Empowering distance education is crucial for Iraq after decades of traditional learning. Iraqi people need the knowledge and skills to compete in an increasingly technology-driven world economy. Iraq needs new models of education facilitated by educational technology. Some of the most promising new educational approaches are being developed through e-learning and virtual schools. This era is an exciting, creative and transforming one for students, teachers, administrators, policymakers and parents. It is time for Iraqi higher education entities to take advantage of this quiet revolution.

The conditions in Iraq are very challenging for information professionals due to a variety of factors, not the least of which is the physical danger caused by war. This paper, presented at the Iraqi higher education conference held in Irbil, Kurdistan, in December 2007, highlights a very practical area where information professionals can apply their knowledge and skills to re-build the intellectual competence of Iraq to re-establish its place in the global economy while physical conditions on the ground improve at an uncertain pace.

History

Distance learning (DL) is a field of education that focuses on using technology and instructional systems design to deliver education to students who are not physically on site to receive their education. The historical evolution of distance education has been in four main phases, each with its own organizational form derived from the main form of communication:

1. Correspondence systems. These systems originated at the end of the 19th century and are still the most widely used form of distance education in less developed countries. Based on a study guide in printed text and often accompanied by audio and video components such as records and slides, the interaction in the correspondence method is by letters and other written or printed documents sent through postal systems.

2. Educational television and radio systems. This method uses various delivery technologies, such as terrestrial, satellite and cable television and radio, to deliver live or recorded lectures to both individual home-based learners and groups of learners in remote classrooms where some face-to-face support might be provided. This model is still widely used in dense populations and rural areas within countries such as India. For Iraq, this option was the only one available for more than three decades and was only available in secondary schools. It was never considered as an approach to higher education.
3. **Multimedia systems.** These systems encompass text, audio, video and computer-based materials and usually some face-to-face learner support delivered to both individuals and groups. In this approach, which is used by the open universities in Iraq, instruction is no longer the work of one individual, but rather the work of teams of specialists: media specialists, information specialists and instructional design and learning specialists. Programs are prepared for distribution to large numbers of learners, usually located across a whole country. For Iraq, this option started to be deployed with limited resources and applications in higher education entities during the last 15 years, synchronized with global information technology (IT) deployments. The reach of these programs was limited for many reasons, including the period of United Nations (UN) sanctions on Iraq (1990-2003) which brought highly negative consequences in a general lack of hope, a lack of opportunities and the departure of many skilled academics to institutions abroad. The higher education system at that time faced many negative circumstances.

4. **Internet-based systems.** In these systems, multimedia (text, audio, video and computer-based) materials in electronic format are delivered to individuals through computers, along with access to the databases and electronic libraries that enable teacher-student and student-student as well as one-to-one, one-to-many, and many-to-many interactions, synchronously or asynchronously, through e-mail, computer conferences, bulletin boards and other devices. For Iraq this began modestly in partnerships with global higher education entities. The founders were very optimistic about the potential of these partnerships, but the deteriorating security circumstances and the killing of many Iraqi academics has resulted in a new wave of emigration of higher education faculty and staff. In consequence there have been very few fruitful results recently.

### Advantages

In spite of some initial challenges in Iraqi distance learning partnerships, the advantages of distance learning for many stakeholders is so great that it remains a strong option for developing intellectual and economic capacity in Iraq.

### Students

One of the biggest advantages for students is the flexibility. Distance learning makes education accessible and available anytime, anywhere there is an Internet connection. This feature reduces scheduling conflicts and therefore increases options and opportunities. Distance learning also often provides access to courses that may not be available elsewhere in conventional learning environments. One of the biggest advantages for students in Iraq is that security risks are greatly reduced by eliminating the need for physical travel to higher education sites.

### Government

The benefits for government accrue both as a supporter and a consumer of distance learning. As a consumer, government agencies can increase their capacity for productive functioning through increased access to opportunities for updating and retraining personnel without requiring staff to travel. As a supporter of distance learning (most universities are government supervised), there is often an increased cost-effectiveness (distance learning can often serve more students for a lower cost).

### Universities

In many cases distance-learning initiatives return a surplus to the university. In Iraq, the ability to keep the institutions of higher education viable is essential to maintaining and rebuilding national intellectual capacity to facilitate growth in all sectors. Distance education can also enable a university to expand its reach and increase the diversity of the student body, which can also contribute positively to traditional on-campus student retention.

Overall, distance learning provides significant advantages for all participants:

- Balancing inequalities between age groups
- Extending geographical access to education
- Delivering educational campaigns and other education for large audiences
- Providing speedy and efficient training for key target groups
- Expanding the capacity for education in new and multidisciplinary subject areas
- Offering the combination of education with work and family life
- Developing multiple competencies through recurrent and continuing education
- Enhancing the international dimension of educational experience
- Improving the quality of existing educational services
For Iraq distance learning is totally a win-win case. In addition to the items mentioned above, Iraq has spent decades being isolated from the global higher education network. This isolation has been especially painful since Iraq was one of the pioneer nations in the region to establish advanced higher education institutions (for example, the University of Baghdad was established in 1921, based on the United Kingdom model of higher education curricula). Distance learning allows Iraq once again to provide world-class education to its citizens and join in the global academic development of knowledge and opportunity.

**Challenges**

There are very real challenges to implementing distance learning on a broad scale in Iraq. The biggest challenge, of course, remains security. The degree to which Iraqi universities are ready for this transition also must be considered and addressed in both general and specific ways. Aside from basic challenges to the implementation of e-learning on a national scale, there are also challenges in developing learning environments that effectively engage the current generation to help them reach their full potential. Careful thought must be given to building a curriculum that will equip students with the skills and knowledge they need to be competitive in a global, information-based economy and to be contributing citizens of an emerging new Iraq. In this innovative environment for Iraq it is likely that assumptions about education will need to be questioned, which may provoke some anxiety. But Iraqi policymakers and the Higher Education Council should do their best to address these challenging issues. One of the fastest solutions is to start these programs in safe areas around the country.

**Recommendations and Road Map**

Some of these challenges can be addressed through a commitment to the development and use of open educational resources and practices to share proven tools, services, learning designs and content. Regarding policies, institutional frameworks and business models, it is essential that the distance learning initiatives in Iraq strengthen leadership, engage in innovative budgeting, focus on improving instructor training and provide strong support for e-learning. Such support requires access to e-learning options to all students and faculty as well as designing quality measures and accreditation standards for e-learning that mirror those traditionally required for course credit. Establishing partnerships with highly esteemed e-learning and virtual universities outside of Iraq will also assist in addressing some challenges in development and implementation.

The Iraqi Higher Education Council can make use of regional expertise in related areas due to the similarities of overall national components. There are three types of distance learning institutions. “Dual Mode” refers to universities that have extended educational activities to provide off-campus programs as well as on-campus programs simultaneously. “Single Mode” refers to universities that dedicate all of their activities to the unique purpose of distance education. “Virtual” refers to local universities that aim to provide world-class education without boundaries so that students do not have to leave their countries to study abroad. Table 1 summarizes some of the regional Arab higher education institutions that have adopted distance learning /e-learning programs and may be good partners.

<table>
<thead>
<tr>
<th>Local Institution</th>
<th>Type</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairo University</td>
<td>Dual mode</td>
<td>Egypt</td>
</tr>
<tr>
<td>Alexandria University</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Assiut University</td>
<td>Dual mode</td>
<td></td>
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<tr>
<td>Ain Shams University</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Balqa’a University</td>
<td>Dual mode</td>
<td>Jordan</td>
</tr>
<tr>
<td>German Jordan University (GJU)</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Open University of Libya</td>
<td>Single mode</td>
<td>Libya</td>
</tr>
<tr>
<td>Continuing Education University</td>
<td>Single mode</td>
<td>Algeria</td>
</tr>
<tr>
<td>Al-Quds Open University</td>
<td>Single mode</td>
<td>Palestine</td>
</tr>
<tr>
<td>Damascus University</td>
<td>Dual mode</td>
<td>Syria</td>
</tr>
<tr>
<td>Syria Virtual University (SVU)</td>
<td>Virtual</td>
<td></td>
</tr>
<tr>
<td>Zayed University</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>American University of Sharjah (AUS)</td>
<td>Dual mode</td>
<td>United Arab Emirates (UAE)</td>
</tr>
<tr>
<td>American University of Dubai (AUD)</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Arab Open University (AOU)</td>
<td>Single mode</td>
<td>Kingdom of Saudi Arabia (KSA), Bahrain, Jordan, Lebanon and Egypt. Their headquarters is in Kuwait.</td>
</tr>
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</table>
Support of open access and open educational practices and resources will be essential for enabling the rapid spread of models for pedagogy and technical implementation. Key steps in this support include enhancement of Internet access (technology infrastructure), development of digital content (including the training of instructors on effective use) and developing integrated data systems so that administrators and educators have the information they need to increase efficiency and execute assessment strategies to inform and improve instruction for all students.

The Iraqi Higher Education Council should start a campaign with related stakeholders, including academics, government, think tanks, the business community and other experts. This integrated approach should generate a policy paper indicating the best road map for achieving a national distance learning strategy. When published openly, the road map can more easily guide the implementation by many stakeholders simultaneously.

Can It Work for Iraq?

The Arab region has witnessed a remarkable increase in distance higher education over the past two decades. Iraqis have been left behind due to the recent prolonged conflict. The key current challenge question: Can it work for Iraq this time? There is a strong feeling that this initiative is possible now because Iraq does have the nationwide, geographically distributed higher education infrastructure that can be used as a nucleus for accommodating online distance-learning programs. This infrastructure includes (but is not limited to) these elements:

- 20 government universities
- Excellent higher education staff (both in Iraq and abroad) that can implement such programs with high degree of professionalism
- Excellent governmental budget resources with a possibility of private-public partnership scenarios
- An ability to build partnerships with other international universities
- An ability to take advantage of regional online distance learning educational programs that have been already deployed in some neighboring countries, such as Jordan, United Arab Emirates (UAE), Lebanon, Kuwait and the Kingdom of Saudi Arabia (KSA)

Implementing a distance learning strategy in Iraq is a sensible way to address the critical education needs of a country in the midst of uncertain security conflicts on the ground. Distance learning programs include many elements in which information professionals excel – the management of information resources and networks for access to content, for pedagogical resource sharing and for technical delivery of interactive learning environments. There are opportunities for Iraqi information professionals to play a strong role in the development of these strategies. There are also many opportunities for ASIS&T members to contribute to the development of these networks, both within Iraq and among partners around the world. The history of Iraq is grounded in a commitment to learning and knowledge. Building on this legacy, with the assistance of information professionals, Iraq can reinvigorate its pioneering, intellectual spirit.