Social Networking and Learning: Potentials and Challenges

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Issues

Reasons to Change

Ways to Change

Discussions
Reasons to Change

Changes In Educational Environment

- Learners’ Environment
- Technological Development
- Information Revolution
Changes In Educational Environment

Learners’ Environment

- Personalized learning environment
- Prosumer
- Vigorous information exchange through SNS
m-Learning Generation

- Power, Passion, Participation, Pure

- Active vs Passive
- Play vs Work
- Payoff vs Patience
- Fantasy vs Reality
- Technology as Friend vs Technology as Foe
m-Learning Generation

- **Power, Passion, Participation, Pure**

  - Twitch speed vs Conventional speed
  - Parallel processing vs Linear processing
  - Random thinking vs Linear thinking
  - Graphics first vs Text first
  - Connected vs Stand-alone
Changes In Educational Environment

Technological Development

Learners’ Environment

• Personalized learning environment
• Prosumer
• Vigorous information exchange through SNS

• The advent of Web 2.0 & Web 3.0 which provide dynamic network service based on collaborative work
• Broadband internet, smart phone, tablet PC
• Ubiquitous computing
• Digital Learning Eco-system
WEB 1.0 (push)
Two way web, blogs, Wikis, video, Podcasts, sharing, Personal publishing 2D portals and Social networks

WEB 2.0 (share)
Two way web, blogs, Wikis, video, Podcasts, sharing, Personal publishing 2D portals and Social networks

WEB 3.0 (live)
The real time, co-creative web, Growing 3D portals, avatar representation, interoperable profiles, MUVEs, integrated games, education and business. All media flows in and out of virtual worlds
Learning 2.0, Web 2.0, Web 3.0

- Sociocultural Psychology
- Social Cognition
- Sociocultural Constructivism
- Connectivism

open

Participation

share

Cooperation
Modern Technology

- Wired/Wireless
- Multimedia
- Various platforms (phone, pad, netbook, pc, etc.)

- Networked
- Speed
- Transparent
- User-friendly
- Ubiquitous
- Smart:
  - ecological environment
  - human nature
Changes In Educational Environment

**Information Revolution**
- Boundaries between Information producers and consumers are getting blurred.
- Collective Intelligence are getting important as a way to produce knowledge

**Learners' Environment**
- Personalized learning environment
- Prosumer
- Vigorous information exchange through SNS

**Technological Development**
- The advent of Web 2.0 & Web 3.0 which provide dynamic network service based on collaborative work
- Broadband internet, smart phone, tablet PC
- Ubiquitous computing
- Digital Learning Eco-system
Technical Development

Joint physical action
Transient oral communication

Increasing Complexity of Mediation

Culturally Mediated
Symbol Mediated
Communication Mediated
Network Mediated
Cyberinfrastructure Mediated

Sciences
Mathematics
Texts
Economies
Art/graphics

Satellites
Broadcast media
Factories
Mass publishing

Networked PCs
Web Publishing
Recommendation engines
Global search

Virtual observatories
Collaboratories
Social networking
Web 2.0

Roy Pea (2010)
Reasons to Change

Paradigm Shift
In Education

- Socio-cultural theories
- Situated learning theory
- Cognitive anthropology
- Social and collaborative approaches to learning
- Distributed cognition, intelligence and expertise
Social Turn in Education

- Increasing attention to *social foundations of learning*, to augment the cognitive revolution.
- Learning involves not only transformation of cognitive structures but of *participation in cultural practices*.
- Evidence that *social interactions contribute significantly to key “drivers” of learning*: identity, interests, agency, engagement, social networks.
- Concern with examining *cultural practices that shape learning* outside of school – including family, community, media & tools.
- Sense of increasing societal importance of *collaboration and teamwork* & *need for science to better understand and improve* practice and mediating technologies. Greater use of *social designs in formal instruction beyond* teacher-led classes.
- Appreciation of special brain processing of social stimuli from social neuroscience research – e.g., on *mirror neurons*.

Roy Pea (2010)
Ways to Change:
Four Aspects for Successful e-learning

1. Software side
2. Humanware side
3. Hardware side
4. Systemware side
Four Aspects for Successful e-learning

- Learning contents (quality)
- Teaching & learning support
- Teaching & learning activities
- Class management

1. Software side
2. Humanware side
3. Hardware side
4. Systemware side
Four Aspects for Successful e-Learning

1. Aspects of learners
2. Aspects of instructors
3. Aspects of educational administrators
4. Aspects of community leaders

Training
Four Aspects for Successful e-learning

1. Software side
2. Humanware side
3. Hardware side
4. Systemware side
### Core capabilities required in smart era

<table>
<thead>
<tr>
<th>Letter</th>
<th>Capability</th>
<th>Description</th>
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<tbody>
<tr>
<td>C</td>
<td>Cognitive capability</td>
<td>problem solving ability and critical thinking ability</td>
</tr>
<tr>
<td>R</td>
<td>Relational capability</td>
<td>ability creating harmonious and reliable relationship</td>
</tr>
<tr>
<td>E</td>
<td>Emotional capability</td>
<td>ability to control his/her emotion wisely with an appreciative eye</td>
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<tr>
<td></td>
<td></td>
<td>on technology and an aesthetic sense</td>
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<tr>
<td>A</td>
<td>Adaptability</td>
<td>ability to find information from fast search and critically evaluate and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>use them for his/her own purpose</td>
</tr>
<tr>
<td>T</td>
<td>Technology literacy</td>
<td>upright understanding about characteristics and ranges of use of ubiquitous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>technology</td>
</tr>
<tr>
<td>E</td>
<td>Effective learning ability</td>
<td>self-directed learning ability which can be self-planning, self-monitoring,</td>
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<td></td>
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<td>reflection and self-evaluation</td>
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</tbody>
</table>
Four Aspects for Successful e-learning

- Appropriateness of devices
- Speed of wireless network
- Appropriateness of server
- Speed of after service
Changes of Educational Devices

Desktop | Laptop | Netbook | PMP | Tablet

E-Learning | m-Learning | u-Learning

Jung Meehyun (2010)
Characteristics of Smart devices

- Paperless
- Customized LMS
- 1 to 1 learning
- Live Class
- Social learning
- Edutainment
- Interactive books
- Flash animation
Creative Learning Environment

- Interactions among peers and teachers through openness, sharing, and collaboration

Jung Meehyun (2010)
m-learning platforms of Blackboard

- Blackboard which provides e-learning platforms for university develops mobile platforms

- Iphone platform
- Ipad platform
- Android platform
Ways to Change: 
Four Aspects for Successful e-learning

1. Software side
2. Humanware side
3. Hardware side
4. Systemware side

- Aspects of security
- Aspects of support
- Web 2.0/Web 3.0 environment
- Digital Learning eco-system
  - EDUNET
  - NEIS
  - EBS EDRB
EDUNET (www.edunet.net)

- Integration of educational resources
- Quality contents service
- Personalized knowledge (customized service)
- Interchange between community & school

Knowledge Warehouse

Teacher
- Teachers
- Head teachers
- Librarians

Student
- K12
- College
- Special

Parents
- Children Edu.
- Life-long Edu.

Administrator
- Principle
- Supervisor
- Policy makers

EDUNET

Integrated search

eCRM/CMS

Integrated educational Content nationwide (KEM2.0)

Increase quality of educational service

Collaboration
EBS - EDRB for Digital Learning Eco-System

1. Link EDRB Clip to the file at the writing tool & produce E-book

2. Recognize over a smart phone or web cam of PC.

3. Linked images are executed over a smart phone or PC
Instructor Training

- Develop teaching–learning model and strategy
- Plan integrated training program for teachers
- Expand nationwide subject study society network
- Nationwide contest on how to adapt ICT in teaching

<table>
<thead>
<tr>
<th>Old Training</th>
<th>New Training Program</th>
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<tbody>
<tr>
<td>Instructor centered</td>
<td>Focused on students’ activities &amp; higher order thinking skill</td>
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<tr>
<td>ICT literacy centered</td>
<td>Focused on ICT integrated with Curriculum</td>
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<tr>
<td>Delivering centered</td>
<td>Focused on active participation (Learning by doing)</td>
</tr>
</tbody>
</table>
Instructor Training Flowchart

**Introduction**
- Introduction
- Understanding Of changes

**Core Activities**
- Understanding Of ICT use In education
- Understanding of ICT use in Each subject
- New ideas using ICT
- Understanding of practical strategies for ICT use
- Developing ICT-based lesson planning
- Information and communicators ethics

**Supportive Activities**

**Conclusion**
- Summary, Pilot Class
## Training Level

<table>
<thead>
<tr>
<th>ICT Literacy Course</th>
<th>Basic ICT Use Course</th>
<th>ICT Advanced Course</th>
<th>ICT Leadership Course</th>
</tr>
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</table>
| Information Search and use of ICT tools | ICT-based problem-based education | - Creative lesson planning for ICT use  
- Teaching with ICT for developing thinking skills | - Building a 21st century of school  
- Leading innovation |

Peer coaching course on ICT use

## Target Audience

<table>
<thead>
<tr>
<th>School teachers</th>
<th>School CEO</th>
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Teachers’ career stages (from induction to retirement)
Teaching Competencies

Competency Pool
- Value
  - Passion
  - Positive Thinking
  - Cyber Ethics
  - Responsibility
  - Creative Thinking
- Teaching
  - Subject Matter Expertise
  - Information Literacy
  - e-Lesson Planning
  - e-Activity Evaluation
- Facilitating
  - Empowering Learning Motivation
  - e-Activity Facilitation
  - On-Line Communication
  - Learning Advice
  - e-Class Management

Educatability
- Educatable Competencies

Importance
- The Most Important Competencies for Cyber Teaching

Time
- Short-Term Trainable Competencies

Short-Term Trainable
- Cyber Ethics
- e-Lesson Planning
- Learning Advice
- e-Activity Evaluation
- e-Activity Facilitation
- On-Line Communication
- Information Literacy
- e-Class Management
- Empowering Learning Motivation

Long-Term Training needed
- Positive Thinking
- Passion
- Responsibility
- Subject Matter Expertise
- Creative Thinking

Challenges

For authentic communication

Not emotional but logical

Not logical but emotional
Challenges

• How should we communicate with learners?

• Should we incorporate emotional communication into teaching subjects?

• How should we improve teaching and learning?

• How should we solve major problems of smart-learning?
Challenges

- A New Strategy: teaching and learning

- **Active**
- **Intentional**
- **Authentic**
- **Cooperative Collaboration**
- **Constructive**

The Era of Smart Society
How should we solve major problems of m-learning?

- **Deficiency in learning content**: The information may not inspire the users successfully.
- **Lack of personalization**: Different learning platforms are needed to meet a variety of learning demands.
- **Narrowness**: m-learning systems are applied by small and specific groups.
What we need to consider: m-learning strategies

m-learning implementation and its evaluation must be accomplished in systematic approaches in order to successfully assist in establishing a lifelong education society while requiring comprehensive quality management at the same time.

Even though infrastructures and systems are recognized as the critical factors, its expert training programs are required to qualify the human resources.

It should be realized that to meet the needs of education means more than education methodology changes.
Active smart-learning to build a learning community and achieve a national human resources development program.
What’s the Education?

- Education is Love
- Education is Touch
- Education is Relationship
- Education is Repetition
- Education is Change
- Education is Communication
“Technology matters, but good teachers and good teaching matter more.”
All things are difficult, before they are easy.

Thank you

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