Moving from Instruction to Learning with Technology: Where’s the Content?

CALICO ’97 Keynote Address

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If we were to review or take stock of innovations in education that have impacted the foreign language teaching profession in the last 15 years, this list of innovations might include learning theory, cooperative learning, multiple intelligence theory, communicative language learning research, state and national standards, inclusion, and most certainly technology. In order to truly capture the magnitude of the changes that have emerged, a look back to the traditional instruction environment is needed. Typically the environment was one where the focus was on the language itself, rather than on information which was carried by the language. We were talking about the language, rarely in the language. The teacher’s goal was to ensure that students learned the vocabulary and grammatical rules of the target language. The goal of learners in such courses was often to pass an examination rather than to use the language for a daily communicative interaction. Language learning was something done unto the learner, rather than something done by the learner.

Communicative instruction environments involve learners whose goal is learning the language itself, but the style of instruction places the emphasis on interaction, conversations, and language use, rather than on learning about the language. The topics are of general interest to the learner such as how to reply to a classified advertisement from a newspaper. Alternatively, the focus of a lesson may be on the subject matter, such as history or mathematics, in which students learn content through the medium of the second language. In these cases, the focus may occasionally be
on the language itself, but the emphasis is on using the language. Many scholars in the field of second-language pedagogy believe that a second language is acquired more effectively when it is used as a tool to teach content than when the acquisition of its structure is considered the primary goal (Genesee 1987; Guntermann 1993). The language that teachers use for teaching is not based on a specific feature of the language but on teaching learners to use the language in a variety of contexts. Students' success in these language courses is often measured in terms of their ability to get things done using the second language, rather than on their accuracy in using certain grammatical features. So what does this mean for the role of the teacher and the role of the learner?

A role is usually defined as the ways in which instructors and students view themselves in the classroom. What do instructors do and why do they do it? Why do students do what they do? In order to have a truly communicative classroom, instructors must understand how and why traditional roles occurred and also realize that traditional roles may no longer be appropriate in the communicative classroom. If instructors do not understand these roles, much of communicative language teaching will simply preserve past traditional methods (Lee and VanPatten 1995).

The role that instructors often assume and that students very willingly grant to them is that of the authority, the expert, the central figure in the classroom who disseminates knowledge to the students and expects students to identify and replicate the knowledge transmitted. Because instructors are authoritative knowledge transmitters, students become their passive audience. It is not difficult to see how such a classroom is organized. Finkel and Monk (1983) draw an analogy to Atlas, the titan of Greek mythology, who supported the heavens on his shoulders; these instructors assume full responsibility for all that goes on. They supply motivation, insight, clear explanations, even intellectual curiosity. Paulo Freire (1970) described how educators have to liberate themselves from the perspective that defines them as exhaustively preparing material to be taught in advance, then “giving” it to the students as gifts: The subject to be learned, he says, must be “problematical” to both parties. According to Nunan (1988), what educators need to keep in mind in their effort to provide the right environment for the development of second language skills is “engaging learners in interesting and meaningful classroom experiences” (45). Since learning should always provide opportunities for growth and progress, “all learners should be exposed to new methods, materials and approaches from time to time” (Nunan 1988, 46).

When roles depend on tasks, the instructor no longer assumes the sole Atlas-like responsibility for all that happens in the classroom. Students begin to share some of the teaching functions that instructors ordinarily assume for themselves and that students typically concede to them. How instructors view themselves is inextricably linked to how they view stu-
When instructors are architects of interaction, students become information gatherers and negotiators as well as builders and co-workers. While the goal of classroom language instruction is language learning, it is not the only outcome. The classroom is a social environment in which there are social as well as linguistic outcomes. Brooks (1990, 164-6) elaborates on this in the following description:

The instructional and communicative processes that take place across time during classroom foreign language teaching and learning influence not only what occurs in the classroom and how it occurs, but also what is eventually learned. That is, as students are learning the pieces and parts of language, they are simultaneously learning how to be competent members of the classroom in order to participate in language learning activities. As in learning a native language, learning a foreign language is also a tacit process of socialization that comes about through social interaction.”

Students usually walk into our classrooms assuming that we will transmit to them our knowledge. As a matter of fact, when we try to do something different from what they have experienced in the past, resistance sets in. What has to happen inside the language classroom so that students know how to become “competent members” of the class?

Drills vest power in the teacher, while communicative tasks such as role plays, problem solving tasks and simulations give much more control to the learner. Authority, power, and control have become major issues with the rise of communicative language teaching. When we ask learners to communicate in a language over which they have only partial control, we are asking them to take risks which many of them may feel anxiety about. For many older learners, particularly those who have learned other second languages in classrooms where traditional approaches prevailed, the fact that they are asked to extemporize in a language over which they have only rudimentary control is extremely threatening.

We can begin this process of change and reorientation by questioning a basic term: student. The term student has passive connotations. “Student” “studious” “study” all imply a very private, solitary and quiet act. Even the Webster’s New Dictionary implies nothing more than physical presence in its definition of student “a person who attends a university, college, or school of study.” Yet the nontraditional, more communicative student roles are quite active and social, requiring more than mere attendance. Therefore the term learner, rather than student, captures the essence of this shift — the “learner” “learn” “builder”, “gatherer” “negotiator” all imply an active participant. As John Dewey pointed out in 1938:

Most children are naturally “sociable” ... A genuine community life
has its ground in this natural sociability. But community life does not organize itself in an enduring way purely spontaneously. It requires thought and planning ahead. The educator is responsible for a knowledge of individuals and for a knowledge of subject matter that will enable activities to be selected which lend themselves to social organization, an organization in which all individuals have an opportunity to contribute something, and in which the activities in which all participate are the chief carrier of control.

The role of the teacher is then to create communicative tasks, that is, a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form.

It is here that technology enters the discussion, part of the electronic revolution, a media epistomology, as Postman (1985) calls it. Postman identifies three great crises in Western education: 1) the 5th century B.C. when Athens underwent a change from an oral culture to an alphabet writing culture. (In order to understand what this meant, we must turn to Plato.); 2) the sixteenth century with the invention of the printing press in Europe. (To understand this, we can turn to John Locke.); and 3) the electronic revolution in America. (To understand this, we must read Marshall McLuhan.) In the latest of these revolutions, seeing, not reading, became the basis of believing. As a result of television, information became packaged as entertainment. As MacNeil (1983) of the MacNeil-Lehrer Newshour so aptly stated, “the idea is to keep everything brief, not to strain the attention of anyone, but instead to provide constant stimulation through variety, novelty, action, and movement ... that bite-sized is best, that complexity must be avoided, that nuances are dispensable, that qualifications impede the simple message, that visual stimulation is a substitute for thought, and that verbal precision is an anachronism.” Television does not ban books, it displaces them. The problem is not that television presents us with entertaining subject matter, but that all subject matter is presented as entertainment (Postman 1985). Postman poses a very profound question: How can we use education to control the electronic media?

Moore and Kearsley (1996) state that “Education is a process of planned learning assisted by a teacher or teaching institution. Every learner has to construct knowledge through a process of personally accommodating information into previously existing cognitive structures. It is interacting with content that results in these changes in the learner’s understanding” (128). In the constructivist approach, we look for what students can generate, demonstrate and exhibit, not what they can repeat (Brooks and Brooks 1993). Technology can provide precisely such a context for learning content.
The first wave of computer use in the foreign language classroom was in the form of drill for skill, or drill to kill, depending on one's perspective. Pen and paper worksheets were replaced with computer worksheets. While using the computer initially captured the attention of the learners, meaningful language practice was lacking. There was no challenge, no engagement, and little motivation to complete the task. With the advent of the Web, the second wave of computer use in the classroom, access was gained to unlimited information. According to research surveys and questionnaires, the majority of high school and college students were using the web to access the latest sports scores, to locate information about cars, and to participate in chat groups. How can we use education to control the electronic media?

Like languages, technology is not learned in isolation, it is learned best in the context of content. Last summer I taught a workshop for Spanish teachers on the integration of literature into the communicative classroom. Of course, a big part of the class was tied to technology. One of the texts read in the class was Like Water for Chocolate. The participants, secondary teachers of Spanish, were asked to create an electronic newspaper based on the novel itself. These teachers learned about the web while searching for reports about the historical events surrounding the novel (i.e., Mexican War). They researched newspapers and historical documents on the web in both Spanish and English in an attempt to gain information about topics they were writing about for their newspaper. They learned how to use PageMill while putting their newspaper together and how to scan pictures to make the newspaper appear authentic. Ideas emerged rapidly: a Dear Abby section containing letters from characters in the novel, a recipes page capturing the plot of the novel in recipe form, advertisements allowing the artistically gifted to create illustrations based on the novel, a page containing birth and death notices permitting the computer graphics participant to build cleverly on the actions in the novel, and a weather map drawn from verbal descriptions in the novel. While the participants analyzed, read, and examined the novel in detail, they internalized, reshaped, and transformed new information gleaned from the reading. More important, they recreated this information in the form of an electronic newspaper of their own creation. Such a constructivist approach to learning engages participants, challenges them, frustrates them, but in the final analysis empowers them.

The participants wanted to share their products with their colleagues so they learned how to create a web page using Claris Home Page. It was not surprising to find that they proceeded to use technology in their own classroom the following year with their students (who often did this much faster than their teachers).

Let us analyze the role of technology, content, and pedagogy in the workshop in order to gain some insight to the question how education can
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control the electronic media. The focus was on reading a Spanish novel, understanding the content, the historical context, and investigating the literary style of the novel. As the instructor of the workshop, my challenge was to involve the participants intimately with the novel and to motivate them to express their ideas and understanding of the novel through a medium that would get them to analyze, synthesize, and evaluate this novel in a profound way. One important part of the workshop was to involve the participants themselves in becoming consumers of this approach to teaching and learning. By becoming involved first-hand with the experience of the joys and struggles of working through difficult texts (simultaneously learning new reading strategies) and in the process of gaining challenging technology skills, the participants developed a frame of reference to draw upon when analyzing the pedagogical effectiveness of this project-based teaching approach. An e-mail distribution list allowed the participants to share their experiences and understanding of the novel. Participants were asked to analyze their belief system about the learning and teaching of foreign languages, specifically about the teaching of literature in the foreign language classroom. They analyzed the origins of their beliefs and how these beliefs changed as a result of participating in this project on teaching via technology. The instructor posed questions regarding the individual pedagogical strategies that were employed to engage the participants fully in the learning process. The participants investigated these questions through the context of their own experience with the novel and the technology that served as a tool for interpreting the novel. They sought to make meaning of the literature, language, and culture through the tool of technology.

Creating a multimedia project gives students the exciting opportunity to use several media to express information. Through the media of text, graphics, images, audio, and video, students are provided the important additional opportunity to organize these media and to create an interpretation of knowledge that goes beyond words. Oftentimes the resulting product, which is in itself a very personal expression, is universal in its ability to communicate ideas to others. Creating a multimedia project can give students the opportunity to learn significantly more than they could learn by creating a report that contains text and images or even by creating a videotape that contains all five media. In either a report or a videotape, creators must organize information linearly, that is, in a single sequence from beginning to end. In a multimedia project, however, creators can use links to arrange information in more meaningful organizations thereby promoting authentic learning and increasing motivation while learning content.

Hypermedia technology can serve as an excellent tool to supply foreign language learners with such meaningful experiences. Within the context of this type of learning environment, students have an opportunity to gain a better understanding of the learning process and, in return, cultivate
their autonomy as learners (Nunan 1988). Hypermedia-annotated reading lessons provide immediate access to textual, aural, and visual annotations. Lessons that include appropriate reading and writing activities, along with supporting information, can teach readers to cope more effectively with the difficulties that they typically encounter when deciphering a text in a foreign language. This is one way education can control the electronic media.

Today’s on-line technologies afford opportunities for enhancing student access to up-to-date and even up-to-the-minute cultural materials and realia. The use of these on-line authentic materials can help provide students with a level of cultural awareness that is most often acquired by means of experience abroad. In addition, communicative activities using these materials can provide engaging opportunities for students to acquire the target language. Students at various proficiency levels can participate as individuals or small groups in summarizing on-line news reports, listen to songs in the target language, and write travel guides based on geographic and cultural information found on the World Wide Web. Interactive activities consist of e-mail, electronic conferencing, multi-user activities (such as MOOs), voice-based chatting with Internet telephone applications, and interactive video using CUSeeMe technology.

The immediate access to daily changes in the target culture that on-line technologies afford foreign language students helps them to interpret more accurately the behavior of L2 inhabitants as changes affect their society. Robinson (1994) delineates three types of culture that can be accessed on the web.

a) informational: web sites full of reference information about the culture (e.g., encyclopedias, daily newspapers)

b) behavioral: web sites include newspaper editorials on cultural behavior, video, and audio clips of interviews with leaders of the target culture society in which appropriate conversational and kinesic behavior is modeled (e.g., discourse strategies used to open, maintain, and close a conversation, appropriate gestures)

c) achievement: web sites offer virtual tours of art museums, music clips, poems, literary works, and the like—elements of culture that may be hard to access without actually visiting the target culture.

The major advantage of the web is its variety of authentic materials that contain important cultural content about aspects of the target culture society. These content-rich texts can serve as input and as a basis for activities to facilitate language acquisition. For instance, once students are engaged in reading a text dealing with contemporary issues in the target culture, they become motivated to read more and investigate a topic further. As they read for content, they improve their reading skills and stra-
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dies.

Technology alone is not what makes a difference in acquiring a foreign language. The use of the technology coupled with sound pedagogical principles is necessary. Technology is nothing but a tool in the hands of the teacher and learner. Foreign language educators, instructional technologists, and learners must work together to define how technology based materials can be used most effectively in a particular curriculum. Borchardt (1991) pointed out that “by itself technology is value-neutral. It depends entirely on those who use it.” We can rest assured that computers will never replace teachers, but as Ray Clifford once noted, “teachers who use computers will replace teachers who don’t.”

Educators have to look at the technologies that will maximize dialogue and learner autonomy. This revolutionary shift in theoretical and philosophical emphasis puts the learner, not the teacher, at the center of the educational process and gives increased significance to Corder’s (1981) question “Can we really teach languages or just provide an environment in which languages are acquired?” Engaging learners in authentic, meaningful tasks that are interactive in nature and that promote relations among individuals results in successful language learning. We have found some potentially powerful ways to use education to control the electronic media. This room is filled with visionaries and professionals who will lead the way in this effort to combine pedagogy, content, and technology in ways that will promote and encourage the academic goals we desire. As we make the shift from instruction to learning, from teacher centered to learner centered classrooms, technology will play a pivotal role in nudging us toward the goal of learner as collaborator—that is real emancipation.

References


Although the development of Computer-Assisted Language Learning (CALL) has thus far been fragmented, Michael Levy herein sets CALL in its proper historical and interdisciplinary contexts, providing a comprehensive overview of the topic. Drawing on published work as well as an international survey among CALL practitioners in eighteen countries, he looks at the relationship between CALL’s theory and application, its conceptual and practical roles as tutor and tool. Levy also discusses CALL’s implications for computer programming. Most books on CALL focus on specific projects, and do so mainly from a theoretical point of view, but this unique text considers CALL as a whole, analyzing the utility of the computer in language learning and teaching. A detailed review of the current literature is matched with an in-depth examination of the tutor-tool framework. An ideal introduction to the procedures and functions of CALL as a multi-faceted reflection of today’s ever-evolving technology, Levy’s study will appeal to students, researchers, and teachers of Applied Linguistics.

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