Using Digital Stories to enhance course induction for HCI students

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In this paper we describe a successful pedagogic case study: MSc HCI students were introduced to 'digital stories', in a three-day group-work activity that worked really well for bringing these multidisciplinary students together in their first week at UCL. A digital story at a basic level is a series of still photographs with narration over the top that tells a story with impact. It provides an original method of communication that is creative, fun, and engaging, with the potential for reaching a large and broad audience very quickly. However, the challenge of creating a good, coherent, engaging and meaningful digital story should not be underestimated. In utilising digital story-making as a teaching tool, it is important to manage expectations, keep the costs and resources low, and identify attainable learning objectives such as key skills. Our use of the digital story technique in induction week taught students communication skills, team working skills, peer appraisal, and elements of public engagement, as well as helping cohere the class, and their views on HCI, at the start of the MSc HCI course.

Digital stories; HCI teaching; course induction; group working; public engagement.

1. INTRODUCTION

This paper describes a pedagogic case study: successfully teaching students a 'digital story' technique through a public engagement activity. The exercise was given to the MSc HCI students at University College London in their introductory (Induction) week. The students were required to work in groups to create a digital story relating their understanding of HCI.

The learning objectives for the students comprised group-work skills, presentation skills and communicating the essence of HCI clearly to an outside audience.

2. DIGITAL STORIES

A digital story is simply a series of still images - photos or sketches - with a spoken narrative on top. Occasionally, video is used, or multimedia special effects, but highly technical expertise is not required to create a good digital story. The essence is the message within the story, so the words, and their timing with the images, make the impact. The whole story generally lasts between two to three minutes, and can be created within a few hours for very little cost. However, the challenge of creating a good, coherent, engaging and meaningful digital story should not be underestimated.

Digital stories provide an original method of communication that is creative, fun, and engaging with the potential for reaching a large and broad audience very quickly. There are many accounts of the use of digital stories; even a public festival celebrating their application in telling real-life stories [1]. Their utility and low cost has already led them to be used by museums to encourage people to record experiences, to build up cultural heritage;

and they have been used in public awareness and health campaigns (e.g. domestic violence, mental health and drug abuse campaigns). Projects that have aimed to use digital stories for knowledge sharing amongst rural communities have also been reported [2,3].

At university, they have been used by PhD students to present the impact of their research. We here explore the use of digital stories in HCI teaching for MSc students.

3. INDUCTION TEACHING

In common with most MSc courses, the UCL MSc in HCI with Ergonomics course doesn't begin teaching proper until one week in to the first term. The very first week, known as Induction Week, is used instead for student orientation, course administration, and key skills teaching.

Our course recruits between 50 and 70 students a year, many of them international, and coming from a wide variety of background disciplines and a broad age range. An important goal of induction week is to build social and operational coherence among this large disparate group. This is quite critical; students who have not started to build good working relationships within the class, have a high risk of foundering when their intensive group-based MSc teaching begins.

Student feedback from induction weeks in past years, while acknowledging that the tedious administrative sessions are necessary, has focused on two limitations: students find it difficult to break the ice and get to know their classmates, especially across cultural boundaries; and students need practice in group-working skills and group management. We therefore sought a new activity for induction week that would help break the ice, teach group management, and above all, be fun for the students. Digital stories provided this opportunity.

4. PLANNING A DIGITAL STORIES EXERCISE FOR STUDENTS

To create a digital story, you need a topic for the storyline. Our students had not yet begun their HCI course, so their story had to be based on their knowledge level at that early point. What they all had in common was their experience of selecting to study our course in HCI, and therefore each of them had developed a perspective on what HCI is. From experience, we know these perspectives to vary widely! We decided it would be productive for them to hear each others' perspectives, and debate them.

The focus for this debate arose from a parallel ongoing activity we have at UCLIC in public engagement; which is the communication of HCI to school students aged 14. We therefore tasked our MSc students to create a digital story that explains HCI to 14-year olds. This would challenge them to come up with a common view of HCI from their differing perspectives, distil it to an essential message, and present it in a comprehensible and engaging way for young people.

5. CONDUCTING THE EXERCISE

Three contact points were arranged on three consecutive days with students expected to complete the work around these times.

The first contact point was an introductory lecture to explain what digital stories are, show an example, give advice, and split the students into groups that had appropriate technology available to them to complete the exercise. This consisted of a digital camera, an audio recording device, and computer with *iMovie* or *MovieMaker*. The tone of the lecture was

intentionally fun and relaxed. The example digital story shown was one the second author had created, which was by no means polished. We stressed that this was a learning process; it was unlikely that things would be perfect, and there was no formal assessment. The class would give feedback to each other and would select their favourite, which instilled some healthy competition (and introduced them to peer appraisal skills). This introductory lecture lasted 15 minutes with a further 15 minutes for students to discuss preliminary ideas and meet their group. This first session set important boundaries; e.g., the topic, technology, length and type of presentation, as well as some guidance on managing working in groups.

The following day students reconvened for further group work. Staff met with them to discuss progress and issues. For example, one group wanted to use video rather than stills; and another group needed advice on finding a quiet area to audio record on campus. Groups were encouraged and challenged through discussion as they worked creatively within the exercise boundaries.

On the third day students submitted their films to staff prior to their screening. Before the screening, feedback sheets were distributed so each group could provide feedback on the other groups' work. The sheets included a short space for open feedback and students were asked to consider three criteria for each film, from the viewpoint of a 14-year old: impact, coherence and entertainment. Time between each film was allotted for this. At the end, students were asked to pick their favourite film for each of the three criteria. These votes were counted and the winning group was announced. The exercise closed with a wash-up session reflecting on what they had learned, with a particular focus on communication skills (both within their groups and to the target audience for the films).

6. AFTER THE EXERCISE

After the exercise all the feedback was précised with additional feedback from staff members that attended the screening. Videos were put on the class intranet with the feedback for students to access.

Later, the HCI students' own teaching appraisal indicated universal support for the digital stories exercise in meeting their needs in the first week of the course. It forced them to break the ice with new classmates; to think deeply about their own understanding of what HCI is; and to develop new skills in group working and communication and in handling visual media. They appreciated an entry into public engagement activities. They also emphasised that the digital stories exercise nicely broke up the tedium of induction week, and was exciting and fun.

The impact of the student experience was clearly detectable in the MSc teaching sessions that followed; teachers reported that students were more settled as a community, coped better with working in groups, and were able to give strong and constructive peer appraisals. All these markers were improvements on those of previous student cohorts.

Our overall goal was to test digital stories for use in induction teaching; this was reached so successfully that not only has it become a standing event in HCI induction, but other teachers on the HCI course and also elsewhere in UCL are exploring the potential of digital stories as a communication tool for their teaching and for the student experience.

6. FURTHER IMPACT

The potential further use of the videos depended on their quality. The winning video, 'Why Buttons Go Bad', was of such high distinction that the UCL media team suggested it be shown on UCLTV on World Usability Day, which was just a

month after the exercise was complete. The timing of World Usability Day and the exercise was more fortunate than planned! The video was accompanied by an associated press release and promoted through social media channels.

The first author is involved in ongoing public engagement work with 'The Campaign for Real Design', which aims to introduce user-centred design approaches to design and technology teaching in UK schools. The topic of these digital stories – explaining HCI to children – is key to this campaign. The campaign team are now exploring further uses of the videos that have been produced by the MSc students, and considering ways that a digital stories exercise can be used within schools.

The winning digital story is now installed on the home page of the UCL Interaction Centre. We feel it represents the best of what we strive to achieve in our university activities, and especially in our teaching.

7. CONCLUSION

This exercise is considered a success for the students' learning and for teaching practice and it also led to a useful public engagement opportunity.

The exercise was challenging, but not just due to the time pressure and working closely with new colleagues. There are challenges in multidisciplinary groups working together from different backgrounds and coming to a shared understanding. Some nominal access to staff advice and support was necessary.

Just a few years ago this sort of creative exercise may have been impractical for non-specialists, but today's students have the technology and the technological literacy to use digital stories. They often turn up to class with laptops, digital cameras and other devices and have all the tools and skills they need to create a digital story. Nevertheless, it was important to ensure that each student group contained a mix of technically-confident and less technical students, and that the groups distributed their tasks between members in a supportive and equitable manner.

Future changes in the exercise will include: finding quiet space on campus to do audio recording, giving more time to the introductory session, and allotting more time for students to complete the exercise during the day. In terms of publishing we are also considering a more formal written agreement so copyright and privacy are protected, and so that the further use of any films is explicit, agreed and non-verbal.

Beyond our exercise we hope that teachers from other universities can see the potential for digital stories to be used in their own teaching of HCI students, and indeed for other disciplines, and for application in general education as well as in induction. In utilising digital story-making as a teaching tool, it is important to manage expectations, keep the costs and resources low, and identify attainable learning objectives such as key skills.

Students can be equipped with the skills to use this technique in future work, and to create engaging digital stories for public engagement, for communication to management, clients, scientists, or the public, whether in a commercial or academic setting.

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