

Report of Dr. Kieran Hickey Rapporteur on ICT and Environmental Regulation Workshop 20-21st June 2013 at NUI Galway.

General comments

This was a workshop consisting of an extraordinary variety and quality of papers and this was reflective of the interdisciplinary nature of the theme of the workshop. I repeatedly came across reference to four broad themes which could also translate into future research areas. These are outlined in a little more detail below.

1. The issue of rates of change or timescale.

It is clear that core components of the links between ICT and environmental regulation are operating at very different timescales. At the instantaneous level you can have monitoring in real time, data availability also in real time. Using social media you can identify an environmental problem and create a campaign on it within 24 - 48 hours which is extraordinarily fast. An example of this is the unrest in Turkey originally over the attempts by developers to build on a public park.

However the rate of change slows dramatically after this even for urgent and critical issues so regulation change is slow, legislation is even slower. An example here would be national government's attempts to outlaw so called designer drugs. Finally constitutional change is even slower still operating on the basis of change over years to decades.

Clearly the availability of ICT and real time data etc has changed this landscape dramatically. Two phrases that emphasise this issue and what needs to be done were 'rapid but careful change' and 'the legal framework has to catch up'. In the latter case I think catching up is only half of what's required, keeping up is also going to be a major challenge and the need for a much more flexible and reactive regulatory and legislative environment.

2. Data issues

2.a data availability and the development of information tools

2.b filtering of the huge amount of data that is becoming available – who is doing this work and for what purpose

2.c reliability of all this data coming not just from established sources like universities and research centre, government agencies but also from citizens, NGO's and others. This begs the question who is going to judge the reliability of the data.

2.d trust in the data especially as it is and will be increasingly coming from a myriad of sources

2.e the regulatory and legislative standing of the data from these sources – how quick or slow will decision be made in a legal context?

Again one phrase emphasised some of the core issues here and that was that ‘the management of data is critical’

3. The complexity of the data and environmental systems

There is so much data out there already and this is only going to explode in the coming years. As a result of instantaneous monitoring changes in environmental systems and the identification of significant environmental problems will be captured (both spatially and temporally) in a much more nuanced way.

This will present a huge challenge of understanding at all levels in society from the citizen, scientist, policy analyst, regulator, politician, legal representative, judge and others.

Two phrases stuck in my mind to do with this point and they were ‘engagement with the data’ and more importantly ‘engagement with knowledge’

4. Data ethics

This is a huge potential minefield for all concerned and there are a lot of aspects that came in the workshop.

4.a issues of privacy – what should be private and who decides

4.b access - whether it should be free, paid for, licensed, what limitations are to be imposed on the use and the use the data is put, what if the taxpayer has paid for the data generation. How do we deal with databases with multiple contributors – who decides re. access and use.

4.c disclosure of data stores – what are data gatherers not telling us and have we a right to find out

4.d usage – ethical versus unethical – who decides which si which and what penalties could apply to the latter if any?

4.e issues of regulatory use

4.f issues of legal use

4.g what if there are errors in the data or database and decision made on that basis have an adverse effect on a decision, person, company etc.

It seems that very little of this has been tested in a court of law!