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Book review

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ABSTRACT

EN The volume presents novice and experienced teachers with a sound and concise reflection on the use of the newest technologies in education. The discussion covers e-learning platforms, m(obile)-learning, web technologies (blog, micro-blog, wiki), social networks, video-games and role games, videos, and some basic issues such as (digital) story telling, hypertextuality, multimediality, and identity. Many projects brought in as examples of the use of technologies in educational contexts are aimed at language learning. The final section discusses Italian and European programs centered on new technologies. The authors balance an enthusiastic attitude with realistic considerations on how the educational use of new technologies requires great accuracy to the design of the intervention and close monitoring.

Key words: NEW TECHNOLOGIES, E-LEARNING, M-LEARNING.

ES El volumen, dirigido tanto a profesores noveles como experimentados, ofrece una reflexión detallada y concisa sobre el uso de las nuevas tecnologías en el ámbito de la didáctica. La discusión abarca temáticas como las plataformas de aprendizaje electrónico (*e-learning*), el aprendizaje móvil (*m-learning*), las tecnologías web (blog, microblog, wiki), las redes sociales, los videojuegos y juegos de rol, los vídeos y algunas cuestiones esenciales referentes a la narración (digital), la hipertextualidad, la multimedialidad y la identidad. Muchos de los proyectos que se incluyen para ejemplificar el uso de las tecnologías aplicadas a la educación se dirigen especialmente al aprendizaje de idiomas. La sección final está dedicada a distintos programas italianos y europeos centrados en las nuevas tecnologías. Los autores muestran una actitud entusiasta y a la vez realista, destacando cómo el uso de las nuevas tecnologías en el aula requiere una gran precisión a la hora de diseñar la intervención, acompañada de una estrecha monitorización.

Palabras clave: NUEVAS TECNOLOGÍAS, E-LEARNING, M-LEARNING.

IT Il volume, destinato a chi da più o meno tempo insegna, è una concisa e solida riflessione sull'uso delle nuovissime tecnologie nella didattica. La discussione copre le piattaforme e-learning, il m(obile)-learning, le tecnologie web (blog, micro-blog, wiki), reti sociali, videogame e giochi di ruolo, video, e alcuni temi di base come la narrazione (digitale), l'ipertestualità, la multimedialità e l'identità. Molti dei progetti presentati come esempi sull'uso delle tecnologie nella didattica riguardano l'apprendimento delle lingue. Nella sezione conclusiva, sono descritti progetti italiani ed europei mirati alle nuove tecnologie. Il gruppo autoriale bilancia un atteggiamento entusiasta con considerazioni realistiche su come l'uso didattico delle nuove tecnologie richieda un'attenzione estrema alla progettazione dell'intervento e al suo monitoraggio costante.

Parole chiave: NUOVE TECNOLOGIE, *E-LEARNING, M-LEARNING*.

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1. Overview: A balanced introduction to ICT in the classroom

The book is an introduction to the use of Information and Communication Technologies (ICT) tools in the classroom and was published with the financial support of the *Lifelong Learning Programme* of the European Commission. Although some of the examples and applications target the use of technologies in teaching/learning second and foreign languages, the scope of the volume goes beyond the interests of the first or second language class. It is composed of six articles, one of which is accompanied by an appendix.

The general introduction on technologies and pedagogy is by Giuliana Fiorentino, one of the editors of the volume and an expert in the field of Web writing. Filippo Bruni, the second editor, is a researcher in the field of technologies for education. His article about hypertexts and multi-media should be read as a complement to the general introduction. It delves into hypertextuality and multimediality as two distinctive features used in any educational technologies, giving details about the use of audiovisual texts, digital storytelling, and video games in educational settings. Maria Cristina Guidone's appendix attached to the article discusses some issues of role-playing games. The other articles included in the volume cover e-learning and its platforms (by Fabrizio Michele Occhionero); mobile learning and its tools (by Giuliana Fiorentino); the applications of Web 2.0 such as blogs, social networks, and wikis, in teaching/learning (by Filippo Bruni) and an overview of Italian and European projects related to ICT (by Oronza Perniola). The editors' choice of including only technologies that can be exploited both within and outside the classroom explains this selection of technologies and the exclusion of others, such as the interactive whiteboards (IWB).

This book is balanced in many respects. First, it balances theory and practice, with the discussion on the theoretical implications in the use of ICTs accompanied by practical examples of completed or ongoing projects in Italy, other European countries, and beyond. Second, the assumptions on the readers' expertise in ICT are balanced between beginners and advanced. The only expectation is that readers have some familiarity with the Internet and the World Wide Web. Advanced readers are provided with enough cues to envisage technical implementation of ICTs. Finally, the references to traditional sources, namely printed journals and books, are balanced with references to sources accessible on the internet. The latter make up almost 20% of all the listed references and more detailed information on most projects brought in as examples can be retrieved online.

2. Contents of contributions

The introduction by Giuliana Fiorentino deals with the general impact of technologies in education. The recommended approach to the use of ICTs in education is a constructivist framing of knowledge and learning as the result of an experiencer's or learner's processing and connecting schemata already acquired from previous experience. This perspective affects much of the discussion on the topic. According to Fiorentino, the idea of distributed intelligence, as a distinctive feature of modern ICTs, is constructivist because it is built on interconnected perceptive and behavioral schemata: first, the interaction between a human being and a machine; then, the face-to-face interaction of a multiplicity of individuals with their competencies; finally, the mediated by technology interaction with remote individuals. It is also constructivist the conviction that educators' project ability plays a major role in a successful use of new technologies because each step of the process can be assessed against the first planning and consequently revised. Drawing from Hooper and Rieber (1995, p. 3), Fiorentino explains that in the traditional perspective, the process of adoption of any new technology entailed the phases of *familiarization*, *utilization*, and *integration* as if it were just a matter of technical tools and procedures. Conversely, the contemporary constructivist approach implies two more phases in the process, namely *reorientation* and *evolution*, which are activated when the new technology is seen as a novel building block to leverage learners' ability to generate knowledge.

The next chapter, Chapter 1, a discussion on e-learning platforms by Fabrizio Michele Occhionero, starts with a concise historical review of distance learning technologies, from mailed courses in the middle 1800s, to courses using television, to today's digital platforms. Occhionero then examines the pros and cons of open source and commercial platforms. Concise descriptions of German ILIAS, Australian MOODLE, Canadian and Italian ATUTOR, and Italian DOCEBO round out the chapter. The theoretical analysis of these platforms is based on their technical specifications as part of the larger category of Learning Management Systems (LMS). After this short description, Occhionero makes an effort to emphasize a more general principle applicable to present and future platforms, which the reader of the book might appreciate the most. He states that one of the most important features of LMSs is their ability to allow for exchange and integration of learning objects or teaching material. To explain the centrality of this feature of LMSs, Occhionero introduces the SCORM

(Sharable Content Object Reference Model), a standard that sets "rules to facilitate the re-use, trackability and indexing of the elements that compose a distance learning course" (p. 25).

Fiorentino introduces mobile learning (m-learning) in chapter two, emphasizing how its two main technical means—cellular phones and tablets—necessarily put students in a more central and autonomous position compared to any other e-learning modality. This statement is supported with the theoretical considerations from Sharples, Taylor and Vavoula (2005), who describe how the features of new learning—*personalized*, *learner centered*, *situated*, *collaborative*, *ubiquitous*, *lifelong*—converge with those of new technologies—*personal*, *user centered, mobile*, *networked*, *ubiquitous*, *durable*. Fiorentino also argues that the technological flexibility of cellular phones and tablets also supports leaner autonomy and centrality, as they allow users to record sounds, shoot pictures and video-clips, annotate texts, and play music. The author closes the chapter describing some m-learning projects that take advantage of these possibilities, such as British *MyArtSpace,* Swedish *AMULETS* (*Advanced Mobile and Ubiquitous Learning Environments for Teachers and Students*), and Irish *Mobile Digital Narrative*. In particular, it is worth mentioning the app *LingoBee*, created within the project SIMOLA (Situated Mobile Language Learning) of the University of Molise, Italy, and described by the author as a tool for collaborative language learning.

Chapter three, *Teaching between multi-media and hypertexts* by Filippo Bruni, covers videos, digital storytelling, and video games and is a pivotal chapter to the whole book. The first part of the chapter is dedicated to a historical review of the representation of computers in educational contexts. Following Calvani (2008), Bruni states that in the 1980s computers were regarded as tutors and cognitive tools; in the 1990s as multimedia tools; and in the 2000s as cooperative tools. This development is paralleled by the shift of perspective from hypertextuality to multimediality. The technological differences between the two perspectives are well represented by the passage from *links* (i.e. the possibility to jump from one text to another clicking on hot words/spots in the starting text) to *tags* (i.e. the possibility to search the net on the basis of annotations added to any type of text by its author or users) to the composite nature of the Web 2.0 tools (i.e. social media). The crucial observation of this chapter is on page 54, where Bruni expounds the change in cognitive processes that is expected to bring about the most innovative shift in the educational perspective. He first discusses Bolter's (2002) idea that the image has been emancipated from its role subordinated to writing. Then, Bruni connects the new role of images to Giardino and Piazza's (2008) statement that sees in visual demonstration, as in geometrical reasoning, a hybrid cognitive process in which justification—in the sense of organization of pieces of knowledge—and discovery are connected. The role of the user of multimediality is, therefore, increasingly active and requires novel skills. After this theoretical reflection, Bruni discusses Mayer's (2009) twelve principles for the design of a multimedia lesson plan: coherence, signaling, redundancy, spatial contiguity, temporal contiguity, segmenting, pre-training, modality, multimedia, personalization, voice, and image. The author presents these principles in a concise though practical way to assist teachers' reflection when planning and/or assessing a multimedia lesson plan. The chapter ends with three sections in which, with the discussion on videos, digital storytelling, and video games, multimediality is connected to two oppositions: between physical and virtual reality and between analytical and narrative reasoning, à la Bruner (2003). The appendix on role-playing by Maria Cristina Guidone deals with its many technological versions, both on- and offline and explores the social and psychological issues of an activity that pushes to reshape the meaning of identity.

In the fourth chapter, on the use of the web in education, Filippo Bruni expands many of the issues treated in the previous chapter, focusing specifically on blogs, social networks, and wikis. He concisely describes the evolution of the web, from its beginning to Web 2.0, together with the many metaphors that have been used to explain these new means of communication. Bruni also discusses Milgram, Takemura, Utsumi, and Kishino's (1994) *reality-virtuality* continuum in order to further examine the issues connected to identity. The sections dedicated to blogs, social networks, and wikis are rich of examples of the ways in which these tools can be used at school: to simplify administrative organizational issues; to satisfy needs of communication between teachers and students and between peers; and to provide a narrative space through which bits and pieces of knowledge can be retrieved, collected, re-organized, and processed.

The final chapter, by Oronza Perniola, sketches Italian and European governmental projects intended to promote the use of new technologies in educational contexts. Perniola then discusses the common elements of these projects, including students' autonomy and new competences, learning objects for sharing, and improvements in foreign language learning. Specifically for language learning, European *eTwinning*, Italian *eCLIL* (Content and Language Integrated Learning) and *Read On! for e-CLIL* are described and discussed in detail.

3. Conclusion

The volume is mainly written for teachers, educators, and practitioners. The editors and the authors have achieved a more general balance, the one between Umberto Eco's (1994) apocalyptic and integrated intellectuals: both reluctant technology users and tech-savvy readers will feel at ease while reading these pages, as the enthusiastic descriptions of software, hardware, applications, practices, and uses are tempered with practical and theoretical realism. Throughout the book, the authors maintain that new technologies *per se* have a motivating effect on learners, derived from what in the previous era of communication studies was summed up by McLuhan's (1964) famous statement, "The medium is the message." The motivating effect is also connected to the way social interactions between actors—teachers, learners, and outer society—are shaped by all the media discussed. Nonetheless, the authors show awareness that new motivation and new ways of interaction might not be enough to trigger efficient teaching/learning processes. The authors thus suggest models for implementing new technologies in education and for assessing them and their effects, in order to make their use as efficient as possible. Bruni, in his chapter on educational uses of the web and social networks, also uses Jenkins' words to put even the most technologically-reluctant teacher at ease: "First, textual literacy remains a central skill in the twenty-first century. Youths must expand their required competencies, not push aside old skills to make room for the new. Second, new media literacies should be considered a social skill" (Jenkins, Purushotma, Weigel, Clinton, & Robinson, 2009, p. 28).

The contents of the book are ideal to help school planners and actors start a conversation on new technologies and the organizational, practical, and theoretical changes they require. At the same time, the introduction is sound enough to help design research-action plans on specific projects, and researchers interested in ICTs in education will find the book useful for its literature review and general framing of current debate.

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