Networking the Nile:
Technology and Professional Development in Egypt
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From 1998-2001, I served as Director of Educational Technology for a large US-funded aid program supporting English language teaching in Egypt. There were huge challenges in the work. Some of them were logistical, such as how to set up a computer laboratories and Internet access in schools that had irregular electricity, few phone lines, and no staff capable of managing networks. Many more of the challenges were social and cultural, such as how to help develop a sustainable professional development network in a country where educational systems are largely hierarchical and classroom teachers have little room for initiative. In struggling to help Egyptian educators develop professionally, I went through my own trial by fire. I had to maneuver between two of the world's most formidable bureaucracies: the US aid regime and the Egyptian governmental educational establishment. I had to balance the short-term objectives of the project with the broader goal of leaving behind a sustainable movement for educational change. I had to function in a country where people want much of what the West has while rejecting much of what the West values. In the end, I learned that my own professional development, like that of the Egyptians I worked with, rested largely on
listening to others, articulating a vision, deepening a commitment, and rethinking the interaction between computing, culture, and community.

**Arrival in Egypt**

I arrived in Egypt in March 1998, a few months after receiving my Ph.D. in Second Language Acquisition from the University of Hawai‘i. I had been on the market for a tenure track position, and had had a couple of good interviews, but decided to cut the search process short when I was offered a position with the Integrated English Language Program–II in Egypt (IELP-II). IELP-II, flush with $52 million in funding from the US Agency for International Development (USAID), was one of the largest language education aid program in history. I couldn’t resist the chance to participate in a well-funded effort to help introduce educational computing in a country as interesting as Egypt.

Shortly after arrival in Egypt, I had a vivid glance at how interesting Egypt was. During my first week there, I stood on the banks of the Nile and took in the Cairo landscape. Across the river, I saw the glimmering towers of the World Trade Center, including some of the fanciest stores, restaurants, and offices of modern Egypt. Looking down, though, I also saw a poor family of eight who lived in three tiny boats by the bank of the Nile. Thin and poorly clothed, this family apparently spent their days and nights on a couple of tiny canoes no longer than a fishing pole. Yet, as I looked down, I saw a shiny object in the center boat, and, upon looking more closely, I realized it was a battery-operated television. Even this impoverished family living in tiny canoes on a highly-polluted river was grasping at modernization through media. This contrast within contrasts was an excellent introduction to me of Egypt today. Egypt was rushing toward
modernization, while at the same time modernization had to conform itself to the centuries-old ways of life of Egyptian society.

**A Deficit vs. an Ecological Perspective**

In spite of all these contrasts, my first conflicts were not with the Egyptian system, but rather with the American one. IELP-II’s charge was to improve English language teaching in Egypt so as to strengthen the country’s ability to participate in the global economy. Toward this end, the program had a number of different project areas related to teacher training, materials development, and management consultation, all accompanied by numerical goals (e.g., x number of teachers will be trained in y content by z date) established in the program’s contract with USAID. My task, assisted by a staff of nine full-time Egyptian and American educators, was to help reach these objectives in our educational technology efforts.

Though the emphasis on numerical goals was in one sense well-motivated—too many aid projects had squandered money without movement toward any measurable objectives—it also belied a deficit perspective, that is the believe that Egypt lacked something, and that we were going to provide it, by filling Egyptian teachers’ empty minds with the right knowledge, skills, and attitudes (referred to as “KSA” in USAID-lingo). In contrast, I had a more ecological perspective on our task, viewing Egyptian education as an eco-system in which we had to nurture the capacity for ongoing growth and change (Holliday, 1992; 1994; see Kling, 2000 for discussion of socio-technical systems). From my view, our first task was not to rush to begin training programs, but rather to try to better understand the social ecology. I thus proposed we begin with a national needs analysis. This was resisted by some of my superiors, but we were
eventually able to carry it out, using focus group meetings, interviews, questionnaires, and visits to schools and universities to better assess the context and potential of educational technology in Egypt.

**Hardware, Software, and Humanware**

We found that, even in 1998, Egyptian schools and universities already had a moderate amount of computer equipment, some of which was connected to the Internet. Schools also had been provided with a number of educational software programs. However, teachers had few ideas how they could actually integrate new technologies into education. As one Egyptian professor told us, “we have the hardware, we have the software, we lack the humanware” (quoted in Warschauer, 2002a). This line became one of the mantras of our program, and we set out together, Egyptians and Americans, to help foster this humanware.

We set out to help develop a cadre of educators who that could engage in more personal and professional experience with new technologies, consider and pilot ways of using these technologies appropriate to their own teaching situations, and help provide ongoing leadership to assist other Egyptian educators in integrating computers into their professional lives.

Our framework for accomplishing this was based on Rogers’ (1962) S-curve concept of innovation diffusion (see Figure 1). According to this concept, changes are first adopted by a small group of risk-taking innovators. Soon thereafter come the early adopters, who are not as cutting-edge as the innovators, but who tend have more standing in their institutions and respect from their colleagues. The innovators are crucial for launching an innovation, whereas the early adopters are critical for getting innovation
accepted by the mainstream. Following the early adopters come the *early majority*, the *late majority*, and, eventually, what Rogers called *laggards*.

**Computers in English Language Teaching**

We set our task of reaching out to both innovators and early adopters, and helping form a network among them for ongoing work on educational technology issues—similar, for example, to the kind of computer and composition community in the U.S. To accomplish this, we organized a two-year professional development program that we called CELT (Computers in English Language Teaching). We recruited about 100 people to participate in the CELT program in three groups of 30-35. Groups were made up of English teachers, English language supervisors, and English methodology specialists from schools, universities, and English for Specific Purposes centers.

We tied the content of the CELT program as closely as possible to the actual needs of Egyptian teachers and learners as identified through the needs analysis. Technology instruction covered included simple tasks such as the creation and use of e-mail lists for professional discussion, the use of office software to develop materials or prepare presentations, and the use of the Internet for finding information or creating professional Websites. We selected free or advertiser-supported software over commercial software so that teachers could readily replicate what they had learned in their own situations. We developed modules on classroom use of technology focused in part on the “One-Computer Classroom,” as this reflected the conditions of Egyptian schools. Participants who completed the CELT program were thus prepared to provide leadership in the areas most needed by Egyptian teachers.
All those who participated in the CELT program had to go through a rigorous application process that evaluated their expertise in English language teaching methods, their experience with technology, and their leadership potential. Applicants had to propose, and present in a personal interview, a specific technology-based project that they would implement in their own schools, universities, and regions. We encouraged people to apply in pairs or groups from the same institutions. We selected people to participate either because they were innovators who were already experimenting with technology in the classroom and had some valuable lessons to share, or because they were potential early adopters with an interest in technology and with good ties to the broader educational establishment.

The CELT program consisted was divided into three main parts:

1. **A Pre-Training Period.** During a pre-training period of one year, CELT members had short computer training workshops in Egypt and formed teams to further plan their projects. The CELT members met in Cairo and continued discussions online to prepare for their main training and their project work.

2. **A Main-Training Program.** Following the first year, CELT members participated in an intense one-month training program in the US where they learned about computer-assisted language learning and carried out work on their projects.

3. **Follow-Up Implementation.** Following the main training program, CELT members continued their efforts by completing their projects, implementing their projects in their schools, continuing discussion over e-mail, participating in advanced workshops in Cairo, and sharing what they had learned with their
colleagues by leading their own local workshops and participating in a national “Electronic Oasis” (see discussion below). Finally, in 2001, a national CELT conference was held so that members from the three CELT groups could share ideas together and view each other’s projects.

CELT members chose a variety of projects related to their own interests. One professor, for example, helped launch an English-language Website for his university. While such a project might not be directly related to English language teaching in the classroom, the project served to highlight to Egyptian educational institutions the value of integrating technology and English and inspired other universities and departments to later launch or improve their own English-language Web sites, thus facilitating professional networking. Other CELT members launched electronic discussion lists to network English teachers in particular regions or programs. Other CELT projects focused on topics such as developing multimedia presentation content for the one-computer classroom and creating video-based listening exercises for university English courses.

The most exciting part of the program was when people returned to the US and actually attempted to implement their projects. Success varied, due to differential levels of support at their local institutions. Nevertheless, at least a handful were able to integrate technology into instruction for the first times, and were exhilarated by it. An example is seen in the work of Mounira, a CELT participant who teaches English literature at an urban university. Lacking access to any departmental or university computers for her teaching, Mounira began to involve some individual students in tracking down online information on English poems from their home computers. These
students made wall posters about what they found online and also gave oral presentations to the other students in the class. These posters and presentations generated so much student curiosity about the Internet that voluntary after-class "field trips" were organized to the public access computers at a nearby library. Groups of students, most of whom had never previously sat in front of a computer, worked in pairs at the library computers to sign up for free e-mail accounts and learn how to use the World Wide Web. These newly connected students then started to do their own online research on English poets, leading to more classrooms presentations and eventually to an online collaboration with students in another English class taught by a CELT participant at a different university. Mounira explained to me by e-mail (personal communication, April 2001) how all this activity reshaped class dynamics:

Two other students gave a presentation on the inauguration poems delivered by Robert Frost and Maya Angelou (another poet they're studying this term) in the inauguration ceremonies of Kennedy and Clinton. One of the two students had come over to me a few days earlier and accusingly said: "I haven't done a presentation yet". I could barely keep myself from laughing out loud. I have never had a student before ask to give a presentation! In fact, this same girl had come over to me at the beginning of the semester in tears because she had flunked her previous English course. The final assignment is happening right now. It's a collaboration between three of my students and Laila's students [a class of a CELT participant at another university]. I thought my students would simply rewrite online what they had come up with in class but they're doing more than that. They seem to have formulated insights about the poem which I have no idea
where they got from! I can only think of one word: motivation. I haven't had such a fulfilling experience in a long time. I keep receiving emails like "please reply now!" or "I sent you an email, you didn't get it?" Or students submitting entries for a poetry competition, on the deadline, through attachments, and requiring immediate confirmation. I'm not complaining, because to me it's nothing short of a miracle and I'm just so happy to be a witness to it.

Mounira’s message warmed my heart, as it helped me realize that what we were trying to accomplish was not futile.

Probably more important than people’s individual activity in the classroom were the ongoing training activities that followed, and the networks that were forged. Toward this end, IELP-II coordinated closely with the Ministry of Education and Egyptian universities to assist the CELT members in organizing one-week follow-up workshops in their own locales. This coordination was challenging, as the Ministry of Education was not used to facilitating this kind of grassroots initiative. Though thousands of Egyptian classroom teachers have traveled abroad for training over the last two decades, no systematic initiative had previously involved them in providing substantial ongoing follow-up training to their colleagues. Though arrangements were eventually made to carry out this follow-up training, this was accomplished only after a great deal of delays, obstacles, and resistance, with some CELT members facing problems even getting Ministry of Education approval for leave to attend follow-up meetings. This greatly tested my patience, until I realized that so much of what people try to do in computers and composition in the US is often outside of frameworks of institutional support. In the end, with great persistence, we were able to arrange the workshops.
Each workshop was led by 1-4 CELT members and included 5-15 local teachers, depending on the size of the laboratory available. The content of these workshops was similar to the initial workshops taken by the CELT participants and focused on the mastery of basic tools, such as word processing, presentation software, and the Internet, and the applications of these tools for professional communication and English teaching. Approximately 1,000 teachers participated in these follow-up workshops, and, as indicated by this statement by one CELT member, some of those trained continued the cascade or snowball effect by also doing training at their school sites.

I am very happy these days really because my dear trainees have started applying what they have already learnt in the workshop in their own schools. One of them called me yesterday and informed me he has taught the computer technician and another teacher of English in the same school how to use Microsoft PowerPoint and they were interested and the three started preparing a PowerPoint Presentation for their pupils. This is only a start and I am expecting more and more feedback from other trainees who were all under zero in the fields of technology (e-mail communication, March 27, 2001).

In addition to the CELT program, a number of other efforts were carried out to help consolidate a group of innovators made up of the CELT members and other highly interested teachers. Three of these were especially important—both to the Egyptian educators’ professional development and mine. They were the Ed Tech SIG and ELTEgypt.
The main professional association of English language teachers in Egypt is known as EgypTesol (Egyptian Teachers to Speakers of Other Languages). Shortly after it was formed, and in the midst of the CELT program, I volunteered to help launch an Educational Technology Special Interest Group (Ed Tech SIG) without EgypTesol.

This was risky in a couple of senses. First, I was stepping somewhat outside my bounds as an IELP-II staff, directly into an Egyptian professional association in work that was parallel too, but not formerly part of, my actual job. Secondly, I had no idea that, if I attempted to lead, others would follow.

In the end, the Ed Tech SIG was a success—and it remains to this day an active group within EgypTesol and more broadly within Egyptian English language education. The Ed Tech SIG organizes a number of activities throughout the year, but by far its most important is the Electronic Oasis: a computer/education fair within the annual EgypTesol conference. The SIG members work feverishly for a few months before the conference to arrange for the equipment and networking, to get the room set up, and on the weekend of the conference to deliver presentations. For example, at the November 2000 Electronic Oasis, 120 presentations were given on topics ranging from the basic, such as getting a free e-mail address, to the sophisticated, such as the authoring of multimedia.

Through helping form the SIG, I learned the importance of recognizing and nurturing local talent. I strove to work most closely not with the “technies” (i.e., the innovators discussed earlier), but rather with the influential educators who were starting to get interested in technology (the potential early adopters). I attempted to extend leadership opportunities to them, even when it would have been far easier to just simply
do the tasks myself. At times, I had to lower my expectations—but, at other times, they were far surpassed, for example, with the smashing success of the Electronic Oasis.

When I left Egypt, the Ed Tech SIG was not a powerhouse, training thousands of teachers on a regular basis and transforming the country. But it was at least a self-sustaining group that was continuing to move the profession forward in considering and applying technology in language education.

ELTEgypt

Another important institution, and one that was more contentious, was ELTEgypt. ELTEgypt was launched after the first CELT group returned from the United States as an electronic community of Egyptian English teachers. It was, to my knowledge, the first electronic educational network in Egypt.

Though attempts were made to have a Website, it never really got off the ground, as most of those involved had neither the time nor inclination to keep it updated. The ongoing instantiation of ELTEgypt was thus its email list. The list has approximately 225 members of people involved in English language teaching who use it to post announcements, discuss issues related to implementation, and otherwise address the status of English language teaching in Egypt and its relationship to technology.

Though ELTEgypt was established at my initiative, it was not something that I directed or controlled, even in the early stages. Nevertheless, since I was considered to be the resident expert on all matters related to technology and English teaching, people looked to me for guidance and direction.

This became especially difficult for me shortly after the list was set up and the Palestinian second intifadeh broke out. These events, and later events, such as the
September 11 attacks, inspired a great amount of discussion on the lists, both about the events themselves and also about how appropriate it was to discuss them on ELTEgypt. I had very mixed emotions about these discussions. Though I was thrilled to see Egyptians discovering the exciting power of the Internet for discussion about their political and social reality, I was saddened by the content of the discussions (which contained many views abhorrent to my own), and I also sympathized with the list leaders who were trying to figure out how to best handle the situation. In the end, they came to what seemed to me a good compromise—to allow some initial discussion on any major topic, just because it was so much on people’s minds, but then to request that future comments on social and political topics attempt to make at least some reference to their relationship to the scope of the list (education, English teaching, technology). Some interesting discussions later ensued about how events in the region could be brought into the classroom, and some people also decided to create a separate list to talk about any political event without constraints.

The issues around the list brought home to me the challenges of trying to help bring about grassroots oriented educational reform in a country such as Egypt. Effective use of technology necessitates giving people more of a voice. Yet with an authoritarian government and a hierarchical educational system, Egyptian teachers often feel voiceless. Opening up new channels of communication may result in outpourings, not all of which are pretty or neat, but which are part of the process.

**Recommendations**

What recommendations, then, do I have for those who may be interested crossing borders to extended their own professional development, and perhaps that of other?
There are many paths one can take to get involved in teaching or consulting overseas. Universities and schools in some countries, such as China, Korea, and Japan, are frequently advertising for instructors. For those with teaching certificates or credentials, American schools abroad offer another opportunity. Joining an e-mail discussion list related to teaching in a particular country can be one way to gather some information. NETEACH-L (e-mail list on Internet and English language teaching), TESL-L (set of e-mail lists related to English teaching around the world), and Dave’s ESL Cafe (Website for ESL students and teachers) are just three of the many sites where you can get in touch with English language instructors across the globe.

If and when you do begin a new professional journey overseas, you may want to keep these things in mind. First, as we help develop our students' and colleagues "humanware," so we must develop our own. Though I began this program with a reputation of expertise in computer-assisted language learning, I had little experience in promoting sustained professional development in a country such as Egypt. I thus had to learn to adapt my expertise in ways suitable to local context. This involved adjusting curriculum and pedagogy to suit the Egyptian context, for example, by emphasizing the one-computer-classroom in training programs. This also necessitated developing a style of patient communication; nothing in Egypt takes place without laying substantial groundwork through informal discussion and networking. Finally, it involved becoming sensitive to the political realities of the Middle East, for example, by supporting the rights of Egyptian educators for opportunities at grassroots computer-mediated communication even when the content of that communication was at odds with my beliefs. In the process, my professional development became intertwined with my personal
development; by understanding better how Egyptians learn, think, and communicate, I was able to clarify my own values and become better prepared for global citizenship in a post-9/11 world.

Second, we must be cognizant that theory cannot be divorced from practice and that knowledge cannot be separated from cultural context. What seems applicable because we studied it in a course, or used in our own class, or our own lives, in the US, will take on very different meanings to local actors in different sociocultural contexts. Holliday (1992; 1994) uses the analogy of tissue rejection to explain what usually happens when Westerners try to transplant a reform without adequate attention to local context. Though the “operation” may appear to be an initial success, the reform is eventually rejected due to its unsuitability and due to lack of local ownership. Those of us who teach or consult overseas have something valuable to offer, but the way that that offer is delivered needs to be through a process of collaboration and contact, rather than imposition.

Finally, bear in mind that development occurs not through transmission but through a long-term process of experience and reflection. We cannot rush our own development or that of anyone else. In that sense, the Nile itself is a good metaphor. Its course can gradually change, but attempts to suddenly reverse it would be completely futile.

These are life-long lessons for all of us, and my own experience and reflection in Egypt helped me learn these things a little better than I knew them before. I still have far to go.
Acknowledgements

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Rethinking the Digital Divide* (MIT Press, 2002).
Figure 1: The S-Shaped Curve of Adoption Innovation

Source: Rogers (1962)
References


