CHALLENGES AND OPPORTUNITIES FOR LITERACY AND TECHNOLOGY IN ELT
TEACHER EDUCATION

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Abstract

Using both data from my dissertation and ideas from my most recent research and academic projects, this paper will discuss some challenges and potential opportunities that the inextricable links between literacy and technology pose for second language educators in this decade and beyond. In the first part of this paper, I will describe a series of considerations about the use of technology within literacy development. These ideas from a group of teachers and teacher educators suggest that a heightened sense of audience, more access to writing genres within technological devices, and more availability of resources are some of the advantages of these connections between literacy and technology. However, they also believed that teachers need to make better sense of how to use and maximize technology for literacy development in their classroom and teacher education programs. The second part of the paper will introduce two ongoing proposals that, in my opinion, are helping address these issues that these participants described. Both proposals look at ideas such as multimodality as a concept that illustrates how to best link literacy and technology. The first proposal is the creation of WebQuests within one of the preservice courses at UPB-Medellín. The second proposal is the multinational research project "Learning by Design". This section of the paper will explain what each is about, how it is being carried out, and the possibilities for other researchers to contribute to these ideas in their own contexts.

Those of us who are interested in the evolution of literacy and technology can safely say that things have come a long way since the day the first browser (Mosaic) was launched back in 1993. In fact, if there is one thing we learned during the first decade of this new millennium is how fast things have expanded. Take communications, for example, and how the level of expansion over these years was seemingly unthinkable 15 years ago (Kalantzis & Cope, 2008). The way users are manipulating E-mail, instant messaging, search engines, or social networks (e.g. Facebook[TM] or Twitter[TM]) keep pushing the limits of people's communication, message (and text) production, and ways of sharing. Inside and outside of classrooms, individuals are constantly contesting and refining Freire and Macedo's (1987) definition of literacy, "reading the word and the world." This, thus, poses a challenge to us: Once the world becomes more accessible, how we describe it (via words and actions) has to adapt to these changes.

Digging deeper in this discussion of literacy and technology, literacy researchers have noticed the emergence of a new set of demands as literacy practices interact with "technologies, friends, and pop culture" (Hinchman, Alvermann, Boyd, Brozo, & Vacca, 2004, p. 304). In this sense, the kinds of texts that people are interpreting and producing, as well as the methods to do so, are in a state of flux. Withrow (2004) argued that,

> Reading and writing are no longer the simple mode of literacy. Anyone who lives with teenagers has observed them studying while they listen to [their mp3 players], search the 'Net, and [text] a friend on their cell phone. This ocean of information flows in, around and through them while they snatch the bits of information they want to use from it. (p. 29)[1]

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[1] I deliberately changed a few words from the original quotation (as shown in brackets) as a means to update some of the ideas to the realities of 2011. The spirit of Withrow's assertion, though, remains just the same seven years later.

One of the new demands from these intersections is an understanding (some would say reaffirmation) that texts are no longer linear in nature and are increasingly featuring words, images, icons, and sound. The way people are constructing texts is now multimodal (Kress, 1997, 2000; Kress & Van Leeuwen, 2001), which tends to resemble the way children actually communicate in its reliance on "the things they use, they objects they make, and in their engagement of their bodies" (Kress, 1997, p. 97) to convey messages to multiple audiences.

Another important feature of literacy and technology in the earlier part of this century is the ongoing convergence of one's public and private lives through social networking and the ways in which technology has become a new form of capital. These changes are also affecting human agency. The new demands of literacy and technology are calling for a new set of skills in order to work more efficiently (Anstey, 2002; Gee, 2000), be better members of our society, but most importantly, be better people ourselves (Kalantzis & Cope, 2008). These shifts, then, produce a different kind of individual in regards to literacy and technology,

> As a part of this process, the viewer becomes a user; transmission is replaced by user-selectivity; and instead of being passive receptors of mass culture we become active creators of information and sensibilities which precisely suit the nuances of who we are and the image in which we want to fashion ourselves. (Kalantzis & Cope, 2008, p. 201)

These changes in how literacy and technology are part of this new society, regardless of what one thinks about them, are placing teachers and teacher educators at a crossroads. On the one hand, both preservice and inservice teachers must learn to adapt to these new realities (that for their students have, more often than not, become second-nature). On the other hand, they have to face the contradiction of combining the integration of these new technologies (among other pedagogical proposals) with the more traditional forms of testing that some institutions

seem to favor. In the case of teacher education, there is the present challenge of helping our prospective teachers navigate this context while they construct their own teaching personae, while we ourselves adapt our styles to these contextual changes.

This is the context and background in which I situate this presentation. The following two research questions serve as the guide to discuss the ideas in this paper, (a)

1. What challenges and opportunities for literacy and technology can we discover in the thoughts of a group of English teachers and teacher educators?

2. What opportunities are being set in place in our local and international contexts to address some of these challenges and maximize the opportunities?

Overall Structure of this Paper

In order to articulate this paper, I will first introduce some key terms that frame the discussion. Then, I will discuss the findings from a small data set belonging to a larger research study I conducted between 2009 and 2010 (Mora Vélez, 2010), as a response to the first question. Once I have described and discussed these findings, the next section of the paper will present how two separate projects in which I am currently a participant are responding to issues that the data from my study raised. I will also explain how these projects are becoming viable options to continue the discussion of how literacy and technology play out in the context of English education in Colombia.

Definition of Terms

Before one engages in any academic discussions of an issue, it is always useful to provide a clear understanding of where one stands. In this section, I will define my ideas about literacy,

technology, English, and English education. With the exception of technology, I will rely on the definitions I created for my dissertation (Mora Vélez, 2010).

Literacy. I understand literacy as "the process of interpreting and creating text using multiple means and media, including technology, multiple languages, and diverse aesthetic forms of expression, in addition to the written and spoken word" (Mora Vélez, 2010, p. 1)

Technology. In the case of technology, I will circumscribe its definition to the use of online, digital, and computer-based means and devices that individuals use for text creation and interpretation. In this context, technology includes items such as social networks, e-mail, cell phones/smart phones, mp3 players, computers, laptops, and the like. Technology also refers to the ways in which individuals and institutions are attempting to use them within literacy, both inside and outside of schools.

English and English Education. In the study this presentation stems from, I defined English as,

> The teaching of literature, grammar, reading, writing, speaking, and listening skills, as well as the development of critical thinking skills […] English instruction may include different forms of written and visual text as a media to receive and produce knowledge. My vision of English is global. The definition I use also encompasses (with some additional information) the teaching of English as an international language. (Mora Vélez, 2010, p. 5)

My definition of English education still relies on the Conference on English Education's Position Statement (Conference on English Education, 2005), which includes three main dimensions for English education, "(1) the teaching and learning of English, broadly and inclusively defined; (2) the preparation and continuing professional support of teachers of

English at all levels of education; and (3) systematic inquiry into the teaching and learning of English."

In my definitions for these terms, however, I have refrained from using the traditional distinctions such as English as a Second Language (ESL) or English as a Foreign Language (EFL). My current vision of the state of English education (or English Language Teaching, which for the purpose of this paper I equate as synonyms) poses a number of questions about the validity and relevance of the ESL/EFL dichotomy in the global context of the English language (Mora, 2011a).

Challenges and Opportunities within Literacy and Technology: Findings from a Recent Research Study

To answer the first question, I used a small data set from a larger research study I conducted in the United States (Mora Vélez, 2010). In this qualitative (Bogdan & Biklen, 2007; Creswell, 2003; Maykut & Morehouse, 1994; Merriam, 1998) study, I explored the literacy beliefs and practices from a group of teachers and teacher educators, all affiliated with the Secondary English Teacher Education program from a large public university. I worked with 12 participants in this study, comprising four groups: Methods course instructors (in charge of the pedagogical component), English instructors (in charge of the content area), recent graduates from the program, and more veteran teachers who also graduated from the program. Using in-depth interviews (Fontana & Frey, 2008; Johnson, 2002; Kvale, 2007; Mertens, 1992; Reinharz, 1992; Rubin & Rubin, 2005; Seidman, 2006), I met with each participant three times and audio recorded each interview. I later transcribed the interviews verbatim (Hamel, 2003; Poland, 2002)

without including "stalling words" (Rubin & Rubin, 2005) such as "um" or "you know" because adding them to the transcription actually made reading the findings more difficult. For this paper, I returned to the transcripts and some of the charts (Miles & Huberman, 1994) that I had created for data analysis in the larger study and I focused on statements that related to connections between literacy and technology. I first read the interview questions that tackled literacy and technology and I surveyed the charts for more examples. The ideas that I found in this second reading (plus a fresh look at what I had originally found in the main study) became the basis for the findings I will share with you next.

Defining the Links Between Literacy and Technology

When the participants talked about technology and its present connections to literacy, all groups agreed that technology is not going anywhere and will continue influencing literacy practices. All participants recognized how the links between literacy and technology have expanded over the past 15 years and how these connections will continue growing. They described the effect of new technologies such as text messages, instant messaging, social networks, and blogging in and their students' and their own literacy practices. Participants, whether they are on board or still resisting, are well aware that the overlaps between literacy and technology are unavoidable and that teachers need to prepare themselves for them. In this regard, Bailey's quote about technology became both a summary and a compromise,

> I think that technology is just dramatically changing things. Some ways for the better, some ways for, you know… the fact that the mechanics of it have gotten easier and easier doesn't mean that people are necessarily freed now to write better and better things. I don't think that's necessarily true. (Interview 1, 9/18/09)

However, the participants also agreed that there is no clear-cut consensus about whether the use of technology in literacy practices is a blessing or a curse or how they should finally implement it in their curriculum. From these ideas and the search for common ground, I found three challenges and two opportunities that reflect different efforts to use technology more constructively while reducing the potential damages that combining literacy and technology may cause.

The first challenge: Technology and quality of expression. Participants were concerned about the loss of quality in reading and writing in these past 15 years and whether or not technology was a defining factor in this loss. For instance, Francis expressed that "there is a lot more writing on the computer and it tends to be a lot of the abbreviations used in text messages and instant messaging, things like that" (Interview 1, 11/8/09). She also questioned how that shortened discourse could be detrimental to writing. Indigo commented regarding these forms of expression that,

> There's a very small percentage of students who write well, who write entertaining stories, who write with proper mechanics, proper grammar, just who write with detail. I think that goes back to society's emphasis on Facebook and the texting. You only have a limited space, so you're just trying to get things out very quickly. (Interview 1, 9/22/09)

These views come from teachers in the field, but college instructors seemed to agree with these assessments. Kennedy, for instance, claimed that "the quality of writing has deteriorated over the last 15 years." Kennedy also explained that, after looking at students' papers from her English classes over the years, "I found a lot of papers that I had been given 12, 15 years ago. I glanced through them and I was amazed at the quality of writing on some of those compared to

what I've seen more recently" (Interview 1, 9/29/09). Morgan mentioned that technology and multiple modalities of expression had affected reading, for example,

> My current experiences are that there's less and less reading taking place, so that reading comprehension has to be taught in tandem with something like reading appreciation because people are finding ways to be informed and to be entertained that are not limited to reading. (Interview 1, 12/2/09)

One final element of discussion was the effect of social networks on literacy practices. Morgan claimed that, "Communication 15, 30 years ago required, I think, complete sentences to actually communicate a complete idea" (Interview 1, 12/2/09). She also mentioned that "how much one writes is also now impacted by the modalities with which we write. 15 years ago, students were asked to write book reports and thesis papers…" (Interview 1, 12/2/09).

The second challenge: Understanding technology to maximize its potential.
Participants agreed in their ongoing efforts to make sense of the technologies and the possible consequences of their implementations inside the classroom. Dylan (one of the teachers) provided a good example of this reflection. Despite Dylan's description as "old school" in some elements of reading and writing (he, for instance, preferred reading on paper than from a screen), he was constantly questioning how technology really makes a difference. Bailey (a methods instructor) also held a strong conviction that, as we link technology and literacy, we must reflect carefully about why we talk about literacy or literacies. This is not necessarily a new question. After all, scholars such as Street (1984) or Lankshear and Knobel (2003), among others, have been arguing over this matter for quite some time. However, we still need to look carefully at the levels of reflection about literacy in the context of technology that are taking place in classrooms and teacher education programs, including those in Colombia.

The third challenge: The effect of technology in reading and writing. After listening to my participants' remarks, one finding was particularly compelling, as it defied the conventional wisdom that usually drives researchers to look at reading more than writing. I discovered that participants seemed to credit technology to be more influential in modifying *writing* practices. While participants talked about different levels of experimentation with online technologies for different forms and genres of writing, there was a worrisome revelation: That they did not see any differences between reading in paper and reading from a screen. This is a big challenge to us: When the medium changes, so does the way in which we interpret it. We need more research about how we rethink reading comprehension once we move into computer screens and how we help students navigate a reading style that is more vertical than horizontal, one that is increasingly multimodal, and one that brings a different perception of what it means to be a reader.

The first opportunity: Technology encourages expression. Findings (and its analysis) not only showed concerns; there were plenty of opportunities out there. One of these opportunities stems from how teachers juxtapose technology and literacy. Regarding expressions and forms of writing, Harley (an English instructor) discussed, "it's a typical argument to make that because students are texting and using AIM and instant messenger they're no longer proficient in writing essays and letters as they used to be" (Interview 1, 9/21/09), Dylan expanded Harley's idea while being less critical of technology (as was Indigo's case). He argued,

> I know one of the popular notions is that kids write shorter amounts because they're used to filling small screens. So, they only write a little bit when you ask them to write in school. I think that's just applying a blame to technology that really isn't appropriate. I

don't remember when I started in '98 my kind of struggling students writing long papers. The kids who have trouble kind of have always had trouble… (Interview 1, 10/22/09)

Dylan added that technology gives students "more reasons to write because there are more audiences for whom to write" (Interview 1, 10/22/09). Findings from my data showed that teachers are noticing that their students have a heightened sense of agency (Cope & Kalantzis, 2007) in regards to what, why, and *to whom* they are writing. With tools like blogs, Twitter[TM], and other options for writing continually emerging, classroom experiences are open for publication and a wider (sometimes global) readership. Morgan pointed out some of these positive effects in the mix of technology and instruction,

> Students are finding more, and I think teachers are very open to this, finding more and more ways other than writing out the five-paragraph essay, or the thesis paper. Many, multiple ways of expressing and providing evidence of what they've come to know and understand and are able to do with the knowledge that they have than by writing you a summary or writing you an essay. (Interview 1, 12/2/09)

Finally, Guadalupe, another English instructor, also found positive effects in the connections between technology and literacy in a similar vein to Morgan,

> [Technology has] changed everything, it means that people read and write actually more than they used to and they also have different, I mean, obviously when people are writing e-mail… they use a different kind of writing that they rely on… I actually think that e-mail, blogging, Facebook, has all actually been fairly good… I think people actually write more than they used to. (Interview 1, 9/28/09)

The second opportunity: Rethinking the discussion about digital "natives" and "immigrants"? The teachers and teacher educators I interviewed came from a broad range of

ages and educational backgrounds. However, they all shared successes using blogs and online technologies. Ideas about innovations and efforts to negotiate technology and literacy were important elements in their discussions. Participants also questioned traditional assumptions about who would be more willing to use technology among novice and veteran teachers. Kennedy, a very experience university professor, for instance, shared her different efforts to reflect on and implement technology, such as joining research groups. This, along with other ideas from other participants, provides a body of evidence that dispels the notion that older teachers are less willing to experiment with literacy and technology. In fact, after this study, I find Prensky's (2001) monolithic and somewhat popular categories of "digital natives" and "digital immigrants" quite problematic. These categories are, to begin with, unfair to teachers' efforts and concerns. Also, I am beginning to feel that these divisions will become obsolete in a very short time, especially if we consider that our next cadres of teachers teacher educators will have either grown up with or become very deft in using these technologies.

Another challenge from my findings questions Prensky's assertion that teachers need constant reminders that "[their] students have changed radically" (p. 1). In this view of literacy and technology, participants are already well aware that things are no longer the same. They continue evolving their literacy beliefs and practices, aware that younger generations have made technology part and parcel of their lives. In their own practice, participants have embraced technology, even to the extent of turning around their entire literacy practices. These reflections align with questions that scholars such as Bill Cope and Mary Kalantzis have asked about how technology will affect school (and literacy) practices. I will use the following quote to bookend this section and as a transition to the next section of this presentation, "What does this mean for schools? Will the traditional classroom work, or even make sense, in the near future? Will the

children of Nintendo, the web and video games find traditional classrooms engaging?" (Cope &
Kalantzis, 2007, p. 13)

Literacy and Technology in the Classroom: Two Ongoing Projects

The first part of this presentation looked at challenges and opportunities as we continue
connecting literacy and technology. Multiple efforts are taking place everywhere to find creative
ways to do this, and the different sessions in the Colloquia provided plenty of examples of what
teachers and teacher educators are producing. In this paper, I will share two efforts in which I
collaborate. These projects are the result of concerned teacher educators and researchers from
Colombia and around the world and I am proud to participate in them projects. As I describe the
projects, I ask the readers to take these descriptions as a moment to share experiences and raise
curiosity that may serve as an invitation to join these efforts, not as a glorified infomercial. I will
first talk about an initiative that a colleague and I are leading within one of our preservice
courses. Then I will describe and an international, interdisciplinary initiative to which I belong as
a Research Partner. I will frame each initiative in the context of the challenges and opportunities
I described above to later describe what each initiative is about.

Webquest in Preservice English Teacher Education – The Case of the *Licenciatura* Program at UPB-Medellín

The challenge of maximizing technology and the opportunity of increased expression are
two important elements of reflection within the field of English education. How we find ways for
students to use technology appropriately and meaningfully and how we use these technological
resources and tools for students to become more sophisticated users of English are important
considerations within preservice English courses.

In the context of the BA in English-Spanish Teaching (*Licenciatura en Inglés-Español)* at Universidad Pontificia Bolivariana, we are currently in the process of redefining our curricula in order to better respond to the needs of our educational system in this new millennium. Part of that reflection includes how we are preparing our future English teachers, the kind of competencies and abilities we expect them to potentiate upon graduation, and the kinds of contents and skills our classes should develop. In this redesign, the four-course sequence "Communicative Competence" intends to become an alternative where students can develop their English proficiency in terms of communicative competence: linguistic, pragmatic and sociolinguistic, beyond the traditional and bimodal instruction, while engaging in permanent critical and formative reflection about different elements of what it means to learn and teach English.

The genesis of this initiative. When Professor Juan Diego Martínez and I began to design the course Communicative Competence III, which we have served for two semesters already, we were deeply concerned about the kinds of competencies and activities that would best serve our students. We both share an interest in literacy and technology and we believe that these two need to be important features of preservice instruction. I proposed Prof. Martínez an idea that I had been using in my classrooms since the fall of 2007, when I was a doctoral student at the University of Illinois. In a course I served (Curriculum & Instruction 473, *Literacy in the Content Areas*), the final class assignment consisted in the creation of a WebQuest (Dodge, 1997; Mora, 2009). We believed that there was a lot of potential in creating WebQuests in the context of our preservice English teacher education course and they became the capstone project for this course. I will briefly explain what WebQuests are and how we have implemented them within a much larger conceptual framework to our current preservice course.

What are WebQuests? WebQuests are an educational activity designed by Professor Bernie Dodge (Dodge, 1997) in the U.S. Based on the idea of inquiry as their cornerstone, WebQuests are a problem-solving exercise that combines critical thinking through the use of carefully selected resources from the Internet. WebQuests become relevant in the context of linking literacy and technology because they aim at looking at information from a critical standpoint. If we are to believe that, as Chatel and Nodell (2002) claimed, "We must also remember that although the web has a lot of valuable information, it also has useless [and sometimes, harmful] information" (p. 109), then teachers need to focus on how to help their students develop a set of competencies to distinguish quality information on the web. WebQuests also intend to contribute to the development of a school curriculum that, as Şen and Neufeld (2006) explained, "provide[s] an education that not only embraces the Internet but also equips our students with the ability to use it […] wisely, productively, and for the benefit of society" (Introduction, Paragraph 1).

Structure of a WebQuest. WebQuests have a basic layout, as Dodge (1997) described it. First, there is an *introduction* to a specific problem or a scenario. After students are engaged through the introduction, the WebQuest sets a problem that students need to solve through a particularly creative *task*. The task itself has a series of steps (*process*) that students must carry out through the use of websites that their teacher previously selected (*resources*). By using the resources during the different steps of the process, students, through collaborative work, are supposed to create a product that they will then share with an audience and through which they will show evidence of critical thinking skills and creativity in the use of online resources.

Putting together the WebQuest proposal for our course. After we agreed upon the idea of WebQuests as the capstone project, we then started working on the overall journey. In my

previous research about WebQuests[2], I had already noticed that no articles or studies really had a strong connection between WebQuests, research, and literacy. Since the structure of the course requires both Professor Martínez and me to teach a 10-week module each, we structured the first module to be the more conceptual one and the second module to be the more practical. Each module had very specific contents and activities, as I will describe next.

First module: Problematizing WebQuests. In the first module, students and Professor Martínez worked together from a top-down approach, looking first at ideas regarding the Common European Framework, the concept of competence, and ideas about constructivism. The class discussions centered on the idea of understanding these concepts carefully and use them as the conceptual underpinnings that would later guide the creation of their WebQuests. During this module, students would profile a competence on which they wanted to, create a research question that explored an issue related to this competence, and start thinking about how to operationalize it in their WebQuest. This initial discussion would then segue into the work students would undertake in the second module.

Second module: Operationalizing WebQuests. Once they had defined a competence and a research question, the first step was to analyze how to turn these two elements into a viable and engaging task for a WebQuest. In class, the students and I analyzed together how to tie each research question and competence to the task. Through a dialogic exercise, each student was able to think about a task. Once we had defined the task, we discussed how to critically select quality websites. We also looked at some efforts to implement WebQuests in ELT from Europe called

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[2] I conducted a literature search prior to teaching this course for another paper I intended to write. Once I began teaching this course, however, the goal of that review moved toward the ongoing research we are engaged in about WebQuests.

LanguageQuests. Our analysis and discussion of these LanguageQuests[3] showed that they were mostly grammar-based, that they did not lend themselves to the development of any meaningful competencies beyond learning a few more vocabulary words, and that the selection of resources was very faulty and not conducive to the development of higher-order thinking. Once we had defined the tasks and students had carefully chosen their resources, students spent the last part of the module designing their WebQuests.

The role of the instructors in this process. Our role was that of facilitators and critical readers. Our class discussions aimed at discovering how to use the WebQuests as a technological tool that allowed preservice teachers to feel more comfortable bringing the Internet into their classrooms. From our experience as teachers, Prof. Martínez and I know that the traditional "Internet class" in schools can very easily become a Google search and a cut-and-paste job if not properly guided. This kind of computer lab exercise neither improves students' literacy skills nor teaches them how to better use technology for their own learning. As a consequence, we have found that a discussion of WebQuests in the context of preservice teacher education is fundamental to understand the role of the Internet in our students' lives and how to use it in the classroom as a tool for critical literacy. A reflection of why we need to read the Internet carefully and not take it for granted is at the center of the reflections in our course.

Present and future directions. At the present time, we are still working on how to keep refining the idea of using WebQuests in our course while relying on the emerging expertise of our first cohort of four students. These four students have been instrumental in our reflection and we are still collaborating with them as we share our ideas with other teacher educators and preservice teachers. The students are also serving as co-authors of a few conference proposals

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[3] One of the activities in the course featured students writing their reviews about some of these LanguageQuests available on the Internet. We intend to use these writings as part of a larger, co-authored paper on this subject.

and articles we are preparing for submission. In addition, we are also exploring options to do collaborative work with other preservice teachers and teacher educators in Colombia and the United States.

The Learning by Design Project

The second initiative that I will describe in this paper, as I see it, responds to the challenges of looking at the quality of expression through digital and online media and the roles of reading and writing. It also contributes to the discussion of how the new generations are looking at these technologies and media.

The Learning by Design Project, or LbyD, is a joint initiative that began in two universities in Australia and the United States. LbyD is a project initially spearheaded by the work of literacy researchers Drs. Bill Cope and Mary Kalantzis. It stemmed from their ongoing work with the multiliteracies framework that has emerged from the first document by the New London Group in 1996 (New London Group, 1996, 2000; Cope & Kalantzis, 2000, 2009). Over the years, a group of Research Partners from around the world have joined LbyD, including researchers from Australia, the United States, Finland, and Greece. In 2010, I was invited to participate as another Research Partner, representing Colombia. In the remainder of this section, I will describe some of the operating principles of LbyD, including ideas about multimodality and new media.

LbyD's pedagogical principles. Learning by Design recognizes that, if we have a group of students and now preservice teachers who have grown exposed to online technologies, the school cannot keep conceiving the way we teach languages and literacies as they were taught 20 or 30 years ago. As Bill Cope wrote in his description of LbyD,

The Learning by Design project is premised on the notion that children have diverse

learning needs and ways of knowing and that these are in many respects vastly different

from their parents and grandparents. In an era of ubiquitous information and

communications technologies there is a need for children to make sense of a multiplicity

of communication channels, media types and technologies. There is also a need to

immerse them in multimodal meaning-making environments, involving oral, written,

visual, audio, gestural, spatial and tactile modes. (Learning by Design Principles,

Paragraph 3)

In this view of the classroom and its relation with technology, today's students (and

teachers) are no longer just passive consumers of media, as they have been exposed to different

forms of texts. Kalantzis and Cope (2005) argued that the different configurations of text present

today,

Involve complex relationships between visuals, space and text: the tens of thousands of

words in a supermarket; the written text around the screen on the news, sports of business

program or television; the text of an ATM; websites built on visual icons and active

hypertext links; the subtle relationships of images and text in glossy magazines. (p. 8)

LbyD is then looking at the classroom as a place where it is not enough to just bring

computers to keep doing the same kinds of activities we traditionally did using paper. In other

words, as I like to say, it is not about just replacing the notepad for the iPad[TM] without a serious

reflection of the kinds of competencies, skills, and activities that we must include once we go

digital. This is part of the pedagogical principle under which LbyD operates.

Multimodality. A key component in how LbyD combines literacy and technology is the

concept of multimodality. Multimodality, a term coined by Gunther Kress (Kress, 1997, 2000,

2003; Kress & Van Leeuwen, 2001), is a concept that looks at text creation and interpretation beyond the traditional canons of a two-dimensional, print and word-based layout. A multimodal text, as Kress argued, combines words, sounds, images, gestures, touch, and motion, to create a more complex message. In the context of literacy and technology, multimodality becomes important because it enables students to rethink the way they express their ideas. It forces us to rethink ideas such as grammar, as we need to look at it less from a linguistic standpoint and more from a semiotic one, to rethink how we talk about organization and presentation of ideas. Multimodality also recognizes that today's text is neither linear not unidirectional. The way we read text today requires us to look at things from right to left and left to right, from bottom to top and top to bottom, to realize that words, images, and sounds relate to each other and explicate one another.

New roles for learners and teachers. Engagement is a key feature of how LbyD views pedagogy, technology, and literacy (as well as all the overlaps among all three). It invites teachers and students to rethink how social networks and online environments bring about new forms of involvement and expression. Learning is not an event that just happens in the classroom anymore; it may now *just start* in the classroom, but it will go on *beyond* the classroom. This means that both teachers and students must become more comfortable with the idea of ubiquitous learning, that is, the kind of learning that happens anytime, anyplace, anywhere. Teachers and students must realize that they will be working in "new, multimodal, online social media spaces" (Learning by Design, The New Teacher, Paragraph 6). It also requires us all to understand that these new views about teaching, learning, technology and literacy cannot succeed unless we turn our academic communities (including classrooms, teacher education programs, and even

academic events like this year's Colloquia) into true collaborative spaces, where teachers and their students engage in activities that include,

> [S]haring their learning designs online, reusing and adapting others' learning designs, jointly writing learning designs in teams, peer reviewing other's learning designs, team teaching in classes that can at times be smaller-than-normal and bigger-than-normal—in other words, developing a professional culture of mutual support and sharing. (The New Teacher, Paragraph 8)

Present and future directions. As I write these words, ongoing parallel projects are taking place at the University of Illinois, in some school districts in Australia, and in some collaborative efforts with the Greek Ministry of Education. Meanwhile, the research partners in LbyD are thinking about how we can lead efforts in the Colombian and Latin American contexts to engage in research work about how to implement this framework in the local contexts of Spanish-speaking countries. That is a challenge that I have posed myself as a way to find more ways to reflect on the evolving connections between literacy and technology.

Coda

I have been doing extensive research in the field of literacy since I began my Ph.D. back in 2004. In that time, I have seen how more ideas about text creation and interpretation keep surfacing. Many of these forms of text and multimodal expression are becoming second nature for speakers of English around the world, and Colombia is not the exception.

Both my research data and the ongoing efforts in which I participate have shown that we live in a time where literacy and technology are more inextricably linked than ever. The lines that distinguish them are getting blurrier every second and we no longer know which affects which. Does literacy influence technology, or is it the other way around? In this day and age, that

question is moot. They both affect and influence each other. We now live in a world where composing is substituting writing and where reading from a screen has become as frequent as reading from a hard copy. The world keeps adapting to these realities. It is up to us in the field of ELT to take a closer look at the efforts within and outside our borders and find ways to engage in collaboration and research.

After all, if there is one thing I have learned as I continue my reflexivity (Mora, 2011b) about literacy and technology in the new millennium, in the Web 2.0 world, is that we are in a world where we are all natives *and* immigrants. It is ultimately in how we navigate this new World Wide Web that combines all spaces (the real and the virtual, the traditional and the modern, the textual and the hypertextual) that we will find ways to turn these technologies and literacies into tools that will empower our peoples and will make them better citizens, better students, better teachers, and better parents; in other words, much better human beings. If we do not strive for that, then what is the point of reflecting about these links between literacy and technology?

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