Welcome to the Centre for Creative Computing. My name is Andrew Hugill and I am the Director of the CCC. My colleague, Prof Hongji Yang is the deputy Director. We have research fellows who are funded on a project basis and a cohort of a dozen PhD students. We also have two dozen research staff from across the university and numerous business partners.

The CCC was established in 2014 as the first university-wide research centre, as part of a strategic initiative by the Vice-Chancellor to engage fully with current and future developments in digital technology. The undergraduate BSc in Creative Computing was developed out of the work done in the first two years of our existence, and its Subject Leader, Lee Scott, is a PhD student in the CCC.

We have a cohort of a dozen PhD students, most self-funded and from overseas, doing topics from Semantic Web engineering to computer analysis of poetry, from advanced motion tracking in sport to digital opera. We also run an MSc in Creative Technologies and Enterprise. A further MSc in Cyber Security and Ethical Hacking is under development.

There are relatively few existing centres in creative computing. Centres in Tilburg Queen Mary's London, Goldsmiths, tend to focus on machine intelligence. Our centre is distinctive because of the emphasis it places upon the human being at the heart of the technology, rather than upon technological development for its own sake. This is us at our annual conference in Oxford.

Computing cuts across all research disciplines. Creative Computing is knowledge combination, something that is required in the world today. We combine explicit and tacit knowledge of propositions and processes to build the field, somewhat in the manner of Nonaka's 'Spiral of Knowledge'.

We are also inspired by another spiral: the one drawn on the belly of King Ubu, the hero of Alfred Jarry's anarchic play *Ubu Roi,* first performed in Paris in 1896. This is the emblem of 'pataphysics, a field which playfully proposes a science of imaginary solutions, of the laws governing exceptions and contradictions.

We use transdisciplinary methodologies, because computing cuts across all research disciplines. A CCC project involves collaboration between two or more disciplines. Creativity is recognised as occurring in all fields. We seek to embed creativity in computational systems.

We try to consolidate Creative Computing as a distinct cognate area, by understanding to what extent it overlaps with similar areas such as

computational creativity, HCI and AI, while at the same time establishing a set of definitions and characteristics that set it apart from those.

We aim to understand and develop systems for creative computing. These include creative approaches to software engineering, big data, AI, cyber security, networking, communications and web technologies.

We disseminate and promote Creative Computing by providing working examples and delivering impact beyond the research community. Typical examples are the 'London Streets' application developed by Dr Jerry Fishenden, or the the BeRTIE application developed by us with the Institute for Education.

At the same time, the CCC performs an important role supporting individual and collaborative research across the university, by developing ideas through its seminar series and discussion forums. It aims to support creative ideas as they appear by providing a challenging but nurturing environment of rigorous discussion and concept development.

The *International Journal of Creative Computing* (Inderscience) is edited from the CCC. The annual IEEE conference: International Symposium on Creative Computing (at University of Oxford in 2016) is also organised by the CCC. It has an ongoing relationship with the Springer books series "Cultural Computing" and offers a direct route to publication in collaboration with the editorial team.

We share PhD supervisions with other areas, for example: Luke Nickel (Saunders/Hugill); Rob Sherman (Pullinger/Yang). It is intended to increase this way of supervising. And we contribute to peer review, project development and mentoring across the College of Liberal Arts.

The CCC has a substantial list of publications including monographs, chapters, articles and papers. Here are some prominent examples.

We have worked with enterprise and media partners in a number of initiatives, such as the Creative Thinking Awards sponsored by Ark Data Centres, or the debates surrounding Hugill's "10 jobs of the future". We also have a secret project with a well known organisation which will be unveiled soon and we think will have a transformational impact on young people.

Prof Hugill chairs the Web Strategy and Development Group (now Web Advisory Group) for the university and has been instrumental in developing the conditions within which a newly appointed web and digital team can produce a new

website and CMS which will provide a significantly enhanced platform for promotion of research.

We have undertaken numerous consultancies and training, for example with PRIVIS and The Test Institute of Mongolia. We have also provided guidance and oversight for the collaborative provision arrangement at Future College, Dubai, and have been behind several Memoranda of Understanding with Chinese universities.

Here are some examples of recent funded projects: The Imaginary Voyage (TSB), with Mahogany Opera Group – online opera; Insight (NESTA), with Black Radley and Dr Alison Hems – predictive analysis for museums; Rossum's Universal Replicants (CROMT/Glyndebourne) – digital opera; Soundsweep (NESTA) – installation technology.

Bids in preparation include: *I, Crusoe* – an AI adaptation of the novel, with Dr Stephen Gregg, Prof Kate Pullinger, Prof Jim Hendler and Ms Sharon Clark; Embodied Intelligence in Music – experiments with machine consciousness, with Prof Craig Vear (DMU) and Dr Riccardo Manzotti (IULM Milan), plus Prof James Saunders.

We are always interested in discussing potential research collaborations. If you would like to propose an idea, please contact me today or via email at the address shown. Thank you.