

# USING POSTERS TO SHARE THE HISTORY OF HUMAN COMPUTER INTERACTION

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## Introduction

In my personal experience, many students are primarily driven to explore computing from a futurist point of view, in that they are keen to explore new technologies, develop new systems and imagine a whole new world driven by technology. As digital natives, they are typically comfortable and confident with technology as we experience it today. However, many students do not have an appreciation of older technology, how it has been experienced by those in the past and how it has driven the development of that technology they see and use today.

To allow students a chance to build their research skills and develop an understanding of current technology from a historical viewpoint, I developed a poster session assessment. Students are required to work in pairs or small groups to explore “moments from history” from a provided list of suggestions. They can also self-propose topics. This list reflects main timeline items such as the development of the ENIAC and Xerox Star, as well as including local HCI personalities from the University of Dundee. Students create a poster and present this during an afternoon session which the entire computing staff and student cohort are invited to attend.

## Assignment Overview

This assignment is completed by students taking a third year (junior honours; SCQF level 9) Human Computer Interaction course. The assignment is worth 5 SCQF credits (2.5 ECTS). In pairs or small groups, the students are given a list possible topics<sup>1</sup>. The topics are broad so that students can explore widely and find their own area of interest. Students indicate their preferred topics and these are allocated to meet as many preferences as possible.

Following allocation, students have two weeks to complete their research and create a poster. During this time they learn about the research community and the purpose of poster sessions. Each group has the opportunity to have their poster design critiqued prior to the final submission. When creating the poster, students are encouraged to read widely from research literature, industry reports and popular culture. Groups who have been allocated an individual from Dundee can contact that person and interview them. Where the topic is more broad, students are given some starter questions to guide their research.

- Who were the key players in this topic? Who was the innovator(s)?
- What problem was being solved?
- What else has been done to solve the problem? Any other relevant background reading?
- What was the motivation for doing this work?
- Have there been any further developments since this work was completed?
- How has this influenced our use of technology today?

The poster session itself takes place over three hours, with different groups presenting their posters at different times. This staggered presentation allows the groups to review posters

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<sup>1</sup> Topic list: <https://docs.google.com/spreadsheets/d/11Q6GcGU8GYRQ6gb-4i7HakSnpMDhTywyT6BC0gA4xTw/edit?usp=sharing>

submitted by other groups, which encourages discussion. A peer review marking sheet<sup>2</sup> is provided for each group to complete for other nominated groups in order to provide further depth to the feedback given after the assignment is complete. This directly maps to the marking rubric provided.



FIG 1: EXAMPLE POSTERS FROM 2019-20 ACADEMIC YEAR

## Reflections

Overall the poster session is a delight to run because I see the students engage with a topic that matters so much to me: an understanding of where their own digital identity has arisen from and why that matters to future generations. Rather than lecture content or paper writing, I find that posters are a crucial medium to bring home how history of HCI has driven and influenced the tools, products and services we use today.

In the development of transferable skills, the use of posters gives a high return on investment. Students are engaged in group work, negotiating and solving problems, summarising and critically analysing information, presenting their information in a visual format, verbally presenting their information to peers and others, and discussing the topic in a reflective and critical manner.

A poster session appears to be a very engaging mechanism for group work. Anecdotally, I have considerably fewer group work issues to be resolved during this assignment than I do for all other assignments I manage. It's not clear whether this is the result of the topic or the poster medium, or a combination of the two.

It is also an excellent way for students to reflect on their own lives and how their historical discoveries have paved the way for their current technology and life experience. For example, students note the cultural changes that were driven by new computers such as ENIAC, and the influence of word prediction on assistive technologies. This shows that we have citizen students, who are able to take new information and reflect on it with respect to the society around them, when given the correct space, tools and mechanism to do so.

<sup>2</sup> Marking sheet: <https://docs.google.com/document/d/1HTMJyUscOjeFa8hRrtIdzy3nfWzM4CQb-Saeo26uGw/edit?usp=sharing>