The Future of Data Storage and the Future of Data Need: a PhD in Design and HCI

To start: October 2019
Deadline for Applications: Friday May 31st 2019
This is a call for applications for a three-year fully funded PhD studentship for UK and EU citizens in the Leverhulme Trust PhD Centre in Material Social Futures at Lancaster University.

Topic: The invention of new materials, such as nanostructures, has created much hyperbole as well as concern. Nanostructures are in the size range of 1 to 100 nm; minute beyond everyday understanding yet capable, in theory at least, of being assembled into new shapes and structures. In the computing industry, these structures are expected to be revolutionary; offering, amongst other things, the promise of quantum data storage. What does this mean for design? This characteristic affects not just the way data might be stored and encrypted but the scale of data storage and the way we might design products, services, and places. Indeed, with nanotechnology, manufacturers might be able to produce data storage materials at costs that are so low that the data storage becomes virtually free. However, and as any economist would observe, when the value of a commodity becomes almost nil, demand for it is likely to become infinitely large. In this case, users (whether individuals, companies or governments) might stop asking why they want to store data or what they want to do with it once stored, and instead start saving everything – irrespective of worth or value. Indeed, with ‘nano-data-storage’, the world might become flooded with ‘digital dirt’.

What is the role of design for speculating how such material social futures may emerge? How can design enable us to understand whether this ‘store everything’ future is desirable? What opportunities are there to experiment with alternative futures and how might design support the production of different scenarios through different methods, for example: design fiction? How might design and HCI enable us to explore different behaviours concerning the purpose and value of nano-storage? Indeed, how will people interact with data storage? What are the design questions in this space? All these and more are legitimate topics to be investigated in this forward-thinking research project. The appointed candidate will participate in and contribute to a multi-stranded research programme in Material Social Futures in which the future of data storage and data need is one important part.

The Leverhulme Centre in Material Social Futures
Lancaster University’s Leverhulme Doctoral Training Centre in Material Social Futures is a major new strategic collaborative partnership between two of the university’s recently formed research Institutes – the Institute for Social Futures and the Material Science Institute coupled with expertise from ImaginationLancaster, an open and exploratory design research lab. The PhD candidate will be part of a growing team of PhDs who will work to bring together concepts and approaches from across the disciplines to help produce futures that people want and the world needs.

Lancaster University is one of the top 10 universities in the UK. The project will also benefit from access to the vibrant research community of Lancaster’s Institutes for Social Futures (http://www.lancaster.ac.uk/social-futures/) Materials Science (http://www.lancaster.ac.uk/materials-science-institute/) and ImaginationLancaster (http://imagination.lancaster.ac.uk)

Supervisors
The PhD will be supervised by Prof Nick Dunn, nick.dunn@lancaster.ac.uk; and Prof. Richard Harper r.harper@lancaster.ac.uk Informal enquiries are warmly welcomed, please contact us.
Further Details

- The PhD is for 3 years duration and is awardable to any EU citizen;
- Payment of academic fees;
- A Maintenance Stipend (£14,777 pa);
- Access to a Research Training Support Grant (RTSG) (£800 pa) for reimbursement of research-related expenses including – but not limited to – conference attendance, training courses and equipment.
- Additional research costs (such as entailed in fieldwork) will be supported as appropriate;
- Access to a range of training and development provided by Lancaster University, the Material Social Futures PhD Programme, and the Institute for Social Futures and the Materials Science Institute;
- The Material Social Futures PhD programme will offer optional internships (including international placements) in the second and or third year of training.

Person Specification:

- Candidates will preferably have a background and academic interest in any combination of HCI and computer science, design, sociology, anthropology or related science and technology studies;
- Candidates must have qualifications of the standard of Bachelor’s degree at first or upper second class level, and may also benefit from having a suitable Master’s degree or equivalent (or will have completed a Master’s degree by the starting date October 2018) in a relevant discipline.

Application Information: Please send enquiries about the vacancy and applications by email to Nick Dunn (nick.dunn@lancaster.ac.uk) or Richard Harper (r.harper@lancaster.ac.uk)

How to apply:

- A full CV, including two named referees (one of whom should be your most recent academic tutor/supervisor);
- A copy of Bachelor’s degree and Master’s degree transcript (or copy of equivalent qualifications);
- A letter of application (not exceeding two pages of A4) outlining your suitability for a PhD and explaining how you would approach the research;
- An example of postgraduate level written work (e.g. a research article, chapter, or essay).

Email applications to either of the supervisors above

Deadline: Friday May 31st 2019

Candidates invited for an interview will be eligible to claim reasonable UK travel expenses to attend.