

Jul 15 2013

## Convergence of Computing Science, Networks and the Law: Reflections from the workshop at UPenn Law

Blog Editor



**Silvia Elaluf-Calderwood and Jonathan Liebenau** from the LSE Tech attended an invitation-only Roundtable on Computer Science and the Law and the University of Pennsylvania Law School, on the 24-25<sup>th</sup> of June. In this post, Silvia and Jonathan present the highlights of the workshop – the first of its kind – aiming at building bridges among scientists, engineers and law professionals interested in convergence, regulation and economics of the internet.

On 24 and 25 June 2013, the University of Pennsylvania Law School hosted an workshop on Computing Science, Networks and the Law. Participant institutions included the University of Colorado, the London School of Economics, ETH Zurich, Raytheon BBN Technologies, Princeton University, University of Nebraska College of Law, George Washington University, UCLA School of Law, Setton Hall University School of Law, New York University, Robinson\_Yu LLC, Santa Clara University School of Law, School of Engineering and Applied Science UPenn and the hosts. Google, Verizon, and other companies were present as observers.



The workshop opened with an informative tutorial by [Prof Christopher Yoo](#) that brought together his view on the broad questions of convergence and his [new research](#) on modularity theory as applied to the internet. This set the agenda to understand the shortcomings of current approaches to providing new regulation and revising existing assumptions from both the USA and the rest of the world. From that and subsequent discussion it has become clear that there is a renewal of efforts to try to understand what the issues are in regards to the internet and the convergence of digital products and services with the physical infrastructure of the telecommunications networks. From the legal point of view emergent technologies challenge the status quo of many aspects of regulation currently in place for the telecommunications industry. Professor Yoo has been working on his description of the emergent internet and its implications for law and economics. The main idea of this workshop was to open the mainly US centric debate on the future of the internet to other avenues (e.g. European debates on internet sustainability, etc.) but also explore current themes from the views of firms and regulators.

The workshop covered a diversity of themes; most pieces of work presented consisted of research in progress. The LSE tech team presented an early draft of the paper accepted for the [ITS-2013](#) titled “A European Perspective on Traffic, Uses and Business Practices in the Digital Economy”, which follow the themes that have presented in [this blog](#) and publications completed by the LSE team as part of our research agenda. By stressing that a full debate that [is not only USA centric](#) will benefit all, we opened up a debate on trying understand the importance of multi-stakeholder processes, how to defined their interactions on next generation networks, and how [the internet is not by all means flat, and global](#).

This was followed by a session on bitcoins as an example of how the emergent technologies have been hosted in the internet and how they can create provisioning services – in this case a distributed digital currency – that challenge established commercial business practices (e.g. banks and central banks issue of money). This exploits legal loopholes that go beyond the current technology understanding of the law to create the need for complex jurisdictional requirements and revision of the impact these alternative currencies will have in future internet transactions.

In light of recent events widely published in the media with regards to monitoring of cloud services and privacy requirements to protect the USA from the action of hostile individuals or groups, there was a discussion of the next generation privacy act. For the LSE team as European observers it was very interesting to note that the assumption that USA law protects better than local laws or international law is an indication that this issue will be contested very strongly by lawyers outside the USA. Additionally a number of cases studying virus, botnets, and obfuscation were discussed. Three main highlights can be taken out of these three cases: the first one is that behaviour and epidemic analogies as models need to be carefully interpreted to understand internet behaviour. They are still in a exploratory research stage and interesting results, such as the status of

botnets legal cases – driven by Microsoft’s actions to protect their copyright – are creating inadequate procedures that require them to be embedded in a more formal process. Finally, obfuscation is a tool of incredible complexity for many users of the internet and will require further adoption to be layered or simplified before it can achieve a significant level of importance. Currently, the only ones benefiting from its strengths are firms very much specialized on providing the services that obfuscation is supposed to prevent access to.

The workshop – the first of its kind – will have a follow up session at the New York Law School in March 2014, and another workshop will be hosted at Penn sometime next May. Most of the papers discussed will be published over the next year in more advanced forms; it is a conclusion of this workshop that such efforts build bridges among scientists, engineers and law professionals. This confluence is extremely important and ought to continue with more intensity in the future.

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

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