

Volume 5, Issue 2, August 2008

Institute for Science, Ethics and Innovation (iSEI)

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DOI: 10.2966/scrip.050208.428



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* On behalf of the Institute of Science, Ethics and Innovation.

1. Introduction

The *Institute for Science, Ethics and Innovation* (iSEI) is a new institute which has been established at the University of Manchester to examine and analyse the role and the moral responsibilities of science, technology and innovation in society both locally and globally. We want to examine the justifications for science in the 21st Century, to evaluate possible or desirable changes and to consider the forms of regulation and control of the process that are appropriate or required. The new institute is chaired by the Nobel Laureate Professor John Sulston and has Professor John Harris as its Research Director.

iSEI includes Manchester's twin research centres *The Institute for Medicine, Law and Bioethics* and *The Centre for Social Ethics and Policy* (CSEP), founded in 1986. This grouping of some 30 researchers, comprising academic staff, research fellows and doctoral research students, forms one of Europe's leading research groups in this area, and is embedded in a culture of broad multidisciplinary. These centres have established themselves as the leading focus for truly interdisciplinary work in bioethics and medical law in Europe. There exists a long tradition of co-operative work between disciplines and also of genuinely interdisciplinary endeavours, creating a balanced partnership. Here we have doctors, lawyers, scientists, social scientists and philosophers already working together under one roof. This partnership facilitates the move from knowledge and understanding of the rather abstract debate in pure science, law and philosophy through applied ethics to the implementation of policy and law.

In addition iSEI has formed links with other groups across the University. In particular iSEI will complement and work co-operatively with Manchester's existing *Brooks World Poverty Institute*, which is chaired by the Nobel laureate Joseph Stiglitz. Our aim is for the synergy created by the existence of these two institutes to create a centre of excellence in these complementary fields second to none globally.

2. Research at iSEI

The institute aims to deliver ground-breaking research within the scope of "science ethics and innovation." We intend to tackle this at a variety of levels (individual, institutional, professional, legal, and governmental) each raising important ethical, legal, research, and policy questions. The Institute intends to build upon and expand on the work of its partner Centre (CSEP) and has initially identified a few key areas for initial research. These are:

1. *Humanity, human rights, interests and obligations* – work in this area will include the ethics of genetics, such as the selection of human embryos, genetic manipulation of humans and animals, genetic non-discrimination, and the mixing human and animal genes and cells. Research will also look at the ethics and policy of improvements and modifications to human beings and possibly to human nature, the rise in the use of humans and human material as biological resources, and the use and abuse of forensic and other databases.
2. *Health (individual, public and global)* – here we intend to focus on the inequalities that exist in health care research and delivery both globally and nationally. Of particular interest are the challenges we face around data

exclusivity of intellectual property. We are interested in whether corporate competitiveness imposes unnecessary costs ultimately passed on to the healthcare subject and whether there are alternatives to exclusive rights patents to promote social and global equity. For more on this see the next section.

3. *Ethics and global justice* – a large portion of our work will focus on the responsibility of science and scientists to society and the world. This, however, has a corollary, which has been neglected in research, which is the responsibility of societies and individuals to science broadly conceived. We also want to examine other issues of global importance, such as global trade and the need for multilateral treaties that take account of ethics, crop science, climate change and the ethics of bioenergy, and the notion of population control.

The agenda of the *Institute for Science, Ethics and Innovation* will be above all a moral agenda; put simply, our purpose is to facilitate progress towards a better future for humanity.

3. So far at iSEI: “Who Owns Science?”

The foundation of the new Institute was announced at the end of 2007 and iSEI was officially launched in July 2008 with its first event, “Who Owns Science?” This event was held in conjunction with the Brooks World Poverty Institute and was to begin a national debate on intellectual property to address rising concerns over commercialisation of science. The chairs of the two institutes, John Sulston and Joseph Stiglitz, gave public lectures where they discussed the monopoly of scientific knowledge and economic power.

3.1 Statement of the Problem

Science is a rapidly growing industry. Beyond basic research, the commercialisation of technologies and development of new products from bench top to marketplace is a complex process. The way in which this process is managed, and in particular the way in which access to technologies is facilitated and controlled, is having and will inevitably have an increasing impact on the course of science and innovation. An important component of the innovation process is the idea of ownership of science and technology, particularly in the context of profiting from research and development. To manage the ownership of science and the fruits of research, an intricate system of intellectual property law has developed. The justifications for IP law as it exists at present include the idea that it is necessary to facilitate scientific and economic benefit from innovation, and that it provides a fair and morally justifiable way of regulating access to these benefits.

It is contended, however, that the current method of managing innovation (and perhaps in particular IP in its present form) suffers several disadvantages in terms of its effects on science and economic efficiency, and raises ethical issues because of its (often adverse) effects on people and populations. Whether this is in fact the case and, if so, what can be done about it (for if it is, then something should be done) is a broad question, but one of vital, perhaps paramount importance, that will require

investigation across a number of disciplines including law, economics, ethics and philosophy.

3.2 The Manchester Manifesto

The question of “Who Owns Science” is becoming increasingly important. The answer will have broad-ranging implications: for scientific progress, for equity of access to scientific knowledge and its fruits and for the fair distribution of the benefits and the burdens of science and innovation – in short, for global justice and human progress.

The iSEI launch incorporated a meeting of 60 experts from relevant disciplines to address the challenge outlined above and begin the process of formulating a “Manchester Manifesto” on equitable innovation, with the aim of achieving an expert consensus on the issues, the problems and dangers, the opportunities and hopefully also some of the solutions which will enable science and innovation to flourish in ways compatible with human progress (perhaps even survival) and global justice.

The group’s members are drawn from a broad range of academic disciplines and relevant sectors, including economics, science, innovation, law, philosophy, ethics and public policy. Our goal is not only to investigate the question of who owns science but to present and apply our findings to maximum effect in order to make a difference in the real world as to how science is used, and hence to “build a better future for humanity.”

4. The Future at iSEI

>Lorem The research programme at iSEI is poised to expand rapidly from this auspicious beginning. Over the coming months, we aim to increase research capacity through recruitment of additional research staff and students, and to expand the programme by developing new research areas and projects in line with the Institute’s agenda as outlined above. Opportunities for PhD studentships are currently available and we expect to make a number of research staff appointments in the near future. In addition, iSEI’s Visiting Scholar programme provides the chance for external researchers to work with iSEI and develop collaborative links between institutes in related research areas.

On the educational front, we intend to introduce a new MSc programme in Science, Ethics and Innovation to complement CSEP’s existing MA in Health Care Ethics and Law. This course will be suitable for students from a broad range of backgrounds including medical and biological science, engineering, innovation and business management, as well as law and philosophy, and will provide the opportunity to work with experts across relevant disciplines to develop knowledge and skills in the area of science, ethics and innovation.

Ongoing research-related activities at iSEI include internal seminars, academic and public events including workshops and lectures, and contributions to external events such as conferences. Members of the Institute regularly provide expert advice and commentary on topical issues in science and ethics, give media interviews and participate in public engagement and educational events.

Further information on any of iSEI’s activities can be obtained by contacting Catherine Spanswick, iSEI Administrator: isei@manchester.ac.uk