

Personal Learning Environments: Challenging the dominant design of educational systems

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<http://www.cetis.ac.uk/members/scott/foaf.rdf>

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The problem context

(VLE = LMS)

- The personal perspective of learning is not supported by VLEs: lifelong, lifewide, informal learning
- The VLE has not succeeded in leveraging the power of the internet and global networks for education
- The VLE of today is unlikely to meet the needs of european competence networks

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McLuhan and Illich

- If the VLE is the medium, what is the message?
- Is the hidden curriculum actually made more concrete in the VLE?

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Understanding technology and innovation

- Dominant Design (Abernathy and Utterback, 1978)
- A model for innovation and adoption of new technologies
- "Several studies have shown that somewhere along the product innovation curve the performance criteria that serve as a primary basis for competition change from ill defined and uncertain to well articulated. At the same time, forces that reduce the rate of product change and innovation begin to build up...."

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The dominant design cycle

- the Product Innovation period
- the Dominant Design emergence
- the Process Innovation period

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Dimensions of design

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

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Core and periphery

- High-pleiotropy components are those where a change in a technical factor causes a high degree of change in service factors (e.g. cost, reliability etc)
- Once core (high-pleiotropy) components are identified, innovation is concentrated on peripheral (low-pleiotropy) components

(Murmann and Frenken, 2006)

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Characteristics of the dominant design (VLE)

- focus on integration within a course context
- asymmetric role relationships
- symmetric user experience
- use of open e-learning (vertical) standards
- access control and rights management
- organizational scope, ownership and management

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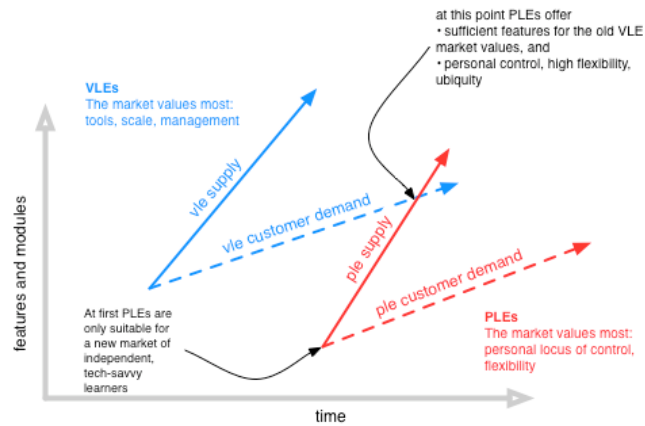
Characteristics of an alternative design (PLE)

- focus on coordinating connections in groups and networks
- symmetric role relationships
- asymmetric (individualized) context
- use of open internet standards AND lightweight proprietary APIs
- open content and remix culture
- personal & global scope, personal ownership

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Challenging the dominant design



VLE and PLE: Disruptive technology?

Based on "Disruptive Technology Unmasked" infographic by Simon Woodside (sbwoodside@yahoo.com, <http://www.simonwoodside.com>) and licensed under creative commons CC-SA.

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Key challenges

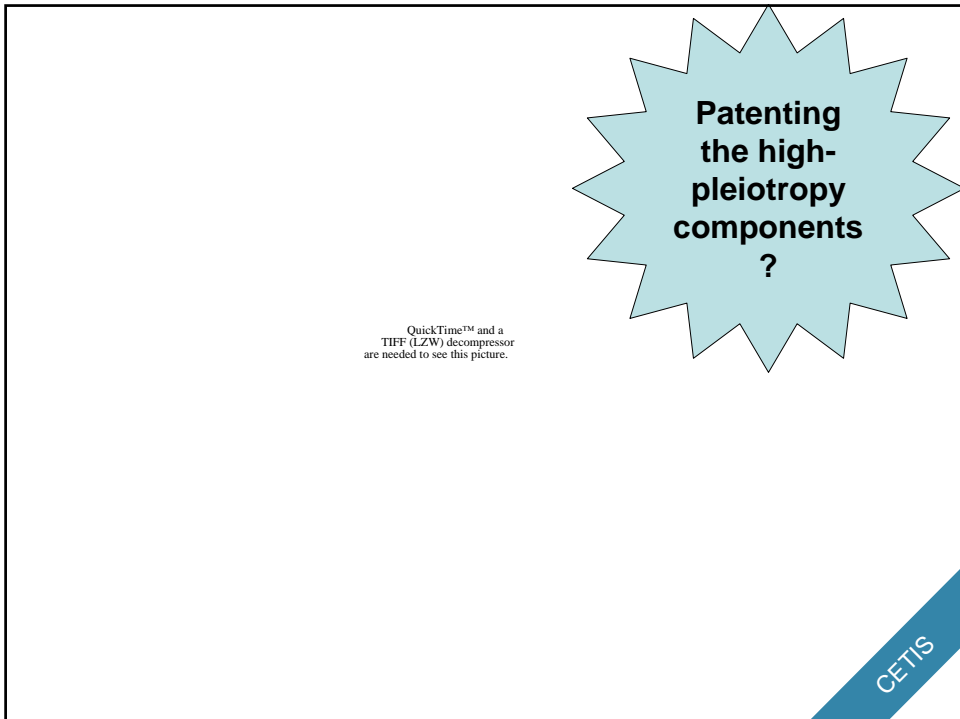
- lowest common factors
- soft boundaries
- coordination of groups and teams (as well as networks)
- Connecting with the enterprise of education
- fear

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Challenging a dominant design isn't easy - you have to cross Moore's chasm all over again

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**Patenting
the high-
pleiotropy
components
?**

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Thanks!

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