LEARNING THROUGH SHARING :
OPEN RESOURCES, OPEN PRACTICES, OPEN COMMUNICATION

Using Web-based Alternate Reality Games
for Developing Foreign Language Open Educational Resources

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Abstract

This paper aims to examine the opportunities provided by Alternate Reality Games for the purposes of integrating learner-generated content into online games-based foreign language learning as well as for promoting learner communication in 'open' environments through online gaming and international discussion boards. Alternate Reality Games (ARGs) are interactive narratives, often involving multiple media and game elements used to tell a story that may be affected by participants' ideas or actions (Connolly *et al*, 2008). Another important aspect of ARGs is multi-channel communication between speakers and learners of different European languages, which can be used as a powerful tool for encouraging peer-teaching as a new component in foreign language acquisition across Europe as well as a method for getting students involved in generating learner content that meets their educational needs in a particular subject field. One of the most important points about ARGs is that it can accommodate the learning needs of hundreds of students simultaneously, which makes educational environments based on ARGs a suitable arena for developing learner-oriented teaching content as well as learner-generated educational content. ARGs can be used to teach not only the language itself but also other subjects through a common language medium in a field known as CLIL (Content and Language Integrated Learning). The findings that are reported in this paper were observed within the context of the *Tower of Babel* ARG developed as part of the EU Comenius project '*ARGuing for multilingual motivation in Web 2.0*' and it must be noted that the outcomes of this project can easily be transferred to other levels of education, namely university studies and to other subject fields as well. The pilot phase of the project showed that ARGs can present a working solution for educators who believe that students can be trusted with the task of generating their own learning content based on teamworking, discussing and negotiating in an open learning environment, unobtrusively guided and supported by language trainers who act as 'puppet masters' behind the stage. The paper comments on some educational and social aspects of games-based learning and their implications for university level foreign language teaching and the questions that this poses. The conclusion is that ARGs can serve as a possible open educational resource with regard to the opportunities that it provides for creating high quality, relevant and up-to-date foreign language teaching resources for both language teachers and students alike.

Key words: ARGs, OER, learner-generated content, communication, social networks, foreign language teaching

1. Introduction

The fact that ICT-based communication has brought about dramatic changes in the way students learn and communicate is undebatable. Elements and approaches from spheres different from the orthodox school education are now being integrated into teaching and learning thus providing greater motivation for students. One of these elements is Alternate Reality Games (ARGs), interactive narratives, often involving multiple media and game elements used to tell a story that may be affected by participants' ideas or actions (Connolly *et al*, 2008). ARGs can serve as a teaching and learning tool that can contribute to the acquisition of modern foreign languages in authentic situations, through the active participation of the learners themselves who can occupy positions that are not traditional for them such as learning content creators and language instructors for their peers. This paper will examine various educational and social aspects of games-based language e-learning with focus on multi-channel communication between speakers and learners of different European languages. It will also present the teaching approaches that underlie the use of ARGs in education and the opportunities it provides for the development of open educational resources for the purposes of acquiring foreign language competence for secondary school as well as university students.

2. Background

The advent of Information Technologies has brought about a change in educational policies that has influenced both teaching approaches as well as learning tools. Another important detail to be taken into consideration is the time students spend working on their computers, time which often exceeds the hours they spend at school or devote to other extra-curricular activities. If we look into the new developments in the hi-tech society of 21st century we will see that several vital societal functions have been transferred into a new environment, the Web 2.0, a fact that has to be recognized but also catered for. It is evident that something very important has been happening in society that calls for reaction from educationalists and other stakeholders in the educational sector. A further observation worth mentioning is that computer games have become an important development in popular culture and that more recently there has been an appreciation that computer games can play a significant role in education (e.g. Connolly, Stansfield and Hainey, 2007; Garcia-Carbonell, Rising, Montero, and Watts, 2001).Students recognize ICT technologies as their main and preferred means of learning and communication. The findings of the UK survey on Internet literacy among children and young people from the UK 'Children Go Online project' (published 9 February 2005) show that online young people aged 9-19 do the following (figures are for regular online users)

- send/receive emails (72%)
- play games online (70%)
- send/receive instant messages (55%)
- download music (45%)
- watch/download video clips* (30%)
- use chat rooms (21%)
- use internet to do work for school/college (90%)
- use it to get information for other things (94%)
- try to set up a webpage (34%)

A closer look at the figures shows that the highest percentages are connected with using the Internet to do work for school/college and getting information about other things. The second group of high percentages includes sending/receiving e-mails and playing games online. All other activities display far lower percentages in comparison to the previously mentioned ones. It has to be noted though that some of these statistics is no longer valid. The Pew Internet & American Life Project Survey of Parents and Teens (conducted October – November, 2006) showed that sending and receiving e-mails has given way to the use of social networking components such as posting messages to a friend's page or wall (84%), sending private messages to a friend within the social networking system (82 %) , posting comments to a friend's blog (76 %), sending a bulletin or a group message to all of your friends (61 %). Social networking has taken dominance over any other means of communication and teachers have no choice but do their best to accommodate for this reality. The Pew statistic, showing that 93 % of teenagers use the Internet, is fully consistent with the findings of the Tower of Babel ARG survey (22nd – 29th April, 2009), which can be seen from the questionnaire results below.

The statistical data shown in Table 1 was collected from students at the start of the large scale pilot that was run in April 2009 of the Tower of Babel ARG, developed as part of the ARGuing EU Comenius project.

Table 1 Question 6. Do you think it is a good idea to use computer games in studying different subjects at school?

Response	Average	Total (number of students)
Yes	93 %	231
No	7%	18
Total		249/249

Further analysis of the pre- and post-game questionnaires for students from the April 2009 ARGuing pilot provide convincing evidence that students are aware of the potential of ARGs for language teaching and that they would prefer adding such an educational tool to the classical language classroom teaching approaches and using it on a larger scale (see Table 2).

Table 2 Question 9. Do you think that it is a good idea to use computer games in studying languages at school?

Response	Average	Total (number of students)
Yes	96 %	239
No	4%	10
Total		249/249

As we can see from their responses students are almost unanimous about the necessity of using web-based teaching games in second language acquisition and training.

It is time we turned to the main theoretical principles underlying the use of ARGs in education. They include constructivism, scaffolding, situated learning and problem-based learning. If we put this in simple words it means that students are active agents in their own process of learning; the scaffolding strategy refers to the support that students get from more knowledgeable peers or the teacher aimed to help them achieve a certain educational goal. The goal of the educator when using the scaffolding teaching strategy is to assist the student to become an independent and self-regulating learner and problem solver (Hartman, 2002).

Situated learning is about learning by doing, and about addressing real problems. Situated learning and IT work really well together. They are compatible and support each other.

Usually, students learn by listening to lectures and reading, and are assessed on their ability to reproduce what they have been taught in class. With Problem-based learning, students are assessed on their ability to deal with a problem-solving process.

Some other principles supporting the use of ARGs in education include collaborative work, knowledge co-construction and task-based learning, which is similar but not quite identical to problem-based learning.

ARGs also provide the freedom to choose the learning style that students are most comfortable with. They can opt to perform the tasks that they feel happy with and occupy the role of observers when they have some reservations about the nature of the assignment and learn by simply following what their peers do.

The next factor which has to be considered is the development of teaching content which traditionally is done by teachers. It has to be mentioned that the so-called ICT-based materials that have been created to meet the needs of online-based teaching and learning often replicate traditional teaching approaches but in electronic (digital) format, which is far from motivating. In fact teachers should take into consideration the fact that the students have transferred to the social networks as their primary means of communication and search for information. Accordingly, the teaching components in web-based education should include the majority of social networking components such as postings, blogs, private messages, discussion forums, and the organization of 'guilds' (groups of students who get together to solve a problem or fulfill a task). And this is what web-based ARGs do. They encourage the learners to create their own learning content and exchange it freely with the other participants in the game. The students are given the right to initiate their own discussion forums and guide the discussion in them. They can start guilds and invite other learners to join the guild and work collaboratively for the purpose of fulfilling the linguistic tasks assigned to the gamers. A very important aspect of ARGs is the invisibility of teachers who act behind the stage as 'puppetmasters', only interfering to lead the learning process in the desired direction and provide support if and when necessary. The students are left with the impression that there are no teachers supervising them since the "puppetmaster" is not perceived as a teaching figure but rather as the game's manager.

Some project statistics come to prove that ARGs can successfully serve as a suitable platform for developing learner-generated educational content. For instance, the total number of uploads of files by

students in the Forums and Quests (main elements of the game), including text, presentations, images, and audio amounts to 862 files.

Total Quiz Attempts that have been made are 9135;Total Assignment uploads are 752 and Total Forum posts number 160. Learner-generated content includes mini-stories, compositions, descriptions, opinions, PowerPoint presentations, translations, photos accompanied by explanations or descriptions, etc.

It is evident that, if given the opportunity, students can develop learning resources that can be freely accessed and used by all the other gamers.

3. The advantages of using ARGs for language teaching

The comparison of traditional classroom language teaching cultures with the culture of ARGs as a new teaching and learning tool shows that ARGs provide the following opportunities that are lacking in the traditional language classroom:

1. The opportunity to practise the target language, or any other non-native language, in a near authentic situation, which the traditional classroom does not provide. The importance of this factor has often been underestimated, which explains why students can read and write in a foreign language without any problems but spoken intercourse is a challenge they rarely overcome.
2. The freedom to express themselves without worrying about the mistakes they may make because the focus of teaching has been re-positioned towards communicating in the language, not the production of flawless chunks in the target language.
3. The opportunity to learn from peers, who can also be friends, a process that is far less intimidating for students than the usual classroom correction method. This includes the opportunity of getting support and encouragement from fellow players.
4. The opportunity to learn through tasks that challenge the students' creativity by asking them to generate task-oriented content which is then made available to the rest of the student players.
5. The opportunity to initiate conversations on topics related to the quests and occupy a leading position (e.g. when setting up guilds or starting forums and blogs), a fact that boosts the student's self-confidence and his/ her determination to master his/ her knowledge of the target language.

A further spin-off effect of the game was an incidence when Greek students showed initiative and started teaching their fellow players some Greek. Despite the fact that it was not a massive insertion, it clearly demonstrated the ability of the student players to occupy the roles of teachers and provide teaching content which they saw appropriate under the respective circumstances.

4. ARGs and the opportunities they provide for university level foreign language teaching

There are several ways in which ARGs can be used at university level foreign language teaching. Firstly, they can be used to get the students involved in a more pro-active way of learning a second language by constructing a game that will demand their participation in a creative but also entertaining way. ARGs can successfully be used to teach languages for specific purposes as for example Business English, English for Engineers or English for Students of Law, to name but a few. An ARG in itself presupposes the establishing of a social network of players who have to collaborate so that they can solve the quests. A WebQuest is an activity whose aim is to provoke learners to find information some or all of which comes from resources on the Internet. Students can be encouraged to create an ARG of their own by designing web quests related to their subject field but in English, German or French. They can be invited to compete against another group of students doing the same language course.

Another group of students who need to work with ARGs is students doing degrees in Education with Foreign Language since their future student audience belongs to the social networking generation of the 21st century. These students need to acquire the skills needed to generate teaching content based on the use of Web. 2. 0 or they risk being rejected as teachers. This may sound bold but unfortunately it is true. They also need to accept the fact that the future generation of students will demand that they are allowed to decide what and how they want to learn which requires a much more flexible approach in language teaching methods that will inevitably include the use of web-based teaching platforms closely replicating the social networks of today.

5. Conclusion

Studying the potential of ARGs for the purposes of foreign language teaching, it can be said that they can be used as a powerful tool for encouraging the use of learner generated content within the framework of the game. They can also be used to develop awareness of the significance of student participation in designing their own learning program and content as well. ARGs are a richer and more exciting language teaching tool that is much closer to the way present day students obtain information, acquire knowledge and skills, and, most importantly, to the way they communicate. ARGs represent a very accurate reflection of the way of life of the 21st century learner generation. They employ the whole spectrum of communicative tools of the information society, in particular the Web 2.0 generation services and products which enable learning anywhere, at any time and at any pace. The social networking components of

ARGs have two important functions: first, to connect people and enable them to communicate in real time, and second, establish connections between the users of the Web which can later develop into generating free and open-to-everybody information-gathering, teaching or learning resources as was the case with the Tower of Babel ARG.