Mission:
Develop and share engaging online [open] educational content using innovative methodologies.
How to share creatively?
Creative Commons Licenses

UNU is moving towards becoming a 100% Creative Commons licensed entity.
You have to get creative when........
You want to communicate complex ideas...........
In an engaging manner....
But you have limited resources.....
One answer is......

Collaboration
Some examples
An e-case study and video documentary collaboration with the University of Guadalajara
Building courses using Wordpress

Collaboration with Oxford Brookes University, RMIT and University of Joensuu

5. Need for SEA: limitations of EIA

Environmental impact assessment of projects was the starting point for SEA, but EIA and SEA have some key differences:

<table>
<thead>
<tr>
<th>Some Comparisons between EIA and SEA</th>
<th>SEA of Policy Plans and Programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takes place near the end of decision-making cycle, aims to minimize impacts</td>
<td>Takes place at earlier stages of decision-making cycle, aims to prevent impacts</td>
</tr>
<tr>
<td>Reactive approach to development proposal</td>
<td>Pro-active approach to development proposals</td>
</tr>
<tr>
<td>Considers limited number of feasible alternative</td>
<td>Considers broad range of potential alternatives</td>
</tr>
<tr>
<td>Limited review of cumulative effects</td>
<td>Cumulative effects assessment is key to SEA</td>
</tr>
<tr>
<td>Emphasis on mitigating and minimizing impacts</td>
<td>Emphasis on meeting environmental objectives, maintaining natural systems</td>
</tr>
<tr>
<td>Narrow perspective, high level of detail</td>
<td>Broad perspective, lower level of detail to provide a vision and overall framework</td>
</tr>
<tr>
<td>Well-defined process, clear beginning and end</td>
<td>Multi-stage process, overlapping components, policy level is continuing, iterative</td>
</tr>
<tr>
<td>Focuses on standard agendas, treats systems of environmental deterioration</td>
<td>Focuses on sustainability agenda, gets at sources of environmental deterioration</td>
</tr>
</tbody>
</table>


These differences account for one of the two main reasons for SEA:

1. It addresses limitations of project EIA

Because EIA takes place once many strategic decisions have already been made, it can often address only a limited range of alternatives and mitigation measures. These are wider than those of a wider nature are generally poorly integrated into project planning.
Development of a web-application called Fieldtrip.....

Meso–American Network of Biotic Resources has been involved in initial testing.
UNU Opencourseware portal using eduCommons

Collaboration with all UNU research and training centres/programmes
We are motivated by the desire to....
Collaborate with others anywhere in the world......
Publish from any location with Internet access
Extend and update content at any time
Save money (or use the funds more efficiently and effectively)
We have begun to talk of a ..... Global Learning Space
At WSIS, Hans van Ginkel said that a global learning space will evolve out of online educational projects that promote collaboration between a diverse range of institutions.”
A Space for Global Learning

• combines global reach using modern communication technologies with global and local perspectives
Hans van Ginkel also talked of a Promethean task...

“....to create an Information Society open to all...”

open networks, open source software, open content, open standards...
Perhaps through openness we can unleash massive collaboration?
Asia Pacific Initiative
Water Virtual Learning Centre
UNU–Global Virtual University
But this is just the start...
Internet and Web driven changes offer new opportunities if harnessed properly for important global goals...
part of the current movement promoting openness, collaboration and sharing......
But for education and learning, this may be a Pandora’s box.....

What will we find when we open it.....
All the ideas, like web 2.0, e-learning 2.0, education 3.0

..... sound very nice...
But there are immense challenges...
For instance...

- How open?
- Wiki’s are easy to create, difficult to populate
- Spam, hacking, inappropriate content
- Echo-chamber, hive mind....
- Lot of tech knowledge required for individual learner or teacher
Breakdown of web users

Source:
http://www.elatable.com/blog
This applies to wikipedia, YouTube, blogging, etc.
How can we encourage more people [students and teachers] to create, collaborate, contribute, participate?

Or are we talking about the benefits for a relatively small group of connected, like minded people?
“Be an opener of doors for such as come after thee.”
Ralph Waldo Emerson (poet)
e-learning in Keio University

Hideyuki Tokuda
Keio University
hxt@sfc.keio.ac.jp
http://www.ht.sfc.keio.ac.jp/~hxt

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Five Campuses in Keio Univ.

Hiyoshi Campus

Yagami Campus

Shinanomachi Campus

Mita Campus

Shonan Fujisawa Campus
Shonan Fujisawa Campus (SFC)
Keio University

- Established in 1858
- Founded by Mr. Yukichi Fukuzawa
- The oldest university in Japan
- ~4,600 Faculty and Staff members
- A member of the Association of Pacific Rim Universities (APRU)
- The Keio System
  - Affiliated 1 Elementary school, 3 Junior high schools and 5 Senior high schools
  - 9 Schools (28,000 students)
    - Letters, Economics, Law, Business & Commerce, School of Medicine, Science & Tech., Policy Mgt, Environmental Info., Nursing & Medical Care
  - 11 Graduate Schools (4,200 students)
    - Letters, Economics, Law, Business & Commerce, School of Medicine, Science & Tech., Business School, Media & Governance, Health & Sport Mgt, Law School
~160 International Partners

(partner data as of July 2006, incoming student data as of May 2006, all other data as of May 2005)

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Higher Education Reform in Japan (1991~)

- Deregulation by Japanese Government in 1991
- National Universities to become “Independent Administrative Corporations”
- More Competition-based Research Funding
- Growing Needs and Competition for Collaboration among Industry, Government, and Academia
- Competition in newly established Professional Graduate Schools
- University Reform Worldwide
e-learning at Keio

Graduate School of Media and Governance
School Environmental Information
School of Policy Management

http://www.sfc.keio.ac.jp/
e-learning at Keio (1994~)

- **University Vision towards 21c (90’s)**
  - To be **Open and International University**
  - An international perspective since 1858
- **Keio Information Super Highway (KISH) since 1994**
  - Use of IT for knowledge creation and information sharing
- **Media Center**
  - Convergence of Libraries and Computing Centers
- **New campus services**
  - Zero-stop service
  - Digital Library
  - Campus LANs and Public Media Servers
- **BPR for Administrative Activities**
  - PC for every students and workers

© H.Tokuda 2007
Keio Information Super Highway (1994～)

© H.Tokuda 2007
e-learning’s Components

- Information Infrastructure
- Applications and Services
- Digital Contents
- People and Campus Culture
  - Students, Faculty members, Staffs

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1. Information Infrastructure

☐ Issues
- Technology and Policy Issues
  - Sustainable Upgrade for Infrastructure
    - Campus Wirefull and Wireless LAN
    - Campus File Servers, Public Media Servers and DBs
  - High Maintenance Costs
    - Broadband access to Internet
    - Public PC clusters

☐ Future Direction
- Ubiquitous Network Infrastructure
  - Post Broadband, Wireless and Mobile Networks
  - Anytime, Anywhere, Anyone, and Any Objects
  - Personalized Mobile and Ubiquitous Devices with PCs
2. Applications and Services

- **Issues**
  - Software development and Maintenance Costs
  - Courseware and Authoring software
  - Multi-lingual version
  - Web-based Services
  - Work load of professors/staffs

- **Future Direction**
  - Adopting various types of class rooms
  - Group work, Field work, etc
  - Single sign-on for all services
  - Personalized services
  - Integration of learning and administrative services

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SFC Global Campus and SOI Project at KEIO

- to provide Better **Quality** in education
  - By giving students a global educational environment
  - By giving more flexible learning style choices
  - By giving students richer contents
- to provide Wider Educational **Opportunity**
  - For Adult learners / Learning at home
  - For Learning from oversea
  - For Corporate employees
- Contribution to the Society
  - By opening the university knowledge as a public resource for learners
  - As a Knowledge/Wisdom Portal for human beings
  - By collaborate with other universities

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KEIO-SFC Global Campus (1)

- GC
  - http://gc.sfc.keio.ac.jp/
- Public Contents
  - Total: 225 courses
  - 2002/Fall - 15
  - 2003/Spring - 25
  - 2003/Fall - 26
  - 2004/Spring -35
  - 2004/Fall -34
  - 2005/Spring -43
  - 2005/Fall - 45
  - 2006/Spring – 43 (plan)
- Internal Contents
  - Guest speeches
  - Extra classes
- Provided by
  - 2 Schools and 1 graduate school in SFC
  - 72 faculty members
KEIO-SFC Global Campus (2)

- Components
  - On-demand Video Stream in RealVideo Format
    - Sure Stream upto 300kbps
    - Synchronized with material using SIMIL
  - Authentication
  - Realtime (optional)
  - Course Material
  - Student Services
    - Assignment
    - Learning History
    - BBS
    - Course survey

© H.Tokuda 2007
SFC Global Campus(3)

- Faculty Support
  - Communication
  - Assignment
  - Class web management
  - Learning history

- Operation
  - Recording
  - Checking Copyright
  - Modification if necessary
  - Verification
  - Available within 1~2 working

- ISSUES - Copyright
  - Lecture Video
  - Lecture Material
  - Video/Newspapers/books in the materials
SFC Global Campus(4)

- Registered Users
  - 5,025 users (as of 2005.10.9)
  - Male 66%, Female 34%
  - Age group: age 10~70 (age 20-30: ~50%)
3. Digital Contents

☐ Issues
  ■ Contents Sharing and Standardization
    ☐ Ownership and Copyrights
    ☐ Media format
  ■ e-Journals, e-Books, DB Costs
  ■ Miss match with Network Infra
    ☐ Lack of media servers and database servers
    ☐ Anti-social activities

☐ Future Direction
  ■ Easy authoring technology for various media
  ■ Easy copyrights management
  ■ Better cost sharing model for contents
  ■ Network and terminal independence

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COE Monthly Meeting
COE Monthly Meeting (2)
Animation

• Simple 2-dimensional motion capture

| Concept | Technical Aspects | Application & Results |

© H.Tokuda 2007
COE Training Records

Partage, the implementation of Partage commons
Yachi Masahiro (yachi@sfc.wide.ad.jp)
Inoue Rihoko (rihoko@sfc.keio.ac.jp)

Graduate School of Media and Governance, Keio University

Keio University
4. People and Campus Culture

- **Issues**
  - Open culture vs. Closed culture
  - On campus vs. Off campus
    - Things you can do more at off campus
  - Faculty members culture vs. Student culture

- **Future Direction**
  - Collaboration among Industry, Government, and Academia
    - Creation of new knowledge and value to the society
  - The Pioneering spirit for e-Society
    - Shaping e-Society and e-Space

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SOI Portal (1)

- SOI Site
  - http://www.soi.wide.ad.jp/
  - Since 1997
  - Operated by apache, postgres, realserver, etc.

- Users
  - ~19,000

- Portal for Internet Technology
  - 2000 hours of IT courses
  - University courses / Tutorials
  - Donated lectures by world famous engineers, leaders and researchers

- Portal for Tsunami
  - Tohoku U
  - Mie U
  - U of Tokyo
SOI Asia - Environment

Sharing Real-time Classes & Course content mirroring by IPv6 Multicast

9 Mbps UDL

Policy Routing Mechanism

Gateway Site @ Keio Univ.

High quality Digital Video Communication DVTS (35Mbps)

Lecturer Sites @ various places

SOI Asia Student Sites @Asian Partner Universities

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SOI Asia Partners
20 partners in 11 countries

- Indonesia
  - Brawijaya University
  - Sam Ratulangi University
  - Hsanuddin University
  - Institut Teknologi bandung
  - Universitas Syiah Kuala(*)
- Thailand
  - Chulalongkorn University
  - Asia Institute of Technology
  - Chulachomklao Royal Military Academy
  - Pricen of Songkla University
- Laos
  - National University of Laos
- Myanmar
  - University of Computer Studies, Yangon
- Malaysia
  - Asian Youth Fellowship
  - University Science Malaysia
- Vietnam
  - Institute of Information Technology
- Philippines
  - Advanced Science and Technology Institute
  - University San Carlos
- Mongolia
  - Mongolian University of Science and Technology
- Cambodia
  - Institute of Technology of Cambodia
- Bangladesh
  - Bangladesh University of Engineering
- Nepal
  - Tribhuvan University
Deployment of Infrastructure
SOI-Asia Distance Operator’s Workshop (1/2)
SOI-Asia Distance Operator’s Workshop (2/2)
Summary

- e-learning at Keio
  - Accelerating open culture and internationalization at Keio
    - Improving Quality of Education
    - Wider Educational Opportunity
    - Contribution to the Society

- Japanese Universities
  - Growing Needs and Competition for Collaboration among Industry, Government, and Academia
Thank you!
www.keio.ac.jp
E-Learning for Enriching the Learning Experience

Peter Haddawy
Asian Institute of Technology
AIT Students: Distributed, Heterogeneous

• Main campus in Bangkok
• Satellite campuses in
  – Vietnam
  – Indonesia
  – Pakistan (planned)
• Professional programs
  – Doctor of Business Administration (DBA)
    • Bangkok
    • Sri Lanka
    • Taiwan
  – Professional Masters
    • Bangkok
    • Vietnam
  – Continuing Education
    • Numerous locations
The Needs

• Access
  – Location
  – Time

• Efficiency

• High-quality, effective teaching
  – Individualized
  – Engaging, active, critical learning environment
E-Learning = E-Books + E-Lecturing?

Learning is about sharing the excitement of discovery and helping students to develop the abilities, curiosity, and confidence to engage in discovery themselves.

Challenge: How to use IT to create stimulating environments for discovery so that

\[ e\text{-learning} \neq e\text{-lecturing} \]
COMET
Collaborative Intelligent Tutoring for Medical Problem-Based Learning

In collaboration with
Dr. Siriwan Suebnukarn
Thammasat University School of Dentistry
Medical Problem-Based Learning

Respiratory system
Circulatory system
Nervous system

**Problem analysis**

**Scenario**
Mr. C was involved in a car accident...

**New Scenario**

**Synthesis and application of newly acquired information**

**Self-directed study**
literature, lectures laboratories, specialists, etc.
Medical Problem-Based Learning

PBL requires the tutor to spend a large amount of time per student.

Medical school faculty are under extreme time pressure due to many demands including clinical duties.

Medical students often do not get as much facilitated PBL training as they might like or need.

Can we create an automated PBL learning environment?
Car accident case

Mr. C was involved in a car accident while he was driving home from work. The broken glass window cut deep into his forehead and tore a hole through the frontal bone in his skull. Bleeding and unconscious, he was rushed to the hospital where a surgeon operated on him to stop the bleeding and found out that many parts of his brain had been damaged.
Medical Problem-Based Learning

Hypotheses

Hypothesis

Car accident → Head injury → Laceration → Skull fracture (Frontal bone) → Hematoma → Swelling → TICP → Brain damage (Area ?) → Unconscious

Acceleration-deceleration force → Brain contusion → Brain stem damage ?
COMET
COllaborative MEdical Tutor
COMET- Demo
COMET- System Overview

Pedagogical Module
Tutoring Strategies
1. focus group discussion
2. promote open discussion
3. deflect uneducated guessing
4. avoid jumping critical steps
5. address incomplete information
6. refer to experts in the group
7. promote collaborative discussion
Results & Limitations

• Evaluation study showed student clinical reasoning gains from COMET were significantly higher than those obtained from human tutored sessions.

• System does not have sufficient breadth of knowledge to permit students to be sufficiently creative in their solutions.

• Effort required to author scenarios is an obstacle to use. System only interesting if sufficient number of scenarios available.
Case Authoring Tool

- A collaborative case authoring tool that employs the UMLS ontology to assist in creation of case scenarios.
Intelligent Tutoring System for Clinical Skills Training
Traditional approach to clinical training

- Patient’s discomfort
- Impossible to configure problems
- Limited training
- Subjective evaluation

How do we solve these?
Objective Evaluation for Skills Training

Which one performs better in terms of path, force applied and time taken?
Performance Improvement

- After three attempts with path training using simulation and haptic device
Challenges

• Re-engineer our teaching to make the best use of the technology, incorporating modern pedagogical theory
  – Student-centered
  – Collaborative
  – Active
  – Problem-based

• Integration into the curriculum requires faculty members to adapt new models of teaching & learning

• Need generic platforms to support development of such systems
More Information  
(www.cs.ait.ac.th/~haddawy)

E-Learning in an Education 3.0 world

Prof Derek W. Keats, Executive Director
Information and Communication Services
The University of The Western Cape

dkeats@uwc.ac.za
Innovation in HE needed

Joe Ritzen – Higher Education's Perfect Storm
What might a **shared future** mean in a world where the organization of education is no longer based on scarcity?

What might be the **pathway** to it?

How can we create it in Africa?
Three characteristics of Education 3.0

- the role of students in making choices of a different kind than are available today
- students as *socially networked* producers of *reusable* learning content which is available in abundance under licenses that permit the free sharing and creation of *derivative works*
- institutional arrangements permit the accreditation of *learning achieved*, not just of courses taught
Drivers towards Education 3.0
• Digital natives entering higher education
• Growing abundance of free and open educational resources
  – Reusable content and software
• The programmable web (distributed environments)
• Social networking and the blurring of the distinction between work and play
• Changing attitudes towards learning
• New ways to assess & recognize learning
What's impeding Education 3.0
• Digital immigrants who do not understand what has happened in the World
  – It's off the radar screen!
• Institutional arrangements based on scarcity
  – Institutions as island states
- Lack of knowledge of how to have quality assurance when you are not in control
- Financing arrangements for HE
- Digital divide issues in Africa & developing world
  - Bandwidth
The emergence of the personal learning environment
Personal Learning Environments (PLE)

- Learners take control and manage their own learning
- **Autogogy** - the way a learner self-learns

- A way of learning, not a particular technology
Personal learning environments

Platform
Platform
Platform

Social network engines

Aggregators

VLE
VLE
VLE
FORE (OER)
Web

3rd Party
Univ
Univ
Univ
Social networking / aggregation
Derek Keats

Update your status...

Networks: Western Cape
South Africa

Sex: Male

Relationship Status: Married

Birthday:
August 12

Hometown:
Cape Town, South Africa

Political Views:
Very Liberal

Religious Views:
None

Personal learning environment feeds

Yesterday

Derek created a new learning area Coastal ecology of Ghana and applied for accreditation from UWC (pending)
3:52pm

July 29

Derek's blog in Biology 101 was assessed by a team of peers and given a thumb's up (View blog)
8:57pm

July 25

Derek created a group Coastal ecology of Ghana and invited 7 friends to join
8:14am

July 22

Derek edited Interests and Music in his profile.
9:19am

July 20

Derek posted a link. 2:32pm

Podcasting in e-learning part-2
http://apps.facebook.com/slide...

Podcasting as a tool in the teaching-and-learning and social interaction toolbox in higher education: Part 2, Good podcasting practice. This was from an online seminar that I did for SANTEC in early 2007.

"Podcasting as a tool in the teaching-and-learning and social interaction toolbox in higher education: Part 2, Good podcasting practice. This was from an online seminar that I did for SANTEC in early 2007."

Add a comment

July 18

Derek edited Work Info, Activities, About Me, Music and Movies in his profile.
10:42am
Podcasting in e-learning part-2
http://apps.facebook.com/slide...

Podcasting as a tool in the teaching-and-learning and social interaction toolbox in higher education: Part 2, Good podcasting practice. This was from an online seminar that I did for SANTEC in early 2007.

"Podcasting as a tool in the teaching-and-learning and social interaction toolbox in higher education: Part 2, Good podcasting practice. This was from an online seminar that I did for SANTEC in early 2007."
Derek Keats

Networks:
- Western Cape
- South Africa

Sex:
- Male

Relationship Status:
- Married

Birthday:
- August 12

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- Cape Town, South Africa

Political Views:
- Very Liberal

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- None

Where I've Traveled (172)
- View your Shoebox
- View your Causes (1)
- View My Flickr Photos
- High five Derek
- View Derek's slideshows
- Update My Mood (I'm feeling...
- Edit My Profile

You are online now.

4 learning areas in my PLE

Biology 101
- The University of the Western Cape

Completion status
- 1119 others in this learning area
- 118 have completed more than you
- 1001 are behind you
- 1 assignment due today

Chemistry 221
- The University of Jos

Completion status
- 224 others in this learning area
- 123 have completed more than you
- 101 are behind you
- 1 assignment due next week

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Add a comment

July 18
- Derek edited Work Info, Activities, About Me, Music and Movies in his profile.
Incipient Education 3.0 at UWC
Cooperative international programmes
- NetTel@Africa
- Education masters

Established the African Virtual Open Initiatives and Resources (AVOIR) project
- created the Chisimba and the KEWL e-learning platform
- FOSS masters
- Free and Open Courseware strategy and project
  - Developing country perspective on OER/FORE
  - Rip, Mix and Learn initiative (impact on quality of learning, how to make assessment work)
- Recognition of prior learning
African Virtual Open Initiatives & Resources (AVOIR)

Red: AVOIR nodes  
Blue: Collaborating partners  
Yellow: Supporting partners
CHISIMBA: A framework for building software & skills
Driven by practitioners as well as looking at trends and opportunities

The awesome potential of student projects
We are grateful to the IDRC, USAID, the Department of Science and Technology, UNESCO and Sun Microsystems for financial and other support to the AVOIR project. We are also grateful to those organizations who had enough confidence to contract us to develop applications even though we were unproven.
Attribution credits

- The image of a woman with a laptop outside by window is from http://flickr.com/photos/soctech/273081848/ by Soctech used under CC-BY 2.0 license
- Images of an African house under construction are from the Kirstenbosch National Botanical Garden (SA) website, and used here under presumed fair use
Education Vs Everyday

Analog to Digital
Tethered to Mobile
Isolated to Connected
Generic to Personalized
Consuming to Creating
Closed to Open
What about E-learning?
Very innovative in 1995!
Education Vs Everyday

Analog to Digital
Tethered to Mobile
Isolated to Connected
Generic to Personalized
Consuming to Creating
Closed to Open
How do we cross the gap?
Swimming on horseback
Admit e-learning is different
Because “online” is different
Culture ~really~ matters
Openness is the key
<table>
<thead>
<tr>
<th>Education</th>
<th>Vs</th>
<th>Everyday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog</td>
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<td>to</td>
<td>Creating</td>
</tr>
<tr>
<td>Closed</td>
<td>to</td>
<td>Open</td>
</tr>
</tbody>
</table>
Content is infrastructure
Some Examples

- Open your student work through blogs
- Use only open materials for your classes
- Write your own teaching materials
- Put your teaching materials in a wiki and encourage student contribution / alteration
- Put your syllabus in a wiki and encourage student contribution / alteration
- Completely open participation in your class
Thank You

david.wiley@usu.edu

http://cosl.usu.edu/