Adapting to Change in an Academic Environment: Intercultural Communication and Information Technology

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I joined the faculty of Kyoto Notre Dame University, then Notre Dame Women's College, on October 1, 1977, at the age of 27. Considering my age and background, I was very fortunate to have been given the opportunity to become a full-time instructor and a member of the Notre Dame Family.

Background

I was born in Tonasket, Washington (USA), where I grew up on a small family farm. Most of my time was spent outdoors. In 1968 I finished high school and spent a summer as a surveyor for the United States Forest Service. I attended La Verne College (now the University of La Verne) in southern California, where I majored in psychology and minored in sociology (1968-1972). While in college I spent my junior year in Japan, working as an instructor at the Language Institute of Japan in Odawara (1970-1971). During that year I had many opportunities to travel, and I hoped that some day I would be able to return.

After graduation I moved to San Francisco. I briefly worked as a full-time volunteer, then as a full-time temporary civil servant, in the Sheriff's Department (1972), and then I became a parole officer for the City and County of San Francisco (1973-1975). At the same time I got married (1973) and attended graduate school at San Francisco State University, where I received a Master of Arts in Teaching English as a Foreign Language (1975). Most of my classmates were also working people, and many classes were at night.

My first teaching position was at the University of Benghazi, Libya, where I was an assistant lecturer on a two-year contract (1975-1977). I taught general English, creative writing, and English for students in the Department of Archeology. My wife and I never learned to speak Arabic fluently, but we managed to get along well after a few difficult months of adjustment. Our first son was born in Benghazi in 1976, and we enjoyed the companionship of many Libyan and expatriate friends.

Although Benghazi was much more peaceful than it has been since 2011, there were many reminders that we were living in a military dictatorship. There was no independent

source of news, government propaganda blared from speakers in some downtown areas, and it was common to see groups of soldiers. Wherever I drove, I carried my identity card in my shirt pocket in order to show it to soldiers at roadblocks, sometimes at gunpoint. At the university I was warned that many classes had government informers and that I must avoid topics such as religion, sex, and politics. In 1977 there was a short period of political unrest and violent repression of protests, some of which I witnessed. A student was killed by a police officer during a confrontation in a parking lot near my office, and a Libyan professor was taken away for several weeks and tortured because he had advocated freedom of expression and freedom of the press in one of his classes.

Although my experiences in Benghazi and my previous work as a parole officer included very little research, they helped me grow in many ways. I learned to get along with a wide variety of people, to adapt to unfamiliar environments, and to remain relatively calm in stressful situations. In San Francisco I learned to respect and listen to people who were stigmatized as deviants and misfits, and in Benghazi I began to appreciate the intensity with which people cling to their ideologies and worldviews. Although I did not leave Libya with any specific ambitions other than to be a good English teacher and to provide for my family, these early experiences eventually motivated me to study and teach communication, computer networking, and media.

Classroom Interaction, Nonverbal Communication

I did not have a research plan when I came to Kyoto in 1977; however, I soon became interested in classroom interaction. Compared with Arabic-speaking students from North Africa and the Middle East, many students in Japan seemed passive and reluctant to speak up in most classes, but some groups and individuals seemed almost as talkative as students in Benghazi. Cultural explanations for students' reticence failed to account for the variations that I noticed.

At San Francisco State University I had taken a course in Visual Anthropology, taught by Professor John Collier, Jr. Class activities included the analysis of nonverbal behavior in 8mm film clips of elementary school classes for Native American children. By 1978 portable open-reel black-and-white video tape recorders had become available, and I thought that I might learn something interesting by studying videotapes of English language classes.

At that time I was teaching in the evening adult English school at the Kyoto YMCA, where I had access to a videotape recorder. Teachers of English classes for middle school pupils were eager to improve their skills, so I recorded portions of their classes, studied

the tapes, and shared my findings with them. For months I struggled to develop a system of coding verbal and nonverbal interaction sequences. A few discoveries proved useful. For example, although teachers used nearly identical techniques for group and individual pronunciation drills, their gestures, timing, and eye contact varied. Teachers' nonverbal behaviors influenced the participation of their pupils. Videotapes showed that one teacher normally stood with her left foot forward. As her body orientation shifted her attention slightly to her right, some students on her left began to whisper to each other. Using a strip of white tape on the floor, she was able to keep her orientation centered. As she began to pay more attention to pupils on her left, their participation increased.

As I studied videotaped class sessions, I was struck by the difficulty of trying to describe interactions that were extremely complex and yet smoothly coordinated by teachers and pupils. Also, as I had seen in Visual Anthropology films, participants with the same cultural backgrounds interacted in joint performances that often looked like well-rehearsed dances. Such performances depend on shared patterns of behavior that are learned in cultural and social contexts but not explicitly acknowledged. Teachers often expressed surprise when I pointed out certain behaviors that I had noticed.

This research reinforced the notion that intercultural communication can become awkward for reasons that participants find difficult to articulate. For example, two people may have very different assumptions regarding proximity. A friendly distance for one person may be felt as too distant and cold by another. Furthermore, even a detailed understanding of cultural differences cannot assure smooth interaction. Participants in face-to-face communication must adjust their behavior in real time as they learn to dance together.

Intercultural Adaptation

In 1981 we built Theresa Hall and then began English Department courses in Communication, then called Communication Arts. In addition to interpersonal and intercultural communication, I taught Advanced Reading, a yearlong research class for seniors in Communication Arts. Students conducted research projects in small groups. One of the projects each year was to interview English-speaking foreigners who lived in Kyoto. Tape-recorded interviews focused on intercultural adjustment and culture shock.

As students transcribed their tapes, we discovered that many short-term foreign residents had difficulty in adjusting to life in Japan. Their stories reminded me of my undergraduate studies in sociology and my work as a parole officer in San Francisco. In some ways they resembled people who were stigmatized by conspicuous disabilities, racial

differences, or other characteristics.

In contrast, most westerners who had lived in Kyoto for longer periods reported fewer problems and seemed relatively happy. I was particularly struck by similarities among sojourners who reported strong dissatisfaction and by the uniqueness of each long-term resident who seemed satisfied and well-adjusted.

As I thought about differences between well-adjusted and maladjusted sojourners, I decided to study intercultural training. Research made it clear that intercultural adjustment required more than learning a foreign language and acting appropriately in a foreign culture, and I knew that culture shock could have tragic consequences. For example, several acquaintances and a close friend had returned to their home countries with acute mental disorders after only a few years in Libya or Japan. In 1987 I attended intensive workshops for intercultural educators and trainers at Georgetown University in Washington, D.C., and George Mason University in Virginia.

Computer Networking and POETS

By the early 1980s I had become fascinated with personal computers, which had recently become affordable. I was drawn to the idea that artificial intelligence and expert systems might have useful applications in education. Very little software was available for personal computers, so I began to develop software. I wrote a statistics program to analyze student questionnaire results at the Kyoto YMCA, and then I bought my own NEC PC-9801F and wrote several educational programs, including a set of quizzes designed to help third-year middle school pupils review their grammar texts.

In 1985 revisions of Japan's telecommunications laws enabled computer-mediated communication by means of modems connected to ordinary telephone lines. Large and small bulletin board systems (BBS) appeared, and researchers and teachers began to explore ways of using personal computers in educational settings. In the groups that I joined, it became clear that global communication would soon be possible and that we should prepare by learning computer technology while keeping our perspective as educators.

In 1987, along with Akio Hattori and Yasutomo Arai, I gained dial-up access to the Internet via Kyoto University. We used the Internet to locate and download public-domain English texts from FTP servers and to join global mailing lists and Usenet News groups. I began to study a Unix operating system and application software that was running on a Kyoto University mainframe computer.

In 1988 we installed a BBS host at Notre Dame. Sister Vivienne purchased the host

computer, a NEC-PC9801, with her personal research funds on the condition that I teach her how to use personal computers. Some students accessed the BBS with dedicated word processors equipped with modems. They submitted compositions, and we exchanged comments by email within the closed system. We became increasingly convinced that full Internet access would greatly enhance education at Notre Dame.

By 1990 we were planning a new Computer Center. By then I had spent several years learning Unix, using Free Software, and communicating with educators and system administrators around the world. Our Computer Center was designed with personal computers connected to Unix (SunOS) servers. Beginning in 1992 we could exchange Internet email and Usenet News by UUCP with a dial-up modem that periodically called a computer at Kyoto University. A bank of modems on incoming lines enabled Notre Dame faculty, staff, and students to access our Unix system from home. In mid-1993 we established a real-time Internet connection. We could access remote servers from Unix workstations and personal computers on campus.

My research and development activities in the 1990s were devoted to the Computer Center and to a project that we called *Personalized Online Electronic Text Services* (POETS). Papers on this project appeared in *Insight* and in reports related to grants that supported the POETS project. The POETS Web server came online in October, 1993, and ran until I decommissioned it on January 1, 2014.

Unix system administration and POETS activities provided many opportunities to learn and put new ideas into practice. Two important insights emerged. First, minute technical details have profound long-term consequences. For example, a student's account name includes her initials, status (e.g., undergraduate or graduate student), department, and a three-digit personal identification number. Each student account name is guaranteed to be unique for at least nine years. The algorithm for the software that automatically generates account names was designed in 1991 after intense study and consultation with system administrators at large universities and companies in several countries. Status and department codes have been updated over the years, but account names are still generated by software that uses the same algorithm.

Second, our technological choices always favor certain beliefs and values over others. Mindful and responsible technology development, management, and education requires an assessment of one's beliefs and values, especially in global contexts that include the vast diversity of everyone on our planet.

The POETS Web server held a number of English texts in the public domain. Eventually only two remained: *Roget's Thesaurus of English Words and Phrases* and *The Holy Bible*

(King James Version of 1611). A third large source was *WordNet*, an English lexical database that I used with encouragement and support by the WordNet Team at Princeton University. Over the years there were few comments about the content of these sources; however, some people wanted POETS to serve other sacred texts or other versions of the *Bible*, and some harshly criticized certain lexical relations and definitions in *WordNet*. I tried to avoid criticism by claiming that I merely provided access to materials that others had produced, but the selection and presentation of content was a gate-keeping process that clearly reflected my values and interests.

Such biases appear in code as well as in content. In my case, concerns for universal human rights led to an interest in universal access to Web content and software for creative expression. In the 1990s Web sites became increasingly graphical as Web browsers improved and bandwidth increased in wealthy countries. Graphical Web designs often ignored the needs of people with visual disabilities, especially those who relied on auditory screen readers or tactile Braille displays. In response to that trend, I began to teach accessible Web design in my computer classes. Web pages and input forms on the POETS server were modified according to emerging Web content accessibility guidelines.

A blind user in Indonesia gave me an important insight in that process. His screen reading software, which was quite old, could not use recent accessibility features that were recommended by the World Wide Web Consortium (W3C). His friend, also in Indonesia, reminded me that some people with disabilities could not afford the latest assistive technology. As I recoded the Web input forms, we discovered that full access with his old operating system and screen reading software required a minimalist approach. Some accessibility guidelines had been designed for relatively new assistive technologies that poor people could not afford.

Since that time POETS Web pages and forms remained simple black-on-white text with no graphics, and input forms were as simple as I could make them. Nowadays there is a greater worldwide sensitivity to the needs of different people, but at that time people with special needs were largely ignored by Web designers. Even today, with current developments in responsive Web design, many Web pages remain inaccessible.

During the 1980s and 1990s it became clear that Free/Libre and Open Source Software (FLOSS) held great promise for academic computing. Unlike proprietary software for personal computers, FLOSS source code may be legally shared, inspected, and modified. The Computer Center was designed around a Unix operating system, then SunOS, for which FLOSS source code was available in abundance. Many of our services, including mail and Web servers, run on FLOSS. Such software is developed by individuals and distributed

teams around the world, and it has inspired other movements for open access to research publications, research data, and bibliographical records, as well as licenses that encourage sharing and modification of creative works. I believe the trend toward such openness is one of the healthiest developments of contemporary civilization.

In the early 1990s FLOSS operating systems became available for personal computers. I used two early operating systems based on the Berkeley Software Distribution (BSD) version of Unix: 386BSD and then FreeBSD. Interoperability and portability of software across systems became a reality as I wrote and tested source code for some small Unix system administration utilities with 386BSD on a personal computer and then compiled and used it on our SunOS servers. Later one generation of student workstations ran dual-boot operating systems with Microsoft Windows and FreeBSD.

Linux also appeared in the early 1990s, and soon popular Linux distributions became available on CD-ROM. Although Linux is not Unix, the same software runs on Unix and Linux systems. Since 2006 academic computing services on the university LAN have run on Red Hat Enterprise Linux (RHEL). Student workstations in Computer Labs 0 and 2 are dual-boot systems that currently run Microsoft Windows and CentOS (Community Enterprise Operating System), which is free and fully compatible with RHEL. Students have been using increasingly powerful and convenient versions of the same application software since 1992.

From that period in the 1990s two groups of young people left lasting impressions. We hired graduate assistants from Kyoto University and later graduate and undergraduate assistants from the Kyoto Institute of Technology. Our assistants introduced new, often experimental, developments in computing and challenged us to look at information technology in ways that we had not considered. In some ways working with them felt like being in a research laboratory.

The second group of young people were our students who showed great interest in computer technology, Linux, and the World Wide Web. Several students served as computer laboratory assistants. They spent additional time in the Computer Center, learning by watching and asking questions. One student built a personal computer from used parts and then installed and configured a free operating system and application software. Some practiced using Linux. A few worked on documentation that other students used. One group of four students even wrote and published a popular book about Linux with Tomoko Yoshida.

In those days both students and teachers had much more free time than now, and we focused attention on whatever seemed interesting. Activities were conducted with no concern for academic credit or career development. However, students discovered new interests and aptitudes, and some found jobs directly related to information technology. I

believe they were successful because they were driven by curiosity and assisted by teachers and others who served as mentors.

Center Administration

From 2000 until 2012 administrative duties took a great deal of my time and energy. The university began to change dramatically at the beginning of the 21st century as we expanded to four departments, began graduate programs, and reorganized academic services. In April, 2000, along with a common faculty committee, I was charged with the integration of the Library, Computer Center, and Audio-Visual Education Center. These were integrated into the Academic Information Center, which I served as Dean until 2004 and then again from 2010 until 2012. I also served as Dean of the Center for International Programs (2004-2008) and the Language Learning Center (2008-2010).

Administration required knowledge and skills that I had to learn along the way. Unlike my colleagues, I could not read parts of many Japanese documents without the aid of computer software or people who kindly helped me. I had not anticipated that I would come to enjoy many meetings with business people and colleagues from other universities. Over the years I attended many presentations and enjoyed talking with many company and university representatives.

Fortunately, my academic interests were related to the centers that I served. Planning and working with staff sometimes required a great deal of study in order to understand their challenges and to anticipate future needs and opportunities. For example, I studied library and information science, joined mailing lists, and followed international and domestic trends in academic information services, student exchange programs, and programs for language learners.

Most recently, working closely with staff members and fellow teachers was a great learning experience and an enjoyable challenge as we planned our academic repository, Notre Dame Academic Heritage (NOAH). As I spent years of study in preparation for such a project, I became more interested in the preservation of heritage, for example, digitization of photographs and analog sound recordings, and the use of media in sharing experiences with people in different cultures.

External Relations

Throughout much of my career I have played various roles as a representative of the

university by judging speech contests, visiting high schools, delivering public speeches and conducting workshops for various groups, welcoming guests, helping with international events, and once as a guest in a foreign country.

Speeches and workshops have brought me into contact with people whom I would never have met otherwise. Various civic groups and non-profit organizations have been eager to learn about intercultural communication and other topics.

I have met guests at the university in various roles. My first experience in a leadership role was an international symposium that we held in 2001 for our 40th anniversary. Since then I have enjoyed meeting guests and hosting international events. I have especially appreciated opportunities to meet School Sisters of Notre Dame from other countries.

One international event left memories that I will not forget. In 2005 Professor Sagara, then President, and I spent several days in Seoul as guests of the Catholic University of Korea during their 150th anniversary celebrations. As we attended meetings and other gatherings, I realized the importance of the relationship that we had begun with our student exchange program. Also, I appreciated the demonstration of international diplomacy by university leaders, including Professor Sagara.

Looking Ahead

My interest in media continues, especially the use of audio recordings, personal media, and social networking to support participation and creative work by students. Recently I have become interested in the use of media to introduce local ecologies and cultures. As I retire from full-time service, I would like to continue teaching, and I plan to spend more time recording and sharing sights and sounds of Shiga Prefecture, where I have lived since 1980 and where I expect to live the remainder of my life.