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Dear Professor Bishop,

The Open University's support for the FuturICT FET Flagship

The Open University (OU) is the UK's largest university and a world-leader in innovative educational technologies and web research. We give our strong support to the proposed FuturICT FET flagship project and welcome the opportunity to be a core, signing partner based on our international excellence and commitment to scientific activities relevant to the project. The project aligns closely with the OU's mission of using technology to advance learning that has transformational, economic and social benefits across the world. 250,000 on-line students study OU courses, while millions of others watch our television programmes, co-produced with the BBC, and access OU open educational resources on YouTube, Facebook and iTunesU. In addition, we reach millions of teachers and healthcare workers in Africa and Asia with training delivered using mobile technology, and engage thousands of the public in novel and pioneering on-line research projects.

The OU was founded by a Royal Charter in 1969 with the mission 'to be open to people, places, ideas and methods', combining open access to education using mass media with a commitment to the highest standards of scholarship. Over the last 13 years we have invested billions of Euros in new educational products and platforms, supported by major programmes of research and development that have attracted funding from government, industry and foundations. Our involvement in FP7 alone extends to 55 projects active or in negotiation. One recent example, FINNOV: Finance Innovation & Growth, evidences the impact achieved by the OU's research. Addressing how to reform financial systems to increase innovation and economic growth, the project has attracted international media coverage, informed government strategies and EU policy making, and been cited by the European Commission as one of the most important research projects for jobs and growth in Europe.

The OU's research strengths would make significant contributions to underpinning all three major elements of FuturICT: the Planetary Nervous System, the Living Earth Simulator, and the Global Participatory Platform. The UK's national Research Assessment Exercise placed 70% of our Computer Science and Informatics research and 70% of our Earth Systems and Environmental Sciences research in the highest 3* and 4* international quality ratings. This research attracts €5m per annum of core quality-related public funding for research, to which the University adds about €8m p.a. of its own funding, and attracts a further €5.5m of external grants. The OU is also at the centre of a worldwide network of Affiliated Research Centres, with about 400 students undertaking research for OU doctorates. These include the Health Protection Agency, the British Antarctic Survey, the Transport Research Laboratory, and the Medical Research Council National Institute for Medical Research, the MRC Laboratories in The Gambia and the Wellcome Trust Research Programme in Kenya. We bring considerable experience in work-based and part-time doctoral training.

Learning sits at the heart of FuturICT. It will require a world-class public engagement programme to effect change in citizens' awareness of the impact of big data and complexity thinking and technology on society. Secondly, complexity thinking is proving to be a key intellectual element in transforming the future of lifelong, life-wide learning. Given the OU's worldwide standing in these arenas, we would be pleased to host FuturICT's public engagement programme, and play a leadership role in the *Education* priority area. As detailed below, should FuturICT be funded, our intention is to support this investment with aligned funding, focused in the following five key capabilities which we bring to the Flagship:

1. The OU has prioritised institution-wide research programmes in selected fields, of which one is *Educational Futures*, which aligns closely with FuturICT's mission to impact society in key areas. Analysing and managing learning as a complex system underpins the OU's approach to this topic. The application of complexity science to the future of online learning is led by the OU's Jeff Johnson, who has contributed to the FuturICT project from its earliest days. The combination of complexity thinking with social computing, big data learning analytics, and learning theory, led by Simon Buckingham Shum, is already having an impact in schools. The OU's Systems Group, led by Ray Ison, is another world leader, proving the value of systems thinking for designing complex, sustainable, sociotechnical infrastructures, and social learning, a primary means by which FuturICT's work will disseminate. We will be prepared to invest €1m p.a. in the *Educational Futures* research priority, to complement investment from FuturICT.
2. The *Knowledge Media Institute* (KMi), established in 1995, interfaces with FuturICT extremely well, and we are very pleased that KMi's Simon Buckingham Shum has helped to shape the concept of FuturICT's Global Participatory Platform. The Institute has become a major centre of excellence in linked data, social computing and learning 2.0, applying this expertise to the OU's needs as an internet and media university. The Institute attracts about €3m of external income each year mostly for international projects. KMi's semantic web research, for example, is developing intelligent web services to improve the configuration of distributed computing resources, critical to FuturICT's work. KMi's collective intelligence research is developing platforms for very large scale sense-making and debate, another key part of the FuturICT infrastructure. We will be prepared to invest €1m p.a. in KMi's work to complement investment from FuturICT.
3. The *Institute of Educational Technology* (IET) is a key asset that we can bring to the FuturICT programme. Its role is to connect innovation and enterprise in learning and teaching, underpinning the OU's mission to be a world leader in the design, content and delivery of supported open and distance learning through the innovative use of technology and digital scholarship. The IET jointly manages with the Faculty of Mathematics, Computing and Technology the Jennie Lee Research Laboratory complex, a multi-million pound investment in state-of-the-art facilities for research in

human-computer interaction and testing. This includes expertise in usability and accessibility for people with disabilities, which can make a specific contribution to the

social inclusion aims of FuturICT. We will be prepared to invest €0.5m p.a. towards IET work complementing FuturICT.

4. The *Open Media Unit* (OMU) manages the OU's open educational channels, delivering free public education on an unprecedented scale (€8.4M p.a.). OMU co-produces annually, in partnership with the BBC, over 20 free to air TV and radio series. Major educational documentaries are shown in prime time slots: for example, *Frozen Planet* was seen by more than 40% of the UK TV viewing population, and caused over 300,000 people to follow up their interests in environment and ecology online with the OU. Learner follow-up is managed via our own online systems and through close working relationships with Apple (on iTunesU) and Google (especially on YouTube and through search optimisation). Each year an additional 6 million people (50% from outside UK) use free OU materials on OpenLearn, iTunesU and YouTube. Together these channels provide over 15,000 hours of free, quality assured educational content (growing each year) across the breadth and depth of the curriculum. The OU is now developing crowdsourcing and social learning services via tools such as SocialLearn and the iSpot citizen science platform. The expertise of OMU and our delivery infrastructure will be available to help deliver FuturICT's educational outreach strategy through the OU's diverse channels and partners.
5. Our *Public Engagement with Research Catalyst* has recently been funded by the UK research councils (€450,000) and we will be able to make available to FuturICT the Catalyst's work on concepts, systems, methods and tools for engaging publics with research, much of which will use on-line approaches.

FuturICT is a visionary initiative capable of transforming human futures across Europe and the globe. Investment at this time is crucial in supporting how to intervene in systems across the world that are under strain or threat, with the promise of preventative and not just ameliorative action. As detailed above, The Open University wishes to play a full part in this vision, and brings world class capacity to help further FuturICT's aims.

Yours sincerely,



Professor Tim Blackman
Pro Vice-Chancellor (Research & Scholarship)

CC – Suzy Moat