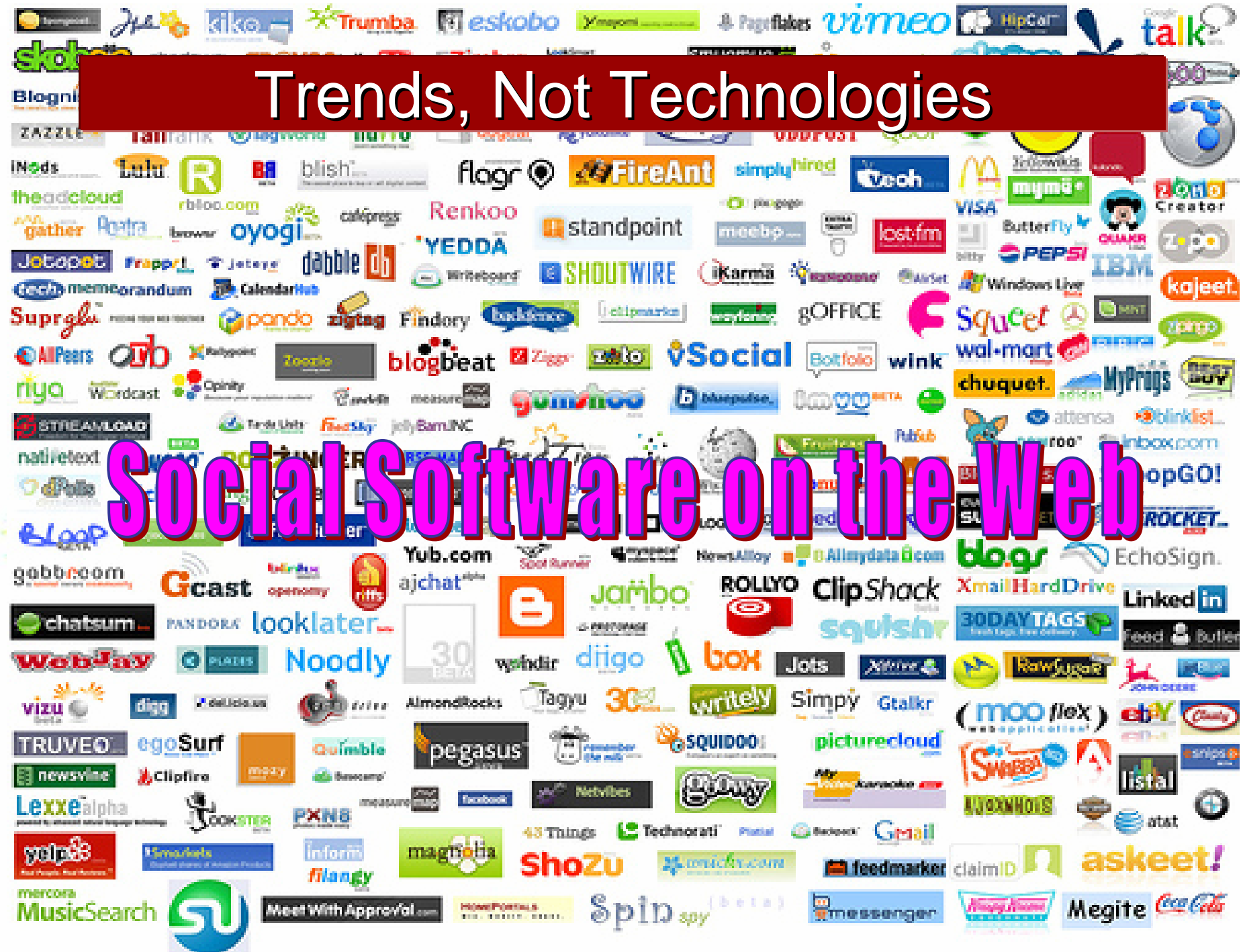
- The ability to evaluate technological solutions both when proposed and in use
- External orientation: how well the technology fills real world needs
- Emphasis on broad familiarity with technologies
- Relies on technical expertise to get things done

# How Can You Develop Technical Judgment?

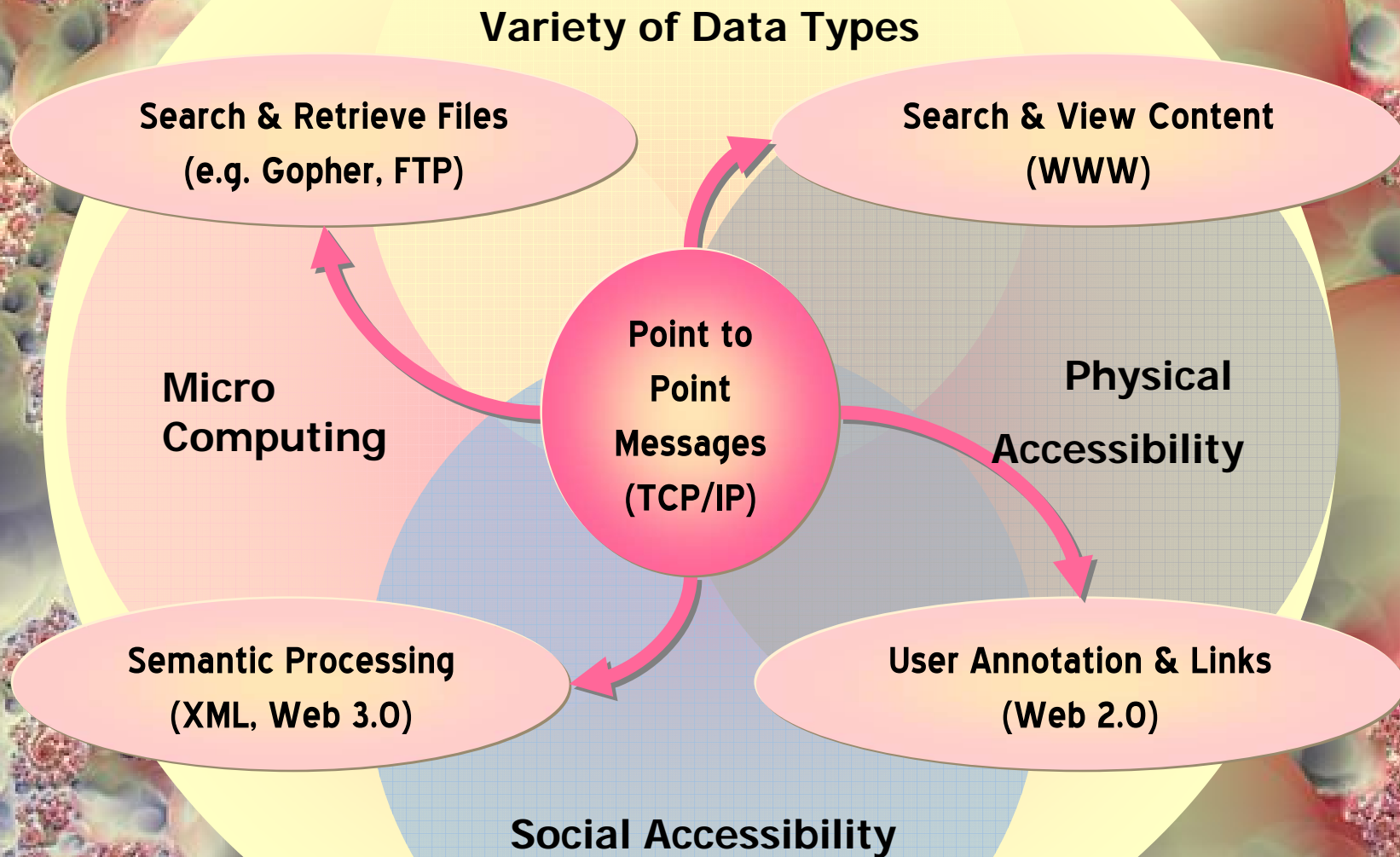
- ✓ WATCH TRENDS, NOT TECHNOLOGIES.
- ✓ RECOGNIZE THE DIFFERENCE BETWEEN REQUIREMENTS AND SOLUTIONS.
- ✓ EXPLORE POSSIBILITIES, THEN
  - ACT ON PROBABILITIES.

# Trends, Not Technologies

## Social Software on the Web



# Trend: Access in Cyberspace



# Records Management v. Trends

## ❖ Traditional Records Management:

- Producer Centric
- Centralized
- Regular

## ❖ Technology Trends

- Data Centric
- Consumer Centric
- Ad hoc interactions



# Traditional v. Consumer Centric Records Management

**Traditional:**

**“Capture” or “set aside” a record.**



**Consumer Centric:**

**Put a record in a place  
where it is at your  
fingertips, or will come at  
the sound of your voice.**



# How Can You Develop Technical Judgment?

- ✓ WATCH TRENDS, NOT TECHNOLOGIES.
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# Requirements v. Solutions

## ❖ Solution:

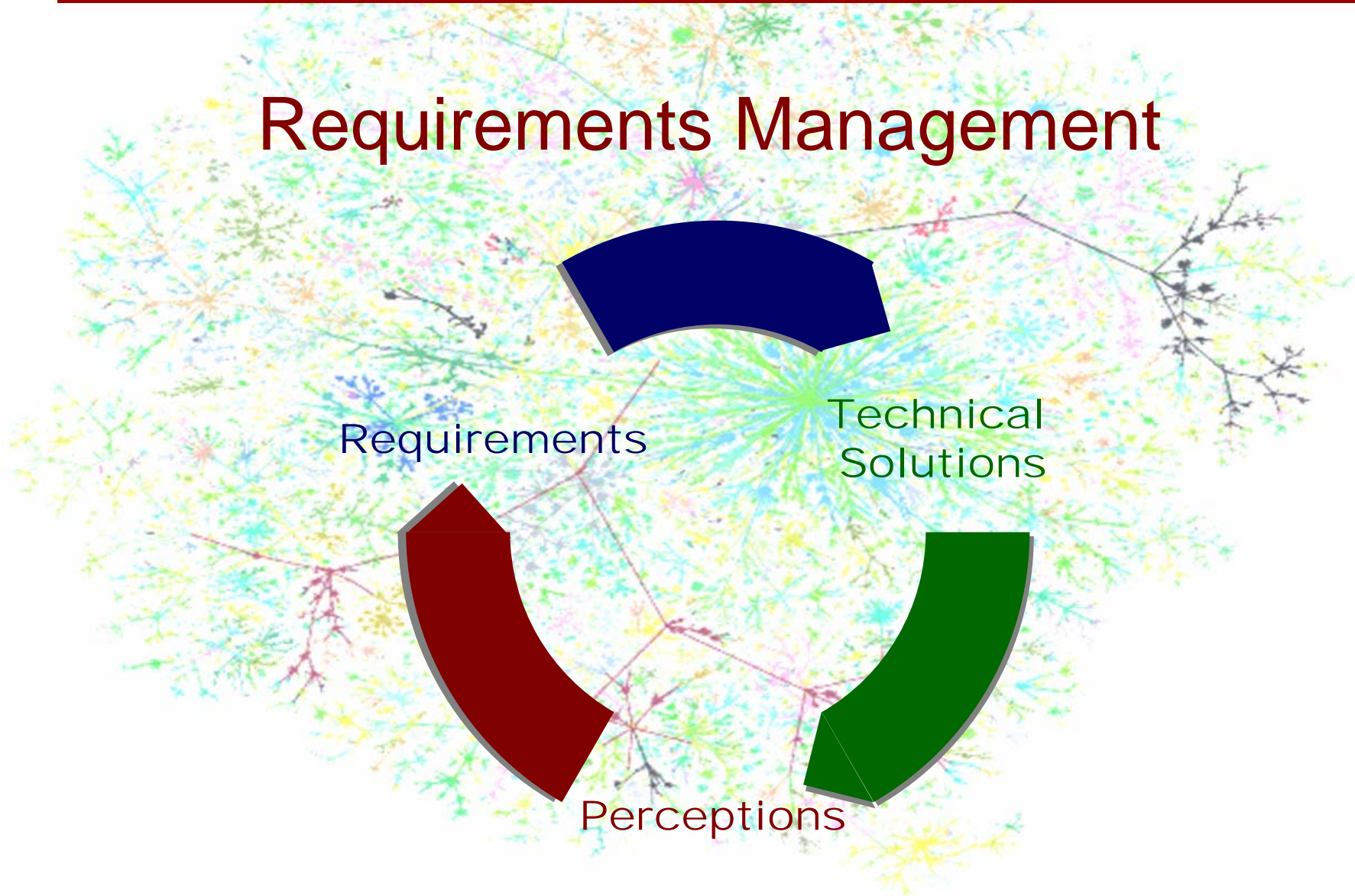
- Manage electronic records by putting them in a Records Management Application that implements file classification and disposition rules

## ❖ Requirement:

- Organize records to serve the record keeper's retrieval needs and keep them as long as they retain value

# Requirements v. Solutions

## Requirements Management



# How Can You Develop Technical Judgment?

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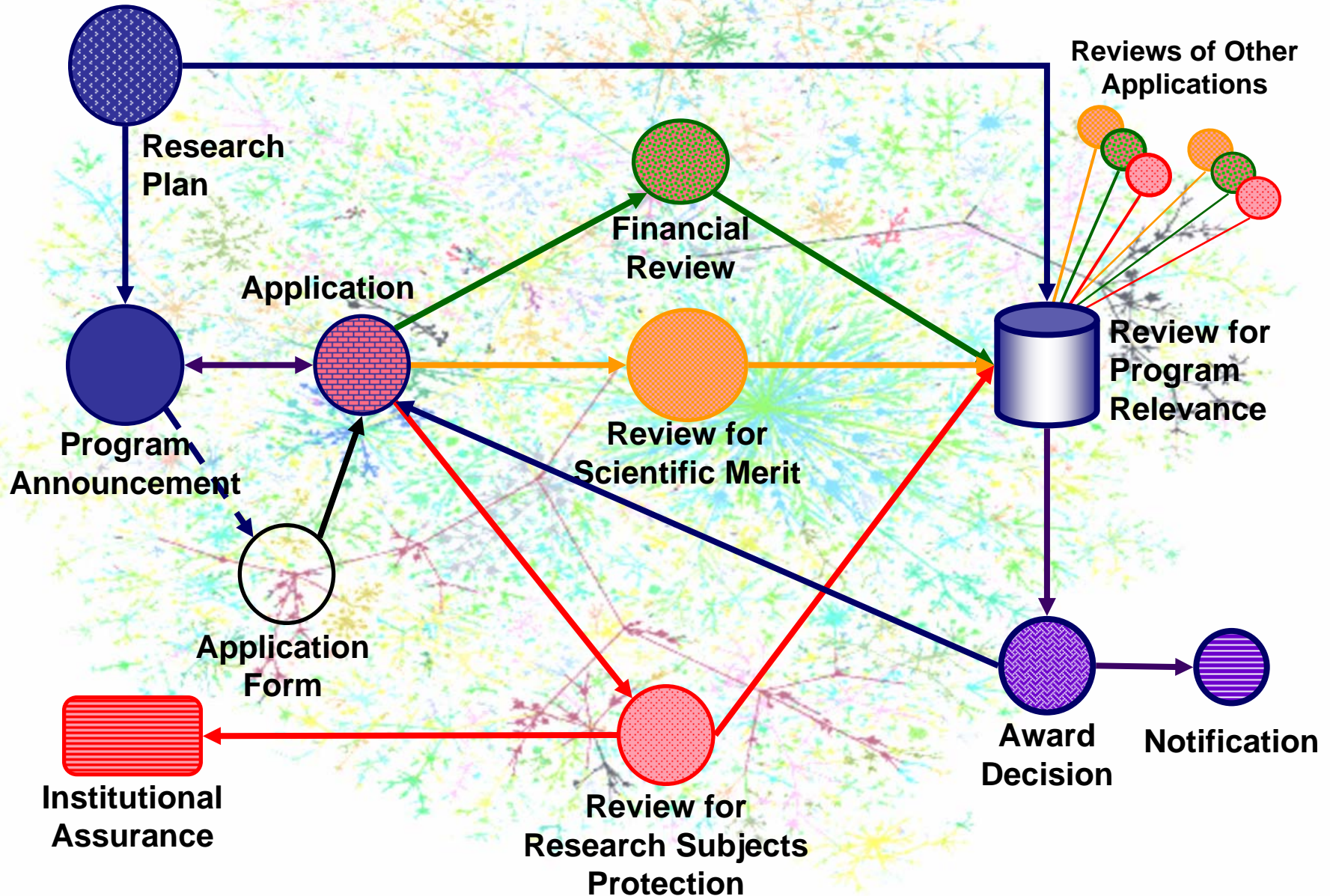
# Explore Possibilities

- ❖ If IT can satisfy any requirement, there is more than one way to do so.
  - Technical experts tend to recommend what they know best.
- ❖ Technical experts will develop different and probably better ways to satisfy requirements.
  - Evaluate possible solutions for their capability to evolve or the ease with which they can be replaced.
- ❖ In cyberspace, possibilities include things that have never been done before.

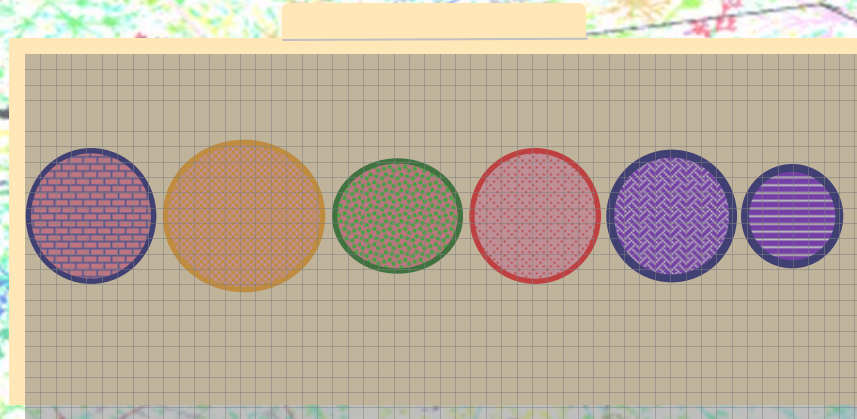
# Possibilities for Respect

- ❖ Preservation of records requires respect for the fonds and the original order of records
  - Both result organically from the processes of record creation and keeping
  - Placing related records in file folders and arranging folders in series is a solution for hard copy records.
  - There are other possibilities in Cyberspace

# Archival Linkage

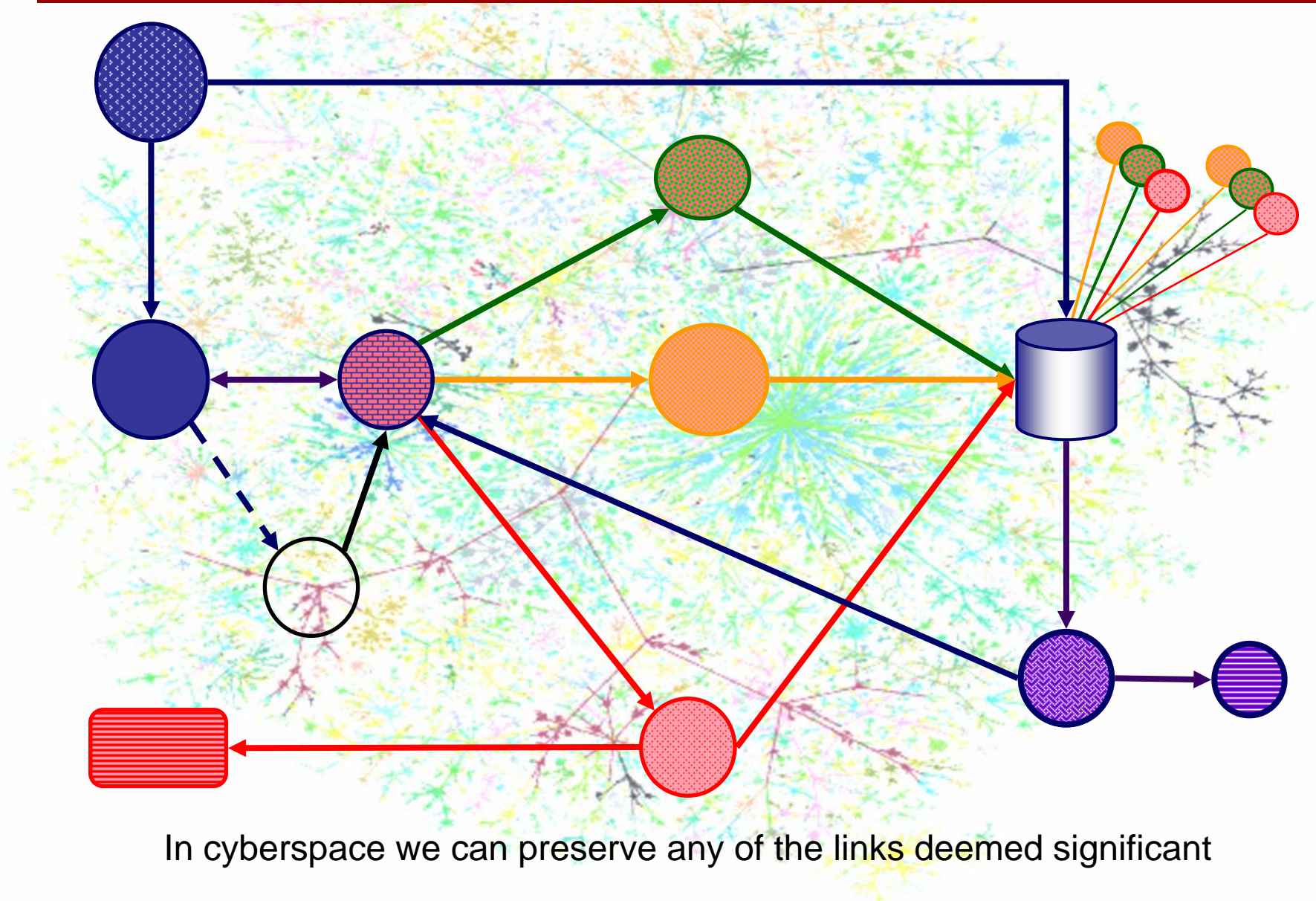


# Case File

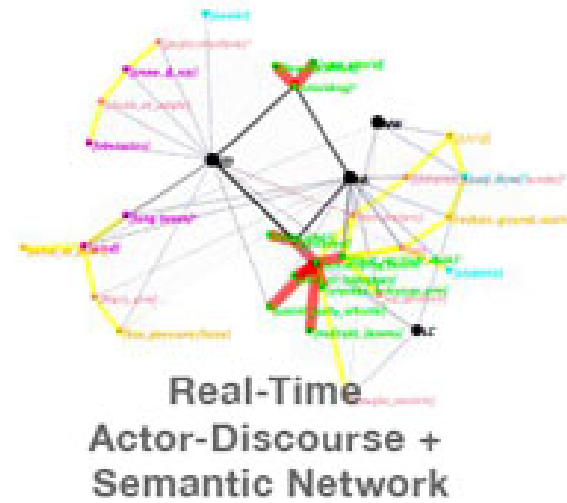


In traditional filing systems, indications of some of the organic relationships that arise among records in the course of their creation and use are captured by aggregating records within a dossier or file folder.

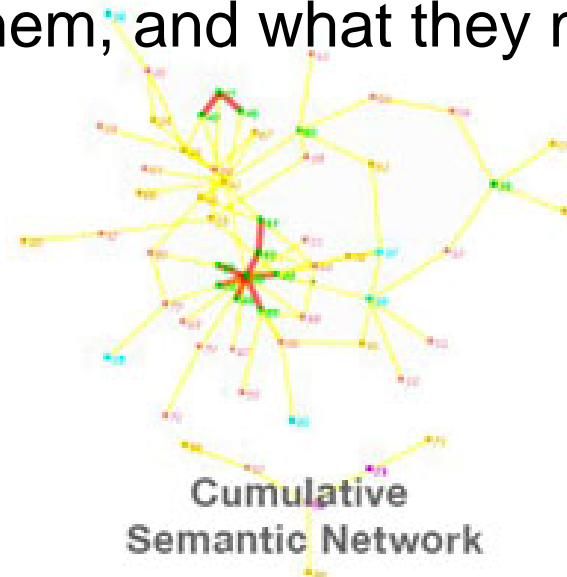
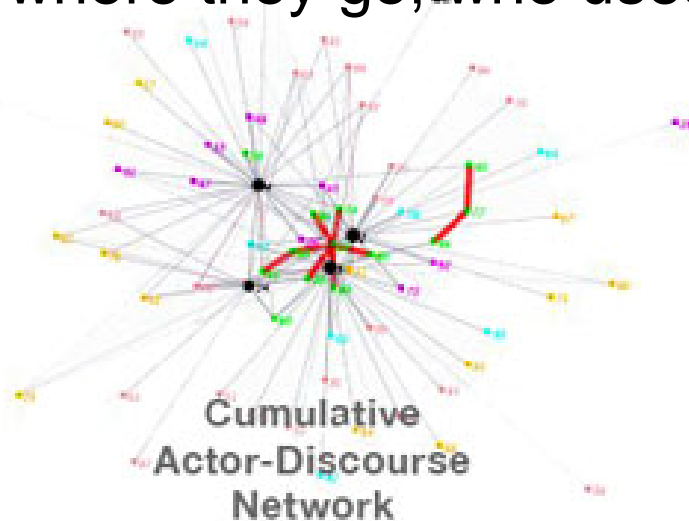
# Preserve Links



# Possibilities for Managing Interaction Relationships



Manage records not on the basis of where they are put,  
but where they go, who uses them, and what they mean!



# How Can You Develop Technical Judgment?

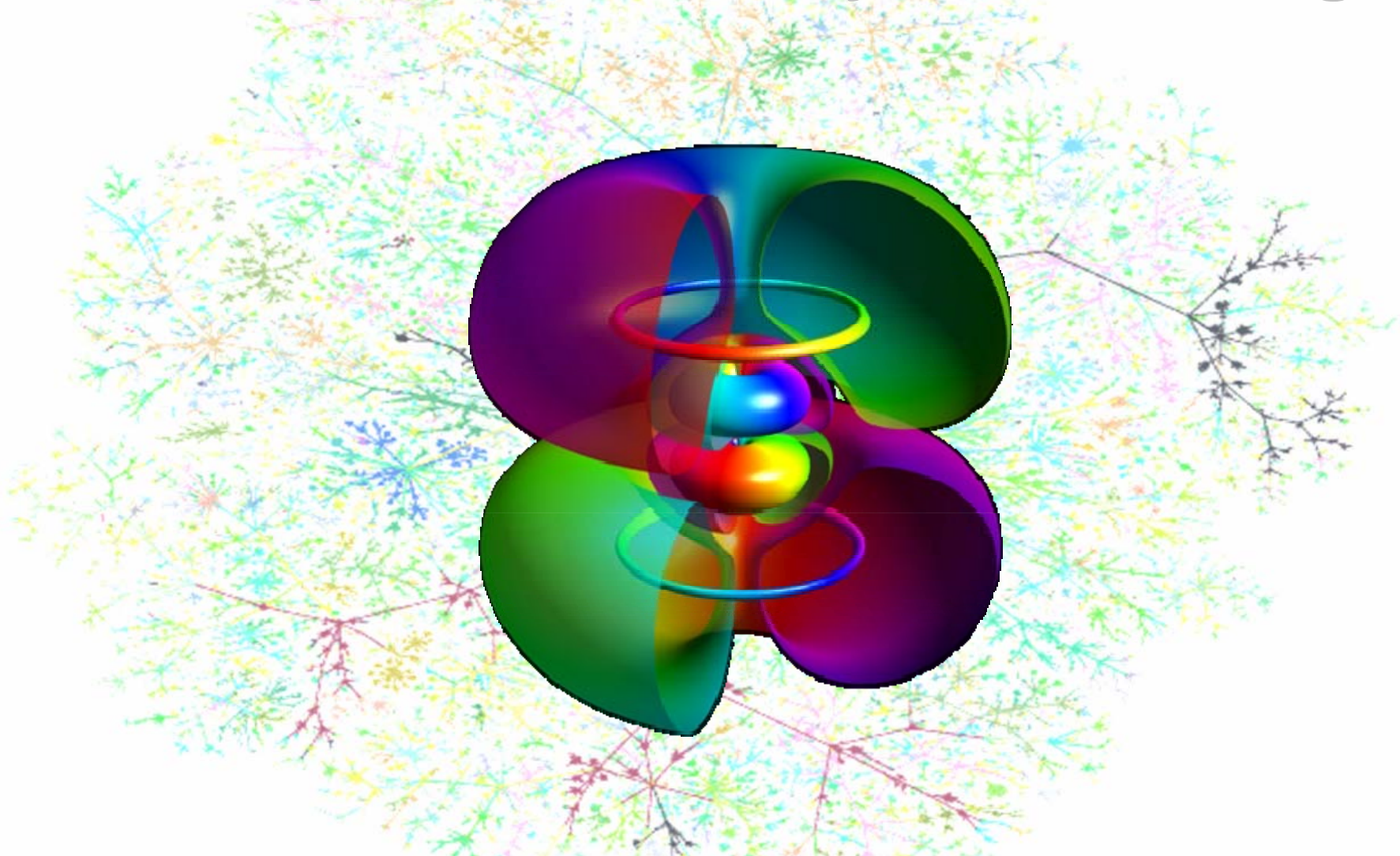
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# Act on Probabilities

## ❖ Probabilities depend on context:

- The particular requirements to be addressed
- Specific authorities and responsibilities
- The resources available, or likely to become available
- The competencies of those responsible for action
- The state of the art of information technology and the strength and speed of trends

# **Be Open to New Ways of Thinking**



## **About Records & Managing Records**