# Carrying out Qualitative Research

AC52012 – Research Methods

# Overview of Assignment

Computational creativity is a subfield of Artificial Intelligence (AI) research in which computational systems which can automatically create and evaluate artefacts in fields such as poetry and story telling, musical composition and video game design are designed, implemented and studied [1]. Human-computer co-creativity (also known as mixed-initiative co-creativity) is the study of collaboration between humans and computationally creative systems, in which both human and computer make creative contributions to the development of an artefact [2]. Co-creative technology is a very new field, and there is little information about how people interact with it or what their experience is like.

In this project you will explore how people interact with a co-creative system by asking a participant to use the Silk application (www.weavesilk.com). You will then conduct an interview with your participant, analyse your results and present them in the form of a research paper. The research question that you will answer is:

“How do people use and experience co-creative systems?”

Throughout the module, we will work through the research process and reflect on our research methods being used. These activities will form the basis of your project. We will work as a group throughout, but you will each conduct an interview as an individual and you will submit your own individual write-up for the project.

# Written Research Paper.

Each student should submit a research paper, in the ACM conference format, of no more than 4 pages in PDF format. References are not included in the page limit. The submitted paper should follow the template provided, which has sample headings already in place to guide you through writing the paper. You may change these headings if you wish, but be aware that this template is set up to follow a typical research paper structure. The template can be found at: <https://www.overleaf.com/read/zwcqhzcqhphb>. This is a Latex template created by the ICCC (International Conference for Computational Creativity) and edited to give you sample headings and indication of where you might place the relevant content for this project.

For more details on how to write using Latex and how to use the template, see the video at <https://youtu.be/_uQ2CDsNA1M>.

# Steps To Complete the Project

We will work through a series of activities throughout the module that will be beneficial for the project. The following steps can be used as a guide to the layout of your study.

Please note that this is not a coursework that can be completed in a short amount of time. Careful planning is required to complete all the steps:

1. You will read a paper that follows a method like the one we will use. You should make use of this paper, as well as others that you research, to make decisions about how you will lay out your final paper submission.
2. You will generate an interview guide that everyone will use to conduct the interviews.
3. You will conduct an interview with two participants.
4. You will explore thematic analysis and analyse the interview transcripts.
5. You will complete the write-up of the project as a research paper using the Latex template.

# References

[1] Simon Colton and Geraint A. Wiggins. Computational Creativity: The Final Frontier? ECAI2012. Vol. 12, pp. 21-26, 2012.

[2] Anna Kantosalo, Jukka M. Toivanen, Hannu Toivonen. Interaction Evaluation for Human-Computer Co-creativity: A Case Study. Proceedings of the Sixth International Conference onComputational Creativity, 2015.

[3] Yuri Vishnevsky, Silk – Interactive Generative Art.http://weavesilk.com

# Marking Allocation

The following table outlines the marking criteria for this coursework. All of the areas below are considered when assigning a final grade for the submission and should therefore be discussed within your research paper. No percentages are assigned to each of the areas below and the paper is viewed as a single artefact.

The table below is not exhaustive and many resource online exist that can assist in how to best create a research paper. You are encouraged to search for these

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| **Section Name** | **Markers of Excellence** |
| *Introduction* | Acts as an overall summary of the work that would stand-alone from the rest of the paper, including identifying:   * The Problem you have identified (we will discuss this when we generate our interview guide in class) * The Motivation - why should we solve the problem? * Solution - what did you do to solve the problem? * Results - summary of the outcomes of your interview * Contributions - what has your work added to the scientific literature |
| *Related Work* | * Contains a comprehensive summary of related literature in a well-structured format (i.e. start broadly with details on co-creativity and then narrow down to your research area) * Related work is referenced. Claims are backed up with appropriate references to back up assertions |
| *Method* | * The experiment session is described in detail, with all relevant information present. This should be carried out to a level where another researcher would be able to repeat the experiment with the information given. * Participant demographics are identified and reported on * The analysis process used is described, including any relevant decisions made. |
| *Results* | * Key results are outlined including a thematic map and appropriate participant quotes. * You have included appropriate references for research and analysis methods used. |
| *Discussion* | * Results are compared to relevant papers from the related work section. * The research question is answered * Limitations of your research have been summarised and reflections have taken place on whether these limitations are prevalent in other, similar research. * Future work that should be conducted in this area has been considered. |
| *Conclusion* | * Contains a summary of the research paper that includes key contributions and results |
| *References* | * Completed to a professional standard, following the reference format that is specified for the work (in this case, ACM formatting) |