

Title of Case Study

Enhancing student confidence, skills and employability through the creation of assessed embedded video presentations in posters

Staff Lead

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School/Department

Careers and Employability, and Department of Computer Science

Name of Course and module (if applicable) case study tool place within

COMP107 – Designing Systems for the Digital Society, a compulsory 15 credit module for Computer Science students in their first year. This poster activity accounts for 10% of the overall module mark.

The aims of the module are to provide students with a wide-ranging understanding of the discipline of computing and to introduce students to concepts of system design, professional ethics as well as social and legal aspects of computing. Students learn and use skills including communication, time management, project management and employability skills required for a future career as a computing professional.

Please briefly describe the activity undertaken for the case study

This activity was part of an employability series of assessments within COMP107 which also included creating a LinkedIn profile, visiting the Careers Studio and completing a SONRU face to camera video style interview. All employability activities throughout the sessions are aimed at creating early engagement with Careers, building confidence in first year students by encouraging participation in group and individual activities, providing the opportunity for students to have interaction with industry within the curriculum and building their knowledge of specific roles across the sector. The module contains a large number of students (191 in 2020) and so creating interactive activities in which to engage students, enhance their communication and presentation skills and to work with industry in a creative way was challenging. Sessions seem to have been well received by students, and Careers and Employability will review all sessions delivered in COMP107 before the start of the next academic year to make any adjustments.

For this activity, students were asked to complete three tasks. The first was to research an element of 'Computer Ethics' or 'Security', topics chosen by the module lead and covered within the module content. The students were then asked to present their research in an easily accessible way aimed at a general audience on an A3 poster. The theme for the poster could be decided by the students depending on their interests. Essentially, the poster had to convey key messages. The second activity was to create a video presenting the poster and enhancing their ideas and messages displayed. Finally, students were asked

to embed the video within the poster using a QR code. As an added incentive for students, fifty of the posters from a cohort of 191 would then be selected for display at an event with industry as part of the Department of Computer Science's Ignite Your Future week in February 2020.

The aim of the assessment was firstly, for students to be able to reinforce prior learning, disseminate their knowledge learnt from the module and through independent research, presenting this to a general audience. In the workplace, graduates need to take their technical knowledge and possibly explain their findings to a non-technical audience so this part of the assessment provides a platform for student to experience and develop these skills early in their university career, within a safe environment. Secondly, students could use their creativity through the development and creation of the poster and in the production and selected medium of the video attached. As with the poster design, students were given free reign with the medium they chose for their videos, they owned the content and structure. Some chose to present using face to face video, others adopted a cartoon style or presented using images, either way this was a digitally rich activity for students to complete.

The final part of the assessment was more prescriptive as students needed to follow instructions on how to create the QR code with the embedded video. As with other case studies which use video as part of an assessment, student engagement in video not only enhances subject knowledge, develops technical skills but also improves communication skills which are essential for employability, linking undergraduate research directly with life after graduation (Jenkins and Healey 2009:8). Video in posters also offers multimodal pedagogy, combining several representative modes (video, images and voice) into assignments which may result in a greater effective learning process for the student (Deacon, Morrison and Sadler 2005:75; Pirhonen and Rasi 2017:215). In the COMP107 module, video as part of the assessment, promotes deep learning, creativity and motivation (Nordstrom and Korpelainen 2011:441), all evidenced through the results produced.

How was the activity implemented?

The activity was implemented in a lecture allocated to employability in the COMP107 module. Following delivery by a Cyber Security company, the second part of the session was dedicated to students being introduced to the assignment and given precise instructions on how to create a QR code. The students were then given time to formulate initial ideas and to ask questions about the exercise. Pens and A3 paper were distributed across the lecture theatre for students to start planning or mapping ideas. Some students came to talk to the speaker from the session to gain further insight into the Cyber Security sector or to obtain ideas for their work. Once the posters were completed, they were uploaded and submitted Vital.

Has this activity improved programme provision and student experience, if so, how?

This activity has improved the student experience. Initially, students seemed apprehensive about the task ahead, there were grumblings in the lecture theatre when the task was announced. However, once questions raised were answered the students seemed reassured. The quality of the work produced showed a great deal of thought and skill. Having the added feature of a poster competition with industry judges and the incentive of a prize created added interest amongst the COMP107 cohort. The industry visitors to the event were impressed by the topics presented in the posters and the quality of submissions.

There has been an undeniable increase in engagement and participation of Computer Science first year students at events. The inclusion of tailored employability sessions and this poster activity seems to have created a sense of community and students really have wanted to get involved. To have this level of engagement from first years in Computer Science at employability events is unprecedented. This was evidenced by the number of first year student's involvement in the Ignite your Future series of events including a hackathon, employer and skills events and even the Alumni networking. This attendance has directly brought early years students into contact with employers and the poster presentations in the Central Teaching Lab has increased the visibility of the Computer Science department across both the Faculty of Science and Engineering and the wider university community.

Did you experience any challenges in implementation, if so, how did you overcome these?

There were some challenges faced in implementing this activity. Overall, the students followed instructions, made a poster, added a QR code and video. However, some students did not complete the task as required. Problems seem to have occurred with the video itself or carelessness with editing the poster. Some posters had 'insert QR code here' and others that did have a QR code when scanned had no video connected or video deleted. Another issue was some students adding a PowerPoint slide for their video, this did not hit the brief. Some students also included an audio file as video, or some chose to use PowerPoint slides with a music accompaniment. Overall, however, most students understood what they needed to do, and the videos embedded were very professional, demonstrating a good level of skill.

For the next academic year, I will ensure that each student is very clear on each element of the assessment and will provide a detailed marking scheme when introducing the assessment in the lecture theatre. This should ensure that each student is very clear about what is expected before planning their work.

From a technical point of view, I'm going to see if it is possible to find an easier way for students to create a QR code. As things stand these are some of the instructions provided in the lecture:

How to create a video and a QR code?

1. Record your video on your phone or webcam. The video should include your name and an introduction to your poster, for example, 'Hello my name is John and I created this poster. I have chosen this design because...' or 'I think the most important message to convey is...'. The video should **last no longer than two minutes**.
2. Open Google Drive and Select Upload video.
3. Once you have uploaded your picture, right click on it.
4. Select 'Get shareable link'.
5. Copy the link.
6. Open [QR code generator](#) (free QR generator).
7. Click on URL (World icon) and insert the copied link.
8. Download the QR code. Select jpeg. This generates the QR code on a new page.
9. Copy the QR code and insert into your poster on the **bottom right hand side**.
10. Open the QR code to make sure the video works. You may need to download an app to do this. Submit your poster to the area on VITAL.

Which University of Liverpool Hallmarks and Attributes does this case study relate to (tick all boxes that apply)

Research-connected Teaching	X
Active Learning	X
Authentic Assessment	X
Confidence	X
Digital Fluency	X
Global Citizenship	

How does this case study relate to Hallmarks and Attributes you have selected?

Research-connected Teaching

This assessment engages students as active participants in researching their chosen subject for their poster, in developing a method for creating their video and finding out how to embed video in the poster itself.

Active Learning

In this activity the students bring their knowledge to life through creating both the poster and video itself. Students actively assess what their audience needs to know and convert this knowledge into their work.

Authentic Assessment

Taking technical information and presenting it to a non-technical audience will be something students may be asked to call upon in a real working environment. Communication and presentation skills, problem solving, and resilience are also demonstrated throughout this assessment.

Confidence

This activity builds student confidence, they focus on a topic they enjoy or have engaged with the most and turn this into a piece of work they should be proud of. The assessment has wider reaching effects with building confidence in that students have a shared experience they can talk together about and once the assessment was completed students seem to have a desire to push forward with other new activities. Although Computer Science students are brilliant, they are not always confident working outside unfamiliar areas and using their creativity. This exercise addresses this, building confidence as students move forward with the exercise.

Digital Fluency

Computer Science students already often have some programming skills in their first academic year and have good digital fluency. This assessment builds on these skills.

How could this case study be transferred to other disciplines?

The method of assessment described in this case study could be transferred to any other discipline as a way of enhancing communication skills, developing resilience and exploring student's creativity. The assessment is an excellent medium for remotely assessing and demonstrating knowledge gained from a subject, students verbalising topics learnt through a module or in their own research. This activity can also act as an alternative to when large poster events are required but space may not be available to facilitate the exercise. All posters can be displayed online and presented by students via the QR code. This method of assessment could also be used for distance learning.

If someone else were to implement the activity within your case study what advice would you give them?

- Make sure you are clear with outlining what you require the students to do, lay out the exact requirements. Talk them through making a basic video on their phone. Students are probably already skilled, but this will assist students who may not be clear on producing a basic video.
- Provide students with a copy of the marking scheme when you announce the assignment
- Ask students to put their name and student number on the posters they submit unless you want these to be anonymous for marking/competition purposes.
- You could consider using an external panel for marking the posters, possibly with the incentive to offer the top poster selected from each group of a visit to a company or short internship. If not using an external panel ask colleagues to help when

marking posters for large groups, making sure they all are equipped with a marking scheme.

- Next academic year I would like to find a way of all fifty poster presenters attending the event hosting the work. This is to further create a sense of belonging, community and enhancing confidence. I am considering making 'finalist' attendance compulsory at the event. If physically presenting the posters at an event I would suggest doing the same.
- A reflective piece could follow this assessment, assessed or non-assessed, recognising skills and lessons learnt throughout.
- Although the initial reaction to this assessment was not exactly inspiring, students did seem to like the idea of having an amount of freedom with the work they produced, and the work showed a great deal of effort made. I would recommend this activity as an alternative method of assessment – give it a go!

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References

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