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Digital Learning Environments and Collaborative Pedagogy: Media Culture 2020

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ABSTRACT

This paper presents an educational case study of *Media Culture 2020,* an EU Erasmus Intensive Programme (EU ERASMUS project number 2012-1-FI1-ERA10-09673) that utilised a range of social media platforms and interactive computer software to create open, virtual learning environments where students from different countries and fields could explore and learn together. The multi-disciplinary project featured five universities from across Europe – and was designed to develop new pedagogical frameworks that encourage collaborative approaches to teaching and learning. This paper will focus primarily on the implementation of a number of digital tools, in addition to highlighting the key educational aspects of the project.

Author Keywords

Convergence; Social Media; Collaboration; European Culture, Virtual Learning Environments

ACM Classification Keywords

H.5.3 - Computer-supported cooperative work; K.3.1 - Computer Uses in Education - Collaborative learning

INTRODUCTION

During the Spring and Autumn of 2013 five universities from across Europe took part in an innovative EU funded project, designed to explore how the integration of interactive digital technologies and social media platforms might foster new modes of collaborative teaching and learning. The principle objective of this project, entitled *Media Culture 2020* ('*MC2020*' hereafter), was to enable participants with a diverse range skills and cultural experiences to develop new working practices that respond to the convergence of digital media and art, as well as the internationalisation of media production and business.

The second main objective of the project was to break down classroom and campus walls by creating open, virtual learning environments where students from different countries and fields could explore and learn together. In short, *MC2020* was designed to interrogate the role of networked digital technologies in the development of pedagogy, demonstrating a number of ways in which Web 2.0 'architectures of participation' [5] might be adopted by academics to encourage open and collaborative modes of practice. The project utilized a number of social media platforms (including Facebook, Twitter, Google+ Google Hangout, Google Docs and Blogger) to enhance the learning experiences of a diverse set of students from different cultural and international contexts.

The project was comprised of two two-week workshops, which both featured an additional 6 weeks of online activities, team meetings, interactive 'webinars' hosted by each partner university, as well as ongoing modes of social networking and collaborative practice. Added value was gained by these pre and post workshop activities through the implementation of ICT and social media services and tools. This involved the collaboration of students and staff members, as well as the involvement of other lecturers who could be part of the project virtually, without costs for travel and accommodation. The main activities during the pre-workshop phase were team building, project planning and researching online. The learning outcomes include skills in art and media production for 21st century platforms, market research, business planning, pitching, working in international, multidisciplinary teams and the application of social media services. The project outcomes included the production of a wiki - used for knowledge building - and the blog as a public-facing channel for exhibiting the new ideas and content created during the workshops. The blog and various social media platforms also enabled both staff and students to document the whole process.

METHODOLOGY

Media Culture 2020 was a multicultural project, featuring staff and students from five universities from across Europe: the University of Vic (Spain), Tampere University of Applied Sciences (Finland), Liepaja University (Latvia), the University of Lincoln (United Kingdom) and HKU Hilversum (Netherlands). The students involved were third and fourth year BA students of fine arts, interactive media, business, film and television, whilst the participating lecturers all came from different practice and theory backgrounds. The selection process took into account the level of English, the skills of students in collaborative work and in the use of new technologies. This EU Erasmus Intensive Programme was specifically designed to combine the diverse skills and cultural experiences of all involved to

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develop new modes of collaborative pedagogy and digital scholarship.

The multidisciplinary approach utilised in this project is clear, with each partner university contributing different skills and knowledge to the project: Tampere offered expertise in interaction design and educational use of social media; HKU in applied narrative design and software & hardware development, University of Vic in entrepreneurship, business, audio visual and media production and blended learning, Liepaja University in combining virtual and physical worlds and immersive media, Lincoln University in games design, mobile phone gateway development, user experience design, convergent media practice, emergent media technologies and participative project development. The wide range of practice skills and research expertise made accessible through the international delegation of lecturers underpinned the whole experience, with students able to request feedback and advice on their project ideas, depending on their specific needs.

The two workshops, held in Tampere (featuring 10 lecturers and 40 students) and Liepaja (a further 49 students), were accompanied by a range of online pre and post workshop activities, with a series of seminars, group tasks and social networking extending and enhancing the teaching experience in a virtual learning environment. The focus of the workshops intended to interrogate the convergence of computer technology, media reception and art practice by exploring the potential of interactive media in the context of an increasingly multicultural European terrain. There were a number of seminars on the subject of interface design, 'smart' technologies, 'open data' and future developments in ICT, with groups having to explore these ideas, collaborating on mock-ups, workflow models, animations and concept designs. Whilst many of the students did not have much prior knowledge of these subjects, the multi-faceted learning environment encouraged more creative and open approaches to teaching and learning. Feedback and support was given by both staff and students, in addition to the dissemination of relevant research sources via social software. The implementation of the Facebook group page was useful in this respect, as it tended to result in less formal relationships between staff and students. As such, teaching and learning was encouraged outside the traditional parameters of the classroom.

In comparison to the courses that already existed in the partner institutions, *Media Culture 2020* utilised a more flexible and empowering educational framework for both students and lecturers. For the student, this approach generally led to an improvement of self-management; the implementation of collaborative work in a European environment; improvement of the quality of mentoring; and a diversification of activities and professional abilities. For the lecturer, *MC2020* represented an opportunity to partake in a new pedagogic relationship with students, which took the form of responsive, two-way dialogue; the implementation of a flexible monitoring and evaluation process where the two are blended together as one and the same; and through the diversification of tools for organizing activities related to content. Together, both staff and students could develop innovative practices related to digital collaborative work, engaging in diverse ICT and social media learning methods. Recent research [1];[4] indicates that when students work collaboratively in small groups they learn more and retain more, leading to a more satisfying and rewarding experience. Christopher McMorran [4] suggests that if used in an educational setting, collaborative technology can enhance active participation (through content creation), increase student engagement, and enrich the learning process. *MC2020* provides an exemplar of this model, utilising a range of collaborative technologies to produce a dynamic and democratic digital learning environment.

USE OF ONLINE TOOLS FOR COLLABORATIVE LEARNING

The central method for fostering collaborative practice was a mix of online learning and intensive workshop activities. The project presented an opportunity to develop a new kind of multicultural European mobility, using a range of 'cloud-based', social media tools to create joint virtual classrooms, labs and studios. *MC2020* utilised Google+ and associated applications (Google Docs, Google Drive and Google Hangout) as the core tools for the process. What makes Google Hangouts particular appropriate for this particular task was its ability to integrate Google Docs, screen-sharing and a streamlined 'invitation to join' process. Additionally, a 'hangout' can be saved to the YouTube platform for future referencing and even broadcast live. The use of these tools fostered a digital learning environment that extended the traditional boundaries of the classroom in time and space. Whilst these services are by no means unique comparison to other online tools [1];[6], we opted to use the Google software for a number of reasons. Most notably, we decided that the integration of a range of different technical features, coupled with the popularity of these services, made them an ideal choice to ensure that all participants had access to the same software. *MC2020* is not the first project to implement these technologies into teaching [5];[7], although the scale and multicultural dimension of this particular project does further highlight the value this approach.

When collaborative documents are prepared on GoogleDocs, there is only one version, which is always up to date and includes all corrections. This results in a more accurate and cohesive understanding of the project from all involved, since everybody has access to the same information. Whilst these features are perhaps common knowledge, they were particularly significant for this project in that the chosen service enabled 'real time' collaborative action between staff and students, regardless of geographic location. For *MC2020,* GoogleDocs was utilised due to its integration with a number of different software needs (word processing, spreadsheets and presentations) and with the ability to create these documents from scratch within the web browser. The associated 'cloud' storage service, GoogleDrive, allowed these documents to be shared instantaneously with students, whilst also facilitating a separate space for admin purposes. Throughout the project student groups each had their own folders for sharing work in progress, which the lecturers could also see and comment on if required. We

even composed the initial proposal for *Media Culture 2020* using GoogleDocs, which was particularly beneficial in this instance since it enabled lecturers from each of the partner institutions to easily contribute to this document.

Alongside the Google services, *MC2020* utilised a number of social media platforms as a way of disseminating information and enhancing the relationships between students and staff from diverse cultural backgrounds. Whilst the volume of Google+ users has increased steadily, with 540 million active users as of October 2013 [3], it was evident that Facebook was a more widely recognised and utilised service amongst participants of this project. It was therefore decided that this more popular service be used as a social space, or virtual 'coffee room', functioning as an informal hub for sharing personal information and cultural exchange. It worked well as a platform for networking and interaction, and the groups and connections formed as part of this project still remain active to this day. It also had the added value of allowing staff and students to quickly share knowledge and pool relevant research sources, leading to further discussions and modes of learning in a more informal setting.

Due to the high profile of the project, funded by an external body, *MC2020* needed to present public facing content, disseminating proceedings and progress of the project. We also needed a service that would allow all lecturers to publish content. We opted to create a dedicated website/blog (mediaculture2020.blogspot.com), which once set up could be easily updated without the need for specialist computing knowledge. This site functioned as the curation of relevant information, presented in a formal capacity that distinguished it from the Facebook group. Although work was published to both, the context was informed by the delivery method and audience. One feature of the blog that was particularly useful was the inclusion of a Twitter plugin, which aggregated any information posted by staff and students to their own personal Twitter feeds via the hashtag '#MC2020'. Not only did this serve the purpose of publicising the project to a larger online audience, it also encouraged a more diverse documentation of the whole process, leading to a vast collection of associated tweets and images from the event. In the case of *MC2020,* then, microblogging services like Twitter and Facebook represented an excellent example of crowdsourcing, whilst simultaneously fostering more personal relationships between staff and students.

Pre-workshop Activities

The first phase of the pre-workshop activities took place in the six weeks (March 5 - April 12) leading up to the first workshop held in Tampere (April 15-28, 2013). During this period we split participants into five student teams comprised of members from each University. These teams worked online using the aforementioned online platforms to work collaboratively on three assignments. First, teams were asked to design a logo for *MC2020* and discuss issues of branding and visual style. The teams then had to choose two or three topics related to the project brief, researching these together and presenting a summary of their findings in Tampere. The final task set during this first pre-workshop phase was to make proposals to improve the draft programme of the actual workshop. These proposals were then voted upon, thus embodying the democratic approach we strived for throughout the project.

Pre-workshop activities for the second phase of *MC2020* took place during the first 4 weeks of October, which culminated in the second workshop in Liepaja (26 Oct - 8 Nov). The coordination team of the project had one preparatory meeting (via Google Hangout) in June, three in September and two in October. The pre-workshop activities included five online sessions, with lecturers from each of the partners' universities delivering an online seminar relevant to the project. Again, participating students were split into mixed-nation groups and worked on team projects during this pre-workshop stage. Using Google Hangout, Docs and other collaborative tools, the groups were asked to analyse one of the concepts developed during the Tampere workshop for further processing in Liepaja, with the results presented by the groups during the first working day in Latvia.

In theory, the idea of the pre-workshop phase of activities was a good one because it would engage students in both their local and international groups in order to build team bonds before the groups met 'in person' during the workshops. In the case of *MC2020*, this practice yielded some success. Whilst some activities struggled to attract engagement from all participants (especially those who were not overly confident in their ability to communicate in English), others exceeded expectation. This success suggests a model of remote, collaborative working could be pursued in other educational settings based on the approach taken.

CONCLUSIONS / RESULTS

In terms of collaborative working and the implementation of interactive, web-based technologies, *Media Culture 2020* was a success because the aforementioned barriers of remote working during the pre-workshop phase were overcome, whilst a more cohesive approach to sharing new knowledge was developed throughout. The various communication platforms utilised provided an appropriate toolset for documenting progress and experiences, in addition to facilitating a more open channel for the dissemination of information and feedback. Student evaluations of the project suggest this model of working provided more than just a set of tools to foster collaborative practice, it became a catalyst to change perceptions of trust and for enhancing bonds between staff and students.

For non-real-time collaborations the provisions of Google Drive and Docs worked as intended. It is evident these tools enabled all involved to have a consistent and seamless experience of contributing to tasks, fostering a strong culture of collaboration. However, as with the organisation of this project, activities that did require real-time collaboration proved difficult. This can somewhat be attributed to the fact that it is very difficult to assemble groups from multiple locations, time zones and schedules to be together and online at the same time. An example of real-time communication difficulties came in the form of shared

lectures. Whilst the live streaming of these lectures was successful to some degree, the essential supporting visual content of some presentations, viewing them after compression and decompression for network transmission, failed to communicate some of the ideas presented for discussion. Despite these minor deficiencies in the approach we found that the project yielded a number of desirable outcomes:

- The open-ended brief and flexible teaching structure empowered students to define the working environment. The structure of the workshop themselves were open to negotiation, whilst students were encouraged to pool their collective research and practice skills.
- By leveraging the capabilities of Web 2.0 technologies this model of digital scholarship facilitated a more open, interactive and collaborative working environment for teaching and learning. Not only were students able to meet the formal assessed requirements of the project, they were also able to contribute to a wide range of intellectual discussions that were made accessible to all through the various software utilised. This can be seen as a more open process of learning since students were able to observe alternative ideas and work contributed by other participants, in addition to the collective feedback of staff.
- The technologies and virtual learning environments discussed above allowed for real-time collaboration whereby information and knowledge could be accessed and disseminated across a number of networked devices. This had particular value in the workshop phase by enabling students from different countries to work together.
- Peer-review and student driven feedback was given throughout the project. During the Liepaja workshop, final concepts were exhibited during iWeek, an international interactive arts event. A summary of feedback from this event was later published on the blog. Students were also rewarded with partial ECTS credits.
- Participants were engaged in active research activities throughout the conceptual development, presentation and delivery of projects. A collaborative approach to research was encouraged: we set up a 'library' of useful research sources, with contributions from both staff and students. This played out as a constantly evolving archive, connecting and pooling the research activities from both workshops.
- The established teacher/student divide was avoided wherever possible, with optional seminars, interactive workshops, student lead-presentations, group discussions and plenaries taking the place of the traditional, rigid lecture/seminar module structure.

The functionality of the Google software enabled students and staff from different cultural contexts to engage in a mode of collaborative learning that would have not been possible in the existing teaching infrastructure of each of the individual partner Universities. Whilst an ideal situation would be the development of a purely academic technological infrastructure that would permit much of the same modes of practice discussed in this paper, the use of Google software demonstrated a real benefit to this project. *MC2020*'s ambition to develop new collaborative approaches to pedagogy; to move from teacher-centred, standardised test oriented education to student centred, open learning focused education, was made possible my these chosen technical tools.

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