

ESRC Research Seminar Series, Seminar I

Complexity and Policy: the Global Governance of New Health Technologies

Launch of the series of six seminars on:

Complexity Theory as a Framework for Management and Public Policy

26th November 2008 (9:15 am - 6:00 pm)

London School of Economics

Personal Genomics and Policymaking: the practice of Complexity



Barbara Prainsack
King's College, London

There is growing recognition that complexity is an ontological feature of the world, and as such a crucial issue for understanding the limits and possibilities of concerted human action. However, for complexity theory to be useful for policy analysis, we have to overcome two main obstacles: First, instead of operating with a rather undifferentiated concept of "systems" (assuming that all systems shared the same characteristics which could exhaustively explain their relevant properties), we need to understand the characteristics of complex human-material systems and how these affect the dynamics of complexity. Second, policy analysts tend to see complexity primarily as an obstacle in the path of concerted human action. While it is certainly true that complexity makes things more 'difficult', we should also think of complexity in terms of intervention. Complexity is an inescapable feature of the world that humans have dealt with for centuries, if not millennia. Actors harness complexity by acting on the situation at hand; by intervening in it and observing if what happens accords with the expectations they have held. We will use the case of the rise of Personal Genomics to illustrate and develop our argument.



Hendrik Wagenaar
Leiden University

Predicting Complex Futures: the role of regulation in health technology foresight



Joyce Tait
Edinburgh University

The Innogen Centre was asked to write a scenario report for the OECD International Futures Programme on the future trajectory of the health-related bio-economy and the societal, economic and policy precursors for these projected outcomes from 2015 to 2030. Our starting premise was that the current innovation system in the pharmaceutical industry is fundamentally unsustainable, although it still dominates health care systems in developed countries, at least from the perspective of potential impacts of biotechnology. The scope and inventiveness of innovation in life sciences, across the board, have been constrained by the expensive and lengthy regulatory systems that act as a barrier to entry for small companies that could challenge the industry status quo. Radical change in regulatory systems is a necessary precursor for the emergence of a more innovative health care sector. This paper will briefly outline the implications of a 'no change' scenario and describe the pre-conditions needed to lead to a 'radical change' scenario. The latter would require regulatory agencies to collaborate, as an integral component of the innovation system, in the proactive development of new, smarter regulatory approaches to the generation of benefits based on fundamental discoveries in life sciences.

Patently Complex? : Emerging questions on patents on biotechnological inventions



Aurora Plomer
Sheffield University

Basic research in the biosciences has the potential to bring dramatic improvements in the treatment of crippling and life-threatening diseases. A key concern since the extension of intellectual property rights to cover biological matter and DNA sequences has been the potential stifling effect that such patents may have on research, innovation and access to treatment. Whilst the commercial exploitation of research through the grant of intellectual property rights is perceived by policy makers and courts in developed economies as essential to economic growth, the evidence required to support the assumption has hitherto proved notoriously complex and elusive. This paper explores a spectrum of variables in the regulation of patents on biotechnological inventions, including the implications of the shifting boundaries of biological research for classification and access to patent data, the fuzzy boundaries of patentability criteria and their relationship to the evolving science, and the complex network of overlapping legal and ethical controls on research and patents in the biosciences. The overall aim of the paper is to identify some of the potential methodological difficulties in developing causal or reductionist models to model impact assessment in this field.



Peter Taylor
Oxford University

Panelists:

Prof. Eve Mitleton-Kelly, London School of Economics
Prof. Brian Salter, King's College, London
Prof. Peter Allen, Cranfield University
Prof. Jeff Johnson, Open University

For registration, please visit <http://www.psych.lse.ac.uk/complexity/>. For enquiries, please e-mail: ComplexityGroup@lse.ac.uk
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