Language Learning in Virtual Worlds

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Περίληψη

Η νέα μορφή στην οποία μετασχηματίζεται το web την τελευταία τετραετία, φαίνεται να δημιουργεί ένα περιβάλλον αυξημένης κοινωνικής αλληλεπίδρασης μέσα στο οποίο οι χρήστες έχουν τη δυνατότητα να συνεργάζονται, να επικοινωνούν, να δημιουργούν το δικό τους περιεχόμενο και να χρησιμοποιούν υπηρεσίες με έναν ελεύθερο και μη ελεγχόμενο τρόπο.

Όπως είναι φυσικό, τις αλλαγές αυτές προσπαθεί να ακολουθήσει και η νέα γενιά εφαρμογών elearning. Ανάμεσα σε αυτές και εκείνες που αφορούν τη γλωσσική εκπαίδευση, οι οποίες προσπαθούν να εκμεταλλευθούν τα νέα 'κοινωνικά' εργαλεία του web 2.0 για να δώσουν στον τελικό χρήστη την εμπειρία της επαφής με τη γλώσσα στόχο σε πραγματικές περιστάσεις, κάτι που ως σήμερα ήταν πολύ δύσκολα εφικτό.

Στις εφαρμογές αυτές, και ειδικότερα στους «εικονικούς κόσμους», οι μαθητές μπορούν να κινηθούν, να επικοινωνήσουν και να αλληλεπιδράσουν σε πραγματικό χρόνο με φυσικούς ομιλητές της γλώσσας, λειτουργώντας μέσα σε ένα διαπολιτισμικό περιβάλλον που τους δημιουργεί μεγαλύτερο ενδιαφέρον και κίνητρο για μάθηση, που τους επιτρέπει να κατακτήσουν ευκολότερα και πληρέστερα τη γνώση, αλλά και που τους βοηθάει να αναπτύξουν δεξιότητες αυτόνομης μάθησης.

Στο πεδίο αυτό εγγράφεται και η παρούσα ανακοίνωση που προτίθεται αφενός να παρουσιάσει τους εικονικούς κόσμους και τις δυνατότητες που προσφέρουν σε ότι αφορά τη γλωσσική εκπαίδευση και, αφετέρου, να προτείνει τρόπους αξιοποίησής τους με σκοπό την χρήση τους για την ουσιαστικότερη επαφή του μαθητή ξένης γλώσσας με τη γλώσσα στόχο.

Λέξεις-κλειδιά

Web 2.0, eLearning 2.0, Second Life, virtual worlds, language learning.

1. INTRODUCTION. WEB 2.0.

The appearance in the last four years of a new generation of services on the World Wide Web, together with the increasing ease of internet access due to the widespread proliferation of broadband connections, has created a new reality in which the Internet and the services it provides have now become part of users' everyday lives. These users are no longer simple consumers of the information provided on websites, but are now in a position to participate, communicate and cooperate with other users, as well as to traffic and publish any type of multimedia file and create new content or even their own personal websites. These have all been made available to users thanks to a new generation of services which permits the creation of online communities (Social Networking Services),[1] searching, publishing and sharing of any type of multimedia files (Data Sharing Mechanisms),[2] tagging, the description and creation of Social bookmarking,[3] the automatic notification of content selected by the users themselves (Syndication and Notification Technologies – RSS), but also simultaneous work on or sharing of the same file by different users (Collaborative Editing Tools).[4]

   All of these services, described by the generic term 'Social Software', mark the modern form of the web (web 2.0),[5] and are used on a daily basis by millions of internet users of all ages, but especially by the generation of 'digital natives,' that is by young people of between 13 and 17 years old who regard the internet as a natural environment for entertainment, communication and education (Prensky, 2001). This is the main reason why there has been an attempt made to adapt e-learning applications to the new reality and to exploit these services to the full in order to make them compatible with the way their end-users actually operate.

2. E-LEARNING 2.0 AND LANGUAGES

From this viewpoint, with the new generation of applications (e-learning 2.0), an effort has been made to move away from the rigidly-structured supply of knowledge which, up until now, users have been provided with almost exclusively through CMS (Content Management Systems) and VLE (Virtual Learning Environments)[6] systems. The emphasis is thus now placed on the free use of content as well as on co-operative and interactive learning.

   In this new generation of e-learning applications, the developers are striving to combine content delivery, which CMS and VLE systems have offered very

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[1] Facebook http://www.facebook.com and Linked In http://www.facebook.com are two of the most popular websites of this type.

[2] The best known Data Sharing Mechanisms are Flickr (photographs) http://www.flickr.com, You tube (videos) http://www.youtube.com, and slideshare (powerpoint presentations) http://www.slideshare.com.

[3] An illustrative example is del.icio.us. http://www.delicious.com .

[4] Such as Google Docs & Spreadsheets, http://www.google.com/googlespreadsheets/try_out.html .

[5] The term 'web 2.0' was first used in 2004 by O'Reilly (2005)

[6] Moodle http://moodle.org , Blackboard / WebCT http://www.blackboard.com , Sakai http://sakaiproject.org/portal , and Claroline http://www.claroline.net/ are the most widely-used VLEs in Institutions of Higher Education in Europe and America.

efficiently,[7] together with 'social software' and the new tools provided by web 2.0, so that users are given the opportunity to learn not only using the existing content provided by the e-learning application but also by searching for information, creating content and interacting with other users.[8]

In this way, modern systems offer access to multimedia material through media sharing websites,[9] data storage services,[10] podcasts,[11] web-casts and screencasts.[12] They also aim at using collaborative tools,[13] wikis[14] and real-time communication software.[15] Digital presence through blogs,[16] as well as participation in virtual classrooms, social networks[17] and virtual worlds are also encouraged in these modern systems.

Language teaching applications follow the same trend. Social software and all the other tools described above offer great potential as they provide solutions to two basic demands in language teaching; that is, access to authentic rather than scripted or simplified teaching material, and exposure to real, communicative situations.

A fundamental principle of language teaching is the maximization of the learner's exposure to the authentic target language. Therefore, it is obvious that any facility which might enable users to come into contact with native speakers of that target language should be considered of great value.

To achieve this end and to allow written or spoken contact, both traditional and modern forms of communication are used, such as email, chat, forums, live messengers and video-conferencing, either in the form of free-standing software or software incorporated into the environment of the VLEs or social networking applications. This idea, that is the exploitation of the online communities of web 2.0,

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[7] See (Perrie, 2003, Britain &Liber, 1999)

[8] Such an attempt is the combined use of VLE Blackboard together with the 3D environment of Active Worlds in order to promote cooperative learning and provide language practice to Japanese university students (Campbell, 2003).

[9] Among others, ABC Online http://abcnews.go.com/, BBC News Online http://news.bbc.co.uk/2/hi/video_and_audio/default.stm and France 24 http://www.france24.com/en/ are well-known online news services. Online TV is provided by Joost http://www.joost.com/ and Babel Gum http://www.babelgum.com/ mainly for English language content. Online Radio is also provided by several services, such as BBC World Service Online, which offers news in 32 languages http://www.bbc.co.uk/worldservice/languages/ and WWiTV http://wwitv.com/portal.htm.

[10] MegaUpload http://megaupload.com/ and Box.net http://www.box.net/ are two of the best-known data storage services.

[11] For example, iTunesU (University) the educational podcasts service provided by Apple http://www.apple.com/education/mobile-learning/ .

[12] Such as Slideshare http://www.slideshare.com and Scridb http://www.scribd.com/.

[13] Such as Google docs and Buzzword and Share by Adobe. See https://www.acrobat.com/#/bw/BuzzwordBegin

[14] A type of website which permits any user to create and work on the content of the site. An illustrative example is the online encyclopeadia Wikipedia http://www.wikipedia.org .

[15] Such as Skype http://www.skype.com or Live Messenger, http://messenger.live.com.

[16] Blogger https://www.blogger.com/start and Wordpress http://wordpress.com/ are two well-known services that enable users to create personal websites.

[17] They could possibly be created by the users themselves with the aid of special tools such as Elgg.net. http://elgg.org/index.php

appears to be the most promising opportunity available to achieve the elusive goal of language teaching, which is exposing the learner-user to real-life communication. This is precisely what virtual worlds, operating in web 2.0 and generally termed MUVEs (Multi-User Virtual Environments[18]), attempt to achieve.

3. Virtual worlds

Virtual worlds offer *"networked desktop virtual reality in which users move and interact in simulated 3D"* (Dickey, 2005). Their development has been so rapid that it is estimated that by the end of 2011, 80% of both Internet users and the most influential global businesses will appear in one of them (Reuters, 2007). There are several virtual worlds currently in existence, such as Active Worlds,[19] There, Twinity, Entropia Universe and Second Life (SL),[20] that most widely known and which boasts the largest number of users.[21]

In virtual worlds, users are represented by digital figures (avatars) able to move, be transported (teleporting) to specific coordinates-places,[22] make friends from around the world and interact with them,[23] and also create their own buildings within their 'islands'.[24] As such, they operate within a truly inter-cultural environment in which they can meet up with other avatars, native speakers of the target language, and engage with them in written and spoken communication in real-time. In particular, spoken communication - real conversation (with sound) with complete strangers - is a key feature of the SL culture as it is considered to be absolutely natural, unlike what happens in real life. As Vickers quotes (2007), "…it is considered entirely normal, perhaps even expected, to start up a conversation with complete strangers. Second Lifers are open to casual, chance conversations - and this can only increase the opportunities for language practice." At the same time, SL users can send instant messages, create their own groups or invite other users to a particular environment, something which may prove very useful to educators as it enables them to create 'classrooms' and gather students within them (Bixler, 2007,

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[18] For a list of educational MUVEs, see Dieterle, E., & J.Clarke (2007).

[19] At the following address http://www.activeworlds.com/. For the use of Active Worlds in applications CALL, see Peterson (2005).

[20] Relevant websites are: There, http://www.there.com/ , Twinity, http://www.twinity.com/en , Entropia Universe, http://www.entropiauniverse.com/ and Second Life, http://secondlife.com/ . A comparative case study of several of these has been conducted by Fetscherin and Lattemann (2007).

[21] Second Life was created by Linden Labs http://lindenlab.com/ . In a press release entitled 'Apprendre les langues dans Second Life' in SLObserver (3/7/2007), it is quoted that '…Second Life, with more than 7 million registered users and with a working cycle of more than 1.7 million USD daily is evolving rapidly into a vehicle for socialization, trade and education…'http://secondworld.wordpress.com/2007/07/03/communique-apprendre-les-langues-dans-second-life/ . In addition, Fetscherin and Lattemann (2007) estimate that by the end of 2008, more than 25 million people will have used Second Life.

[22] The use of the website Slurl permits the teleporting of users to any part of the virtual world SL http://slurl.com/secondlife/Edunation%20III/202/27/21/ .

[23] 82% of users-educators use it - besides others - as a tool to make and contact friends (New Media Consortium Survey, 2008).

[24] Islands: Privately-owned areas for the users who pay a subscription.

Conklin, 2007: 7).

As far as education is concerned, one of the main advantages of SL is how users can represent themselves using avatars. The use of avatars actually facilitates communication and helps users to interact more fully. Consequently, participation in SL is viewed as an especially motivating and entertaining experience by the majority of users (Dudeney & Hockly, 2006 and Peterson, 2006). This fact is an incentive for the producers of educational applications, who also recognize SL's considerable advantages as far as its use for educational purposes[25] is concerned. These advantages have to do with social and interactive learning, developing the users' autonomy and role-playing ability, as well as arousing the users' interest in learning, all of which allow them to acquire knowledge more easily and comprehensively while also helping them to develop self-study skills (Arreguin, 2007 and Stevens, 2006).

For the reasons above, over the last three years or so, a number of educational institutions have proceeded to set up virtual educational islands both to exploit the rapidly developing field of SL[26] and to gain future access to 'digital natives'. Moreover, since 2007, there have been experimental applications for foreign language teaching[27] in SL, while in 2008 the first virtual conference for the teaching of foreign languages took place in SL.[28] The most well-known of these applications are Real Town,[29] SurReal Quests,[30] the British Council[31] and Instituto Cervantes[32]

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[25]However, there are also references to its drawbacks: Sanchez (2007) quotes that several students' first experience with Second Life was tiring because the very steep 'learning curve' faced. There have also been complaints from several users and researchers about the speed of the software when using slow connections. This article is part of Sanchez's research "A Socio-technical Systems Analysis of Second Life in an Undergraduate English Course" (In C. Montgomerie & J. Seale (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2007* (pp. 4254-4258). Chesapeake, VA: AACE.)

[26] Examples are the attempts made by various universities, such as Harvard, MIT, the University of Edinburgh (UK), Princeton University (USA), Rice University (USA), the University of Derby (UK), Vassar College (USA), the University of Plymouth (UK) and the Open University (UK). A list of educational organizations and institutions of Higher Education which participate in Second Life can be found in SimTeach at the following address: http://simteach.com/wiki/index.php?title=Institutions_and_Organizations_in_SL#UNIVERSIT IES.2C_COLLEGES_.26_SCHOOLS.

[27]On the EDUMUVE website a list of language environments – excluding English- which operate in Second Life. http://edumuve.com/tour/languages-other-than-english/

[28]The Online Conference http://www.slanguages.net/home.php took place in EduNation Islands. See http://www.theconsultants-e.com/edunation/edunationII.asp

[29]Real Town aims at offering practice in developing listening skills as well as a cooperative platform in which users will be able to 'negotiate meaning'. (Garcia-Ruiz, Edwards, El-Seoud, Aquino-Santos, 2008: 369-377)

[30]An Avatar Languages application (http://www.avatarlanguages.com/pedagogy.php), which combines SL, Google Docs, Whiteboards and Skype, for language teaching. See (Vickers, 2007) http://kt.flexiblelearning.net.au/tkt2007/edition-15/surreal-quests-enriched-purposeful-language-learning-in-second-life/

[31]It has been developed in the special area Teen Grid of Second Life which is exclusively addressed to young learners. See http://teen.secondlife.com/

[32]At the address http://secondlife.cervantes.es/es/default.htm

applications, while other institutions, such as the Goethe Institute,[33] are planning to create their own islands to offer on-line language teaching.

It is fair to say, though, that not enough research has yet been conducted into the ways in which SL could actually be utilized in language teaching. This is why the majority of these applications are simply the transfer of a real-life classroom environment into a 3D digital environment. The above applications offer linguistic exercises designed to develop all four skills (listening, reading, speaking and writing). Various ways to develop their own potential are also suggested:

– The use of private spaces for on-line language teaching. In this way, the teacher can exercise close control over what is happening and who is present.
– The use of 'public' spaces. This permits wider social interaction and therefore better practice in the target language.
– The design of specific language activities (written, spoken or interactive) that can be done by the user with or without the instructor's supervision.

4. Designing a language activity in SL

The final point above seems to be the most interesting as it reflects the philosophy of the unlimited digital interaction of web 2.0 users within the existing social spaces. At the same time, it is the only one, which provides the opportunity for a new form of language practice, which - up until now - has not been possible in any technological environment. Thus, the creators of language applications for virtual environments should aim at designing language activities which derive from the unscheduled (rather than guided) movement of the user as well as at exposing the user to real and unpredictable communicative situations.

In this case, it should be assumed that the student-user moves around within SL and interacts either with the environment (the space or the information found in it) or with the other users met through a scenario. Peterson (2006: 86, referred by Dervin 2008: 28-29) suggests the use of jigsaw tasks and decision-making exercises. Similarly, Dervin (2008) also suggests the following types of activities, which can be assigned to students:

– Observing other people's behaviour in various spaces within SL (without spoken communication)
– Discussing various issues with other users
– Interviewing others about their appearance[34]
– Comparing SL with the real world[35]

In order to design such a language activity, a number of questions should first be answered (Dervin, 2008), such as:

– What is the linguistic-communicative aim?
– What is the aim regarding inter-cultural sensitization?
– What kind of activity might best achieve the above purposes?
– In which SL space is it most effective to carry out the activity?

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[33]At the address http://www.goethe.de/frm/sec/deindex.htm
[34]In SL, users can choose their appearance and what they wear. They can also be represented by a non-human figure, for example by an animal.
[35]Cities such as London, New York, Barcelona, Moscow, Venice and Paris have their own location in Second Life which can be explored by users

– How would the activity be evaluated?

There are also some additional questions to which answers should be found. First of all, there are these:

– How natural are all of these actions for a person?
– Do they resemble real-life situations, which would require a spoken reaction?

In addition, other questions include:

– How knowledgeable is the student-user in the use of SL?
– What might the student need while doing the activity (eg: to buy space)?
– What might go wrong and how might the student cope with the situation?

5. An example of a communicative activity within SL

In an attempt to answer the question whether or not it is possible - both technically and substantially - to create a more specific activity than that described above, two scenarios involving an accidental encounter in SL have been devised. In each, the role of the native speaker of the foreign language is adopted by the instructor, who ensures that a meeting with the student-user does take place by moving in the same environment as them.[36]

1st Situation:

The student moves freely within a virtual space in Paris and comes across another user. He attempts to ask for information about a place (Picture 1).

Situation: While looking for the Moulin Rouge,[37] a tourist in the street addresses a passer-by.

Communicative Aim: Speaking to a stranger to request information (excusez-moi, M./Mme)

Language Aim: The use of lexical means to request and give information to position oneself spatially (où/ tout droit, là, au coin, à gauche)

The dialogue:

X: Excusez-moi, Monsieur (Madame), où est le Moulin Rouge ?
Z: Vous allez tout droit, et là au coin, vous tournez à gauche.
X: Merci monsieur (Madame).
Z: De rien !

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[36]For the realization of the above activities, an attempt has been made to recreate real-life communicative situations within Second Life, meaning those which users may encounter themselves. To this end, two avatars were created which are remotely operated by users of different PCs. Their virtual meetings were recorded on video by another user who was also present –through his own avatar- without ever appearing on camera

[37]The specific place was chosen as it is French environment and offered free access.

Picture 1: An encounter in the street (request information)[38]

2nd Situation:
The student is at the information desk of a theatre and is trying to get information about the day's performances and book seats (Picture 2)
Situation: At the ticket desk in the Moulin Rouge, the tourist wants to book seats for the show.
Communicative Aim: Addressing a person with a specific status (Bonjour/Bonsoir, M./Mme)
Language Aim: The use of linguistic means to ask for and give information about time/prices (quand/ à quelle heure…/ à…Combien…? Nombres)

The dialogue:
X: Bonsoir, monsieur (Madame). A quelle heure commence le show ?
Z: Il y a deux séances. A 9 heures et à 11 heures.
X: Est-ce que je peux réserver pour le show de 11 heures?

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[38] Pictures 1 and 2 are screenshots from the videos ('machinimas') recorded during the meeting within the SL environment. These videos will be available in electronic format on the conference website

Z: Pour quelle formule?

X: Quelle formule?

Z: Avec dîner ou seulement la revue?

X: Quels sont les prix?

Z: Dîner et spectacle, 145 euros, La revue seulement, 99 euros.

X: Alors, la revue seulement, Madame.

Z: Combien de places?

X: Quatre.

Z: Ah! Je n'ai plus que deux. Voulez-vous réserver pour demain?

X: Non, Madame, demain on ne sera plus là.

Z: Laissez-moi votre no de téléphone pour voir ce que je peux faire pour vous.

X: Oh, merci Madame, c'est très gentil. C'est le 00302106987…

Z: Bon. C'est noté.

X: Merci, Madame, au revoir.

Z: Au revoir, Monsieur.

Picture 2: At the ticket desk

Of course, this is an imaginary scenario and not a dialogue to be memorized. Alternative versions of this exchange could be made by the students themselves in cooperation with other student-native speakers: initially, students will get

information from the theatre program on the internet and, at the next level, they will assume and act out the roles of the cashier and customer through their avatars.

Alternatively, given that numerous companies have already established their own islands in SL, students could be requested to ask for information on flights to certain destinations and on certain dates (times, connections, prices, or opening a bank account, etc.)

This is an example of real interaction and exchange with native speakers and within real environments.

It goes without saying that the teacher should search for and select in advance appropriate islands for the students to practice on.

6. Conclusion, future research

Taking all the above into consideration, the conclusion that can be derived is that the development of the new potential of web 2.0, and especially of virtual worlds, is an opportunity to expose users to real conditions of communication, something that has always been a firm objective of language teaching.

This is not, however, an easy task. The exploitation of virtual worlds requires a relatively high level of technical skill, which should first be acquired by the instructor in order to exploit this new potential (Antonacci & Modaress, 2005). Thus, it is obvious that language teachers should receive appropriate technological training in how to use virtual worlds as well in any other web 2.0 services that their students have already used (Davis, 2006).

Language research should also be aiming in the same direction. It is necessary not only to develop a methodology to exploit all enormous potential of those new possibilities but also to design appropriate language activities for these environments (Simon, 2008). As quoted in the relevant bibliography, participation in these environments can help students to become more self-confident, boost their self-esteem, encourage them to have conversations with other avatars and, finally, offer them not only language practice but also the incentive to become more capable in self-study (Gonzalez & St. Louis, 2008).

Finally, the basis of a substantial amount of research work has been the development of new environments which combine the strengths of VLEs with the directness of the communication provided by virtual environments (Dudeney et al, 2006).[39] Therefore, research into the development of new innovations and their incorporation into existing systems of electronic learning with the aim of producing a new generation of unified virtual learning environments should be supported.

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[39] With this aim, modified environments based on the most popular VLEs are presented. Some of these VLEs, such as Sakai, are constantly evolving in order to respond to the latest developments (Boston, 2008), while new generation VLEs (VLEs 2.0) are already in development in accordance with the philosophy of Web 2.0. Sloodle, based on Moodle, is a prime example. See http://www.sloodle.org/moodle/

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