

Conclusions

The advent of e-learning technologies has been challenging the acquisition and the development of many traditional competences, as well as professional practices. The book has presented some empirical and theoretical experiences in using new technology in education and professional training practices, through the interdisciplinary nature of experiences gained via a variety of European projects based both on software development and soft skills training practice.

The rationale of the book is based on how to apply and migrate psychopedagogical role-playing methodology to educational online role-playing games for soft skills training. We have drawn attention to the fact that soft skills are interpersonal and intrapersonal dimensions and involve a combination of emotional, behavioural and cognitive components that are expression of how people know and manage themselves, as well as their relationships with others. We have seen soft skills are in everyday use, and essentially defined them as behaviourally based competencies, complementary to hard skills and goal-directed behaviours. We have affirmed that soft can be learnt and developed through personal experience, interaction, disclosure, feedback and reflection, as they can be exercised within “learning-by-doing” environments, enabling opportunities for practice and ongoing and constructive feedback. We have therefore explored the reasons for researching training on soft skills in the application of the role-play methodologies and principles in digital virtual environments.

We have also outlined similarities and differences between traditional settings and new technologies for role-play implementation, as interactive training method proved especially effective at enhancing transversal soft competences such as cognitive, affective and skill-based outcomes of interpersonal skills. Therefore, role play can be considered as the crucial method to realise the link between training of soft skills and enhancement of individuals’ relationships with others.

Chapter 3 of the book is particularly relevant from a methodological point of view, as we have outlined a tentative of a general taxonomy for describing the approaches used by the authors to design the so-called Technologically Enhanced

Educational Role-Playing Game for soft skills training (EduTechRPG) along with different EU-funded projects resulting in two main dimensions: psycho-pedagogical and technological. The first dimension refers to the psycho-pedagogical background for the learning approach adopted and identifies two main categories of EduTechRPGs: drama based and rule based. The technological dimension explains how the psycho-pedagogical approach can be exploited through the use of Communication Technology, allowing a virtual extension of traditional face-to-face psychodramatic mechanism and experiences, and Simulation Technology systems, producing “artificial” worlds based on computer-simulated, formal models about the social and psychological phenomena intended to investigate. The dedicated chapters to the EU projects have been aimed to support both the choice of the most appropriate game/scenarios to implement in a specific domain of practice, as well as the design of tailored role-playing games for different training purposes and context of application.

In particular, we have seen how drama-based EduRPGs represented by Eutopia and ENACT respectively multiplayer and single-player systems allow users to experience direct involvement with the learning objectives through the dramatisation of personal aspects by acting out roles and competences within a virtual environment that augment players’ sense of self-disclosure though this does not seem to be related to the identification with the character to be enacted. On the other hand, we have seen how rule-based EduRPGs such as DREAD-ED and Learn to Lead, respectively, multiplayer and single-player environments, result crucial for assessing, learning and practicing skills involved in logical reasoning and thinking critically performances. We have also highlighted how a set of formal rules and guidance for users to follow embedded in the game is functional to learner’s performance in this direction.

Either the psycho-pedagogical or technological dimensions should not be considered as mutually exclusive, but rather as complementary aspects. Indeed, the ability of integrating such dimensions in a single game implementation contributes to the design of an educational tool to create meaningful learning.

The experiences of the EU projects confirmed the value of using information technology as a tool placed in the hands of a trainer for the development of controlled ad hoc learning exercises, rather than being considered a simple replacement for trainers and learners.

With regard to the EduTechRPGs such as the software developed on the Eutopia platform (Eutopia-MT, Sisine, Sinapsi, Proactive and S-Cube), we have seen how dynamics of the game play depend on learners, rather than on any form of artificial intelligence; therefore, participants are offered a far richer, more open, learning experience than would have been possible, if they had to interact with an artificial trainer or computer-controlled players. There is certainly a gain in terms of learners’ potential richness and dynamics of their learning experience. This fact has induced professionals to consider the advantages of introducing game technology less dependent on the supervision of real facilitators. On the other hand, although trainers consider those kinds of online role plays methodologically as effective as traditional face-to-face experiences, the critical element is related to the trainers/trainers’

role in managing the online role plays. In fact the disadvantages of this method are represented by high cost and time consumption in organising and managing the complexity on the virtual learning scenarios, as well as interactions among participants. Experienced trainers in order to achieve an appropriate level of training experience must be skilled in mastering different tasks at once. In addition to the role-play management and facilitation (scripting, role assignment, feedbacks and debriefing), trainers need to ensure a correct use of the tool and its features in order to support the accomplishment of training needs. They require to be trained on the use of the tool to get the most of the experience, as they feel that for effective learning to take place, familiarity with the methodology and the tool is essential. Those limits have induced the authors to consider the advantages of introducing game technology less dependent on the supervision of real facilitators. We have seen as for rule-based EduRPGs (Learn to Lead and DREAD-ED) and in the case of Drama-Simtech EduRPG as ENACT that when the complexity of the dynamics and interactions between players is limited by the rule of the game to a certain number of actions, the responsibility of the trainer for managing emergent dynamics is certainly reduced. Therefore, the assessment and observation of learning experience is less subjected to the influence and interpretation of many other potential interfering variables.

This brings us to another aspect of our experience that is the appropriateness of the use of EduTechRPGs. The methods you decide to use depend largely on the skills to be developed, as well as resources and the time allocated for achieving the learning objectives. For instance, if our learning objective is a job-related training from the cognitive domain, and involves people who attend training within their work hours, the training approach is more likely to be SimTech and rule-based EduTechRPG. The educational resources and learning path that learners follow is easily accessible at anytime from anywhere and even more manageable, as it does not depend necessarily on the presence of a real trainer or teacher. Yet, when the priority is making players to rapidly learn and assess specific skills or behaviours (e.g. problem solving or decision-making requiring immediate actions), rule-based EduTechRPG is the most ideal methodology. The set of formal rules and interactions to be followed to achieve the relevant learning objectives are embedded in the software and do not require a constant presence of experienced external guidance. This can drive the player to a stable training outcome more rapidly than in open dynamic situations. Therefore, the advantage of this method lies in the fact that is very low cost, as after an initial phase to familiarise users with the system, it can be used without the guidance of a trainer, as the system is self-regulated and enables learners to achieve objectives rapidly and at the same time strongly as it is based on experience, observation, reflection about themselves and in relation with the social environment. Conversely if the soft competences we mean to develop are more related with aspects of emotional awareness, self-assessment and self-confidence, we think that a situation methodologically closer to the traditional role play is the most appropriated. For all the software presented, we can acknowledge that the strengths to provide the software with authoring systems have been valued an extremely beneficial aspect as it allows trainers to rapidly develop their own scenarios, personalising their work for specific target populations with specific learning

needs. In the last analysis, what the different EduTechRPG presented offers is a way for learners to practice and improve their ability to interact with others, in the area of soft skills. Seen in this light, there are many possible and potential areas of application. We have seen as in management training, education, personal development, business, organisational and training contexts an increasing emphasis on soft skills such as interpersonal communication, negotiation and decision-making.

In whatever area we work—and we are not limited to e-learning—we see computers, not as a replacement for human beings but as tools. Computers are tools that can be shaped through the collaboration of game designers, teachers, trainers, pedagogists to reach more learners, improve their learning and make “human agents” more effective. Yet we believe that experiences from Eutopia-MT, Proactive, S-Cube, ENACT, Learn to Lead and DREAD-ED have shown that they can make a real contribution to the development of soft skills.

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