

**The Open Knowledge Model:
Knowledge Management Addresses
Organizational Cultural and Values in
Distributed Learning**

Overview

The trend toward knowledge management as an overarching learning architecture philosophy is evidenced in the myriad of technological artifacts, such as digital repositories and Learning Content Management Systems (L/CMSs), which have emerged to capture, categorize, and manage digital instructional content or learning objects. In this session, we identify the need to examine existing knowledge management models from a planning and decision-making perspective.

We discuss four current models of knowledge management found in higher education: the traditional model, the intellectual capital/appropriative model, the sharing/reciprocal model, and the contribution pedagogy model.

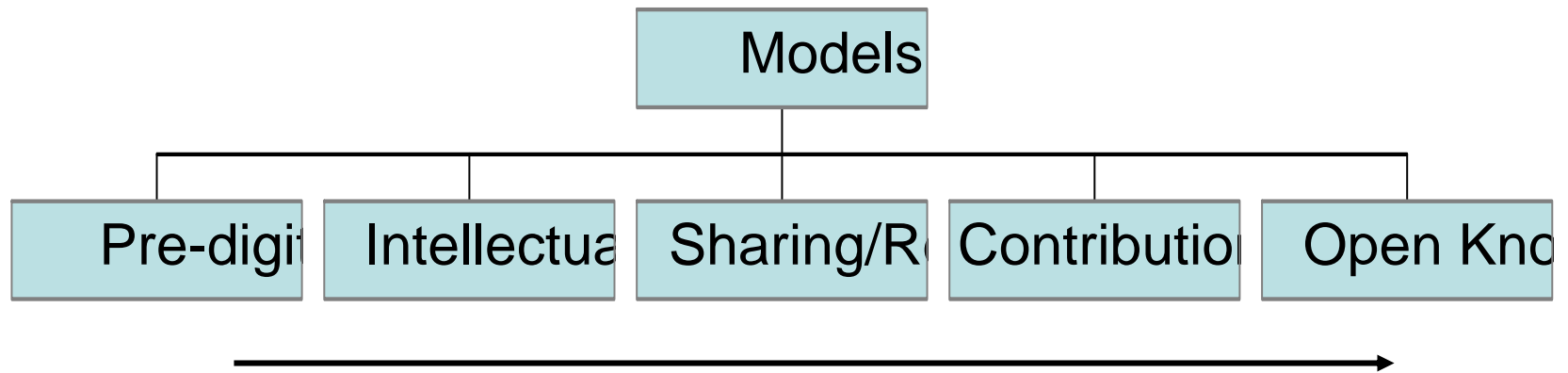
We propose a new, relativist model of knowledge management that accommodates cross-institutional cultures and beliefs about learning technologies, construction of knowledge across systems and institutions, and the trend toward learner-centered environments, disaggregated and re-aggregated learning objects, and negotiated intellectual property rights.

Further, we examine and showcase institutional instances of various knowledge management models and propose the Open Knowledge Model, developed to address learner-centered environments.

Introduction

- Thomas (1994) argues that a technical system of an organization can be objective, but also infused with objectives, reflective of the interests or goals of particular groups within the social system. Knowledge, therefore, is constrained by the institutional culture.
- Demarest (1997) believes that organizations value knowledge based on “what works, ” thereby connecting knowledge to performance that is constructed, embodied, disseminated, and used within an institution.
- Norris, Mason, and Lefrere (2003) call for a transformation of the knowledge economy from one that is proprietary to a freestanding, shared knowledge community.
- The Learning Object (LO) phenomena has indicated a disaggregation of institutional knowledge.
- Existing models of knowledge management have not been able to adequately embrace and nurture a learning object economy.

Shift in Models of Knowledge Management



Pre-digital Model

Assumptions

- Pre-instructional commodification period
- Traditional academic products: books, journal articles
 - Minimum revenue generation potential
- Traditional delivery of instruction
 - Lectures, notes

Characteristics

- Copyright resided with author(s)
- Faculty member had full control over instructional function (i.e., absence of instructional developers, instructional technology centers)
- Instruction requires minimal institutional resources for delivery
- Less costly instructional function in the absence of technology
- More stable and secure university fiscal climate

Intellectual Capital/Appropriative Model

Assumptions

- Restricted federal and state higher education contributions
- Increased demand on higher education
- Increasingly diverse student body (characteristics and geography)
- Rise of distributed learning
 - Learning technology centers
- Commodification of instructional function
- Increased institutional expenditure on instructional function

Characteristics

- Revised copyright law: [DMCA](#)
- Disaggregation of the course
 - Learning Objects
- Course Management Technology
 - LCMSs (Blackboard™, and WebCT™)
 - Digital Repositories
- Branding of instructional products and (new) online markets
- Revised, increasingly appropriative, intellectual property policies governing instructional products (Diaz, 2004)

Sharing/Reciprocal Model

Assumptions

- Shared and negotiated value
- Shared investment
- Shared access
- Open source initiatives indicate need
 - [SAKAI](#)
 - [OSPI](#)

Characteristics

- Typically consortia
 - [Ariadne](#)
 - [AESHARENET](#)
- Standards for technology and design
 - Digital Object Identifier (DOI)
- Pre-determined rights
 - Digital Rights Management (DRM)
 - [Creative Commons](#)
 - Royalty Rights Management (RRM)
- Registry
 - Learning Object Network (LON)
- Knowledge management system
 - [EZ Reusable Objects](#) (EZRO)
 - [DSPACE](#)
 - [Fedora](#)

Contribution/Pedagogy Model (Laurillard & McAndrew, 2003)

Assumptions

- Knowledge is generated through a learning community
- Content generated by learners has multiple benefits
- Shifts learning from transmission to construction
- Primarily pedagogical

Characteristics

- Typically course-based
- Typically enacted through CMS
- Collected artifacts
 - ePortfolios
- Collaborative software
 - [Wikipedia](#)
 - [Collaborative Online Reporting \(COR\)](#)
 - [Online Student Collected and Annotated Resources \(OSCAR\)](#)
- May be peer-to-peer
 - [Groove](#)

Open Knowledge Model

Assumptions

- Knowledge belongs to a larger community
- Attribution is critical
- Knowledge is generated through a collective and can and should be changed over time
- The value, purpose and role of knowledge may change depending on the context of the user or the knowledge and re-purposing is expected.

Characteristics

- Knowledge is made accessible at no or minimal cost
 - [MIT's OpenCourseWare](#)
- Systems that can manage knowledge are collectively designed
 - [Moodle](#)
 - SAKAI
- Criteria for modification and use are determined by original creator

Implications and future considerations

Management

- Viability, credibility of knowledge products
- Erosion of proprietary, licensing, sole provider models
- Management within consortia networks

Distribution

- Standards & Specifications
 - [SCORM](#)
 - [IMS Project](#)

Sustainability

- Increased reliance and development of distributed learning
- Knowledge association to faculty or institution

Maintenance

- Decentralization of ownership and responsibility
- Knowledge product design, format and roles and procedures

Presenters

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