ICT in Higher Education: The Syrian Experience

Expert Group Meeting on ICT Indicators Adoption and Data Collection
ICT Indicators in Education and E-Government
Cairo 13-15 February 2007

By
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Ministry of Higher Education
Damascus, Syria
OUTLINE

- Fast Overview of the Syrian Higher Education Sector: The Challenges
- ICT Development in Higher Education: The Visions
- State of Use of ICT in HEIs: The Indicators and the Need for Impact-Oriented Indicators
- Policy and Development Strategies and Projects
- Case Studies:
  - SVU
  - E-Training
- Concluding Remarks
Higher Education in Syria

Council of Higher Education

- Intermediate Institutes
- Higher Institutes
- Universities
  - Private
  - Public
## Public Universities

<table>
<thead>
<tr>
<th>University</th>
<th>City</th>
<th>Established</th>
<th>Staff</th>
<th>Students</th>
<th>Open Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damascus</td>
<td>Damascus</td>
<td>1923</td>
<td>2123</td>
<td>110000</td>
<td>37012</td>
</tr>
<tr>
<td>Aleppo</td>
<td>Aleppo</td>
<td>1958</td>
<td>1150</td>
<td>65000</td>
<td>26552</td>
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<tr>
<td>Tishreen</td>
<td>Lattakia</td>
<td>1971</td>
<td>892</td>
<td>40000</td>
<td>12145</td>
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<tr>
<td>Al-Baath</td>
<td>Homs</td>
<td>1979</td>
<td>525</td>
<td>30000</td>
<td>11405</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>4690</strong></td>
<td><strong>245000</strong></td>
<td><strong>87114</strong></td>
<td></td>
</tr>
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</table>
## Intermediate Institutes

<table>
<thead>
<tr>
<th>Intermediate Institute</th>
<th>Number</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MHE</strong></td>
<td>34</td>
<td>34138</td>
</tr>
<tr>
<td><strong>Other Ministries</strong></td>
<td>122</td>
<td>20913</td>
</tr>
</tbody>
</table>
Private Universities

- 8 opened
- 2 Licensed but not yet opened
- 18 Obtained preliminary permission
- 15 pending
# Private Universities

<table>
<thead>
<tr>
<th>University</th>
<th>City</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalamoon</td>
<td>Deir-atiieh</td>
<td>1766</td>
</tr>
<tr>
<td>IUST</td>
<td>Daraa</td>
<td>365</td>
</tr>
<tr>
<td>AEU</td>
<td>Daraa</td>
<td>701</td>
</tr>
<tr>
<td>Al-Mamoun</td>
<td>Al Kamishli</td>
<td>2098</td>
</tr>
<tr>
<td>Private University for Science and Arts</td>
<td>Aleppo</td>
<td>417</td>
</tr>
<tr>
<td>Union (Ittihad)</td>
<td>Al Rakka</td>
<td>956</td>
</tr>
<tr>
<td>Syrian International</td>
<td>Daraa</td>
<td>363</td>
</tr>
<tr>
<td>Al-Wadi</td>
<td>Homs</td>
<td>148</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>6814</strong></td>
</tr>
</tbody>
</table>
Higher Institutes
(Centers of Excellence)

• Higher Institute for Business Administration (HIBA)
• Institut National d’Administration (INA)
• Higher Institute for Demographic Studies
Demand on Higher Education

- **No of Students**: 71061, 96319, 104426, 114298, 132825, 133926, 136728

Legend:
- **Literature**
- **Science**
The Challenges

- Access
- Efficiency
- Governance
- Quality
- Relevance
- Funding
Main objectives of the Higher Education Policy set out in the 10th National 5Y Plan include:

• Expansion of access to tertiary education

• Promotion of responsiveness to the needs of the economy and society
Sector Reform Policy

- Improvement of governance and accountability procedures within the institutions

  ICT

- Development of innovative and relevant modes of learning and teaching;

  ICT

- Achievement of effective quality assurance
Sector Reform Policy

• Enhancing the quantity, quality and relevance of scientific, basic and applied research

• Promotion of entrepreneurship and innovation skills within graduates to stimulate their capabilities in self-job creation
The Visions

• Harnessing ICT Potential in Reshaping HE: The Need to Transform HEIs from Traditional Role to a More Demanding Role Catalyzed by the ICT

• Making Use from the Economies of Scale of Distance Education and ICT-Based Learning as a Smart and Efficient Solution for Responding to the Growing Demand on HE

• Introducing ICT in Open Learning
Uses of ICT in Higher Education

- Teaching, Learning and Research; Introducing On-Line Courses
- Contents provision;
- Professional tool for future labor market;
- Administration and Operational Management;
- Tactical and Strategic Management;
- Collection, dissemination and exchange of information;
- Support for conduct and management of research;
- Transformation of library to an Information collection, processing, compiling and dissemination unit;
- Establishment of “Click Universities”
Levels of ICT Development in HEIs in Syria

- Single Computer with Dial-Up facilities
- Local Area Network (LAN) in a location for all users
- Local Area Network
- Campus Area Network
- Library LAN
- Internet Connectivity of Campus Network
- Wireless facilities for quick deployment
- Full Click Universities
Integration of ICT into HEIs Functions in Syria

- Entry (teachers teach students to use IT)
- Adoption (teachers use IT to support traditional instruction)
- Adaptation (teachers use IT to enrich curricula)
- Appropriation (IT is integrated and used for its unique capabilities)
- Innovation (Development of new learning environment using IT as a tool): On-line courses, Distance Education, Virtual Learning, ... etc
Case Study (1): SVU

Why Virtual Education?

- Due to fast changes in sciences, technologies and careers, there is a need for:
  
  - Continuous HRD in the marketplace
  - Injection of Academic content to update the workforce’s knowledge and skills
  - Disseminate World-class education beyond campus limits
Virtual Education

- Modern Technology and Educational Methods
- Anywhere Anytime
- Wide range of specializations
- Work and study at the same time (L3)
- More interaction in class:
  - Peer-to-peer learning
  - Self-learning
  - Learning from Experts
Learning Process

• Five Components:
  • Students
  • Teachers
  • Content
  • Interaction
  • Assessment/Evaluation
Virtual University

- **Learning Management System (LMS)**
  - Managing course registration.
  - Tracking Student Registration, Access and progress.
  - Managing course Information.
  - Course scheduling and administration including instructors and physical facilities.
  - Reporting

- **Learning Objects**
  - Learning Objectives
  - Learning Path
  - Pre and post Assessment

* Reusable
* Flexible Content Development
Learning Process

In a virtual classroom:

- **Students**
  - Facilitates and supervises student learning
- **Teacher**
  - Rich, Dynamic, Interactive
  - Facilitates and supervises student learning
- **Content**
  - Static content + Teacher’s explanation skills
- **Assessment**
  - Proctored exams
  - Take home exams
  - Projects
  - Class Participation
  - Assignments

Learner
The Syrian Virtual University

An integrated online educational environment that resembles a conventional university environment, with additional features offered by the latest technological applications

<table>
<thead>
<tr>
<th>Provides World-class virtual education for Syrian and Arab students at home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offers Accredited American, European and International degree and certificate programs at all levels</td>
</tr>
<tr>
<td>Student support services provided by a virtual community of Arab Professors and experts worldwide</td>
</tr>
</tbody>
</table>
SVU Model
(Lowering the Barriers)

• **Infrastructure:** Access/Technology
  - Build tele-centers with powerful PCs and fast internet connection

• **Language**
  - Preparatory year / Develop Arabic Programs

• **Payment difficulties**
  - Develop Arabic degrees at affordable fees
Credibility and Trust

- Obtain Local Accreditation
- Establish long-term partnership with local and regional industry
- Adopt international evaluation criteria
- Awareness campaign
SVU Model
(Lowering the Barriers)

– Learning Model

- E-content / LMS
- Asynchronous communications
- Asynchronous sessions
- Synchronous sessions / Web demo
- Recorded sessions
- Virtual classroom
SVU Model
(Lowering the Barriers)

- **Administrative Difficulties:**
  
  - Establish virtual communities of experts of Middle Eastern origin and Western Education
  
  - Provide services: career planning, admissions requirements, guidance, advising, graduation requirements
  
  - Perform market needs assessment and generate a list of “wanted” fields
SVU Model
(Lowering the Barriers)

- **Academic Difficulties:**
- Create virtual communities of Arab Professors with Western Education, living abroad or at home
- Provide the following services:
  - A- Academic Advising
  - B- Academic Support
  - C- Participate in Content Delivery
  - D- Develop New Programs
SVU University

Students

Internationally Accredited Degrees

Additional Services
- Career Planning
- Assessment and Guidance
- Advising
- Academic Support
- Pre-registration
- Technical Support
- Virtual Communities
- Discussion Forums
- Face-to-face requirements

Virtual Communities of Arab Professors
To advise, support and teach Arab students

Localization of International Curricula
Local Technical, Administrative and Academic Support

MHE Accreditation
SVU Degree Offerings

**Associate:** AA, AS, APS, etc.

**Bachelor:** BA, BS, BBA, BIT, BGS, etc.

**Master:** MA, MS, MBA, MIT, etc.

**Certificate:** undergraduate, graduate, professional courses
SVU Sample Partners

- Baker College Online
- Bellevue Community College
- Bellevue University
- Ohio University
- Canadian Virtual University
- Columbia University
- Cornell University
- Edmonds Community College
- MMU
- Edexcel
SVU Sample Programs

High National Diploma

Associate Degrees In E-Commerce
• Internet Studies.
• Web Development and Programming
• Management
• Marketing
• General Business

In Association with Edexcel

Arabic & English
SVU Sample Programs

Information Systems Engineering

160 credit based engineering degree

10 different specializations

4 years (3 semesters/year)
SVU Diploma in Educational Habilitation: Case Study (2)

Diploma for bachelors looking for teaching habilitation

One year program with 11 courses.

Practical (In-class teaching course)

10 courses in education and psychology
SVU Diploma in Educational Habilitation: Case Study (2)

The Ministry of Education need to rehabilitate 54,000 school teachers to the education era.

Spread over 18,000 schools in all Syrian Governorates

100,000 new students every year means at least additional 2,000 new teacher yearly
Available alternatives:
- Conventional Universities
- Open Universities
- Virtual University

A pilot project of 7000 learner in open university.

A pilot project with around 1700 learner in virtual education.
SVU Diploma in Educational Habilitation: Case Study (2)

1. General education and philosophy of education
2. Comparative education and education in the Arab world
3. Syllabus
4. Teaching principles
5. Teaching techniques
6. Teaching Methods
7. Educational Psychology
8. Childhood and teenage psychology
9. Psychological health
10. Evaluation & measurement
11. In-class course
Delay in project execution due to training of tutors and learners *(Computer illiteracy)*

Learners lack of motivation which is the driving force of self paced learning.

Poor voice quality due to the existing infrastructure

Deviation from SVU model

E-content
SVU Diploma in Educational Habilitation: Case Study (2)

+++ 

Computer & internet skills for both learners and tutors.

Classes of 30 students from all over the country

Richer experience and interactivity of learners

Use of available resources i.e. Edu Net & Al-Basel Centers

Expectations for 8000 learner next year
Challenges

- Lack of communication facilities in some areas.

- One of the most reputed Syrian "tourist site"

- Need more active support

- Dilemma: Biz of education versus HRD
Conclusions

- Introduction of ICT in HE is Facing Several Challenges
- Indicators Should be Developed to Assess ICT Maturity in HE
- Impact-Oriented Indicators Should be Developed for ICT-Based Education:
  - QA Indicators
  - Employability
  - Degrees Recognition
  - Capacity Building in ICT-Based Education
  - .....