Governance of (scientific) Knowledge

Workshop Report (09 July 2010)

On 09 July 2010, IRGC held a workshop in Geneva on 'The Governance of Knowledge' to explore the risk governance implications of current practices related to how knowledge is managed and to determine the potential need for project work on this issue. This workshop was held in conjunction with a meeting of the IRGC Scientific and Technical Council (S&TC) and was attended by S&TC members along with invited experts from NGOs and both the private and public sectors.

What we refer to here as 'the governance of knowledge' encompasses the entirety of all regulations, written and unwritten rules, habits and policies that establish who has access to knowledge; who owns knowledge; and how knowledge can be used. Given the key role of knowledge in promoting innovation, economic growth and development, if there are deficits in existing governance of knowledge practices or if they are incompatible with the requirements of risk governance, this may engender risks to human health and safety, the economy, the environment, and/or to the fabric of society at large.

There are two evident trends in the governance of knowledge today: on the one hand, the trend towards increasing amounts of freely available 'open source' knowledge, and on the other hand, the trend towards restricting access to, or withholding, knowledge. This workshop focussed on the latter trend, with discussions being informed by a background briefing paper that described four potentially dangerous tendencies in the existing governance of knowledge:

1. The withholding of knowledge: where the results of research done in the private sector are kept secret if they are unfavourable to the company's interests, regardless of the contribution they could make to further research in the field;
2. The capturing of knowledge: where intellectual property (IP), copyright and patent laws (although essential as incentives for innovation) are increasingly turning into sources of risks by providing unjustified benefits to the title holder;
3. The use of knowledge for manipulative purposes: where uncertainties surrounding knowledge become subject to social and cultural value judgements and knowledge is interpreted or 'twisted' to support a certain position or cause (e.g. the climate change debate)
4. The centralisation and monopolisation of knowledge: where ever increasing amounts of knowledge are compiled and held, and potentially controlled, by a select few. A useful example of this tendency is how Google makes knowledge available.

A presentation from a representative of 'The Manchester Manifesto: Who owns Science?' (http://www.isei.manchester.ac.uk/research/researchareas/whoownsscience/) outlined the need for promotion of alternative incentives for innovation, greater cooperation between states and governing organisations such as WIPO, and an increased understanding of the weaknesses of the current system. It was argued that such steps are needed to reduce the risk of current IP practices impeding risk governance and creating damaging social inequities.

To present another perspective on the issue, a representative from the World Intellectual Property Organisation (WIPO) then spoke about the goals and functioning of the current IP system and existing mechanisms to address the risk of inappropriate patents that are too broad in scope or of low quality – within the WIPO system, 3rd party observations; revocations, cancellations and annulments of patents; and actions before courts are all possibilities. The importance of WIPO's role in helping developing countries to increase their access to scientific and technical information and reinforce capacity to participate in the global knowledge economy was also emphasised.

A number of other presentations by participants centred on: the history of the knowledge governance regime and the growth of patents; its impacts in specific fields (notably stem cell research where, in some countries, a lack of governance leads to the availability of potentially dangerous and unfounded treatments while, in other countries, there are concerns of overregulation stifling research); how the privatisation of research in the domain of GMOs has led to withholding of knowledge that has effectively limited research on effectiveness of GMOs and on the potential risks; and the role of education systems in combating privatisation trends in research.

The discussions that followed covered a wide range of topics and addressed many questions.

• The question of what should be patentable (for example, traditional knowledge and genetic resources are arguably off limits as a source of commercial gain) and even where the line should be drawn as to what kinds of research should be allowed in the first place. This brought out the strong *ethical dimensions* in the governance of knowledge debate.

• The fact that the granting of a patent does not require the disclosure of negative information and thus creates a bias towards the reporting of only positive research results was also singled out as a topic of concern for risk governance. Although this leads to a privatisation of benefits and a socialisation of burdens, some participants were able to cite efforts that are currently underway to address this problem and make sure that negative knowledge also becomes public (e.g., freedom of information, creation of registries where industry and researchers can file their failures to help other avoid making the same mistakes).

Concerning potential further work by IRGC on the governance of knowledge, consensus was that moral aspects (related to the distribution of benefits) and legal aspects (related to IP rights) were not suitable topics for IRGC. However, many participants felt that work could usefully be done on functional knowledge management, taking a narrow view on the issue as it relates to risk governance:

- Focus on *information deficits* and closing the gaps that prevent access to or acquisition of knowledge that is needed to support better assessment of risks and thus also has implications for how risk management is performed.
- How secrecy/manipulation/withholding of knowledge can impact the way that risks are managed
- Incentives for the disclosure of positive or negative results (e.g., look into the role of semi-independent risk auditing institutions related to government)
- The availability of knowledge in the academic sciences

Importantly, the governance of knowledge is not a topic that should be considered in isolation, but should be looked at in the context of broader risk governance processes.

Overall, the presentations and discussions over the course of the workshop provided a lot of food for thought about the different implications of the governance of scientific knowledge. The field is very controversial and touches many interests. With regard to risk governance, the functional aspect of knowledge governance is predominant, but is in many respects entwined with or dependent on the legal and moral dimensions of the issue.

IRGC considers doing project work on this topic, possibly by adding appendices or highlighting these particular issues in existing work.

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