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Teaching and Learning ICT and Computing with Creative Multimedia: two case studies.(0228)

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Introduction

Whilst digital technologies such as handheld devices, mobile phones and digital cameras continue to develop into more affordable, more flexible and easier-to-use tools, Internet technologies such as the Web provide the basis for creative activity and sharing that now take place on an unprecedented scale. Developments in the areas of networking and telecommunications have opened up new avenues for multimedia sharing over the Web, with an astounding amount of user-generated multimedia content being negotiated daily over a number of social networking platforms. This paper presents ongoing work that seeks to create opportunities for students in ICT and Computing to engage with multimedia in creative and pedagogically-meaningful ways.

The paper focuses on the multimedia-based work carried out in two Open University (UK OU) modules: T215 *Communication and Information Technologies* and TU100 *My Digital Life*. Both modules are compulsory components of a named degree in ICT and Computing. T215 is a 60-point level-2 module and TU100 is a 60-point introductory module that is also expected to attract students with more general interests from outside the discipline. At the time of writing T215 is reaching the final stages of its first year of presentation, whilst TU100 is being developed for launch in October 2011. In subsequent years it is expected that students will study TU100 before T215.

Multimedia in T215 Communication and information technologies

One of the aims when developing T215 was to provide opportunities for rich engagement with practical activities that will help students to develop skills that can be used in multiple contexts. One such activity occurs in a five-week (approximately 80 study hours) block with the theme *Entertaining and explaining*. Its focus is on presenting information through audio and video, a theme developed as students are taken through the production of their own short (30-second) multimedia object created using animated still images, sound effects and a commentary.

Examples of several short videos help to introduce the block, together with a video interview that provides a brief introduction to some video editing techniques, such as pan, zoom and cut. The work on the block involves the use of several multimedia software applications, during which students will develop skills in sound and videos editing as well as a familiarity with a video scripting language. At appropriate junctures, the underlying theoretical concepts of digital media are taught.

For the block's assessment students must provide a narrated 30-second video that explains, to a naïve audience, some ICT concept drawn from the module. Their submission must include a video plan and their own evaluation of the video, measured against a number of prescribed criteria that have been introduced and developed in earlier parts of the module.

Multimedia in TU100 My Digital Life

Block 4 of TU100 incorporates the use of creative multimedia for teaching and assessment into a framework that is consistent with current thinking articulated around the ideas of participation and sharing embodied in the notion of Web 2.0 (O'Reilly, 2005). The block's first part (equivalent approximately to 15 study hours or 1 study-week within an UK OU course) is based on a pedagogical framework that exploits 'openness' – in terms of consistent use of Web 2.0 tools and open content – and 'creativity' – in the guise of creative multimedia development as integral to the learning experience (Ferreira, 2010a & b).

The part is structured around a series of tasks required for the completion of a multimedia object in response to a prompt video (Wesch, 2007). Basic techniques and concepts involved in audio and image manipulation are introduced from a perspective intended to foster both creative engagement with multimedia and critical discussion of issues surrounding the production and sharing of multimedia over the Web, including intellectual property and privacy, amongst others.

Upon completion of this part students should have an initial take of their own multimedia object, which they will be required to share on a Web-based platform for discussion with their peers. Students' videos will be explored in small-group discussions carried out across the remainder of the block, which introduces a number of synchronous and asynchronous communication tools. The videos will also integrate the assessment scheme being developed for the block, complemented by various items of reflective commentary about the videos themselves as well as the overall learning experience created in the block.

Discussion

T215 and TU100 make integral use of creative multimedia in slightly different ways. This is in part because T215 is expected to be studied by a more experienced cohort, whilst TU100 is an introductory course. Also, T215 dedicates more time to explore the technologies underlying video production, whilst TU100 provides a very basic introduction that is aimed, principally, at encouraging engagement with the medium. However, both modules have been designed to integrate an ICT and Computing course of studies, which is in contrast with the use of creative multimedia made by Cox et al. (2009) in the MAIK Project. Although neither module sets out to teach the artistic elements of video production, the T215's video interview gives a brief overview of some artistic techniques, and the TU100 materials touch upon artistic considerations in that they are structured around the creative process itself. Additionally, neither module attempts to develop or suggest any structural framework or specific format for video storytelling in the way that essays and reports have an accepted structure. Nevertheless, the assessment for both modules calls for self-evaluation which includes criteria relating to the appropriateness of the chosen images, audio, editing effects and the order in which ideas are presented.

In this presentation we will explain the pedagogical underpinnings of the module materials that focus on multimedia, exploring the rationale for assessment in both modules. We will also discuss the choice of the different software tools and identify the particular challenges in designing and delivering these modules, including those of accessibility and scalability. Finally, some broader themes will be identified in a description of evolving plans for integrated development and evaluation of the relevant components of these modules.

References

Cox, A. M., Vasconcelos, A. C., Holdridge, P. (2009) 'Diversifying assessment through multimedia creation in a non-technical module: reflections on the MAIK project'. *Assessment and Evaluation in Higher Education*. First published on 07 September 2009 (iFirst). Available online via <http://dx.doi.org/10.1080/02602930903125249> [Accessed 23 July 2010]

Ferreira, G. M. d. S. (2009) *Integrating Multimedia Work into Assessment*. Discussion cloud created 6 November 2009. Available online at <http://cloudworks.ac.uk/cloud/view/2631> [Accessed 23 July 2010]

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O'Reilly, T. (2005) 'What Is Web 2.0. Design Patterns and Business Models for the Next Generation of Software. Available online at <http://oreilly.com/web2/archive/what-is-web-20.html> [Accessed 23 July 2010]

Wesch, M. (2007) *The Machine is Us/ing Us*. Multimedia object available online at http://www.youtube.com/watch?v=NLIgopyXT_g&feature=channel [Accessed 21 June 2010]

Web links

Examples of short videos used in the introduction of T215

http://www.youtube.com/watch?v=glycwrkvW-k&feature=Playlist&p=1F460C0CAC031117&playnext_from=PL&index=0&playnext=1
[Accessed 23 July 2010]

The video interview included in T215 <http://itunes.open.ac.uk/r/3NS5HQ> [Accessed 23 July 2010]