

Theory of Learning Networks

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Stephen Downes

Senior Researcher, National Research Council Canada

<http://www.downes.ca>

Outline

1. The Structure of Learning Networks
2. Content as Conversation
3. Using Learning Networks: Connectivism

1. The Structure of Learning Networks

1.1 Linear Learning

1.2 Breaking Up Boxes

1.3 Weaving the Web

1.1 Linear Learning

1.1.1 Assumptions in Traditional Learning

1.1.2 Recreating Classes Online

1.1.3 Content Management, Student Management

1.1.1 Assumptions in Traditional Learning

- Traditional learning as a form of content delivery
- Learning content grouped according to subject
- Emphasis on facts, skills
- Learning as linear, cumulative
- Progression as a cohort or class

1.1.2 Recreating Classes Online

- The LMS – a Content Delivery Vehicle
- Major emphasis on “courseware” – “course in a box”
- Testing-based, competency-based
- Learning Design – content organization
- Pre-packaged, made for CD-ROM

1.1.3 Content Management, Student Management

- Major function of LMS – student management
- Class management functions – authentication
- Integration with student information system
- Basically, though: a ‘big box’

1.2 Breaking Up Boxes

1.2.1 Distribution – Learning Online

1.2.2 Disaggregation – Learning Objects

1.2.3 Decentralization – Web Services

1.2.1 Distribution – Learning Online

- From distance learning – students at remote locations
- Inherits the idea of the ‘course pack’
- But – content located online
- Also – *services* located online (such as chat and discuss, registration, etc)

1.2.2 Disaggregation – Learning Objects

- Break up parts of courses – ‘chunking’
- But then – idea of reuse – Hodgins – legos
- Discovery, reuse, interoperability
- The idea of learning object standards – IMS, SCORM, CanCore

1.2.3 Decentralization – Web Services

- Like breaking up computer programs
- Discovery, reuse, interoperability
- Web services – WSDL
- E-Learning Framework (ELF)

1.3 Weaving the Web

1.3.1 Dis-Integration – Common Languages

1.3.2 Disintermediation – Creating Conversations

1.3.3 Democratization – Relinquishing Control

1.3.1 Dis-Integration – Common Languages

- Application Program Interfaces
- ... as contrasted with plug-ins
- Provides software independence
- Examples: RSS, Dublin Core, XQuery...

1.3.2 Disintermediation – Creating Conversations

- Content Syndication Networks
- Portals and Community sites
- Disintermediation – citizen journalists, Craigslist, Amazon and eBay, Napster and Gnutella

Content as Conversation

- Broadcasting: The Tail Free Network
- Aggregate, Remix, Repurpose, Feed Forward
- The Self Organizing Network

Broadcasting: The Tail Free Network

- Traditional Content and Consumers
- Editing, Gatekeeping
- Silent Voices and the Long Tail (The Network as Hierarchy)

Aggregate, Remix, Repurpose, Feed Forward

- Content Syndication
- Authoring Tools
- Educational Blogging

The Self Organizing Network

- Nonlinear Networks
- The Semantic Social Network
- Emergence

Using Learning Networks: Connectivism

- Personal Knowledge Management
- Engaging Community
- Building Capacity, Building Connections

Personal Knowledge Management

- Knowledge as a Totality of Facts?
- Personal Knowledge
- Mapping Knowledge

Engaging Community

- Localizing Knowledge
- Communities of Practice
- Distributed Knowledge

Building Capacity, Building Connections

- Describing Context
- Informal Organization
- The Mind of Society