Web 2.0 Tools for Role-Play Methodology in an Undergraduate Interdisciplinary Environment

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Abstract
The main aim of this work is, first of all, to propose an activity by means of a the active methodology called role-play in an interdisciplinary context, that is to say, an activity that pleads for the interaction of undergraduate students with specific professional roles from different disciplines, as current society demands. Secondly, we will pay special attention to the integration of digital tools of the so called Web 2.0, mainly, to the use of the wikis, blogs, and podcasts so as to carry out successfully the proposed interdisciplinary role-play task.
Keywords: simulation game, active methodology, learning and knowledge technologies (LKT), information and communication technologies (ICT), teaching innovation

Herramientas de la web 2.0 para la metodología del juego de rol en un entorno universitario interdisciplinar

Resumen
El objetivo de este trabajo es, en primer lugar, proponer una actividad a través de la metodología activa denominada juego de rol en un contexto interdisciplinar, esto es, una actividad que aboga por la interacción de alumnos con roles profesionales específicos de diferentes disciplinas, como bien demanda la sociedad actualmente. En segundo lugar, se hace especial hincapié en la integración de herramientas digitales de la llamada Web 2.0, concretamente, en el uso de wikis, blogs y podcasts para poder llevar a cabo de forma satisfactoria el juego de rol interdisciplinar propuesto.
Palabras clave: juegos de simulación, metodología activa, tecnologías del aprendizaje y del conocimiento (TAC), tecnologías de la información y comunicación (TIC), innovación educativa

Summary: 1. Introduction. 2. Methodology. 3. Development. 4. Conclusions. 5. References.

1. Introduction

For those who still remember a society without using Internet and new technologies that are nowadays at our disposal, it is easy to explain the consequences that, once these technologies have been used, imply in their lives. For those who learnt without using these new technologies, and now have to shift the methodologies they have acquired because the context requires them a great change of perspective, it is also complicated to adapt themselves to not only this technology revolution, but also to the information revolution we have witnessed with its inclusion in our lives, in general, and in our classes, in particular. Information can be accessed by all of us, and all of us, at the same time, are also new-content generators. This increasing flood of information makes it essential that in the teaching field we should consider the most suitable tools for the learning process so that both teachers and students can profit from it.

However, first of all, we should pose the question about what has changed in our learning receivers, or, in other words, what are our students like? and what do they require? Since the end of the 20th century we have been witnessing a shift in the proper society; it is what Tapscott (1999) called Net Generation or Digital Generation for naming those people who were born between the 70s and 90s, or even what Howe and Strauss (2000) have named as Millennials.

Nevertheless, it was Prensky (2001) who finally proposed the successful term of digital natives to describe those people who were born in a technological era, and, therefore, have grown up using digital devices. Thus, in the context of our current society, and in the classroom environment, our students are considered the so called digital natives. These students haven't felt the need to search arduously for information, since it has come to them naturally through the use of technological devices surrounding them. Our students receive the information in a faster way than their predecessors, and even in an involuntary way. Besides, they can gather a lot of information, and also have the ability to transform into lifelong learning and knowledge both images and texts, since they are so used to working with different tasks that they are supposed to be skilled at multitasking. On the other hand, the recreacional part also plays an important and motivational role in their lives, since that part does not disappear with the age; on the contrary, that part is kept, increased and, at the same time, fed up by content creators.

According to Prensky (2001), digital natives develop abilities such as the interpretation of visual images, three-dimensional representations, mind maps, mind representation of different-shape combinations, inductive discovery or simultaneous attention about different aspects. That is why Prensky (2001), or Skiba and Barton (2006) consider that their learning process is different, since they learn and communicate with each other through an experiential and active learning, interactivity and collaboration, immediacy and connectivity; all of them skills developed and fostered by the digital world.

All these differences imply that we, as teachers, should adapt contents, knowledge, techniques and methodologies to the new reality by the creation of a learning model in favour of these new abilities and skills of the students, and through the use of the digital tools and multimedia resources of the Web 2.0.

However, these tools and resources are improving more and more according to the needs and requirements of the users. Thus, the traditional information and communication technologies (ICT) have evolved into learning and knowledge Technologies (LKT) (Coombs, 2004); a new term that describes a new point of view that is deeply concerned about the way these digital tools could be applied and implemented in the teaching-learning process so as to foster and promote individual learning in all our undergraduate students.

Sancho Gil (2008) highlights that we should take into account that most of the current teachers at universities were born in an analogical era when it was inconceivable to think about the possibility of having such an increasing flood of information and such an easy way of global communication in a few minutes (and even seconds) just by using computers, or mobile phones or even tablets. Forums, chats, blogs, podcasts, email, social networks or their versions with images, i.e., videobloggers or videochats, are even more unknown for a generation of teachers who are considered non digital natives, or digital immigrants (Prensky, 2001). This technological development has provoked the need of acquiring certain digital skills at once, so that we can continue with our role of teaching by means of more updated learning tools allowing our students to acquire certain knowledge in other dimensional levels.

The postulates for the new teaching approved in Bologna and established in the European Higher Education Area (EHEA) are in accordance with this new technological reality, and in which collaborative work constitutes one of the main aspects, instead of the concepts individuality and competitiveness prevailing in the traditional teaching-learning process. In fact, this collaborative work enhances the acquisition of more competences which, at the same time, enable our students to not only receive simply the information and transform it into knowledge, but also to be able to search for it, to be critical thinking when assessing its quality, and to know how to apply it for ensuring a lifelong learning.

Besides, for fostering this collaborative work, there are several multimedia resources and digital tools that, although they were created for other purposes, have also burst onto the educational field. We refer to the use of social networks (such as facebook or twitter), virtual learning environment (like Moodle, WebCt or Blackboard), used in most of the Spanish universities, or the so called social software (Wells, 2007), also defined as "a new world wide web", as Richardson states (2006). In other words, tools from the Web 2.0, such as blogs, wikis, or podcasts that not only allow reading or listening to the information contained in them, but also including more genuine information.

In this research we will pay special attention to the use of wikis, blogs and podcasts as multimedia tools that make it easier the teaching-learning process and that, in addition, develop skills for a more productive and motivational collaborative work in the framework of an interdisciplinary approach.

2. Methodology

The acquisition of competences in an undergraduate context is one of the main concerns of current teachers at the university. However, we, as teachers, face up to the dif-

ficult task of encouraging our students to acquire enough professional competences for their future simulating real professional experiences so that their learning can be more effective. In the last few years, we have proposed the inclusion of the active methodology called role-play, but in an interdisciplinary context because this has enabled a rapprochement towards certain future situations that our students might face in the professional future they will be involved (García Magna et al., 2011; Castillo Rodríguez et al., 2011a and 2011b). This methodology implies a series of benefits such as: "la adquisición de competencias transversales, el fomento del aprendizaje colaborativo y la interacción entre docentes y discentes" (Castillo Rodríguez et al., 2011b: 136-137).

In the framework of this methodology, we design and offer an example of a simulation game for undergraduate students. This game, or role-play, is based on a collaboration project between the Museo del Patrimonio Municipal of Málaga (MUPAM) and the University of Málaga. The degrees involved in this interdisciplinary simulation game are the following ones: Degree in Marketing and Market Research, Degree in Art History, Degree in Audiovisual Communication, and Degree in Translation and Interpreting. We will also count with the participation of some students from the Master in Social Development of the Culture.

The simulated project will consist of the elaboration of the Annual Marketing Plan of the museum. For carrying out successfully this plan the four aforementioned degrees will be involved by developing their corresponding roles. The main objective that we pursue is that our students can work in a collaborative environment in their respective knowledge areas so that, once they have finished the marketing plan, they can put it into practice.

According to what we established elsewhere with regard to the proposal of fixed variables to design an interdisciplinary role-play (García Magna et al., 2011), we will describe them in relation to the simulation game we propose in this work:

1) Group size: small group containing a total of eight students; there will be a total of four work groups, one per subject of the disciplines involved in the project:

- Group 1 'Marketing' of the subject 'Strategic marketing and commercial planning' (2 students)
- Group 2 'Art' of the subjects 'Aesthetic and design of the routine' and 'Publishing industry and art review' (2 students)
- Group 3 'Publicity' of the subject 'Introduction to publicity' (2 students)
- Group 4 'Interpreting' of the subject 'Bilateral interpreting' (2 students)

2) Students profile: the project proposed in this methodology deals with few participants; on the one hand, most of the students come from a degree and others from postgraduate courses at the University of Málaga.

3) Organization of the activity: the activity is conceived as a training task, so it will be designed by the teachers involved by means of workshops or seminars so as to clarify the most relevant aspects of the proper activity (place and date of the simulation game, characteristics of the game, tutoring sessions, and evaluation of the activity, and, especially, how to use the multimedia tools of wikis, blogs, and podcasts).

4) Characteristics of the game: this activity is not compulsory for the global evaluation of every subject, and, as the proper name of the methodology indicates, it is a professional simulation in each one of the knowledge fields involved. The students will be explained the game in some face-to-face specific workshops and they will be given a dossier with the explanation of the roles and the game itself. With regard to the duration, 20 hours are expected to be devoted to the organization and planning (administrative procedures, meetings with the teachers, or elaboration of the proper practice), presentation of the activity to the students, preparation and development of the game, evaluation of the learning process and of the proper activity development.

With regard to the roles of the students in each of the subject of the interdisciplinary game, we propose the following ones:

• Group 1 'Marketing' → role 1: market researcher; role 2: marketing director
• Group 2 'Art' → role 1: art critic; role 2: historian
• Group 3 'Publicity' → roles 1 and 2→ copywriters
• Group 4 'Interpreting' → roles 1 and 2: interpreters

As far as the espace in which the interdisciplinary role play will take place is concerned, it will be the assembly hall of the museum.

5) Tutoring: the tutoring process will be carried out individually and through face-to-face sessions, although for this game we also propose virtual sessions through the use of the aformentioned multimedia resources.

6) Evaluation of the game: we, as teachers, will assess the individual role of the students of our corresponding discipline, although we will also assess the cross-curriculum competences as a whole in all the participants. Besides, we will take into account the development of each one of the wikis per group and how these wikis have an influence on the final simulation game. On the other hand, we will take into account the feedback provided by our students.

7) Students without specific role: for this activity some students without a specific role will also participate. Their contribution will serve us to assess objectively the role play. These students will also observe the development of the wikis so as to issue a report with the assessment of the content shown in this virtual espace.

8) Motivation of the students: the development of an activity of these characteristics is very motivational for the students, since they learn, by means of the game, something which is natural of the human beings that can be kept, if it is well structured, until the highest levels of education. Nevertheless, the student, as we propose a non-compulsory activity, will be awarded with some extra points in the final evaluation of the discipline s/he represents.

9) Feedback for the teacher: teachers involved in the project will write down a diary in a blog of the process of the activity so that they can assess it properly and obtain results of it.

10) Human resources and materials: in this case the main resources that will be used for this activity are wikis, blogs and podcasts. Students will put on the suitable clothes for representing their professional roles the day of the simulation game.

3. Development

The professional simulation game in an interdisciplinary context will be carried out by using some of the social software, that is, wikis, blogs, and podcasts.

Wikispaces[1] will be the website used for the creation of the different wikis. This website offers the user the possibility to create freely HTML-format pages in a very user-friendly way. Besides, this site allows the users to edit these pages so that it can encourage the establishment of an ideal collaborative environment for our students. Five wikis will be, therefore, created; one wiki per group so that its members can work and include their documents necessary for developing their roles and tasks inherent to those roles, and another general wiki in which the definitive reports of the marketing plan will be exposed. This latter will be the espace used for the day in which the professional simulation activity is put into practice.

The second resource that will be used is the blog, which will be also created as a diary in which the general conclusions of professional everyday work will be shown. It will not, however, include all the details of the wiki, but a summary of the main aspects achieved everyday. The blog will be created by means of the website Blogger[2], which requires the user to have an account in Gmail. Marketing director will be the responsible for updating daily this blog. On the other hand, another blog will be created so that teachers involved in the project can update with their general conclusions observed in the wikis and in the main blog, paying special attetion to the relevant aspects for their corresponding subjects.

The third resource is the podcast, which is "a digital recording of a radio broadcast or similar program" (Constantine, 2007). Each group will also record a podcast with an oral summary of their roles and how they are going to play that role the day of the simulation game. These podcasts will be embedded in each wiki of the corresponding group. Besides, another podcast will be embedded in the general blog of the teachers in which the instructions for developing the tasks will be explained. The podcasts will be created by using the website PodOmatic[3].

As far as it has been explained before, each group will be in charge of its own wiki. Thus, group 1 'Marketing' will show in its wiki the contributions of its roles 1 and 2, that is to say, from the market researcher and marketing director. The first one will be responsible for analysing the potential customer (the aformentioned museum), describing at the same time the real museum supply in Málaga, the prices, the real demand, and the comparison between this and the museum object of the study in order to develop a SWOT analysis (Strengths, Weaknesses, Opportunities, Threatens) allowing us to make decisions. The market researcher works under the instructions of the marketing director, and this latter will be responsible, at the same time, to make decisions regarding the price, the product, and the promotion according to the information extracted from the previous analysis carried out by the market researcher.

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[1] http://www.wikispaces.com/content/teacher
[2] http://www.blogger.com/
[3] http://www.podomatic.com/login

Group 2 'Art' will create a wiki in order to include the contributions from the roles of historian (student from the degree of Art History) and the art critic (student from the master). The first role will be in charge of the previous tasks of research and documentation, previously to the marketing plan; that is why it is important to know what is going to be the object of publicity, to whom is led and why, so that they can select properly the works of art of the museum suitable for the plan, and for the potential customers. Second role in this group will be the art critic who will write about the proper museum marketing plan, its weaknesses and strengths, as they have to converge in accordance with the economical interests of the enterprise with cultural purposes.

Group 3 'Publicity' is formed by two copywriters, who will be responsible for developing a creative piece adapted to each one of the means in which the image of the museum is going to be inserted, and also will be responsible for elaborating all the texts necessary for the visual campaign which justifies the sales presentation.

Group 4 'Interpreting' is formed by the roles of interpreters, who will carry out tasks related to interpreting messages for the potential foreign customers, whose mother tongue is English language. They will create a wiki for elaborating the documentation in relation to the proper role play. Due to the fact that they will also have to translate several texts before the proper interpreting so that they can create their own terminological database, they will have to observe constantly the general wiki as well as the blog of the general conclusions so that they can extract all the valuable information about the process.

4. Conclusions

It is a reality that we have witnessed in the last few years a great revolution in our classrooms with regard, above all, to the use of the digital devices and technology. This revolution and inclusion in the educational field have been caused mainly because there has been a change in the proper profile of the current undergraduate students. They constitute a generation called digital native who were born and grew up using technology as part of their lives. Therefore, it is not strange that they require that the teaching-learning process takes place using technology. Besides, now the proposal of more active methodologies is also prevailed. Simulation game methodology is one of the most suitable active methodologies so as to simulate professional situations, allowing our students to interact with other students of different knowledge fields. This way, this methodology enhances the collaborative work in an interdisciplinary context.

The use of tools from Web 2.0 is another essential element in the undergraduate training of our future professionals. This paper aimed at showing how to use three social software, wikis, blogs, and podcasts, as a help to prepare the roles for a simulated professional event, fostering an interdisciplinary collaborative work and reflecting a real situation of interaction with professionals from other disciplines.

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