GDLN-Indonesia & Inherent
- developing ICT infrastructure for higher education, research and development

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Background

Fact sheet:
- 245 million population
- 82 public HEIs
- 2778 private
- 4 million students
- 15% GER in HE
- GDP per capita $1,663

Challenges
- Geographical spread
- Low GER
- Disparity in quality
HE Strategic Issues

- Quality and relevance,
- HE contribution to developing Nation’s competitiveness
- Quality gaps
- Access and equity
National ICT Strategies

- National Board of ICT
  - Chaired by the President (executive chairperson is the minister of KOMINFO)

- Basic strategies
  - ICT for education quality and access
  - ICT for public services efficiency & transparency
  - ICT for business sectors performance
Indonesia - ICT readiness

- National network infrastructure provided by the TELKOM (state owned plc)
  - Combining terrestrial and satellite connections
  - Terrestrial: optical fiber, copper, digital micro wave; (wireless and on-wire)

- Internet users: 20 million
- Cellular phone subscribers: 75 million
ICT infrastructure to bridge the gaps

- Gaps in:
  - Resources,
  - Capacity,
  - Research,
  - Education, dan
  - Management

- Geographical barriers

- ICT as a bridge to reduce the gaps
Some past initiatives

- Dissemination of library service automation system
  - The application system is distributed to HEIs for free
- Development of MIS and database system for HEIs
  - Intended to help universities in managing their data/information regarding their assets and resources distributed for free
- SISDIKSAT – the implementation of tele-teaching via satellite, targeted to less developed public HEIs
- GDLN – connected to the WB global development learning network. Connecting four universities (UI, UNRI, UNUD, UNHAS)
- UT – The Indonesian open university with open learning contents (UT-on-Line) since 2001
GDLN Indonesia

- Established in 2004/2005
  - DLC UI, Jakarta (center)
  - DLC Unri, Pekanbaru (sub-center)
  - DLC Unud, Denpasar (sub-center)
  - DLC Unhas, Makassar (sub-center)

The network was Certified in January 2007
GDLN-Indonesia vision

- improving the
  through access to global knowledge,
  narrowing the disparity of access to
  information between regions, and
  introducing the latest technology to a wider
  audience
GDLN Indonesia activities in 2007 (1)

- Delivering GDLN International Programs
  - Micro finance Training for Trainers
  - Combating the Scourge of Dengue Fever
  - Incidental activities

- GDLN Indonesia Programs
  - Course Content Development
  - GLAD
  - Coffee morning with DGHE
  - Studium Generale
  - Seminars and trainings using VC
GDLN Indonesia activities in 2007 (2)

Content development

- Course Content Development (CCD)
  - Competitive grants to develop course material through blended learning mode
  - 2 batches with 18 grantees

- GDLN Learning Activity Development (GLAD)
  - Competitive grants to develop learning activities (short courses/training, seminars)
  - 2 batches with 6 grantees
  - 3rd batch under review (with 28 applicants)
GDLN Indonesia activities in 2007 (3)

Content development

- Course titles in batch 1 (5)
  - Data Communication
  - Development of Distance Education on Thermal Processing Technology of Canned Food Products
  - Sampling Techniques
  - Investments
  - Nursing Process and Basic Human Needs
GDLN Indonesia activities in 2007 (4)

Content development

- Course titles in batch 2 (13 titles)
  - Improving the Teaching Quality of Probability & Statistics Course
  - Development of Customized Anatomy and Physiology E-Learning Courseware for Engineering Student
  - Software Engineering
  - Database 1
  - Food Quality Assurance Course
  - Hazard Analysis Critical Control Point
  - Sensory Evaluation Course
  - Evaluation of Biological Value of Food
  - Food Microbiology
  - Forest Pathology
  - E-Commerce
  - E-Learning for Reading Comprehension Utilizing Translation As a Didactic Procedure
GDLN Indonesia activities in 2007 (5)

GLAD

- Batch 1 & 2
  - Learning Activity Delivery of Research Methodology in Computer Science, Information System, and Information Technology
  - Empowering Economy Through ICT: The Development of Community Based Information System (CIS) in West Sumatra Province
  - Layer Manufacturing Technology (nano technology) (UGM-UDAYANA)
  - Dissemination of Business Oriented Technologies for Fresh University Graduated
  - Improving The Quality of Education Through Good Instructional Design
  - An Interactive Learning Module of Design Concept in Balinese Architecture
GDLN Indonesia activities in 2007 (6)

Other activities

- GDLN International programs
  - 4th Micro Finance TOT
  - Combating the Scourge of Dengue Fever
    - First join activities b/w GDLN and Inherent
    - Participated by 4 DLCs and 2 Inherent nodes
      - Unhas (Makasar), Unud (Denpasar), Unair (Surabaya), UGM (Yogyakarta), UI (Jakarta), Unri (Pekanbaru) with around 150 participants
    - Using IP connection (bridging GDLN – Inherent)
    - Join effort to market an event
    - Sponsored by local companies
GDLN Indonesia activities in 2007 (7)

Other activities

Sponsored activities

- Asia Link: Female Cancer Program (Delft, Unud, UI)
- IGOS – Indonesia Goes Open Source (ministry of research)
- World Bank Seminars

Non Sponsored activities

- Coffee Morning with DGHE (regular)
- Seminar on Natural Disasters – the rise and fall of Asian Civilization (Prof. Makoto Okamura)
- Seminar on Renewable Energy – Prof. Outhread (UNSW)
- Rectors’ Forum
- Seminar on Quality Assurance & Audit System
- Seminar on Library for the World Class University
- Seminar on Global Climate Change
- Seminar on Environmental Management
- Seminar on Tourism. etc.
Established in 2006 to improve the quality of Higher Education through:

- ICT application in teaching & learning and in university management
- Research, education network and resource sharing among academic community
- Development of innovative ICT applications
- Replication and taking the lessons learnt from GDLN Indonesia
Inherent nodes & sub-nodes

- consist of 82 nodes
  - 33 local nodes
    - DGHE + 32 public universities
  - 47 sub nodes connected to main nodes
    - 2 Public K1
    - 25 Public K2
    - 19 Private K3
    - 2 Private
    - Seamolec
- Each node function as a hub for surrounding institutions
- End of 2007: 150 institutions will be connected
- Designed as a scale-free network
INHERENT network topology

[Map showing network connections between various universities in Indonesia, with link capacities indicated by colors: 155 Mbps, 8 Mbps, 1 Mbps (redundant link), and 2 Mbps.]
The network has been used for various purposes:
- Video-conferencing
  - Coordination meeting, information dissemination, seminar, workshop, training
- Distance learning
  - Blended learning to full-fledge e-learning
  - Remote laboratory work
- Locally made application systems for academic and administration (open sources)
  - Learning management system
  - Knowledge management system
  - E-library service system
  - MIS for university academic and resources management system
- Grid computing initiatives for research
  - Utilizing the computing powers already connected to Inherent
e-learning initiatives in Indonesia

- mostly home grown
  - developed on top open platform

Some Examples
Selamat Datang di Komunitas e-Learning Universitas Gadjah Mada

e-Lisa

User
Login
Lupa Password
Non User
Mendaftar
Berita
Lihat Arsip Berita
Survey
Fasilitas apakah yang paling Anda inginkan untuk ditambahkan di situs eLisa?
• Online Chat
• FAQ
• Help Desk
Lihat Hasil

Daftar Fakultas

<table>
<thead>
<tr>
<th>Fakultas</th>
<th>Kuliah</th>
<th>Fakultas</th>
<th>Kuliah</th>
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<tbody>
<tr>
<td>BI - Biologi</td>
<td>EK - Ekonomi</td>
<td></td>
<td></td>
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<tr>
<td>FA - Farmasi</td>
<td>FI - Ilmu Pengetahuan Alam</td>
<td></td>
<td></td>
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<tr>
<td>GE - Geografi</td>
<td>HK - Hukum</td>
<td></td>
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<tr>
<td>IB - Ilmu Budaya</td>
<td>IP - Ilmu Politik</td>
<td></td>
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<tr>
<td>KG - Kedokteran Gigi</td>
<td>KH - Kedokteran Hewan</td>
<td></td>
<td></td>
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<tr>
<td>KT - Kehutanan</td>
<td>KU - Kedokteran Umum</td>
<td></td>
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<tr>
<td>PA - Matematika</td>
<td>PN - Pertanian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS - Psikologi</td>
<td>PT - Pemerintahan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TK - Teknik</td>
<td>TP - Teknologi Pertanian</td>
<td></td>
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</tr>
</tbody>
</table>

Berita Terkini

Pelatihan eLisa dan PowerPoint

Login

User ID: 
Password: 
Login
Student Centered E-Learning Environment

Fakultas Ilmu Komputer
Universitas Indonesia

Student Centered E-Learning Environment atau Scele adalah sebuah upaya dari Fasilkom UI untuk meningkatkan akses bagi pendidikan dengan menggunakan media internet sebagai solusinya. Untuk tujuan ini, Fasilkom UI mengembangkan sebuah sistem untuk menangani pembelajaran jarak jauh yang dimodifikasi dari Moodle, sebuah open source content management system (CMS) (http://www.moodle.org)

» Scele S1 & MIK Fasilkom UI
» Scele MTI Salemba Fasilkom UI
» Scele Distance Learning - Lampung
» Scele Distance Learning - Medan

XHTML | CSS | 508
Hak Cipta © 2005 Fasilkom UI - http://www.cs.ui.ac.id
Humas Fasilkom UI - Kampus Baru UI Depok 16424 - Tlp 786 3419 - Fax 786 3415
Selamat datang di halaman e-learning website ITS. Untuk mengakses halaman ini, Anda harus memenuhi persyaratan berikut ini:

- Anda berada di dalam lingkungan jaringan jaringan intranet ITS
- Sistem Anda telah terinstall Java Runtime Environment 1.3 atau setelahnya (Download di sini)
- Sistem Anda telah terinstall Macromedia Flash Player 5.0 atau setelahnya (Download di sini)

Subjek e-learning yang tersedia adalah sebagai berikut:

- Matematika Teknik
- Probabilitas dan Proses Stokastik
- Sistem Linear
- Sistem Pengaturan I
- Sistem Pengaturan II
- Fisika I Tahun Pertama Bersama
- E-learning Prodi Sistem Informasi
Selamat datang di ITB Central Library

Artikel Baru

- Laporan tugas sistem embedded EC-4060: server monitoring via SMS
  2007-08-15, Publication oleh Arif Ruhana Hazairin (13201062) Edhoary Satyoso (13201157), 1 Full Text file

- PERHITUNGAN RAPAT FLUKSI MEDAN ELEKTROMAGNETIK
  2007-08-13, Master Theses oleh Herwiandono
  (NIM : 23295021), 1 file

- INTEGRASI SEISMIK 3D DALAM PEMODELAN GEOSTATISTIK SIFAT RESERVOIR DI
  LAPANGAN KOTABATAK PT CPI
  , oleh Subambang Anggoro
  NIM: 22065030

- ANALISIS KARAKTER PATAHAN SEBAGAI PERANGKAP HIDROKARBON DI
  SUB-CEKUNGAN KIRI CEKUNGAN SUMATRA TENGAH
  , oleh

- METODO MULTIPLE REGRESSION DALAM PENURUNAN SECARA DETIL POROSITAS DAN
  PERMEABILITAS UNTUK EVALUASI FORMASI TELISA, LAPANGAN KOTABATAK,
  CEKUNGAN SUMATRA TENGAH
  , oleh Emy, Mustofa
Welcome to Our Library

Perpustakaan Brawijaya merupakan salah satu Program Cakupan Universitas (Institutional Support System) yang berfungsi mendukung program akademik universitas yang tertuang dalam "Tridharma Perguruan Tinggi" yang mencakup pendidikan, penelitian dan pengabdian kepada masyarakat. Beberapa peran perpustakaan dalam hal mendukung proses pendidikan antara lain adalah memberikan informasi, mengkoordinasikan dan menggabungkan semua bentuk layanan untuk meningkatkan proses belajar mengajar, penelitian dan layanan umum. Pada akhirnya tujuannya adalah tercapainya proses peningkatan kualitas lulusan dalam hal pengembangan wawasan dan penguasaan keilmuannya.

Our Services

Online Public Access Catalog (OPAC)
Akses terhadap bibliographic record koleksi-koleksi text-books dapat dilakukan dengan mudah melalui fasilitas searching yang disediakan melalui OPAC.

Brawijaya Knowledge Garden (BKG)
Informasi karya ilmiah stiva Universitas Brawijaya (kripsi, thesis, laporan penelitian, artikel jurnal dan lain-lain) dapat diakses secara fulltext melalui layanan ini.

Web-based Library Automation (Lentera)
Ruang baca di lingkup Universitas Brawijaya dapat melakukan katalogisasi dan mendistribusikan informasi koleksiannya dengan login pada sistem lentera.

InterLibrary Metadata Service (IMS)
Pencarian koleksi di perpustakaan lain (IIS, Unair, UCM dan UI) dapat melalui IMS.
Remote Laboratory

Actual measurement is done remotely
Pengukuran Panjang Gelombang Laser

Selamat datang lora | Logout

Perintah eksperimen

1. Pasang kisi. [SLIDE]
2. Hidupkan laser. [ON/OFF]
3. Start eksperimen. [START]

Grafik | Data | Movie

Bila grafik data tidak dapat diambil (applet not found) anda dapat menginstal JRE untuk windows atau linux

Remote Laboratory
© 2006 UPP - IPD Universitas Indonesia | Design by Smart Systems Tech. | Admin for question
GDLN-INHERENT merger

155 Mbps
8 Mbps
1 Mbps (redundant link)
2 Mbps

Take the advantages of both strengths
Government support

- ICT grants
  - Infrastructure development: Target 2007 all public HEIs are connected
  - Human resource development
  - Content development
Programs (1)

- ICT grants 2007
  - HEI management applications
    - Finance/Accounting system,
    - academic information system,
    - Human resource management system,
    - Assets management system,
    - Etc.
  - LMS-learning support system
    - Learning Management System (LMS)
    - virtual laboratory
    - Knowledge Management System (KMS)
    - Information sharing – (E-library)
  - On line courses: e-learning course content
  - Policy: ALL developed using OPEN SOURCE principle (IGOS)
Programs (2)

- tele-teaching & teleconference
  - Distance education using video conference
  - Distance ICT Training
  - Information dissemination & workshops
  - Studium Generale
- Join international video-conference seminars and workshops
- Bridging the digital divide
- etc.
Local Contents under development

- Balinese architecture
- Disaster management
- Micro industry
- Entrepreneurial development program for new graduates
- Marine resource development
- Teachers’ certification
- Join courses, join degree programs
- Etc.
Programs (4)

- JARDIKNAS (national basic education network)
  - Teachers’ improvement
  - Teachers’ certification
  - Competence based curriculum development
  - Teaching and learning resources for pupils
  - School management
Future development and challenges

- Content development
- Content management and marketing
- Connection cost
- Infrastructure maintenance
- Infrastructure updating (high obsolescence rate)
- Infrastructure management
- Research, education and development networking
- Collaboration of regional and global resources for research, education and development (TEIN2, CERNET, DANTE, SURF, etc.)
- Internet2 as the future internet for global learning and research development (?)
- Closing the gaps of digital divide
Closing

- ICT can play significant role in improving quality in education and research in universities
- ICT can be one of the solution for HE quality, access and equity improvement
- ICT can bridge the quality gaps between institutions (the next Gutenberg machine)
- ICT can improve resource sharing, therefore improve efficiency
- ICT can improve information asymmetry
- ICT can become a catalyst for improving HE role to the community
- In short: ICT can play a significant role in achieving MDG
What is needed

- Clear focus and target of GDLN (MDG)
- Synergies with development initiatives
- International donors to support content development (competitive grants?)
- Involvement of academics community
- Involvement of industry (& other stake holders)
- Public awareness campaign on the potential of GDLN for development
- Infrastructure support through internet or internet2!
thank you