

## Service-Learning and Digital Technologies

Sara Semenski

Faculty of Humanities and Social Sciences, University of Zagreb  
Ivana Lučića 3, Zagreb, Croatia  
sara.semenski@gmail.com

Aidan Harte

National University of Ireland Galway  
University Rd, Galway, Ireland  
aodhan-mac-airt@hotmail.com

Nives Mikelić Preradović

Faculty of Humanities and Social Sciences, University of Zagreb  
Ivana Lučića 3, Zagreb, Croatia  
nmikelic@fzg.hr

### Summary

*This paper describes the project developed during the Europe engage project student tour, where students from 11 European universities have collaborated in a multicultural service-learning experience. The main goal of the project was to produce a video which would enhance the work and mission of community partner – Cell EXPLORERS. The video represents the vision and mission of the Cell EXPLORERS workshop programme and it will be useful for each of the Cell EXPLORER's university partners to increase the student volunteer base and participation in STEM subjects in schools, while simultaneously creating highly trained and competent educators. The video is targeted at a broad audience and it incorporates drawings made by workshop participants, along with volunteer interviews, documenting the fact that volunteers and participants of the Cell EXPLORERS workshops were involved in the creative process of the video making. Since the aim of the workshop and the video was to dispel the prevailing stereotypes of scientists and to increase participation in STEM subjects, children's voices were also incorporated to match the stills of the children's drawings.*

**Key words:** service-learning, community-based learning, videos, digital technology, information and communication technology, Europe Engage, community informatics

## Introduction

Service-Learning (SL) or community-based learning is widely defined as a form of experiential education that integrates meaningful community service into the curriculum. SL contains two main elements: engagement within the community (service) and reflection on that engagement (learning) [6]. These two elements should be balanced in a way that students “participate in an organized service activity that meets identified community needs”, and “reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility” [1].

SL represents a means of university's community outreach, tying the goals of higher education to the community needs through active participation of university students in structured activities that address community needs [2]. Utilizing their knowledge and skills for the improvement of local communities, students develop many transversal skills, including critical thinking and interpersonal skills [5]. Student reflection in SL occurs before, during and after the student service, so that students can recognize the importance and impact of the service on the local community and on their own learning.

Although being well established in the institutions of higher education in North America, Western Australia, and New Zealand, in 2015, before the *Europe Engage* project, little was known about SL within the European universities, apart from the isolated institutional experiences in some countries and a few national networks (Campus Engage in Ireland: <http://www.campusengage.ie>, Service-Learning University Network ApS(U) in Spain: <http://sites.google.com/site/redapsuniversitario> and the University Network on Social Responsibility and Higher Education in Germany: <http://www.netzwerk-bdv.de/content/home/index.html>).

The overall aim of the project *Europe Engage – Developing a Culture of Civic Engagement through Service-Learning within Higher Education in Europe* [Reference 2014-1-ES01-KA203-004798] is to promote service-learning (SL) as a pedagogical approach that embeds and develops civic engagement within European higher education, students, staff and the wider community [4].

The project partners represent a breath of 12 universities in Europe committed to civic engagement and service-learning: Autonomous University of Madrid (Spain); National University of Ireland, Galway; University of Zagreb (Croatia); University of Brighton (United Kingdom); University of Duisburg-Essen (Germany); Erasmus University of Rotterdam (Netherlands); Instituto Superior de Psicologia Aplicada (Portugal), University of Bologna (Italy); Vytautas Magnus University (Lithuania); Ghent University (Belgium); University of Applied Science-Krems (Austria) and University of Helsinki (Finland).

During the three years, the project has benchmarked existing SL practices across the disciplines in all 12 EU countries and mapped the repository of knowledge (a database of SL trainers, training materials and bibliography)

within each of the partners' countries. In the final year of the project, students from partner universities have collaborated in a multicultural service-learning experience organized at the National University of Ireland. The student project described in this paper is the result of that collaboration.

### **Digital Technologies and Service-Learning**

Due to its strong emphasis on the community engagement, group work and the on-site engagement, SL was for a long time assumed quite incompatible with ICT, the latter implying individual work, (mostly) online communities and digital literacy. However, in the past decade, new terms such as *Technology-based Service-Learning*, *e-Service-Learning*, *Digital Service-Learning* and *Service-e-learning* have emerged. The most prominent among them, *Service-e-learning*, is defined as “an integrative pedagogy that engages learners through technology in civic inquiry, service, reflection, and action” [10]. The main aim of this pedagogy is to link digital technology to a meaningful community service, to utilize ICT in order to further improve the quality of the civic engagement and to fill the digital gaps within the local community.

Also, the analysis of SL course syllabi that are available online shows a growing trend of video journaling. Reflective journaling is commonly used in SL courses as a means of critical reflection that provides structure to often unpredictable and unstructured experiences [9]. But, all until recently, students in SL courses were most often requested to write journals, while the use of video blogging and video journals was scarce [8]. The increasing availability of cameras, video editing software, and hosting space has allowed students to submit their critical reflection in SL courses through weblogs and online journals. Using video journals provides service-learning with an additional layer of complexity, visibility, and learning for all participants [7]. Video journaling is especially useful for international SL courses, where students spend the semester in a society that is culturally different than their own and video journaling enables them to express not only their personal experiences (thoughts, reactions, and emotions), but also references from the course content and their new understanding of that content based on their international SL experience.

### **Service-e-learning project: video planning and realization**

As a part of the *Europe Engage* project, students from partner universities collaborated in a multicultural service-learning experience designed by the Community Knowledge Initiative (CKI) staff at NUI, Galway. Students chose to collaborate with one of five wide-ranging community partners; Cell EXPLORERS, Galway Community Circus, Saol Cafe, ReelLifeScience, and Smart Consent. Students who chose the same community partners were then grouped together in groups of twos and threes for their respective projects.

The main goal of the project was to produce a digital media resource which would enhance the work and mission of community partners through a collabo-

rative process with students. It was collectively decided upon that a brief, two minute video would best serve each project and, following a training workshop with TechSpace, students were sufficiently equipped to make short creative video using *Adobe Premiere Elements 12* software. Planning implementation, idea development, media creation, skill application, and outcome reflection were the main stages in the production process. The first stage was crucial in the process, however, as it depended upon clear communication between community partners and students to simultaneously understand what the community partners wanted to express, and what the students expected to achieve. After a brief PowerPoint presentation by each of the community partners, students and community partners met in smaller groups to discuss which direction their projects would take, conscious of both process risks and end product.

Cell EXPLORERS, the community partner in the service e-learning project described in this chapter, was established in 2012 (<http://www.cellexplorers.com/how-we-began>) to inform, inspire, and involve people in the excitement of science. With the concept of Community-Based Learning (i.e. Service-Learning) as a guiding framework, the key was to understand the benefits for all who participated in the Cell EXPLORERS programmes; including universities, communities, academic staff, volunteers, and children, and how best to compress that concept into a two minute video. The brief included some key aspects of the Cell EXPLORERS programme which academic staff wanted to highlight in particular, and this resulted in a theme for the video concept. Inspired by Cole [3], the founding director, Dr. Muriel Grenon, created an interactive workshop programme targeted at both primary and post-primary students, with the objective of dispelling prevailing stereotypes of scientists, complementing the didactic methods of teaching, while increasing participation in STEM subjects. Involvement by both undergraduate and postgraduate students in the facilitating of workshops provides the opportunity to nurture their teaching skills, develop self-confidence, and increase competency at their work.

On that basis, it was decided that, although not always a good idea as a marketing strategy, the video would attempt to appeal to a broad target audience and contain some comedic value. With the restrictive timeframe, and students' limited skillset, a video, which represents the fact that volunteers and participants of the Cell EXPLORERS workshops were involved in the creative process of the video making, was created. Both the volunteers and the participants of the Cell EXPLORERS workshops were included in each stage of video's development. The video incorporates drawings by workshop participants, along with volunteer interviews and children's voices that match the stills of their drawings. After many long hours of filming, recording, editing, discussion, and a plethora of email correspondences between students and Cell EXPLORER staff, this service-e-learning project was completed. It is publicly available on the following link: <https://www.youtube.com/watch?v=YM6f3G3Jh0s>.

### **Service-e-learning project results and benefits**

The Cell EXPLORERS video represents the vision and mission of their workshop programme, and will hopefully form part of their broader public awareness campaign. Ultimately, the digital images, videos, and audio files will be utilized by each of the Cell EXPLORER university partners in a public awareness campaign to increase its student volunteer base and participation in STEM subjects in schools, while simultaneously creating highly trained and competent educators in the process.

As mentioned in the video, the training of volunteers and demonstrators is taken very seriously at Cell EXPLORERS, and volunteers must achieve a high standard of training before facilitating workshops. Hopefully, this will help to increase trust from primary and post-primary science teachers, and raise participation by regional schools.

### **Discussion**

The process of video editing in this service-e-learning project presented its own challenges, as students' combined backgrounds were in sociology, political science, librarianship, Croatian language and literature and advocacy. This meant that, at the beginning of the project, students were complete novices at video editing. Students have quickly adapted, however, and through the exchange of opinions, sharing to new ideas, and the overcoming of technical problems, worked together in a team of students (both primary & 3rd level), and academic staff to deliver a video which fitted the brief accordingly.

The inclusion of staff and volunteers in the production process presented its own set of challenges, and students had to decide upon the level of autonomy over each stage of the project. This has increased students' ability to negotiate through the process which neither community partner nor Europe Engage students had much prior experience in. The Cell EXPLORERS team contributed to the creative project from the start, which was beneficial for the entire production process, and they provided great support at every stage. This included their involvement in interviews, the procuring of source materials, along with invaluable production tips.

Digital technologies also played an integral role in the entire project, and the final product met its brief entirely, increasing students' knowledge of the challenges facing the scientific community today, and will hopefully lead to increased participation in STEM subjects in schools.

Finally, student participation, both in the production process of the videos, truly felt like students' voices were finally being accepted as valid contributions to the whole service-learning debate.

### **Conclusion**

The Europe Engage Tour represented an extraordinary opportunity for students, especially for those who had been involved in a variety of SL projects prior to the arrival in Galway. The diversity of political, cultural, economic, and social backgrounds of each of the participants contributed to a broad range of topics being discussed throughout the two weeks of the tour. These included conversations concerning democratic values in the various EU member states, the rise of right-wing politics in the EU, Brexit, and the global refugee crisis, amongst others. Concepts of identity were also explored, and how each democratic state within the EU is increasingly exposed to capitalist, free-market policies which have contributed to the much global instability experienced in recent years. Involvement with the community partners truly highlighted the need for universities and students to take the lead in promoting service-learning as a valid form of pedagogical accreditation. The community partners were from a wide range of backgrounds but they each shared one common bond, and it was that they each based their practices on solid, academic research, while placing the student and, by extension, the university, in the heart of the community in a meaningful context once again.

### **Acknowledgements**

This paper was written under the framework of the project *Europe Engage – Developing a Culture of Civic Engagement through Service-Learning within Higher Education in Europe* [Reference 2014-1-ES01-KA203-004798]. We wish to acknowledge all 12 partner countries that contributed to the work in this project, especially the partners from the National University of Ireland, Galway, who organized the international service-learning multicultural experience within community for all visiting students. We also wish to thank all participants in the video; including volunteers Damilola Arosomade, Sarah Carroll, & Ben Nolan, and school children Antoine & Batiste Grenon, and Lily Sage. Finally, we wish to thank Dr. Muriel Grenon and Dr. Claudia Fracchiolla, for without their guidance and support, we might not have produced such a video.

## References

- [1] Bringle, R. G., & Hatcher, J.A. (1995). A service-learning curriculum for faculty. *Michigan Journal of Community Service-learning*, 2, 112-122.
- [2] Bringle, R. G., & Hatcher, J.A. (1996). Implementing Service Learning in Higher Education. *Journal of Higher Education*, 67(2), 221-239.
- [3] Cole, M. (2006). *The 5th Dimension: An After-school Program Built on Diversity*. Russell Sage Foundation.
- [4] Europe Engage project website: <https://europeengage.org/> [accessed 2017-09-25].
- [5] Eyler, J., Giles, D. E. Jr., Stenson, C. M., & Gray, C. J. (2001). At A Glance: What We Know about The Effects of Service-Learning on College Students, Faculty, Institutions and Communities, 1993-2000: Third Edition. *Higher Education*. 139. <http://digitalcommons.unomaha.edu/slcehighered/139>
- [6] Mikelić Preradović, N. (2015). Service-Learning. In Peters, M. (Ed.), *Encyclopedia of Educational Philosophy and Theory* (1-6). Springer Singapore: Springer.
- [7] Mikelić Preradović, N., & Jandrić, P. (2016). Using video journals in academic service-learning. *Polytechnic and design*, 4(4). doi:10.19279/TVZ.PD.2016-4-4-06
- [8] Robinson, L., & Kelley, B. (2007). Developing reflective thought in preservice educators: Utilizing role-plays and digital video. *Journal of Special Education Technology*, 22(2), 31-43.
- [9] Stevens, D. D., & Cooper, J. E. (2009). *Journal keeping: How to use reflective writing for effective learning, teaching, professional insight, and positive change*. Sterling, VA: Stylus Pub.
- [10] Waldner, L. S., McGorry, S. Y., & Widener, C. (2012). E-service-learning: The evolution of service-learning to engage a growing online student population. *Journal of Higher Education Outreach and Engagement*, 16(2), 123-151.