

EFL Teachers as Designers of Ubiquitous Learning Experiences

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Abstract

Ubiquitous learning, also known as U-learning, refers to the learner's ability to learn at any place at any time. This paper argues that U-learning represents a new perspective in terms of pedagogy. The main contributor to this process is foremost the teacher, who has to adhere to the ever-changing language learning/teaching scenery. This study aims at setting the fundamentals of materials development at the intersection of two major areas of contemporary education, namely the needs of the 'net generation' students and the educational potential of the evolving social web and digital technology. It seeks to answer the following questions: What is digital technology and how does it lead to U-learning? What is web 2.0 and how does it affect classroom pedagogy, practice, and the design of quality teaching/learning materials? How does it help teachers improve their practice and materials development procedures? And how can teachers transform today's innovative technology into ubiquitous learning experiences, promoting learner autonomy, regardless of any geographical or institutional boundaries? We will illustrate the whole procedure with a framework for web 2.0 integration that identifies the crucial features underpinning the extramural, ubiquitous learning experiences, in which learners can engage.

Keywords: experiential tasks, materials development, ubiquitous knowledge building, ubiquitous learning, web 2.0

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Introduction

The vast use of digital technology and the internet has dramatically changed the educational landscape throughout the world. There has been a strong drive towards the significant impact that digital technology can bring to the language classroom in the context of the 21st-century education. The latest profit to language teaching is the new teaching/learning modalities and the network open, collaborative learning space that the hypermedia participatory nature of the second web (web 2.0) applications provide. This network-based environment has expanded the learner's opportunities for engagement, communication, self-directed and ubiquitous learning, where shared content and resources are at hand with a few clicks of a mouse in a way that promotes collaborative learning. Considerable studies (e.g., McLaughlin & Lee, 2010; Glassman & Kang, 2010) support the positive impact that such technologies can bring to instruction and learning, by broadening the learner's horizons beyond the walls of the classroom, allowing them to explore and discover their learning paths, while they can bridge learning and instruction spaces across school, home, and the wider community. As a result, technology literacy and incorporation to support classroom learning became major concerns to most institutions and teachers alike. Nevertheless, most initiatives in this respect were technology-driven, and much has been the focus on technology accordance and literacy; little consideration, if any, has been given to the pedagogical aspects of the teaching/learning process.

This paper aspires to divert attention to that educational aspect of the technological endeavor yet extensively neglected; namely the pedagogical element of the instructional act. It aims at setting the fundamentals of materials development by English language teachers at the intersection of two significant areas of contemporary education. The most critical of these is the practical demands of the subject matter and the needs of the 'net generation' students. The second is the educational potential of the evolving social Web and digital technology, incarnating the socio-cultural factors involved in modern learning. It commences by addressing the theoretical foundations of Web 2.0 pedagogy, and then, sheds light on the essential contributions that it can bring to the language classroom and materials development. The paper shifts focus, after that, to the teachers and learners' changing roles in light of these new modalities. At the end of the paper, we will give some suggestions on how to exploit this knowledge to create task-based ubiquitous learning experiences for students.

Ubiquitous Language Learning

With the rapid development of information technology, ubiquitous computing devices (e.g., mobiles, iPods, Laptops, etc.) and their global interconnection via the internet has permeated almost every aspect of our life including learning. These have a different cultural and epistemic logic from the old drilling practice and stimulus-response patterns ensured by cassettes, microphones, and headphones mostly used in language laboratories in the previous decades. Eventually, the linear presentation of materials has been displaced by "authentic multimodal content, simultaneous interactions for everyone, and more responsive feedback and assessment systems" (Kalantis & Cope, 2015), bringing within ample opportunities for a corresponding 'new learning'."

The concept of ubiquitous learning has gradually emerged over the years to become one of the critical terms of the 21st-century education. It indicates an extension of previous learning

paradigms (traditional learning and e-learning), and represents a new approach to learning with a new delivery model for activities that transcend the physical confines of the classroom via the use of ubiquitous computing devices. In that sense, ubiquity sketches the opportunity for learning to take place everywhere and heralds higher chances for more varied, inspiring, and learner-centered experiences. One major methodological challenge for instructors, then, is to fully harness these technologies to engage learners not only as informants but also as creators of the information used to study their learning styles. According to Stanly (2013)

The proliferation of hand-held devices, such as mobile phones, digital cameras, tablets, mp3 players and voice recorders, has led to what, for some teachers, is sometimes a bewildering choice of potential activities and resources. The use of mobile devices is expected to lead to language learning becoming more informal and personal (...). This revolution in mobile learning is happening both inside and outside the classroom. (p.3)

As such, these networked digital devices brought with them the promise of exciting new venues for language learners. They are seen to involve them in more interactive learning scenarios that have significant potential to change language-learning practices in and outside the classroom.

Pedagogy 2.0

In the landscape of these technologies, the internet has evolved from a source of information, within web 1.0, into “a network of virtual spaces built on the dynamics of social communities” (Sturn, Kennel, McBride, & Kelly, 2009, p. 370), bringing within new pedagogical openings that magnified their effect in English as a Foreign Language (EFL) settings. This new generation of the World Wide Web has come to be known as web 2.0, interchangeably named social web; embracing interactive, social and collaborative features that can fuel new types of learning experiences through new task types. These significantly new social affordances have opened new interactive web spaces for learners, where user-generated content, peer dialogue, and co-construction of knowledge are key components of a newly emerging learning paradigm. Under which, the learner is at the foreground, and acts as a creator rather than just a receiver while the teacher steps into the background and fulfills his role as guide, coach, and facilitator. Within this scope, Conole (2007) states that three fundamental shifts in technology-enhanced learning have emerged because of the web 2.0 technological revolution. These include:

- A change from a focus on content to communication
- A change from a passive to a more interactive engagement of students in the educational process
- A change from a focus on individual learners to more socially-situated learning

This noticeable swing of the pendulum in English Language Teaching (ELT) methodology learning has given shape for a new networked, collaborative and interactive method of learning known as ‘Pedagogy 2.0’. The concept of Pedagogy 2.0 signifies a distinct step-change in language learning methodology, from teacher-centered didactic pedagogy, where learners are consumers of content created for them, to a more learner-centered one that encourages learner’s voice and production ensured by technology. In addition to learner’s empowerment, interactivity, and collaboration; web 2.0 serves as an open environment for learners to explore and practice their

skills, an inventory of a wide array of multimodal content originating from a variety of authentic resources, and a means for more responsive assessment and feedback systems. Podcasting and vodcasting tools allow learners to move beyond handwriting and will enable them to represent their meanings independently and simultaneously in different modes through creating their audio or video productions at no cost. Blogs, Facebook, and Youtube sites have opened classroom walls and served as platforms where learners can display their works to the outside world, thus creating small learning communities. As such, language learning becomes fun and incredibly motivating.

In this vein, web 2.0 technologies inherently echo core aspects of learner-centered approaches that are more in line with recent social constructivist theorizing and learners' need to create meaning; deeply rooted in the socio-cultural theory. With the social constructivist perspective, social interaction has become the first and most significant contributor to learning, and learning is a process of interpretation and meaning-making. On par with, Sturn et al. (2009, p.371) see "earning as a social dialectic process of meaning" that moves the locus of knowledge from the teacher to the learner and decentralizes the learning and teaching concepts; reshaping the teacher, the learner, and the materials in light of these emerging web technologies.

The Material

As the Internet makes its way into the hands of teachers, the daunting task of providing comprehensible input to their learners has become more comfortable. It has produced a myriad of authentic materials, and tremendous search capabilities that allow instant access to up-to-the-minute information, on a variety of topics; from which they can select those most appropriate to fuel classroom discussions when exposing their learners to real-life tasks. It is also useful for those willing to mount their pedagogical material online both as a support for its creation and a means for content preparation.

This bounteous harvest of materials, that the internet provides, assists in the development of authentic material (both computer-based or not) since the actual use of the language and the correlation of different types of resources that echo those learners apply in everyday life are the basis of the selection of content. According to Bell (2005), cultural richness and reflection of real-life complexities, associated with authentic materials, seem to be undermining any potential demotivating backwash effects. Most said, online materials are culturally more abundant, have the potential to echo real-life complexities and, hence, they are more productive, understandable, meaningful, and more attractive to learners compared to conventional content. Yet, with this plethora of material on the net, the problem seems to be one of selection of appropriate materials, to weed out those poor in quality and linguistically inappropriate, thereby "allow a more thorough integration of language, content and culture than ever before and provide students with unprecedented opportunities for autonomous learning" (Warschauer & Meskill, 2000, p.13).

In addition to the primordial role of internet technology as resource retrieval, multimodality and non-linear structure of information have brought interactivity and dynamism to the materials as well as to the teaching/learning environment. The old linear, static nature of materials has been replaced by hypermedia; different modes of representation (aural, written, visual, audio, and dataset) juxtaposed together in digital media, offering new types of activities and more learner engagement. Accordingly, web 2.0, allows learning content, aggregated from different sources

using various tools, to be presented non-linearly in a text, graphical, audio, and video formats, in one place, on a digital device. This non-linearity will breathe new life into the most static material and increase comprehensibility through learner control, and multimedia annotations.

Along with this, the interactive, social, and collaborative features of web 2.0 technologies are seen to be also inflicting their full impact on the ideas, topics and experiences that can be explored using digital technologies, and, hence, promoting new activity types and tasks hardly realised using other materials (Reinders & White, 2010). Multimedia annotations, video tutorials, communication, and assessment tools can increase the array of learning scenarios, in which learners engage. They offer open realistic contexts, not confined to classrooms, to generate and develop suitable activities/tasks that create opportunities to work smoothly across boundaries with others with different cultures, values, and interests. A case in point is telecollaboration tasks designed and channeled through synchronous web 2.0 communication technologies that were shown to mitigate attrition rates of students, contribute to students feeling a sense of communal belonging and engagement that result in intercultural exchanges and understanding unattainable with traditional methods. Moreover, these attributes include a novelty of features, which allow students to have a go with experimenting with the language in new and original ways that reflect their real-life needs. In light of this, experience provides the basis for activities, readiness to learn is ensured via topics most relevant to learner's job or personal life, and learning is problem-based rather than content-oriented. Many of these tasks can culminate with student-developed output based on the objectives of the lesson and, or the activity at hand.

The social participatory nature of web 2.0 has initiated an 'authoring revolution' that allows teachers and learners alike become content creators, thereby subverting the vertical top-down development of materials and opening out increased opportunities for the bottom-up and horizontal development frameworks. To this end, "ownership, autonomy, and contextualization will be core features of materials and materials-rich pedagogies" (Banegas, 2013, p. 12). This can enhance the quality of materials development and opens up new avenues of formative feedback to instructors and fertile environments for student's self-directed learning processes and strategy use, where the locus of knowledge creation, distribution, and discussion became a shared commodity between the instructor and students that can take place inside and outside the classroom. Accordingly, ubiquitous learning, with varying degrees of constraints (e.g., access to the internet), represents a new dimension of learning promoted by and through materials and tasks.

The Teacher

Above, we have already discussed the change in the traditional classroom hierarchy. As the learners gained more voice and responsibility, the lines that once demarcate traditional student/teacher roles blurred, subverting the supremacy of the teacher as the primary fountain of knowledge. The result of such a change is a more balanced relationship, where students are no longer empty vessels to be filled with knowledge but rather active producers of content. The instructor then moves away from the classroom's limelight, leaving the center-stage for the new protagonist, 'the learner.'

This shift from the teacher-centered classroom to the learner-centered one has its bearing on the teachers' role. Within this paradigm shift of the process of learning, they act as guides,

facilitators, negotiators of content and operation, and encouragers of learner self-expression and autonomy. Behind this role change, looms the broader issue of technology integration and teacher responsibility. Sawhill (2008, last para) claims that “our emerging role as teachers and technologists in the 21st century is to prepare ourselves, our colleagues, our schools and our classrooms for the linguistic and cultural realities of the teaching in a world where everyone and everything is connected, or ‘intertwined’.” We suspect technology on its own is not a magic wand, nor marvelous are its affordances for themselves. Students, more often than not, get excited with the wow and apprehension surrounding new technologies at the expense of their learning, which leads to a bleak effect on their learning and development. To overcome this gap between the promising potential of these technologies and learners’ actual practice, teachers need to help them make the most out of using them; the issue is how to promote and support this use. For this end, the teacher is in front of the additional roles of designer, integrator, organizer, and coordinator within this learner-centered environment.

As a designer, the instructor has to articulate a plan for technology uptake that aligns learner characteristics, content, pedagogy, and technology to develop tasks and activities for engaging in this participatory digital landscape, where students are a real part of a relevant community of users. Per se, any effective use of technology is mainly dependent on the methodological approach underpinning its application (Qashoa, 2013). For instance, in an intercultural goal-oriented telecollaboration exchange task, the teacher has to set goals, objectives, decide on the contact tool (e.g., video conferencing via Skype), and make contact with possible partner classes through online exchange networks. This way, benefit, and relevant engagement are only possible if he provides structure for most web 2.0-supported initiatives, activities, and tasks.

Despite the evident promising mix of web 2.0 affordances, their integration is another kettle of fish. Teachers should have a clear vision for infiltrating web 2.0 tools-based activities and tasks into their curriculum, to ensure an agile integration approach, where they are an integral part of classroom practices and a severe part of the learning process. As Joseph Shed (Education Exchange, 2004) puts it “the point is not to show that you can dazzle people with lots of digital wizardries. It is to show that you can use technology in thoughtful, well-planned ways to promote more effective learning” (p.3). Again, the teacher is called to act as ‘expert’ who provides explicit guidance for learners to fully harness the benefits of the unlimited panorama of linguistics and cultural information in developing their communication skills, through supporting their learning processes, and increasing language learning opportunities in and outside the classroom. Therefore, the payoff of enriching classroom materials with Computer Assisted Language Learning (CALL) materials (online dictionaries, videos, podcasts, etc.), or integrating interaction exchange sessions (e.g., emails, Skype, video conferencing) in ELT classes, in terms of academic achievements, interest, motivation, and educational transforming results, is excellent.

In truth, successful integration of web 2.0 activities is dependent on several interconnected factors, the most important of which are teachers’ readiness and willingness to take risks. This still requires a substantial investment of time and effort. Some hindrances may emerge along the way, and cause frustration and undesirable results, such as hardware and software playing up, dependence on computer lab schedules, etc. In the case of telecollaboration, obstacles range from time constraints if the two classes are from different time zones, student absences, demotivation,

etc. To surmount this, teachers need to set smooth well-planned steps to guarantee gradual progress from extension activities/tasks directly linked to classroom immediate needs and practices towards more ambitious future actions.

All too often, within the decentralization of authority in the learner-centered classroom, the univocal transmission of knowledge has been replaced by recursive participation that values learners' voice and own operations. Even so, this does not signify a passive role for teachers. On the contrary, digitization (including the internet) has further burdened teachers with new pedagogic tasks such as planning, coordinating, improving learning strategies, and leveraging students' metalinguistic awareness of CALL genres (Warschauer, 1996). For this end, this often entails reconsidering teaching practices and may even call for training to cultivate the necessary skills to gear up with technological advances, to cater to the various changing needs of their learners.

The Learner

Continuing to examine the impact of web 2.0 technologies and the changed context of English language learning, one can notice a significant role change for learners; surpassing their ability to consume information to creating it. This fact necessitates a decentralization of the teaching/learning concepts, providing higher chances for increased bottom-up control and horizontal learning contexts, where the learner is a negotiator of learning content and modes of learning, more responsible of his studies, and has the opportunity to develop his learning strategies and study skills. This way, the more students do for themselves, the more they will learn.

One significant advantage that web 2.0 tools have blessed English as a foreign language (EFL) learners with is time, as they provide extra opportunities to engage in meaningful language learning tasks- all after the school has closed down for the day. Learners utilize these tools in diverse contexts. An example of such uses include blogging that permits the learners to develop, create, and share their work online wherever they are, at any time; they discuss, negotiate meaning, and get feedback from a worldwide audience all while 'just browsing the net.' This way, they become more vigorous, more creative, and more autonomous.

The increased importance of online communication through these collaborative dialogical platforms is also contributing to new, safer and anonymous English practice spaces. Through which, reticent, shy, and uncomfortable students in 'on the spot' class discussions can develop self-confidence in their English communication abilities, thus maximizing their participation and engagement rates. Learners' inhibition decreases especially when they are in control of their learning once given a chance to produce their works in a controlled setting (Ramirez, 2010). The setting up of a video or audio file will allow learners to practice and polish their work until they are satisfied with the final product. They also provide a means of getting feedback in an error forgiving environment wherein students express a keenness to practice the language and collaborate with other peers in cyberspaces.

By virtue of its user-centric nature and focus upon active engagement of learners, web 2.0 supports the development of their problem-solving skills since they are required not just to find information but to judge its efficacy as well. Besides, its open features that focus on the user and collaborative content generation, through peer review and communal feedback, has increased

creativity and led to the evolution of collective intelligence within learning groups (Jimoyiannis op.cit, Ramirez, op.cit); intensifying the legacy processes of knowledge production. There is, thus, a strong emphasis on the traces of knowledge production processes which are as important as the final product. For instance, the setting up of a wiki will allow learners to look for appropriate sources, get peer feedback during the making, and produce collaboratively created works.

One pivotal pedagogical advantage that is often underestimated is that social networks are fun! A considerable base of research espouses the positive link between technology and learners' motivation, learning styles, and, or improvement in specific skill areas. It has been found that web 2.0 tools use in the classroom increases learners' motivation (Goodwin-Jones, 2005), raises their interest (Stanley, 2006), and caters for multiple learning styles since the material is presented in different formats (text, graphical, audio, and video); all at the same time on the same digital device. Related to this, Svedkauskaite, Reza-Hernandez, & Clifford (2003, "Frameworks for Successful LEP Learners" section) have also found that:

Technology has evolved from its support function to play a role in initiating learning processes. It can provide a flexible learning environment where students can explore and be engaged. Hypermedia, for example, individually addresses levels of fluency, content knowledge, student motivation, and interest, allowing the inclusion of LEP [limited English proficient] students, who can thus monitor their comprehension, language production, and behavior. (para 4)

Additionally, the projected inherent features of web 2.0 have a profound impact on students' cultural awareness. Mostly because of the increased and easy contact with their worldwide online partners, there will be an open window-channel to discuss and reflect on their own as well as others' cultures. Within these intercultural exchanges, students will have the chance to look at how others look at their culture, can themselves expand and refine their views of others' cultures, and reflect on and criticize some aspects of these cultures. The juxtaposition of these different views illustrates how students' concepts and their cultural and intercultural awareness are evolving and will change in the future.

All in all, Web 2.0 ubiquity, its various services, and its penetrating in the social, economic, and cultural life have a noticeable observable impact on today's learners and their needs. Seeing that they hold great potential to benefit language learning/teaching through multiple means, the demand to cultivate these benefits has increased proportionately, which implies a fresh look at 'what students learn,' 'how they learn,' and 'where and with whom they learn.'

Towards a Ubiquitous Learning Experience

As has been discussed, digitization (including web 2.0) provide a ripe context for the emergence of experience as an essential factor in active knowledge-making. It endows language learners with new challenges and opportunities to tackle a wide range of human experience when used as a tool for inquiry, communication, and construction. This way, they facilitate a pedagogical movement away from vicarious experiences presented through old drill and practice media and materials; allowing them to learn by doing things themselves. Within this scope, non-linearity of information,

active knowledge creation, negotiation of content, and what to explore, all contribute to developing more flexible thinking skills among learners.

In this vein, experience (including mistakes) can provide the basis for most learning activities/tasks, and what we really need to do, as teachers, is to expand our vision of the learning process “from what technology can do for the student to what the student can do with technology” (Godwin- Jones 1999, p. 49). Hence, teachers should be actively involved in empowering students in that direction through a clear vision of the possible extramural activities that they can undertake along with ways to assist and assess the learning that could evolve out of this endeavor by the learners. Like so, with well-planned learning tasks, we can help ensure that any technological uptake can be met hassle-free. Surely the primary intention is not to limit students’ web 2.0 use, but rather to leverage this use from a simple technological asset to become a learning platform to accelerate language acquisition.

Learning by experience is seen as one of the most fundamental means of learning. It approaches learners as active knowledge constructors who link action, reflection, and transfer of knowledge and experience. To use Kolb’s (1984, p. 41) words “[learning] is the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” and equally important from the reflective practice (individual and/ or collective) of that process. Following this line of thought, Silberman (2007) advocates that experiential learning refers to:

(a)The involvement of learners in concrete activities that enable them to experience what they are learning about and (b) the opportunity to reflect on those activities. Experiential learning can be based on both real work/life experiences (e.g., working on a current project) and structured experiences that stimulate or approximate real work/life.(p.7)

This way, it is a learner-centered approach driven by action, reflection, and transfer of knowledge and experience.

It has been pointed out earlier in this paper that digitization (including the internet) provide experiential tools combined with a web 2.0 ubiquitous setting that support more interaction, engagement, knowledge creation and participation among EFL learners. Accordingly, web 2.0 ubiquitous learning tasks can improve experiential learning scenarios, in which learners may take part . This is a tremendous asset for EFL acquisition as it would encourage ubiquitous knowledge building under the design of web 2.0 interactive, collaborative tasks that are more often supported by the experiential tools and materials that digitization affords.

Towards achieving a ubiquitous learning experience for learners, some of factors are evident:

- The importance of demonstrating the added value of Web 2.0 as a learning platform rather than a tool to support learning
- The need to understand and take account of the experiential tools that web 2.0 provides
- The complexity of the relationship between pedagogical changes and their impact on teacher’s practice

- Recognition that the characteristics of web 2.0 tools align well with the perceived wisdom of “good pedagogy” (inquiry-based learning, project-based learning, ubiquitous learning, dialogic and collaborative learning, constructivism and active engagement), and, hence, experience and ubiquity need to be the cornerstone of any design perspectives.

Figure 1 outlines a framework for web 2.0 integration, which captures these factors. It demonstrates how effective its implementation can only be achieved if three interrelated aspects; namely design, pedagogy, and practice, are considered in conjunction. Each element informs the other two, and vice versa. So, pedagogy 2.0 principles and opportunities should be used as guidance to inform design and influence practice. Practice (be it student- or teacher directed along with their perspectives, changing roles, and responsibilities should also inform design, but also help to guide future pedagogical considerations (both inside and outside the classroom). Design also has its bearing on both pedagogy and practice.



Figure 1. Conceptualising a ubiquitous learning experience

In summary, the following crucial features underpin the extramural, ubiquitous learning experiences resulting from the proposed framework:

Learner validity: it makes use of activities and tools that learners usually employ in their everyday lives, which reflects their needs and interests, and involves them in using technologies in ways that reflect their out-of-class practices.

Collaborative and autonomous learning: it allows students to develop collaborative skills through collaborative feedback and content generation leading to collective intelligence. It also helps in the development of the skills needed for autonomous learning by guiding them to recognize their role in managing their learning.

Multimodality: students have the chance to not only make use of authentic multimodal input but also creating it.

Reflection: Reflecting on their learning process lets students identify the tasks and tools that they prefer when learning, which has a direct impact on their motivation and, hence, success.

Ubiquitous knowledge building: the extramural activities, in which students engage, allow for flexibility and convenience of learning so that learners have control over their place, mode, and manner of learning.

Conclusion

The purpose of this paper was to draw attention to the impact of web 2.0 technologies on materials and task design and the teaching/learning process. It is designed to initiate discussion rather than be the final word in it. The paper tries to reveal the way web 2.0 is crucial and how it affects teachers, learners, and materials. It argues that teachers can transform their attributes into practical ubiquitous learning experiences for learners when used as an effective learning space to be exploited in instructional practices. To this end, we have presented a framework aiming to support learner's web 2.0 experience and teachers' control and guidance over out-of-classroom practices. The paper ends with three main conclusions. First, it is important to look at web 2.0 as an open, ubiquitous learning platform that goes well beyond the simple use of technology as an instructional asset. It is imperative for teachers to support learners' initiatives with web 2.0 through promoting transformational interactive EFL learning environments that comprise reflection, ubiquitous knowledge building and experiential tools (materials) so that students engage in active learning scenarios. Finally, to realise the former two, it is important to look beyond the classroom itself.

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