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The future of big and open data and its impact on the digital economy – notes from our participation at #HICSS47

Blog Editor

During the second week of January 2014, our LSE team attended the 47 Hawaii International Conference on System Science. In this post, **Silvia Elaluf-Calderwood** *reports the highlights of our participation in the conference, and scores the relevance of research work on the underlying dynamics of the digital economy in the UK and worldwide.*

The LSE team presented new research at the 47th Hawaii International Conference on System Science ([HICSS](#)) last week. Our paper, entitled "Modularity and network integration: Emergent business models in banking", was part of the mini-track "New economic models of the digital economy" organised by Roger Maul (Exeter, [NEMODE](#)) and Cathy Mulligan (Imperial College, [SSN+](#)). Both NEMODE and SSN+ are research projects sponsored by the Research Councils UK and both support work of our team.

HICSS is one of the most important conferences in the information systems research community calendar, along with ICIS. HICSS conference gathers around 900 participants from all over the world in its annual event just after the New Year in the beautiful Hawaiian Islands. Every year the event is hosted by the University of Hawaii and this year it was held at the Big Island.

Our paper presented findings of our current work on [big data and new business models in the financial services](#). In our session, there were three other presentations relating to diverse aspects of the digital economy and new business models. The other themes included a paper on understanding the impact of datafication on service systems, unfolding the key elements of business models for location-based services, and a paper on modelling IT induced ambiguities.

Each of these approaches to different aspects of the challenges for the evolution of the sustainability of the digital economy in the UK come with a particular link to the management of big and open data for better allocation of resources and optimization of processes that are related to the sectors. Engaging debate that was followed by social media updates (Google plus, Facebook, Linkedin, Twitter, Academia.edu and Yammer) raised a number of issues (e.g scope and limitations of current approaches)about how this research contributes (or potentially contributes) to the digital economy to the overall economy of the UK.

These concerns are echoed in research in the USA, Europe, and elsewhere where scholars are also anxious to find out where and how the development of digital economy policies are embedded and interpreted. By all means, understanding the dynamics and key factors underlying the digital economy models is of high importance for current policy developments in this area (e.g. the silicon roundabout in Shoreditch, London).

During our time in Hawaii, we also engaged in wider discussion on the many aspects of big and open data explored by not only computer scientists and engineers, but also economists and political science experts. We did so by participating in a panel on open data services – which will lead to a minitrack in the 2015 HICSS conference. This panel, lead by Matti Rossi and colleagues (Aalto University Business School, Finland) aimed to identify research gaps, business challenges, central research issues and their links to technology innovation, openness and transparency. We also became involved in discussions about how better to deal with underlying issues in the philosophy of technology as they contribute to information systems scholarship.

Our perception is that the conference was a success and we learned from many colleagues. In particular, our work was praised for bringing in systems modelling and structuration to the study of the digital economy. We do so through our use of modularity theory as an analytical approach for understanding the impact of emerging business practices in the new economy developments in the digital sector.

This article gives the views of the authors, and not the position of the London School of Economics.

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