

---

# Interconnection, Technology and the Future: The Road to Effective Uses of Instructional Technologies

Rachel Saury  
University of Virginia

## *Editor's Note*

The following is an adapted version of a Henderson Plenary final paper given by the author at the IALL 2001 conference at Rice University in Houston, Texas.

***Today, peace means the ascent from simple co-existence to co-operation and common creativity among countries and nations....Peace is a movement towards globality and universality of civilization. Never before has the idea that peace is indivisible been so true as it is now....Peace is not unity in similarity but unity in diversity in the comparison and conciliation of differences....And, ideally, peace means the absence of violence. It is an ethical value.***

—Mikhail S. Gorbachev, Former  
President of the Former Soviet Union,  
Nobel Peace Prize Laureate, 1990

## *Stating a Vision and the Need for Reform in An Age of Extremes*

All of us here know that the field of foreign language instruction has been parlaying the power of technology since World War II—representing a half-century of technological progress. Indeed, I am fond of saying to my colleagues in the instructional technology field outside foreign languages that those of us who teach languages have been well ahead of the pack! We have defined “innovative” and “cutting edge” for six decades! However, despite this long history, nothing seems to have prepared us for where we are now. According to Eric Hobsbawm, as we entered the 21<sup>st</sup> century, “it has for the first time become possible to see what a world may be like in which the past, including the past in the present, has lost its role, in which the

old maps and charts which guided human beings, singly and collectively, through life no longer represent the landscape through which we move, the sea on which we sail. In which we do not know where the journey is taking us, or even ought to take us (Hobsbawm 1994: 16)." Mikhail Gorbachev, in his acceptance speech for the Nobel Peace Prize in 1990, stated that the globalization of the world economy and of politics has broken down what seemed like inviolable national boundaries and barriers. As a result, we are experiencing a deepening complexity and more unknowns in education, medicine, diplomacy, technology, the arts, law and business practices than ever before in human history.

Reflecting these dramatic changes, foreign visitors to the University of Virginia campus where I work are in awe of the number of computers they see at every turn: on office desktops, in labs, classrooms, and libraries. Within the Virginia community college system, one campus of which is a close neighbor of the University of Virginia, an extensive technology infrastructure for distance education was installed a few years ago and more and more technology-equipped classrooms are being built. We are all truly rich in hardware and software. But how willing are we to take on the responsibility that our riches afford us? How rich are we in practice and vision? How much of a long view are we bringing to our attempts to use technology? It is my view that our long term vision individually and collectively is going to be an essential component to our successful use of the new technologies and, in many cases, to our survival individually and as institutions. However, if we are going to have vision, we are also going to have to embrace reform in the corridors of higher education. In a 1996 RAND Report, the authors are blunt about the need for visionary reform on how technology will be put to use at the secondary school level. Their conclusions can be applied to higher education:

The introduction of educational technology into schools should occur as a component of a broader effort of school reform to improve the learning of all children....In the absence of a persistent and intensive effort to maintain a focus on improving student learning, the promise of technology will be lost....Technology without reform is likely to have little value; widespread reform without technology is probably impossible (Glennan and Melmed 1996).

When I initially began to promote the use of technology in foreign

language teaching at Virginia five years ago, I was circumspect about pressing instructors to think about their teaching differently. The prevailing philosophy in the language laboratory field and among the faculty in my institution is that innovation should come from the teaching and research faculty and not from those of us who serve them and their students. However, after our new language laboratory was installed in August of 1999, it quickly became apparent that without someone to provide a vision for the future and to press for looking in new directions, the instructors would for the most part continue to use the new technologies to do exactly what they had been doing before. Reflecting the academic tradition of the lone scholar working in the solitude of her office, they also would largely work on their own, focusing on the needs of their own courses, languages and disciplines.

*Instead of taking a back seat to faculty preferences and proclivities, I am pressing instructors to question how they are teaching and how they are training their TAs to teach.*

Further, in an institution like the University of Virginia, there is a great deal of pressure to bring in outside funding. Funders, both private and federal, are looking for deep-seated reform in teaching. They are also looking for applications of technology that are pedagogically and cost effective. To develop such a plan takes time, research, testing, and coordination. It involves thinking differently. In order to do this, as technology professionals and teachers, we need to embrace interdisciplinarity, to foster new professional interconnections, and to become involved in dialogues about institutional change. We need to think of language teaching as going beyond the traditional boundaries of the B.A., M.A. or Ph.D. in language, literature and culture.

Of course, I am biased in these matters. Although my Ph.D. reads: Doctor of Philosophy in Slavic Languages and Literatures, my training is actually in Russian and Soviet Area Studies with a disciplinary emphasis in folk studies and anthropology. Throughout my life, I have never been willing to remain within traditional boundaries in anything I do. I believe strongly that language learning and teaching must be steeped on context—political, cultural, economic, religious, and psychological. Similarly, in order to figure out how technology can be used wisely and well, I have broken out of the more traditional role of the language laboratory director. Instead of taking a back seat to faculty preferences and proclivities, I am pressing instructors to question how they are teaching and how they are training their TAs to teach. I also have become involved in institutional processes pointing towards change at higher levels. My actions mirror the reality that technology is fundamentally about

breaking down barriers.

I hope I can hold for this brief moment today a vision for the future that simultaneously embraces what we—that is, to create opportunities for interpersonal connection—and challenges how we are doing things now in order to get where we need to go. Before positing a method for transformation and initiating curricular reform, let me lay out for you the forces of change and the obstacles to change.

*Five Synergies  
for  
Transformation*

There are five synergies for transformation in our institutions and in how we can choose to deliver foreign language education to our student populations. It is important for us to be aware of these issues in our field so that we can ride the wave of change knowledgeably. They point to the fact that we are currently in a transitional time in the history of education, on the whole, and in language teaching, generally.

First, let us look at the growth and impact of communications technologies on society as a whole. According to one commentator, "Growth in the use of the Internet and the World Wide Web...exceeded 20 percent per month for several years (Katz 2000: 30)." At that rate of growth, if access to technology can be equalized at the same speed (probably doubtful, but that's the topic of another talk), the whole world could be seeing itself through the same screen in less than another decade. Indeed, children born after 1994—or in other words, the new batch of students who will come to college in the year 2012—will not have known the world without the Internet, as Bill Gates pointed out in his address to the New York Institute of Technology (McCollum 1999). Throughout this process of transformation of the communications culture, it has become patently and perhaps starkly clear that computers are powerful tools in their ability to transform consciousness for the positive or the negative. We see their potency in the effect they have on the culture of youth today and in the proliferation of the consumer culture worldwide. What is considered "cool" is driven and/or contextualized by the telecommunications industry for mass consumption on television and the Internet. Our students increasingly expect their learning environments to mirror popular culture. According to Mark Milliron, author of a new book on technology use in the community college setting, that technology can respond to changing student demands by making campuses more student-centered (Blumenstyk 1999). Technology has also dramatically changed our workplaces by making access to new information easier, communications faster, and collaboration more feasible.

---

What all of this means is that technological literacy has become a "survival skill" for all of us (Langhorst 1997). Particularly as we look at the next four areas impacting our institutions, we will see that our own survival is definitely at stake.

Second, let's look at the demographics and motivations of the current and coming generation of students as laid out by Madeleine Lively in an ADFL Bulletin article summarizing and drawing upon the findings of a study by the College Board in 1996. She says: "well over 50% of all undergraduate college students in the United States are enrolled in two-year institutions" and the same percentage are over the age of 24. Lively notes, "ninety percent are trying to gain new competencies to respond to the changing nature of their work, 30% are going to school full time while working and managing families, and 65% are women." Lively writes that "Students of the new generation are consumer-oriented and demand convenience, accessibility, and flexibility for their busy schedules and relevance to their lives, for most see themselves as participants in a global economy and as members of a global community (Lively 1997)." These students are going to demand more for their money and time and will want more direct participation in their education.

The mission of community colleges in particular is to widen their net and "[adapt] to the needs of constituent learning communities, rather than making learners fit an established academic mold (Langhorst, 1997)." Many of these institutions and other four-year institutions are grappling with how to make access to language learning more flexible and easier. Even though Lively's observations may seem mostly pertinent to the community college setting, they are increasingly what I see undergraduates at the University of Virginia demanding (or craving, if the demand is not heard). In addition, students increasingly expect technology to be a component in their learning.

Third, let's look at issues of cost. Sir John S. Daniel, Vice-Chancellor of the Open University in the UK, states that higher education in the United States and Europe are in a crisis of "access, cost and flexibility (Daniels 1997: 12)." As we all know, the cost of higher education in its traditional form has outpaced inflation by a staggering amount, causing universities and colleges in the early 90s to start scrambling for ways to reduce costs and find new markets. Sir John predicts that not too soon in the future, "increasing demands for all dimensions of the

higher education mission (teaching, research, service) will out-strip available resources (Daniels 1996: 14).” The community college system, which has always put out a wide net has been perhaps better equipped to face the demands of the new economy, being less wedded to providing a research infrastructure to support teaching may be in a better position. However, 2-year colleges are also vulnerable, in that the service they are able to deliver is driven by student enrollments and thus market demand. In many cases, institutions have looked towards technology to close the gap in cost, but because most of us are still wedded to traditional methods of instructional delivery, technology has ended up being merely an add-on to already inflated costs. Nonetheless, in order to make our investments in technology cost-effective (if economics speaks more loudly than principle), then educators in all disciplines must be rethinking their curricula with the view to taking advantage of the synchronous and asynchronous, boundary-crossing capabilities of technology in the short- and long-term. *The Chronicle of Higher Education* quoted Christopher J. Dede, professor of education and engineering at George Mason University, as saying that is cheaper to build virtual classrooms than to construct buildings. Further, he says, virtual classes can bring in more than enough income to pay for the technology installed (Carnevale 1999). These realities require us to look ahead and to take risks.

Fourth, let’s look at the role of foreign language in higher education and in society, in general. As we all know, the importance of languages in a general education curriculum is a concept that is not necessarily widely accepted. In a January, 1998 report from the Charles E. Culpepper Foundation, David Maxwell argues that in the United States, we lack depth in foreign language education.

As we approach the 21<sup>st</sup> century, the United States faces a set of opportunities and challenges of increased pressures for language and cross-cultural communications competency that arise from a number of factors. With increased international economic competition, our future economic success is dependent to a great extent on our ability to understand and communicate accurately with overseas markets. Further, the provision of services (the fastest growing sector of our economy and a major segment of our export economy) in the international arena demands a high level of broad-based, cross-cultural

---

communications expertise. In addition, the growth of an elaborate worldwide telecommunications network has facilitated an exponential increase in the demands and opportunities for the rapid transfer of knowledge and information on a global scale, *but the United States does not have the linguistic and cultural competence to take full advantage of all that the technology offers* [emphasis added] (Maxwell 1998: 4).

Despite the realities of the globalization of the workplace and our culture, in the last decade, many institutions, particularly in the public arena, have either downsized or eliminated foreign language requirements and/or faculty. Even at the University of Virginia, with its commitment to a liberal arts education, the language departments are sorely under-funded as compared to the other departments representing the humanities. The perspective towards languages among many non-language faculty is that it is skill-oriented and not part of an intellectual tradition. This attitude is often sadly shared even by those faculty who themselves teach the literatures, histories and cultures of peoples who speak other tongues. At the University of Virginia, when establishing the requirements for a new interdisciplinary major in Hebrew, the debate among the committee was heated. Many of them argued that since students can do the lion share of their research in English, why should they be required to study Hebrew for two years? In the end, the requirement was set at one semester, a mere nod in the direction of language competency.

In the United States, the prevailing cultural value among the general populace is that everyone should know how to speak English and, given the fact that English has become the lingua-franca all around the world in business, education and politics, it is difficult to counter this attitude. In many 4-year institutions, at least, there may be enough prevailing pressure to adhere to the values of a liberal arts education to keep languages as part of the Bachelor of Arts, but in many 2-year institutions, where FTEs are linked to student enrollments, if the general public is not signing up for French, German, Russian, or Spanish classes, the courses—and possibly, the instructors—will be eliminated. This doesn't even address the challenges faced by the less commonly taught languages.

Fifth, let's look at the educational potential of the new technologies. I have become particularly interested in research

*Whereas in the past, distance learning tended to elicit a sense of independence and isolation, the new technologies enable learning at a distance to be interdependent and collaborative.*

on and projects using distance technologies, since ultimately, where all technologies are pointing is in that direction. As Scott Langhorst puts it, "Today, connection among learners and resources are not simply figurative or conceptual, they are tangible, instantaneous, and globally flexible. Colleges literally can become a virtual network of connections without any physical presence or campuses (Langhorst 1997)." The possibilities for distance learning have exploded due to the hypertextuality of the Web, the ability to integrate text, images, sound and video, the ability for communications to be threaded synchronously and asynchronously, the speed of Ethernet connections and computers, and increasingly sophisticated means for audio- and video-conferencing. Where the technological capability exists, students from all over the world can log on to the same course. Whereas in the past, distance learning tended to elicit a sense of independence and isolation, the new technologies enable learning at a distance to be interdependent and collaborative. On the other hand, because of the ability to build and maintain dynamic databases and to develop true interactivity in computer-based instruction, autonomous, self-paced learning can be more meaningful and effective if that is the modality chosen by an individual either due to personal preference, time constraints or distance. Further, where traditional classroom methods in foreign languages, in particular, have tended to demand a routinized structure of class meetings on a pre-arranged timetable so the teacher can meet face-to-face with students on a weekly basis, the new technologies can provide additional learning opportunities in spaces that may only be facilitated, not led, by a single instructor. Maxwell states the potential of the new technologies most clearly:

Technology facilitates—and can encourage—the transition from teacher-centered to learner-centered learning....According to the Foundation's grantees and other experts in the field, technology has a number of important impacts on teachers and teaching. It enriches the role of the teacher, freeing him or her up from the responsibility of being a 'gatekeeper' or primary provider of content and allowing him or her to serve as a guide and facilitator—a model that most faculty should find more stimulating and satisfying...Technology can liberate the teacher from a number of instructional tasks currently addressed in the classroom, providing opportunities for use of class time that can enhance productivity and enjoyment for

---

both teacher and student. Because of increased access to and efficiency of learning opportunities, technology also allows faculty to expect more of students and to set higher learning goals...the introduction of technology was found to facilitate programmatic and curricular flexibility to respond to a variety of student learning needs and styles (Culpeper, 11-13).

These five synergies point to a complex and dynamic field for growth and change in the next 10 years. Indeed, I believe that acting out of an awareness of them and harnessing their energy is essential to our livelihood. This means that we must re-envision our roles as facilitators and collaborators with teachers, administrators and technology professionals in order to plan for short- and long-term reform.

*Examples of  
How Technology  
Can Break Down  
Boundaries of Time  
and Space*

To develop a long-range vision and strategic plan, we must first have an idea of how technology can serve us. Many faculty tell me that the major stumbling block to knowing how to use it in their teaching is that they don't know what it can do. I would venture to say that even those of us in the instructional technology field are sometimes also limited in the range of our imagination. Therefore, I am including here various projects that may not seem at first glance to have direct applicability to language teaching, but when you look deeper, you realize that access to international resources and the facilitation of collaborations globally provide opportunities for our students to have language learning steeped in both a cultural and a research context and to have direct access to target materials.

***Cultural Geography of Tibet***

The Tibetan and Himalayan Digital Library is creating an international information database on the geographical, cultural and linguistic regions associated with Tibetan and Himalayan cultures. The Library is providing the technological, administrative and organizational infrastructure for individual scholars and collaborators to fill in the content of the collections.

Located at the heart of the University of Virginia's library system, it provides the means for scholars and scholarly groups to do collaborative research that can then be published as part of the Library. The Library consists of five separate components: The Tibetan Cultural Archive, the Encyclopedia of Tibet, the *Journal of Tibetan Studies*, and Tibetan Studies Resources. The

Tibetan Cultural Archive creates an environment in which the integrated use of maps, texts, audio, images, and video can be parlayed for teaching, translation and scholarship. Another component of the Library is the Ubabble Project, a tool that will enable students to access video from the target culture to be utilized in language learning. The methodological basis of the tool is based on the importance of discourse-centered learning of language and culture, i.e. that language is interwoven with culture and thus that it should be learned with as much access as possible to the full natural sociocultural context in which the it is produced. The tool will be useable both within traditional classroom settings, as well as for self-paced on-line instruction by independent learners. Because all the tools are Web-accessible, several partners are involved in development of the Library here and abroad: Paris 8 University/CRNS, the University of Chicago, and UCLA.

#### ***Historic Preservation in Cape Coast, Ghana***

US/ICOMOS, in collaboration with the University of Virginia and the University of Maryland, has launched a project in Cape Coast, Ghana, that focuses on the ecology of heritage and the management of change. The project involves the building of a Web-based digital inventory of the architectural and cultural artifacts of Cape Coast updated on both sides of the ocean. Technical expertise is provided by the University of Virginia, with on-site experts in Cape Coast. All digital materials can be accessed by researchers, instructors, and students worldwide.

#### ***Slavic Folklore Database***

A database called WebCat was developed to enable students to access hundreds of authentic photographs taken during field research in the rural regions of Ukraine. This database is adaptable to archiving material from any region of the world, thus enabling teachers to integrate knowledge of cultural artifacts, rituals, songs, and oral texts into the teaching of language, literature and culture.

#### ***Better Use of Spanish Teaching Assistants***

The Department of Spanish, Italian and Portuguese is constantly facing a crisis: they do not have enough TAs for the number of students wishing to enroll in beginning and intermediate Spanish. Classes are filled to the brim, with upwards of 25 students per TA. Therefore, they are planning on experimenting

---

with breaking out of the conventional confines of students meeting 4-5 hours/week with a single instructor to meeting 3 hours/week while getting content-rich materials via computer assisted instruction in the language laboratory and on the Web. They will be developing learning protocols and, where needed technology-based modules, for this purpose. Doing this will mean TA resources can be spread out to teach more sections thus increasing enrollments and satisfying student demand.

### *Other Future Possibilities for Technology Use<sup>1</sup>*

Even these projects only presage things to come. Imagine in 10-20 years that the difficult issues of hardware and software compatibility and instability will be gone. Imagine that a student could be studying an African language like Fulfuldi with an instructor in Senegal in conjunction with his major in Francophone Area Studies and Public Policy. His materials would be web-based punctuated by asynchronous and synchronous meetings with his instructor via the Web. Imagine that he could also be joining a class linked by video and audio with students around the world doing readings and reports in a class called "French Readings in Public Policy and Cultural Preservation". Or imagine that a student who is preparing to study abroad in Spain has already been taking classes with professors from the Spanish University she will be attending.

As I tell you about these current and future possibilities, you will see that my viewpoint is informed by parlaying the power of technology to foster worldwide collaborations and to create distance links between and among students and teachers nationally and internationally. This would be done partially through Web-based video conferencing and partially through the use of powerful databases containing a wealth of materials and information about and from the target culture and in the target language. I believe that if we are not already promoting such technological capabilities in our institutions, we should be. We should be thinking about using distance connections with universities and colleagues overseas as a teaching and learning tool. However, in my experience, I see that this is not happening across the board. Why?

### *Forces Against Innovation in Teaching*

Sir John sees the problem of the slowness of incorporation of technology tools such as these into our teaching and learning repertory as rooted in the limited way institutions of higher education use technology. "Despite your splendid technological infrastructure, U.S. higher education is not using technology

effectively. The reason? Your instructional system is driven by teaching rather than by learning, by the needs of professors rather than students (Daniels 1997: 11)." Even where distance education is seen as a necessary step to enable institutions to remain fiscally viable long-term, we see that there is still a hidebound attachment to doing things the old way. In the Virginia community college setting, according to an article entitled "VCCS Participation in Distance Learning Activities", since 1997, the number of synchronous distance courses increased 103% and the number of asynchronous courses increased a staggering 230%! However, it is also striking when looking at the course materials and method of delivery in particular of the foreign language courses offered via two-way audio and video-conferencing that although distances are being breached, the instructional methods are, for the most part, the same as the traditional classroom: a single instructor gives a lecture and facilitates conversation among students after which they go home to work on textbook exercises and to listen to accompanying audiocassettes.

Otto Peters remarks that the phenomenon of two-way audio and video being used to replicate the traditional classroom setting is not unexpected. The same is true for the language laboratory's focus on the dissemination of audio materials accompanying textbooks via the Web: "It is assumed that the 'best' model for teaching or taking part in a university course is the model used at traditional universities. In nearly all universities, this means the lecturer stands in front of a group of students. What happens in the class varies from course to course, but it is always interactive and in real time...All (or nearly all) traditional classroom techniques can be adapted for use here; and what is more, because both forms of teleconferencing reconstitute the learning group, they closely resemble traditional university teaching (Peters 1998: 141)." Similarly, at the University of Virginia, despite the fact that instructors now have access to tools that can break down the barriers of time and place, they are at least initially largely using them to continue the way they have taught their classes all along. At the University of Virginia, students go to class 4-5 hours/week and are sent to the "lab" to listen to the digitized audio materials that were turned into a computer-based format from the audiocassettes accompanying the textbooks. In some cases, they may be using a CD ROM that also came with the textbook they purchased. However, fundamentally, the concept of the teacher remaining completely in control of the medium and standing in as the most important intermediary between

---

the student and the target culture remains intact.

*On the side of lab management, many directors seem to work in a vacuum isolated from institutional endeavors and from their instructional technology colleagues.*

On the side of lab management, many directors seem to work in a vacuum isolated from institutional endeavors and from their instructional technology colleagues. We can be so focused on issues like audiotape duplication, copyright issues related to foreign language textbook and audiocassette series, creation and dissemination of technology-based language modules, hiring and retention of student workers, specifying, purchasing and installing new lab systems, and other issues related to daily lab management, that we forget to see the larger picture. In general, this tendency reflects the often ghettoized position of language teachers within the academy. Because language departments have historically been seen as service units, so the language laboratory or language technology services have been seen as a functional equivalent serving narrow interests with special needs. What is ironic is that language laboratories have also historically been on the cutting edge of the use of technology in teaching and in the administration and dissemination of these technologies by teachers and students. However, this fact is often not recognized and, therefore, the efforts, accomplishments and needs of lab directors and the faculty they serve are often ignored, leading to continued reliance on old ideas and forms.

The reliance on what we are most familiar and comfortable with is not necessarily bad from a pedagogical standpoint (why change what we know works), but it does not address the critical and increasingly pressing challenges of cost and access—or the need for enrollments to remain steady or go up. Nor does it really use the technology well from the standpoint of its potential for improving learning and increasing access to realia and real people in the target culture.

There is a bell curve of technology adoption in higher education in which the “innovators”, or what Sir John defines as “the enthusiasts who like technology for its own sake” and the “early adopters” “who have the vision to adapt an emerging technology to an opportunity that is important to them to lead the way (Daniels 1996: 88).” At the University of Virginia, we ourselves saw this trend as part of the Teaching + Technology Initiative, which gave up to 12 fellowships a year for developing innovative uses of technology in teaching. These projects were extremely cutting edge, but largely had no application outside of their initial purview. They also ended up being extremely costly to build and maintain.

*Above and beyond the personal problem of fear of losing face in front of our students, risk becomes a professional threat particularly for faculty who are seeking tenure or in the community college setting, where one's economic livelihood is dependent upon student enrollments.*

Further, the adaptation and use of new technologies in teaching and learning demands new paradigms for thinking about faculty support, faculty workloads and time management. Most mainstream teachers, or what Moore calls the "early majority" and "late majority" in the technology adoption life-cycle (Daniels 1996:88) have difficulty extrapolating how technology will benefit them and their students because the environment (read here administrators, structure of courses, service responsibilities, etc.) does not support them in doing the research needed to keep themselves up-to-date and informed. They do not know where to go or where to begin in learning what the technology can do. Or, if they eventually find out where to go, they don't know how to achieve what they want to accomplish. At the University of Virginia, for instance, faculty complain they do not have enough time, money (translated into course release or money to pay student employees to input data), or institutional recognition of the effort it takes to implement their ideas. In addition, in most institutions, there are generally too few instructional technology support personnel. According to a survey of senior information technology officials, "the number of IT personnel available at colleges and universities to help students and faculty with teaching, learning, and research [is low]....Community colleges, on average, had only one I.T. staff member to support every 800 students (Olsen 1999)."

For the innovators and early adopters, these problems may be occasionally frustrating, but do not present insurmountable obstacles. This is because they have a higher tolerance for risk. However, for the mainstream, risk is a problem. Indeed, the truth is that it is the mainstream who will ultimately dictate the direction of change, not the innovators and early adopters. However, for them, as Gilberte Furstenberg points out, although at this point most teachers are comfortable with private uses of technology—word processing, email, searching the Web for research and teaching materials—they are not comfortable with its public uses. "Thus in our teaching—a public situation by virtue of our students' presence—the story is altogether different. Interestingly, then, the real value of technology is often not obvious to us (Furstenberg 1997)." If a faculty member is tenured in a 4-year college, the negative impact on her career of a classroom failure from a risk taken is not necessarily a problem, although temperamentally the individual may simply be risk-adverse. Above and beyond the personal problem of fear of losing face in front of our students, risk becomes a professional threat particularly for faculty who are seeking

tenure or in the community college setting, where one's economic livelihood is dependent upon student enrollments. Therefore, it is more comfortable and safe to do what we know we do well pedagogically and technologically. I would also argue that lab directors in our field tend to reflect the conservatism of the faculty they serve. Therefore, in the end, change does not occur on any deep level.

Because of these problems, we see that after the initial enthusiasm about the new technologies on the part of the innovators and early majority, a chasm appears (Daniels 1996: 89). If reform continues to rest on the shoulders of a few individuals, we will never get across. Doing so is now more and more appearing to be critical to our long-term well being individually and professionally.

### *Strategies for Long-Term Reform*

*The philosophy of technology management in the language lab field has largely been that through work with individuals, change will occur over time. However, this theory has not been borne out in practice.*

### *Language Technology Management and Advocacy*

The first area that must be addressed for reform to occur is in the way we manage and advocate for our facilities and the needs of our faculty. As lab directors, we are used to working one-on-one or in small groups with primarily language faculty. As faculty, we are used to working on our own. The philosophy of technology management in the language lab field has largely been that through work with individuals, change will occur over time. However, this theory has not been borne out in practice. Further, it does not address the larger and more complicated issues of cost, flexibility and access discussed earlier. Sir John and the RAND Report both call for motivating change on a systemic level, as well as on an individual level. The systemic level responds directly to the five synergies discussed earlier. There are five areas where we need to be involved and where questions need to be asked:

1) Institutional policy in the areas of funding, curriculum development and strategic planning

Are we aware of and partners in dialogues about funding for language departments institutionally? Are we perceived as advocates for the interests of these departments not only in the area of technology, but in other issues, as well? Are we privy to and involved in dialogues regarding changes in curriculum, such as efforts to internationalize our campuses and curricula? Are we invited to or do we volunteer for work on university-wide committees that have an impact on long-term planning,

development of new programs relevant to language departments, and technology growth? Do we attend institution wide faculty meetings and provide our input or at least show a presence at and an interest in curricular and policy issues, particularly as they impact language departments and technology?

## 2) Communications technology and structure of support for instructional technology institutionally

Are we linked up with our counterparts in the technology management division of our institution? Are we aware of what is going on in the development of digital resources and access to international resources in the library? Do we voice our opinions and get involved in decisions about how classroom installations and management of technology-equipped classrooms should be handled? Do we advocate within the technology division for better and more support of IT? Do we use our knowledge of international computing issues, such as encoding and software standards to press our institutions to guarantee students and faculty are able to connect to the world outside English-speaking countries? Do we advocate the use of tools such as SCOLA and lab systems like the Tandberg and SONY for use by programs outside language departments?

## 3) Distance Learning and International Outreach

How many of us come from institutions with distance learning programs or which have distance learning facilities? Can distance learning technologies be incorporated into the repertory of language teachers to build and sustain connection with the target culture? Are our programs and efforts being aligned with institutional internationalization objectives? Could Study Abroad programs sponsored by your institutions be connected through distance technologies to language courses and curricula? If you are a community college, can you develop and use connections with the publicly funded 4-year and graduate institutions to gain access to international classroom resources?

## 4) Institutional fundraising initiatives

Are we keeping abreast of fundraising initiatives in our colleges or divisions and within the institution as a whole? Are we advocating for instructional technology, generally, and language technologies, more specifically, to be included in capital campaigns and outreach to corporate and private donors? Are

we aware of grants being written to private foundations and federal agencies where language technology might be made a component?

5) Cross-departmental outreach, from the humanities to the sciences

Are we aware of other departments, programs and courses outside of language where language technologies might be beneficial or where tools are being developed that would be useful to the teaching of language, literature and culture? Are we making ourselves available to help them out?

*We also need to see ourselves as part of a larger picture institutionally and to empower ourselves to break out of the academic model that those in support positions are to be seen and not heard.*

I want to challenge all of us to stop thinking within the small boxes of our labs and departments and to become advocates institutionally for international instructional technologies as a whole. If we look around and think creatively, we will see that language technologies, from software and encoding for multilingual computing, SCOLA, the use of the Internet to access information about other countries, or even language learning modules, can enhance instruction in courses outside language departments. We also need to see ourselves as part of a larger picture institutionally and to empower ourselves to break out of the academic model that those in support positions are to be seen and not heard. Raising the visibility of international computing and language technologies will ensure that we have a piece of the pie in the near- and especially the long-term. At the individual level, we need to be more aggressive in the ways that we approach faculty and to become advocates for technology use and curricular reform. We can do this in several ways:

- Providing an easily accessible snapshot of how technology will look and work 10-20 years from now.
- Showing faculty innovative yet practical technology and teaching projects that clearly have applicability in what they teach.
- Advocating and providing more support for collaborative development of tools and methods, rather than supporting individual, idiosyncratic efforts that may not be viable long term.
- Using teaching assistants to do grassroots level work with individual faculty, including raising their level of technology literacy about basic tools (PowerPoint, Web-based collaborative writing tools, Blackboard, etc.).

- Spurring critical self-reflection about teaching goals in the past, present and future to motivate and direct change.

### *Leading the Way to Reform With the Right Questions*

Since I am assuming that most of us here are part of the innovators and early adopters, it is up to us to provide leadership. Part of being a leader means asking ourselves and those we serve why we should change and what our needs are now and are likely to be long-term, particularly because in the 4-year undergraduate setting, there appear to be fewer incentives to do so than in community colleges or even high schools. These questions can be asked in group brainstorms or in individual meetings. They can be foregrounded in discussion or they can be implicit in our conversations. By asking them, we can begin to crystallize the what, where, why, and how of getting across the chasm collectively and individually. They must start from looking at where we want to be in the future, where we have been and are now, and what would be the best way, in our setting, to enact reform. They also address the five synergies for transformation laid out earlier in this paper: the ubiquity of communications technology, student demographics and motivations, the role of language learning in education, issues of cost, and the educational potential of distance technologies. They force us to think out of the box.

1. What do we want in the future? Higher student enrollments, better results in our classrooms, more opportunities for learning foreign, more choices for our students in what is being learned and why?
2. What do our students want and how may their desires vary from within the targeted potential student population? More flexible access to courses and materials, more exposure to native speakers, quicker and deeper acquisition of grammar and vocabulary, more opportunities to learn about culture directly from contact with it, more contact with the target culture, more opportunities to speak?
3. What do we do well in meeting these future desires and needs? Imparting particular types of knowledge (grammar, vocabulary, certain skill-sets such as speaking and reading), developing relationships with our students, inspiring them to learn more and better, conveying a sense of excitement and engagement with the target culture?

---

4. What methods have we used that we know are successful that can be continued and supported by technology tools? Use of foreign language texts, activities to encourage speaking in class, use of visual cues and audio materials to develop fluency and comprehension, integration of cultural materials to keep interest high, grammar lectures, individual tutoring, use of music and video?

5. Where are areas of weakness in our teaching first within present modalities of delivery and second within the context of what our students and we want in the future? Low initial enrollments, not enough time for active use of the language, poor retention of students in class due to their perception they are not getting what they want or there is too much work or it conflicts with their schedules, family life, etc., students becoming bored or disinterested when certain activities take place, not enough development of writing skills, not enough exposure to native speakers?

6. How can the technology support us in continuing to do what we do well as a means to become more comfortable with it and as a precursor to taking risks? Using Web-based activities to provide more contact with the target language, using PowerPoint to display slides and put lectures on the Web, using commercially developed CDROMs that accompany our textbooks to provide interactive drills, digitizing audio materials that accompany the textbook to give students access to them via the Web?

7. What alternative modalities of learning—student centered, problem-based, teacher as facilitator, collaborative learning, self-paced/autonomous—could be used to address areas of weakness and to strengthen opportunities for learning and using technology? Putting students in pairs or teams during the course of the class to do peer tutoring and editing and to create audio- or video-recordings of assigned dialogues and presentations, providing self-testing and tracking of scores on the Web, using computer-based grammar references and drills to improve retention of language structure and vocabulary, developing the teacher's role so that he or she provides guidance, tutoring via audio- and video-conferencing, telephone conversations and email and maintaining student engagement with learning materials, process, and goals.

8. How could team-teaching and mixing and matching students with differing proficiency levels and differing motivations for studying the language be parlayed with the technology to make

*Take on the task of educating your division heads, provosts, and presidents about how the process of reform and adopting technology works and be clear that you are taking a leadership role by having a vision for the future of the institution and the system as a whole.*

better use of resources and to increase course offerings? For instance, could three different tracks of a single language be offered so that one group of students could be working on more superficial language skills for the traveler, while another group could be striving for deeper levels of competency either out of personal interest or professional motivation. Could teachers who normally teach their own courses autonomously team teach both tracks and figure out how to bring students together at certain junctures to increase opportunities for active use of the language, to stretch competencies, and to keep interest high?

Out of the answers to these questions the key to reform will come. Lastly, once you have a vision for reform, look for and cultivate allies. Find an upper level administrator, if you can, who will champion your cause at the upper levels. Be specific and assertive: ask for money to develop materials, for positions for instructional advisors and designers, for better technical support, if you need it, for language laboratories so that students who cannot afford to buy their own computer have a place to go to do their work, for course release, for written guarantees that failures in the process of experimentation won't lead immediately to shutting down courses, for funding for consultants. Take on the task of educating your division heads, provosts, and presidents about how the process of reform and adopting technology works and be clear that you are taking a leadership role by having a vision for the future of the institution and the system as a whole.

## *Conclusion*

I invite you to use the overview of the five synergies that are coalescing to change the world in which we live and the ideas presented about how to spur reform to challenge the way you do your job—whether you are a teacher or an administrator of a language learning facility. I invite you to take a leadership role and become a visionary for the future. Classroom-based learning can be mixed creatively with asynchronous and synchronous distance learning if we are willing to think out of the box. We can become part of the dialogue within our institutions for how technology is going to change our campuses in dramatic ways. We can make what we teach seem more relevant to current and future generations of students. Contrary to Hobsbawm's statement that the past is no longer relevant to the future, we all know that traditional academic models for teaching still have their place. However, if we are willing to be honest with ourselves, we also must admit that there are many gaps in what can be accomplished in this setting and that, if we don't take advantage of technology's capacity to facilitate global

interconnections, we are failing our students.

What all of these efforts point to is ultimately placing the study of foreign languages and the technologies that support it in a wider context institutionally and nationally. There is nothing less at stake here than maintaining the position of foreign languages as central to the academic mission of our institutions. There is nothing less at stake right now than world peace. Keep this in mind: despite a clarion call for peace by every Nobel Laureate since 1901, we have seen more wars waged in the twentieth century than in any other time during human history. As is pointed out by Hobsbawm, as many as 187 million people died as a result of war between 1914 and 1991, or one in ten of the total population of the world (Hobsbawm 1996: 12). We now can put the world at our student's fingertips. To deliver foreign language instruction widely and well is to change "the mentality of individuals [towards peace] and then, in turn, on that of their nations," as Albert Schweitzer, theologian, physician, missionary and Nobel Peace Prize Laureate in 1952 put it. We must, therefore, let the changing world change us, change our students, and change the way we all teach and learn. Have confidence in yourselves and use the power of entrepreneurial energies and collaboration to feed and disseminate your vision.

### *Endnote*

<sup>1</sup> See the two appendices and the end of this article that give a more detailed fictional narrative of the lives of two students in the year 2020 showing how technology is seamlessly interwoven into their course of study. You can use them as food for thought with the constituency you serve or to feed your own creative impulses.

### *Bibliography*

- Carnevale, Dan (October 14, 1999). "Professor Says Distance Learning Can Increase Colleges' Income", *The Chronicle of Higher Education*.
- Carr, Sarah and Jeffrey B. Young (October 22, 1999). "As Distance-Learning Boom Spreads, Colleges Help Set Up Virtual High Schools", *The Chronicle of Higher Education*
- Daniels, Sir John S. (1997). "Why Universities Need Technology Strategies", *Change*, Vol. 29, No. 4, pp. 11-17.
- Daniels, Sir John S. (1996). *Mega-Universities & Knowledge Media: Technology Strategies for Higher Education*. London: Kogan Page.
- Fursterberg, Gilberte (1997). "Teaching with Technology:

- What is at Stake?", ADFL Bulletin, 28, No. 3, pp. 21-25.
- Glennan, Thomas K. and Arthur Melmed (1996). *Fostering the Use of Educational Technology: Elements of a National Strategy*. RAND Institute (<http://www.rand.org/publications/MR/MR682/contents.html>).
- Hobsbawm, Eric (1994). *The Age of Extremes*. New York: Vintage Books.
- Katz, Richard N. (2000). "Competitive Strategies for Higher Education in the Information Age", *Dancing with the Devil: Information Technology and the New Competition in Higher Education*. San Francisco, CA: Jossey-Bass, pp. 27-49.
- Langhorst, Scott A. (1997). "Changing the Channel: Community Colleges in the Information Age", *Community College Review*, Vol. 25, no. 3, pp. 55-72 (<http://www.so.cc.va.us/ccreview.html>).
- Lively, Madeleine (1997). "The Changing Demographics of the Traditional Student: Making Our Classrooms Relevant for the New Generation", ADFL Bulletin, Vol. 28, no. 3, pp. 32-36.
- Maxwell, David (1998). "Technology and Foreign Language Learning: A Report to the Charles E. Culpeper Foundation, Washington, D.C.
- McCollum, Kelly (1999). "Bill Gates Looks Ahead to the Era of 'Generation I'", *Chronicle of Higher Education*, Friday, October 29.
- Olsen, Florence (October 21, 1999). "Faculty Wariness of Technology Remains a Challenge, Computing Survey Finds", *The Chronicle of Higher Education*.
- Peters, Otto (2000). "The Transformation of the University into an Institution of Independent Learning", *Changing University Teaching: Reflection on Creating Educational Technologies*, Terry Evans and Daryl Nation, eds. London: Kogan Page, pp. 10-23.
- Peters, Otto (1998). *Learning and Teaching in Distance Education: Analyses and Interpretations from an International Perspective*. London: Kogan Page.

## Appendix A

### ***Vision 2010: A Semester of 'The Spanish Experiment' for Isabelle Davis from out of the Community College System***

It is Spring, 2010. Our student is named Isabelle Davis.

---

She is twenty-nine years old, divorced with a 5-year-old daughter. She lives in Danville, Virginia and is a Nurse Practitioner who has just started a paid year of Residency among the rural poor in the area as a way to work off her student loans from graduate school. After her residency is over, she plans on finding a job in the Southwest, preferably southern New Mexico, where she wants to work on women's health issues among the Spanish-speaking immigrant community. She has a side interest in Native American cultures, which is one reason why she wants to be in the Four Corners region. She is therefore looking for a way to brush up on the two years of Spanish she studied in college over 10 years ago while working full-time and raising her daughter.

In her explorations on the Internet on her home computer, she discovers that the VCCS offers an integrated four-track series of courses called "The Spanish Experience" tailored to serve newcomers on up to those with more advanced language skills. It also crosshatches a cultural course into the language courses. There are four tracks she can choose from team-facilitated by 2 instructors:

**Track 1:** This course highlights phrases and skills and cultural competencies needed for the traveler overseas. It is a one-credit course consisting of one contact hour/week via video-conferencing plus self-paced work for 6 weeks. Computer-based drills on vocabulary and "survival phrases" and videos of native speakers with associated exercises builds the learner's basic skills for a short trip to a new country. Short quizzes every week graded on-line ensure the student is acquiring the required skill-set established as the goal of the class. For those who live close enough to one or both of the instructors (the instructors do not necessarily live in the same locale), the course ends with a potluck at the area college in foods common to Spanish-speaking countries.

**Track 2:** This course is for those new to the language wanting to build a good foundation for future competency at work or in the home. It is a 3-credit course meeting for 12 weeks consisting of one contact hour/week with the instructor via video-conferencing and up to 2 hours/week via telephone, email, and previously recorded digital lectures. About one-half of the course is self-paced using computer-based activities and the other half is instructor mediated (activities and tasks assigned and asked to be handed in for grading). Students are paired at

the beginning of the course to tutor and help one another. On-line quizzes are given every week that can be taken at the student's discretion with certain pre-set deadlines for finishing certain material.

**Track 3:** This course is for people who have had some exposure to the language before and focuses on solidifying knowledge of grammar while providing ample opportunities for practicing listening and speaking skills. It is a 2-credit course meeting for 8 weeks with one contact hour/week via video-conferencing and up to one hour/week via telephone and email. Emphasis is on collaborative and problem-based learning. Students are paired at the beginning of the course and are given activities that send them out to the Web and into the course database of authentic audio- and video-based language materials for opportunities to read and speak the language. Using the Web-based collaborative writing tool, they are paired with students from Track 2 to act as tutors on small writing assignments. Their own comments on student writing are also graded and mediated by the instructors of the course with each writing assignment going through 2-3 cycles of editing by the student tutor and the instructor. The ultimate goal is to have all student writing from Tracks 1 and 2 posted on the Web for reference material in the database.

**Track 4:** This course is a culture and film course in English. It is a 1-credit course meeting for 6 weeks with 1 contact hour/week and 2 hours of film viewing with about 1 hour/week of additional activities. Students whose language skills are higher and who wish to further develop them (they may be continuing from Tracks 2 or 3) may opt for taking the additional 1 credit Spanish supplement to the course in which they are given additional assignments associated with the film and literature that involve listening, writing and speaking Spanish.

All four tracks involve collaborative work with other students at their level, conversation with native speakers, on-line drill and practice, exploratory activities on the Web, and quizzes and tests administered electronically. Students from all three tracks will interact with one another throughout the course. Because Isabelle's goals are more serious than Track 1 and her level of language is higher than Track 2 and lower than Track 4, she opts for Track 3.

The three tracks are team-taught by two professors and combine asynchronous and synchronous learning with up to 40 students

---

from around the state. The series gateway is a well-developed Web site that includes the following resources:

- Web links to sites that the student will use as reference and help materials: on-line dictionaries, grammar references, encyclopedic materials on Spanish and Latin-American cultures, etc.
- An on-line database of exercises indexed and searchable according area of grammar, vocabulary, and cultural material. This database is maintained and provided for a licensing fee paid for by the VCCS system by a collaborative consortium of universities and foreign language textbook publishers. The exercises in the database involve more traditional “drill-and-kill” exercises such as true-false, fill-in-the-blank, multiple choice, and dictations, as well as exercises that require the student to repeat after the speaker, record small dialogues, or responses to one-half a dialogue, etc. Written and spoken portions of the exercises will be selected and required by the instructors to be handed in electronically by the student.
- An on-line video database of recordings of native speakers from Spain and Mexico having real-life conversations among themselves on various real-life topics like work, shopping, sickness in the family, etc. or showing the outside audience how to cook a traditional dish, for instance. These materials are keyed into certain exercises at varying levels of difficulty asking the student questions in the target language about material from the videos. These materials will also be carefully selected and assigned by the instructors for the students to hand in. The videos and associated materials are provided by the consortium that provided the exercises above.
- A Web-Activities link so that students, working in assigned pairs within their own Track, will “go to” a country where the target language is spoken in search of material and information requested by the instructor. For instance, one activity is to find an apartment fitting certain specifications and to post information about it in the Web-based collaborative writing tool.
- A Web-based collaborative writing and chat tool which will enable the students to write small essays, read and edit one another’s work, and incorporate links, images, sound and video drawn from the database and other sources on the Web. Students in Tracks 3 and 4 will be paired with students in the

lower tracks with whom they will chat and whose work they will edit under the supervision of the instructors.

6) A link to the video-conferencing tool that will be used several times in the semester so that students can talk directly to a native speaker one-one-one and to the instructors during certain junctures in the course or when such a conference is requested by either the student or the instructor.

Track 3 is structured thematically by content: introducing oneself, the family, home, etc. Activities and exercises are assigned based upon what material is being covered by the Track as a whole. In some cases, students are encouraged to explore materials in the database and on the Web within certain parameters until they find materials that give them what they feel they need or what the instructor has indicated to them they need based upon evaluation of quizzes and recordings turned in. Certain activities open windows between the Tracks where interaction takes place, such as in editing Web-based writings or in assignments for conversations. Mixing students with higher level skills with students of lower level skills encourages both: the students with higher level skills are learning critical self-editing capabilities while gaining self-confidence through speaking with students at lower levels and students with lower level skills will stretch to match their partner. The instructors are able to monitor student progress both through assignments turned in, as well as through exchanges of emails and the two video-conferences scheduled during the term of each Track.

## *Appendix B*

### ***Vision 2020: A Day in the Life of Thomas Baggett in a 4-year Undergraduate Program***

It is spring, 2020. Thomas Baggett, an undergraduate enrolled at the the University of Virginia, is preparing for a year abroad at the University of Dakar in Senegal where he will study land-use issues and public health for his double major in Francophone African Studies and Public Policy. Part of the requirement for the major is to have, Advanced Mid proficiency in French and Intermediate High competency in one West African language, according to proficiency standards set by the American Council of Teachers of Foreign Languages.

Although this latter language requirement may seem unusual now, given the fact that technology has globalized the skilled job market for anyone with a Bachelors degree or above, and because of the social, health and environmental crises that manifested

---

around the globe in the first two decades of the 21<sup>st</sup> century, it is not unusual for the top-flight institutions of higher education in the U.S. and Europe to have language requirements in a major European language and one or two other languages native to the region being studied. This trend has also emerged because of the insistence of the tribal and indigenous peoples in many developed and developing nations worldwide to have their native languages and cultures preserved and to empower their own people to collaborate in finding solutions to their own problems. The socio-political goals of these latter groups came to the fore in the first decade of the 21<sup>st</sup> century alongside a realization on the part of the governments of the industrialized and developing nations, public policy think tanks and grass roots and international relief organizations dealing with various health and environmental crisis such as AIDS, that social, educational and medical outreach would be more successful if team members were not only trained in policy issues, but also deeply understand the cultural roots of the people being impacted. Knowledge of the tribal language also enables them to work more closely with those they serve and their native collaborators. Responding to these new needs and pressures, various consortia of universities and institutes around the world developed and maintain distance technologies and digital databases to collaboratively preserve, catalogue, and deliver real life cultural, linguistic, literary, and artistic materials and artifacts from each region. Therefore, Thomas' intellectual interests and career goals are in line with the trends of the time. He is looking towards a life of service in which he will spend some time overseas, while computers will enable him to work collaboratively at a distance from his colleagues abroad.

To this end, he starts his day: Today at 9 a.m. he has his monthly discussion session for French 425, entitled "French Readings in Public Policy and Cultural Preservation". This seminar-style class brings together students at [author's institution], Berkeley, and the University of Dakar who have an area studies concentration in a Francophone nation or region. The students in the U.S. are required to do their research in French using various text- and electronic resources. Because the American students meet with their Senegalese classmates and instructor at the University of Dakar using a Web-based videoconferencing program, they also are getting critical language practice in their area of specialization. They only meet once a month for 4 hours because much of their discussion and research findings take place on and are posted to a Web-based threaded discussion and collaborative writing program. Their annotations of texts,

Web sites, and other materials relevant to the topic are also entered into a shared digital database supported by the library. In this way, student work is saved and catalogued, helping build resources for future students, researchers and policymakers. Two students per month are responsible for presenting orally a body of material assigned to them. The oral presentation is in French. This week is Thomas' turn to present how the AIDS crisis exacerbated the erosion of cultural identity in Senegal.

At 8:05 a.m. as he grabs his towel, bathrobe and shower bucket, he flips on his computer so it can boot while he does his morning ablutions and gets dressed. It is 8:25 by the time he is ready. With 15 minutes before he has to leave the dorm to get to class, he sits down at his computer to log onto the Multimedia Language Learning Laboratory's Web site where he finds review modules for the language called Fulfuldi spoken by the Wolof and Fulani peoples on the West Coast of Africa. He has to take a vocabulary quiz by 5 p.m. today on shopping in the outdoor markets of Senegal. He didn't get a high enough score on his first try, so he is going to take it again. Each time he takes it, the computer records which vocabulary he missed and which vocabulary items still have not been tested. Each quiz will test slightly different material while also reinforcing new materials. He logs into the Lab's server using his personal login id and his password, which pulls up a screen showing icons for each of the language courses he is taking. He clicks on "Fulfuldi at the University of Dakar" and a screen opens up showing him how many modules he has completed, how many quizzes he has taken and his current cumulative score for them.

At the University of Virginia, instead of developing a course in Fulfuldi itself—a project that would have been prohibitively expensive—they have a partnership with the University of Dakar in Senegal so that students can take on-line courses, including language study and the seminar in French readings Thomas is taking. What Thomas doesn't know is that part of his tuition covers the cost that [author's institution] pays to the University of Senegal for providing the Web-based language course and the native speaker with whom the the University of Virginia students will meet via a Web-based videoconferencing program once a week in addition to their Web-based modules. He also doesn't know that the University of Dakar also has contracts with several other American and Western European universities for the same courses. In the case of the University of Virginia, Thomas' tuition also pays for [author's institution]'s

own nominal administrative costs and the technical support staff who help out students who encounter technical difficulties. There are currently 6 students other than Thomas at the Intermediate Mid level of Fulfuldi at [author's institution]: one graduate and one undergraduate in African Studies, two undergraduates majoring in African languages and linguistics, one undergraduate majoring in French and economic and political theory, one student from the Law School majoring in international law in developing nations, and one woman who is enrolled in through the Virginia Community College System in cooperation with the University of Virginia's Division of Continuing Education. She wants to learn Fulfuldi in preparation for a trip she and her husband are taking to West Africa in the summer to visit their son a Peace Corps volunteer serving a remote desert village. Their discussion sections are designed so that they will actively use the language they have been studying using the Web-based modules. However, the bulk of their learning takes place via Web-based grammar, culture, vocabulary, and reading modules reinforced by video and audio.

Thomas clicks on "In the Senegal Market" and several icons appear, each representing various activities. He clicks on "flashcard practice" and an easy-to-use interface opens up. He drills himself in three skills for each word and idiom: reading, writing, and listening comprehension. He realizes that he really doesn't understand one idiomatic construction that he needs to know and he sends a quick message in French to the tutor in Dakar with his question. He has become so absorbed in what he's doing that he momentarily forgets about the time until 10 of 9. He quickly logs off the system and runs out the door. He arrives at his seminar room two minutes late. The students and instructor in the U.S. and Africa in the French reading course are chatting and laughing. They haven't seen each other face-to-face in quite a while, so they have some catching up to do. Even though they are accustomed to the way technology enables them to see one another from classrooms around the world, the first few moments of contact remain exciting and novel throughout the semester. Thomas sits down at his computer workstation and pulls up his materials for presentation. The room quiets down when he clears his throat indicating he's ready to start. He gives a 45-minute presentation to the 20 other students in the class—6 in the U.S. and 14 in Dakar. Then, in a practice loosely based on a native tradition of the Fulfuldi and Wolof peoples, each student in the class gets two minutes to respond to and make oral comments on his presentation. After

that, the floor opens for his responses, general discussion and a second presentation.

At 1 p.m., the class is over. Thomas is satisfied with his presentation and the group response. Based upon his oral presentation, the instructor has made some suggestions for changing how Thomas has entered and categorized his materials in database for the past two months. He will do that this afternoon after he takes his quiz. He'll also get some help from the reference librarian on the best and quickest way to change topic entries in the database. But first he goes to have lunch in the International Living and Learning Center's café where he knows he will find some of the other students and graduate instructors in the African Studies program hanging out. The café is a favorite place to go not only because it is the central gathering place for students majoring in area studies programs of various kinds, but because news broadcasts from all over the world are piped in every day. Individual computers with headsets are also available so that students can read electronic newspapers from all over the world and listen to live radio broadcasts. Since most students who are in area studies programs are required to know 2 languages other than English and since the international students and scholars also live in the Center itself, the café is a place where there is a cacophonous babble of tongues from all over the world. The food selections represent cuisine from all around the world.

Thomas finally tears himself away from an interesting conversation with a friend who is a graduate student on a one-year program from the University of Dakar. He needs to go to the Multimedia Language Resource Center to take his Fulfuldi quiz. He finishes the quiz in a half-hour and his score, shown to him in a pop-up window when he finishes, indicates that he has passed that module. Since he and his advisor have set the goal that he will finish the Intermediate Mid Fulfuldi component and pass the test by the mid-summer, he figures he has about 8 weeks to finish 14 modules. The pace will be fast, but because he is motivated by the fact that he wants to get approval by July 15 to leave for Senegal on August 15 and because he has already bought his airline ticket, he is willing to push himself. In addition to passing the final on-line test, he'll also have a half-hour oral testing session with his instructor in Senegal before he'll be given the go-ahead to leave. If he leaves for Senegal with Intermediate Mid knowledge of Fulfuldi, he anticipates he'll be able to pass

the oral proficiency requirement when he returns because part of his stay in Senegal will include an internship out in the villages assisting healthcare workers disseminate information on AIDS prevention. During that time, he will probably speak a lot of Fulfuldi. He will be tested in Fulfuldi in another half-hour interview with his tutor before he leaves for the U.S. so that he can be placed in what is his new competency level after being in Senegal for a year. When he gets back, he will have to complete another 20 computer-based modules in Intermediate High level and then take another 60 modules at the Advanced Low level. Even though it isn't required of him to reach this level, he has set it for himself as a personal goal because he likes Fulfuldi so much. Then he will have to pass the written test and another final oral test in order to get his certification for completing the African language requirement for his major.

As part of his Francophone African Studies major, he is also taking a course on the tribal cultures of West Africa taught by a professor of anthropology. This class also has an on-line component and is taught collaboratively by two faculty members: one at the University of Virginia and one at the University of Dakar. The next class meets via videoconferencing tomorrow at 8 a.m. Thomas wants to finish the assigned reading. He also missed the last lecture, so he has to watch the recorded session on-line. Since all these materials are available on the Internet, he decides to stay in the Multimedia Language Learning Center to complete the assignment. By the time he has finished watching the lecture in French and reading the materials in French and English, it is 5 p.m. He has plans to meet friends for dinner in town after an intramural soccer match. Thomas goes back to his dorm to change for the game and for his evening activities. ♦

---

***Rachel Saury is Director of the Arts & Sciences Center for Instructional Technologies, home of the Language Lab, at the University of Virginia. Prior to that she was Director of the Language Learning Center at James Madison University. She has a Ph.D. in Slavic Languages and Literatures and over 15 years of experience teaching language, literature and culture.***

