The passage of a successful bill in the House of Commons entails the following stages: first reading, second reading, Committee stage, report stage, and third reading. At the first reading the bill is ordered by the House to be printed; at the second reading it is discussed and passed to a Standing Committee; at the report stage the House considers any amendments that have been made, and after the third reading the bill passes to the Lords. If it is amended at this stage it returns to the Commons and continues to pass between the two Houses until agreement has been reached.

Each Public Bill bears a number at the bottom left hand corner of its first page. The number on bills originating in the Commons appears within square brackets and those originating in the Lords within round brackets. The last clause of a bill gives its official short title, and a bill should be cited by this short title, the session and its number. A new sequence of numbers starts at the beginning of each parliamentary session. There may be more than one version of a bill if amendments have to be incorporated. Each new version of a bill has its own number, but all are brought together in the sessional volumes.

Private Members’ Bills. A member of Parliament who does not hold office in the government may under certain circumstances introduce a Public Bill. If successful it will pass through the normal stages of a Public Bill. However, many Private Members’ Bills are unsuccessful and go no further than the second reading.

House of Commons Papers are the papers which arise out of the deliberations of the House or are
needed for its work. They include reports of its own committees and accounts of official bodies set up by Parliament. The papers are numbered in sequence for each parliamentary session at the bottom left hand corner of the cover, as a plain figure.

Technically, Command Papers are presented to Parliament by Command of the monarch, but in practice they are presented by one of her Ministers acting on his/her own initiative. Unlike other sessional papers they may be presented during a parliamentary recess. This series includes statements of government policy (white papers), reports of Royal Commissions, the annual reports of some government departments, and papers concerned with foreign affairs in the treaty series.

Parliamentary debates... (Hansard) are the substantially verbatim official records of things said in Parliament. They are issued in daily and weekly parts, and then cumulated into bound volumes, which are the final official version. As well as reporting all speeches delivered in the course of debate, they include answers to both written and oral questions, and records of divisions. Weekly indexes are published and each bound volume has its own index. For each session there is an further index volume which indexes the names of speakers, their official position, if any, and subjects. The indexes refer to column numbers not page numbers and for written questions and answers the column numbers are in italics. These will be found in a separate sequence at the end of each bound volume and interspersed in the weekly parts.

The period before 1803 is reported by Cobbett's parliamentary history which covers the years 1066 to 1803. Since 1803 there have been six series of Hansard, some privately published. The fifth series, begun in 1909, was initiated by Parliament itself. Debates in the House of Lords have been reported separately since 1909; before then a summary had been published in the same volume as the Commons debates.

Standing Committee debates are published in unrevised daily parts and later are bound sessionally in chronological order of bills within each standing committee. There are several standing committees each session. There is an index of speakers and subjects for each volume but no general index to the sessional set. House of Lords Standing Committee debates are included in the Lords' Hansard.

Public General Acts are the Acts most commonly quoted. They are Public Bills which have received the Royal Assent. They are published separately and later cumulated in annual volumes. Numbering is by chapter number, abbreviated to c. Since 1963 chapter numbering has been within the calendar year, but before 1963 it was by parliamentary session, indicated by regnal year or years.

Local and Personal Acts originate as Private Bills. No annual volume is published although a list is issued annually. When citing Local and Personal Acts the general rule is followed but the chapter numbers of Local Acts are expressed in lower case roman numerals. For Personal Acts the chapter number is cited in arabic numerals in italic type.

General Synod Measures are the measures passed by the General Synod of the Church of England. Before they come into force they have to receive the Royal Assent. They are published individually as well as collectively in the annual volumes of Public General Acts and General Synod Measures. Before 1972 the legislation of the Church of England was made up of the Church Assembly Measures.

Delegated legislation arises when Parliament specifically empowers another authority, usually a Minister, to make rules and regulations which have the effect of law. Most delegated legislation is in the form of statutory instruments (SI); from 1891 to 1947 they were known as Statutory Rules and Orders (SR & O). They are numbered consecutively throughout the calendar year and published daily, then in annual volumes. Until 1961 the annual volumes were in classified subject order and included only those orders still in force at the end of the year. To identify a SI it is necessary to cite both the year and the serial number.

These are documents produced by government departments for use outside the parliamentary
context. Since 1921 many publications formerly issued as Command or House of Commons Papers have been transferred to the non-parliamentary category. This was largely an economy measure to reduce the number of sessional papers which are distributed free to MPs. There is no official system of numbering these publications.

The following section provides a summary of the Library's main holdings of British government publications in print and on microform. The Library also subscribes to some sources online. Please note that many recent publications are freely available on the Internet. See online availability for more information.

The Library's main collection of parliamentary publications in print and on microform is held in the Government Publications section. This is located in Compact Store 2 on the ground floor of the JB Morrell Library. The section contains most of the parliamentary publications series listed above. The Government Publications section is arranged by series. Please note that individual items within these series are not listed on the Library Catalogue. Items from the section are for reference use only. Many items are provided in a microfiche or microcard format; microform reading and printing facilities are provided in the Raymond Burton Library Microform Room.

Print format. Comprises the statute law of England and Wales from the earliest times to the present day. Provides an up-to-date version of the amended text of every Public General Act and Church of England Measure currently in force, and also of a number of private and local Acts. Annotations relating to debates, amendments and appeals are included. Arranged alphabetically by topic. Comprises the main volumes, cumulative supplements and updates.


The Legislation.gov website provides access to legislation from 1988 onwards. There are also links to legislation for Northern Ireland, Scotland and Wales, 1999 onwards. Most UK Acts are provided in revised form, with amendments incorporated in the text. All revised legislation is updated with effects of legislation made up to 2002.

A range of print and online indexes are available to help trace government publications. More detailed information on tracing historical government publications is available in the guide to British government publications for the historian (PDF, 134kb). The print indexes are shelved in the Guides & Indexes area of the Government Publications section in Compact Store 2.

The University of Southampton Library Catalogue can be used to trace official publications from 1995 onwards. This data was previously provided by BOPCAS (the British Official Publications Awareness Service). Use the WebCat Advanced Searches option and select Material type British Official Publications.

The Annual catalogue of government publications lists all H.M.S.O. publications, both parliamentary and non-parliamentary published during a particular calendar year. It consists of a numerical list of sessional papers, an alphabetical list of all publications by issuing body, and a subject index. Some cumulative indexes are also available, for example, R.M. Blackmore Cumulative Index to the annual catalogues of Her Majesty's Stationery Office published 1922-72.

A series of breviates and select lists by P. and G. Ford are available. The breviates (summaries or abridgements) contain details and abstracts of reports and other material issued by committees and commissions inquiring into economic, social and constitutional questions. They are not comprehensive and the select lists do not contain abstracts:

Her Majesty's Stationery Office was responsible for the publication of all Parliamentary papers and many non-Parliamentary papers until it was privatised in 1996. The Stationery Office (TSO)
continues the publishing and sales work previously undertaken by HMSO. HMSO continues to exist as a residual crown body responsible for the supervision of statutory publishing and Crown copyright. It now operates from within the Office of Public Sector Information.

A body set up by the issue of a Royal Warrant to carry out an investigation of a specified subject on which new legislation seems desirable. The Commission meets until its investigation is complete. Its report is usually issued as a Command Paper, but the evidence as a non-parliamentary publication.

1. The oldest Select Committee of this kind is the Public Accounts Committee (PAC) under SO122. "... for the examination of ... accounts ...". This committee of 15 MPs, the Chairman of which is by convention a senior member of the Opposition, examines whether public money has been spent for the purposes intended by Parliament.

c) Public expenditure on defence has raised acute problems of accountability since Government claims the need for secrecy. Therefore, defence estimates given no indication of specific items. E.g. the Chevaline Project (to update Polaris missiles) was estimated to cost £175 in 1974, rising to £530 in 1982. The idea for this project had been devised in 1967 - but Parliament was not told until 1980. This episode prompted two concessions from the Government. After 1982, the Ministry of Defence makes a Major Project Statement to the PAC and Defence Committee - ie it discloses the existence of projects costing more £250m. In addition, after 1987, Defence Equipment Project Reports have been given for items over £25m - but highly classified items may be omitted.

b) Members of the Committees are chosen by the Committee of Selection, a committee nominated by, and including, the whips, whose presence obviously gives the Government influence over who is on the Select Committee. Membership must reflect party strength in the Commons, therefore Government has an in-built majority. Otherwise, membership is largely determined by the whips who consider e.g. the expertise and political reliability of candidates. The result is that the membership is very much influenced by Government whips, though the convention accepted in 1979 is that neither Government Ministers nor Opposition Shadow Ministers are chosen for these committees. The influence of the Whips on both sides may nevertheless be illustrated by two incidents in 1987-88.

Another important incident occurred in 1992, after the General Election of that year. Under pressure from the Conservative Government, the Commons accepted the convention that posts on Committee should not be given to those who had served since 1979. The Government said that this would allow for opportunity for new MPs and for fresh thinking. However, observers alleged that it was a way of disbarring MPs who, through their committee work, had become too expert at criticising the Government, especially Nicholas Winterton, the Conservative MP who had been the chair of the Social Services Committee and a noted critic of Government. The result is that MPs cannot treat Select Committees as a long term political career, so that only the Government provides a career path leading to real power and influence - with the implication that it will not be a career path open to difficult customers! This governmental influence has concerned the Liaison Committee. In its report Shifting the Balance (1999-00 H.C. 300), it called for a system of nomination at the outset of a new Parliament by a Chairman of Committees and two deputies. Once the system was established, there would be an independent Select Committee Panel. Not surprisingly, this idea has not been supported by the government.

c) The Foreign Affairs, Home Affairs and Treasury and Civil Service Committees can appoint one sub-committee each, and there may be a further one or two sub-committees to consider nationalised industries. But no other sub-committees can be set up. This limits the number of scrutinies which can be undertaken at any one time.

e) The Committees may also meet outside Westminster - e.g. several meetings of the Scottish Affairs committee have been in Scotland. The Scottish and Welsh Committee are to remain at present, despite devolution: Procedure Committee, The Procedural Consequences of Devolution, 1998-99 H.C. 185, para.21.
2. The value of the departmental committees has been assessed by the Liaison Committee in report published in 1982 (Liaison Committee, The Select Committee System (1982-83 H.C. 92) and 1997 (Liaison Committee, The Work of the Select Committee System (1996-97 H.C. 323). The Report lists many of the problems found by the Committees:

a) First, the limited power to set up sub-committees means that the committees do not have enough time to monitor more than a small portion of all departmental activities. However, the Government objects to more sub-committees on the basis that more work by the committees means more work for Government departments. The Liaison Committee criticises this reaction on the basis that the committees improve the running of the departments and the spending of public money, and so would be time well spent. However, there is some fear that concentration on Select Committees will damage the prestige of debates on floor of Home which more MPs still see as the prime political forum. It is interesting that the 1997 Liaison Committee Report did not favour an increase in funding to pay for more advisers and so on. It found that the real constraint was not financial but lack of time on the part of MPs to make use of any information put before them (para.21) - implying that there is no great enthusiasm amongst MPs to spend much more effort on this line of work.

b) Conversely, the committee system may be already too fragmented for some purposes. The result is that they cannot easily handle matters which cut across several committee boundaries and are so multi-faceted that ordinary back-benchers do not have the time properly to explore all the issues. It was suggested that this problem was faced in connection with the "Arms to Iraq" affair (see below). It has been suggested that the Commons should be able to set up a Parliamentary Commission (the counterpart of a Royal Commission appointed by the government). See: Government Response to the Public Service Committee, Ministerial Accountability and Responsibility (1996-97 HC 67, p.xiv).

c) As ever, there is the problem of access to information; civil servants and Minister have refused to give evidence from time to time. The only response the committees then have is that the matter is likely to be debated as a contempt of the House (or at very least a matter of concern). But with its in-built majority, the Government is not likely to be forced to alter course, and Committees do not in any event have any automatic right to bring their concerns to the Commons as a whole. To enforce attendance, there must be an order of the House of Commons, not just the Committee itself. The Government did give an undertaking in 1981 that any refusal to attend will be discussed in the House, but this did not extend to a promise to cooperate in every case.

Following the Ponting and Westland Affairs, these Guidelines were supplemented by a further "Armstrong Memorandum" in 1985 ("Guidelines for officials giving evidence to Departmental Select Committees" (1986) - see: HC debs. col.572wa, 2 Dec. 1987) which state that civil servants are not to answer questions about "conduct" (i.e. misconduct) of themselves or other named civil servants. The rules overlap considerably with the Osmotherly Rules but have been revised and retained (click for details). These rules accept that Ministers must give as full explanations to Parliament as possible (para.4) but at the same time assert that civil servants are Crown Servants not Parliamentary servants (para.3) and that they are under an obligation not to disclose confidences or other materials without authorisation (paras.8, 9). These statements are now backed by the Civil Service Code of 1995 (see especially para.3). There have also been some clarifications of the rules relating to the answering of Parliamentary Questions in the form of Guidance to Officials on Drafting Answers to Parliamentary Questions, issued in 1996 (click for details).

As regards the rules applying to Ministers themselves, the supine relationship between Commons and Government in terms of the enforcement of accountability was the subject of adverse comment in the Scott Report into the Iraqi Supergun affair: - Report of the Inquiry into the Export of Defence Equipment and Dual Use Goods to Iraq and Related Prosecution (1995-96 HC 115). Scott expressed concern that all of the definitions about what could or could not be disclosed to Parliament were devised by the Government and not by Parliament. Taking up this point, the Government has made some amendments to the relevant rules in the Questions of Procedures for Ministers, paragraph 27 of which now states that:

"27. Each Minister is responsible to Parliament for the conduct of his or her Department, and for the
actions carried out by the Department in pursuit of Government policies or in the discharge of responsibilities laid upon him or her as a Minister. Ministers are accountable to Parliament, in the sense that they have a duty to explain in Parliament the exercise of their powers and duties and to give an account to Parliament of what is done by them in their capacity as Ministers or by their Departments. Ministers must not knowingly mislead Parliament and the public and should correct any inadvertent errors at the earliest opportunity. They must be as open as possible with Parliament and the public, withholding information only when disclosure would not be in the public interest which should be decided in accordance with established Parliamentary convention, the law and any relevant Government Code of Practice."

any perceived breach should be referable to the Parliamentary Commissioner for Administration (the Ombudsman). The Commons should also by resolution determine its relationship with civil servants and other government officials. The presumption should be that named officials will appear as requested and also that the chief executives of Next Steps agencies will be able to give evidence without the constraints of the Osmotherly Rules;

There has been no response on the last point, but the Government has accepted that named officials will "normally" be produced before the Committee (Government Response (1996-7 HC 67) p.x and Departmental Evidence and Response to Select Committees (1997) para.41). As regards the first point, the Commons itself passed a resolution in 1995 which lays down a Code of Conduct for Members of Parliament. This was promulgated with the Nolan Committee (Standards in Public Life, Cm.2850, 1995) and concerns about "sleaze" in mind, but it does include standards such as "openness" and it does apply to Ministers just as it applies to back-benchers. More specifically, a Resolution on Ministerial Accountability was agreed to in March 1997, which affirms the importance of truthfulness and openness on the part of Ministers and attempts to confine the circumstances in which the suppression of information will be acceptable. Any Minister who knowingly misleads Parliament should offer his or her resignation to the Prime Minister (para.2). The limitations of this statement should be noted: the fault has to be knowing rather than, say, negligent or grossly stupid, and resignation is only to be offered rather than accepted.

- Their remit could include looking at proposals for legislation, but few Select Committees have had time to act as a pre-legislation committee. One exception - the Home Affairs Select Committee reported on the "Sus" law (see Vagrancy Act 1824) and threatened to introduce a Private Member's Bill if the Government did not pay attention to it - which it did. (4th Report 1980-81 HC 744). This aspect of work has concerned the the Liaison Committee. In its report Shifting the Balance (1999-00 H.C. 300), it argued for more attention to draft legislation (there was just one report in 1997-98, 8 in 1998-99, and 1 in 1999-00). A major problem is the limited number of legislative draftsmen. which means that legislation is not drafted far in advance of its introduction into Parliament.

- Another limit is that few Select Committees have yet looked at the departmental estimates. The Treasury and Civil Service Committee has suggested that all annual departmental reports should be looked at by the Select Committees and a day set aside in the Commons Chamber for debate on their reports. Likewise, the Commons Select Committee on Public Service has suggested greater access to National Audit Office papers and briefings to encourage the Departmental Select Committees to consider financial matters: Ministerial Accountability and Responsibility (1995-96 HC 313)

e) Next, the work of some committees have been hindered because their members have acted in a much more party political way than the members of the Public Accounts Committee. One consequence is that some committees, such as the Employment Committee, have been forced to avoid subjects which are likely to divide them along party lines. On at least one occasion, the political pressure has come from the government. In regard to an inquiry by the Privileges Committee into improper payments to MPs, a government Minister, David Willetts was condemned for "dissembling" about his contacts with the chairman of the Committee, Sir Geoffrey Johnson-Smith. See: Privileges Committee, Complaint of Alleged Improper Pressure brought to bear on the Select Committee on Members' Interests in 1994 (1996-97 HC 88).
f) The work of the Committees, though extensive and eventually published, is not widely known or publicised in advance. This sometimes has the effect that they are overly influenced by "insiders" - lobbyists and pressure groups, who know what inquiries are being conducted and have the resources to feed them helpful information.

3. Turning to the achievements of the system. The main purpose of these reports and the Select Committee system generally is to provide arguments and information for the Commons to aid it in its task of scrutinising the Government. So the point is not to look for Government action as a direct result of the Committees' work but to see how the Commons has used the reports in its scrutiny of the Government. In these terms, success has so far been limited.

a) Pressure from the Commons through questions and debates has ensured that the Government explains its reaction to each Committee Report. By convention, some reply is given, usually by publishing a report within 2 months. So, there has been considerable success in bringing into the open information about the Government's business.

So, Committees have been a limited success. At least they direct the talents of backbenchers into scrutinising Government in a systematic way which, if the system did not exist, Parliament would be even less effective than it is now. Thus, they are a useful extra device for enforcing Ministerial accountability - nowhere else are Ministers questioned so clearly and thoroughly. But Select Committees have not fundamentally shifted balance of power in the Commons because the overriding political consideration for the majority of MPs remains party loyalty to their Government. Parliament does not provide an alternative career structure with the same degree of prestige. MPs therefore must always have in mind that may one day want to be part of Government. It has therefore been suggested by Charter 88 in its briefing paper on Modernisation of the House of Commons (June 1997) that the role of departmental select committees should be expanded to include all back-bench M.P.s and that there should be extra payments for this work so as to encourage "an alternative career path".

4. Other select committees - The Departmental select committee system is potentially very comprehensive, but there have been subject-area where the House of Commons has felt that a specialist committee might be more effective, especially where issues cut across departmental boundaries. The Public Accounts is one such example, but more recently there have been established select committees on:

The first symposium of BioCentre's 2010-11 series took place on Monday 22nd November 2010 in the House of Lords. Entitled 'Revolution, Regulation and Responsibilities: Technology and Democracy in the 21st Century'; the series, as with all BioCentre events, seeks to bring together a diverse range of people from various backgrounds and disciplines in order that fresh discussion and generation of ideas might arise on matters concerning the ethical, legal and social impact and implications of emerging technologies.

As new technologies evolve and develop so does the need for effective and 'connected' regulation. But given the fact that these are 'new' technologies, a fine balance is required in order to develop regulation which offers enough protection to manage the risks involved but which does not stifle innovation and the potential social and economic benefits. A vast new landscape is opening up before us but there are no well worn templates to help us frame the future. As Justice Michael Kirby notes "We are experts without a great deal of expertise."

In an attempt to set the scene for the rest of the series and frame future discussions, the first symposium sought to address the general issue of the evolution of new emerging technologies and map the intersection between new emerging technologies and policy making. Some of the key questions explored included who the primary actors are who are involved in helping to shape and give direct to the regulatory process; what is helping to fund research in these new areas and in turn inform decision makers and what ways can communication be improved between scientists and the wider public. Given the level of attendance during the afternoon and the fact that it was standing
room only at some points in the afternoon, it would appear that these sets of questions currently resonated with many people.

Dr. Chamu Kuppaswamy, lecturer in law at the University of Sheffield’s Law School was the first speaker of the afternoon. With a keen interest in international law, primarily looking at how international law responds to new technologies and how technological advances have shaped international law, Dr. Kuppaswamy’s presentation looked at the important relationship and interplay between binding international legislation and international declarations which assume a more advisory approach. She made the point that declarations help to effectively set the agenda by engineering soft law. Examples of this include the work of the International Bioethics Committee of the United Nations Education, Scientific and Cultural Organisation (UNESCO) and its Universal Declaration on the Human Genome and Human Rights (1997) and the Universal Declaration on Bioethics and Human Rights (2005). In particular, she looked at the UN Declaration on Human Cloning and offered a legal based critique of it on the basis of its perceived premature and unnecessary nature, whilst at the same time acknowledging its achievement in terms of bringing together a diversity of voices both from the developed and undeveloped world in active debate.

Turning to the specific area of information technology and privacy issues Professor Charles Raab spoke on the range of approaches that can be taken in this regard. Identifying four key regulatory approaches in the form of laws, self-regulation, technology design and public awareness, Raab explored how good such approaches are at protecting privacy and the relationship between each of them before proceeding to look specifically at policy actors and responsibilities and evaluating their effectiveness also. In conclusion, his main argument centered around that to achieve effective regulation there is both the need to consider the regulatory instruments and the policy environment in which they operate.

Concluding the first half of the afternoon’s discussion was Professor Andy Stirling who gave a very engaging presentation entitled ‘Pluralising Progress’, coming at the issue of regulating new technologies from the perspective of public and democratic engagement. He laid out his idea of establishing a democratic politics which opens up as opposed to stifling and closing down technological progress. Through the interrelationship of diverse pathway which are deliberate yet reversible and experimental, precautionary appraisal which goes beyond narrow risk assessment and draws up plural expertise helping to foster open science based discussion, Stirling posited that it would help to reconcile scientific, technological and democratic rigour.

Following a short comfort break, Matt James, Associate Director of BioCentre, chaired the second half of the afternoon which commenced with Dr. Steven Hill, Head of the Strategy Unit of Research Councils UK, speaking on the relationship between public engagement with research and the development of effective regulation for emerging technologies. Hill underscored the key and important link between these two given the fact that most, if not all emerging technologies, emerge from research. Therefore in order to ensure effective public engagement takes place, there needs to be effective research which informs the public’s engagement. Consequently this means effective public engagement needs to take place at the core of research.

From here, Hill briefly discussed the growing collection of engagement reports which clearly demonstrate the need for and great potential in helping to influence policy direction and regulatory design before developing his key point which centred around the idea that while there is undoubtedly plenty of evidence that public dialogue has the potential to be helpful in designing appropriate regulation there is less evidence that it actually does so. Thus, the real challenge lies in helping to feed that thinking that rises from public dialogue and engagement in to the regulatory process.

Andrew Miller MP, chair of the House of Commons Select Committee for Science and Technology, gave a very helpful and enlightening presentation of the work and remit of the select committee in scrutinising science and technology in Parliament. During the course of his talk he explained the make up of the committee as well as its powers and responsibilities before highlighting some of the
committee’s recent enquiries and reports. Miller also drew attention to the parliamentary work of the Parliamentary Office for Science and Technology (POST) and the Parliamentary and Scientific Committee.

The afternoon’s concluding presentation was delivered by Julia Manning, Chief Executive of the health and technology think-tank, 2020health.org. Julia spoke on the recent report she has edited “Health, humanity and justice: Emerging Technologies and health policy in the 21st Century”. Manning commenced her talk by explaining the rationale for the report before proceeding to highlight salient points from the its finding. In essence, the report represents a framework which serves to consider the impact on healthcare and society in the future of emerging technologies such as bionic implants, smart drugs, designer medicine and artificial life. It was recognised by Manning and her team that there is a significant lack of awareness amongst policy makers and commentators of these subjects. Given the rather fragmented approach by other agencies in looking at these issues, there was found to be a need to not only highlight the convergence of many of these issues but also raise the fresh questions which are posed by these technologies.

Drawing upon BioCentre’s title for the symposia series, Manning proposed that the Government’s role could be summarised as providing refuge (security for today); regulation (safety for tomorrow) and responsibility (cognisance of the future). Manning then proceeded to briefly explain the methodology of the report before addressing four of the most far reaching technologies identified by it, namely IT applications, ‘smart’ drugs, synthetic biology and genetic prediction. In conclusion, the report finds that there is a need for a formal process to evaluate the risks and benefits of emerging technologies which stretches across government and is not just limited to one department, as many of the technologies span areas such as defence, energy, agriculture, social care as well as health.

The afternoon closed with panel Q&A with the speakers from the second half before Prof Nigel Cameron made some concluding remarks and drew the symposium to a close. Clearly the afternoon’s discussions had provided much food for thought for both speakers and audience alike, presenting more questions than perhaps it provided answers. In many respects this only seeks to affirm the thinking behind the series. Fear and risk has to be mitigated against a backdrop of advancement in science and technology which currently cannot be fully explained or predicted. Existing regulatory systems are disrupted by the pace of new technologies resulting in legislative frameworks becoming redundant and to regulatory “disconnection”. There is the need for fresh ideas and thinking which help to ‘connect’ regulatory models with new technological development.

In helping to frame the series focus and identify some of the key meta-themes (such as intellectual property, privacy and asymmetry) which intersect with these questions, the afternoon was a great start to the ongoing conversation the series seeks to host. Clearly given the increasingly connected and global world in which we live, a global approach needs to be adopted if regulation of these technologies is to be successful. How exactly this works, though, remains a hot topic for debate, with a need to balance national interests with the rest of the global village. We aim to involve representatives from the global scene in future discussions precisely for this reason.

Likewise, as highlighted in this first symposium, the need for public and democratic engagement is important but the challenge is to make this effective and practical and not just a theoretical exercise. Whether we fully realise the implications of, it could be that advances in new technologies will end up empowering people from the bottom up, not top down. On the one hand, this could well mean that it is all the more difficult to implement commercial or governmental control, creating a fresh take on democratic life in the global village. Conversely, it could also lead to asymmetry; enduring strife and conflict arising from a lack of coordination across disciplines and constituencies.

Chamu Kuppuswamy is an early career academic at Sheffield Law School. She started teaching law at Sheffield International College, Sheffield Hallam University and at Sheffield Law School while doing her PhD, which she completed in December 2006. She teaches a wide range of subjects, at
the undergraduate and post graduate levels.

Her research interests are in international law, primarily looking at how international law responds to new technologies and how technological advances have shaped international law. She is interested in international regulatory issues, intellectual property, human rights and the work of international intergovernmental organisations in these areas. She is also interested in public engagement in ethics and regulation.

In terms of research interests, Kuppuswamy works on legal and ethical challenges in human cloning, the right to development and international intellectual property, the conception of cultural rights and their relation to traditional knowledge issues, cultural rights and methodology (the use of arts in understanding law and culture), legal issues in protection and promotion of traditional medicine in traditional cultures, the human genome as common heritage, trade versus security in nuclear technology.

Charles D. Raab is Professor Emeritus and Honorary Professorial Fellow in the School of Social and Political Science at the University of Edinburgh, where he was Professor of Government, and has also held visiting positions in several academic institutions in the UK and abroad. With main research interests in public policy, governance and regulation, and more specifically in information policy and practice, privacy, identity and surveillance, his research has been supported by major academic funding bodies and by governments. He currently participates in several international projects, including the European Union’s COST Action on ‘Living in Surveillance Societies’ (LiSS) and the Canadian project on ‘The New Transparency: Surveillance and Social Sorting’. He has published many academic articles and books, including (with C. Bennett) The Governance of Privacy: Policy Instruments in Comparative Perspective (2006). With other members of the Surveillance Studies Network, he wrote A Report on the Surveillance Society for the Office of the Information Commissioner (2006) and the update report, The Surveillance Society (2010). He has advised and consulted for a number of governmental and other bodies in the UK (including Scotland), the European Union, New Zealand, and the Netherlands. He was the Specialist Adviser to the House of Lords Select Committee on the Constitution for the inquiry, Surveillance: Citizens and the State, 2nd Report of Session 2008-09, HL Paper 18. He is a founding member of the Scottish Privacy Forum, sits on the editorial or advisory boards of many journals and research projects, and is a Fellow of the Royal Society of Arts (FRSA).

Andy Stirling is Research Director for SPRU (science and technology policy research) at the University of Sussex, where he co-directs the ESRC Centre on ‘Social, Technological and Environmental Pathways to Sustainability’ (STEPS). With a background in the environment and peace movements and in natural and social science, he is an interdisciplinary policy-focused researcher, working on issues around the governance of science, technology and innovation. He has served on a number of public advisory bodies including EU committees on Energy Policy, Science in Society, Public Engagement, Sustainable Development and Science and Governance. In the UK, he has served on the Advisory Committee on Toxic Substances, GM Science Review Panel, DEFRA Science Advisory Council and the Advisory Board of the BIS Sciencewise Programme &dash; as well as working groups for the Royal Society and Nuffield Council on Bioethics.

Steven Hill is Head of the Research Councils UK Strategy Unit. Research Councils UK (RCUK) is the strategic partnership between the seven Research Councils. RCUK exists to help the Research Councils to work together more effectively to achieve their individual and collective goals. The RCUK Strategy Unit leads and supports the collective work of RCUK and has teams focusing on the following areas:

Steven joined RCUK in August 2007 from the Department for Environment, Food and Rural Affairs, where he spent five years providing scientific advice and developing Defra’s approach to evidence and innovation. Prior to his time at Defra, Steven was a university lecturer at the University of Oxford where his research focussed on plant physiology and biotechnology.

His began his career as a technician in geology at the Portsmouth Polytechnic, where he developed
an XRF and XRD laboratory. He then moved into industrial relations and was an official for the Manufacturing, Science and Finance Union where he represented many scientists and engineers working in leading companies from 1977 until he was elected to Parliament in 1992.

As Labour Member of Parliament for Ellesmere Port and Neston, Mr Miller represents just under 70,000 electors. As well as dealing with numerous widely diverse issues at constituency level, Mr Miller is also Chair of the Science and Technology Select Committee; Chair of the Parliamentary & Scientific Committee; Vice-Chair of the Parliamentary Information Technology Committee (PITCOM) and a Member of the Liaison Committee. Between 1992 and 2001 he was also a member of the House of Commons Information Committee and has served on many other parliamentary committees.

Mr Miller was a Member of the First Steps Team working with the Foreign Office to promote relations with EU and prospective EU member states with specific responsibility for Hungary and Malta and his liaison work with the two countries continues today. His particular political interests include Communications and Information Technology; Regional Economy; Science and Technology; the Environment and Industry.

Julia Manning studied Visual Science at City University, graduating in 1990, and became a member of the College of Optometrists in 1991. She was a founder member of the British Association of Behavioural Optometrists and her work has included being a visiting lecturer at City University, a visiting clinician at the Royal Free Hospital, London, working with several London PCTs and being a Director of the Institute of Optometry.

She took postgraduate studies in diabetes and established her own optometry practice working with physically and mentally disabled patients which was sold to Healthcall Ltd in 2009. Julia is a founder and Chief Executive of the think tank '2020health.org' which launched at the end of 2006. She stood for parliament in 2005 and has written on many health and technology policy issues as well as the history of her profession in '60 years of the NHS' [St. James's House, 2008]. She has a special interest in framing the policy questions surrounding emerging technologies.

Lord McColl was born in 1933 and educated at Hutchesons' Grammar School, Glasgow, and St. Paul's School, London where he won a Foundation Scholarship in Classics. He studied medicine at London University and was Professor of Surgery at Guy's Hospital until 1998 and continues to teach at King's College on the Guy's Campus. He is also Surgeon to the international charity Mercyships and frequently operates in the poorest countries of West Africa.

He was a Surgeon to St Barthomew's Hospital and Sub-Dean of the Medical College 1967-71; Research Fellow at Harvard 1967; Professor of Surgery at Guy's Hospital 1971-98; Chairman of Government Working Party on ALAC Services 1986-87; and Vice-Chairman of Special Health Authority for ALAC Services 1987-91.

Lord McColl was made a Life Peer for his work for disabled people in the Queen's Birthday Honours in 1989. He was Parliamentary Private Secretary to Prime Minister John Major from 1994-97. Since 1997, he has been a Shadow Minister for Health. He was made a CBE in 1997 and a Fellow of King's College in 2001. For his charitable work for Mercyships, he received the Great Scot Award 2001 and the Distinguished Maritime Award of the National Maritime Association, USA 2002.

The STEPS Centre (Social, Technological and Environmental Pathways to Sustainability) - A new interdisciplinary global research and policy engagement hub, funded by the Economic and Social Research Council, develop a new approach to understanding, action and communication on sustainability and development.