Quality-testing the legal Internet: finding law with the SOSIG Law Gateway

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Introduction
This article describes a UK project to create an Internet Gateway for law with international scope and relevance. The SOSIG Law Gateway is a component of the Social Science Information Gateway, being developed for the legal community by the Institute of Advanced Legal Studies (University of London) in partnership with the University of Bristol as part of a national initiative in the United Kingdom called the Resource Discovery Network.

The project seeks to help researchers make sense of the Internet, filtering the wealth of information the web has to offer and guiding users to reliable legal resources. The Law Gateway is designed specifically with legal people in mind, aiming to help law students, legal academics, and members of the legal profession with their studies, research, teaching and current awareness needs. In effect the project will offer the UK and international legal communities appropriate new ways to find, assess and access law in the new century.

Nature of the Internet
Awareness of the nature and potential of the Internet are essential starting points for successful web supported research. The Internet is growing at a fantastic rate every day. There is growth in the number of sites and the number of users. It is estimated that over 407 million people have access to the Internet that now contains over 1000 million pages.[1] More firms and organisations are registering domain names and establishing websites each day. Such rapid and extensive growth raises fears of information overload. The volume of information, the sheer number of sites is potentially overwhelming. Searching for relevant sites through vast numbers of hits can be frustrating, misleading and time wasting. The fact that the web enables almost anyone to publish almost anything, bypassing traditional filtering procedures and editorial scrutiny, in turn raises quality and trust issues. It is very important for serious users to assess the quality of information offered and the credibility of its source. Information can come and go on the Internet. Web pages move or cease to exist. The great potential of the Internet as an information source can lead to great and dangerous expectations - the assumption some students make that everything they need is on the web and everything they find there is equally valid. So the Internet offers enormous opportunities but also some obstacles to time-sensitive and qualitative research.

The role of the Internet continues to change, as ever more people rely on its information resources and exercise its marketing power. The Internet is moving from the edge to the centre of society, from the recreational and experimental to the professional and essential, now underpinning and affecting the work of all those involved in government, education, business and commerce. The web, offering convenient access and freedom from restrictions of physical location or opening hours, is rapidly becoming the preferred source of information for users who resort to hard copy sources only in the absence of a reliable electronic alternative.

This pattern of expansion seems certain to continue as future technology, and the effects of the Wireless Application Protocol come into play and net broadcasts to the new generation of mobile phones become the normality. More than ever people will want and need to know the significance and the scope, the content and the location, and thereby the cost of the information source. In our sphere, people will want swift access to the most important and reliable legal interest sites.

Law on the Internet
The Internet now delivers a wide variety of legal materials. Many government sites (for long established countries and developing countries) provide access to significant collections of substantive primary materials. Increasingly the full text of current and proposed legislation as well as constitutions, treaties and case law can be found on websites for many jurisdictions

around the world. University sites, law schools, law firms and legal publishers are providing commentary, presenting sample chapters of new works, publishing electronic journals, producing content-rich sites that contain and collate secondary sources. Law and legal materials are ever changing. The web provides a means of handling that change, allowing daily or hourly updates that would previously be unimaginable. The Internet has added tertiary law sources, materials provided by discussion groups or previously unpublished manuscripts. The web enables publishing of materials that would previously be uneconomic propositions. The medium was made for law. The Internet clearly offers academics and lawyers access to materials with a depth and immediacy that expand the possibilities of both scholarship and professional practice.

Limitations of Search Engines for serious and successful research
Our services are designed to help people realise this potential. We aim to offer researchers, web search facilities that provide more precision and relevant subject coverage than can be achieved with Internet-wide search engines. Despite continuing development of search engines, they still have a number of limitations for serious and successful research. The Internet is expanding at such a rate that an increasing percentage of data on the web is not indexed.[2] Complex site structures and multimedia content are not reached or evaluated by the search robots. The engines offer little or no guidance on the quality of the data in the results they return. The links offered are not necessarily as relevant as you'd like them to be.
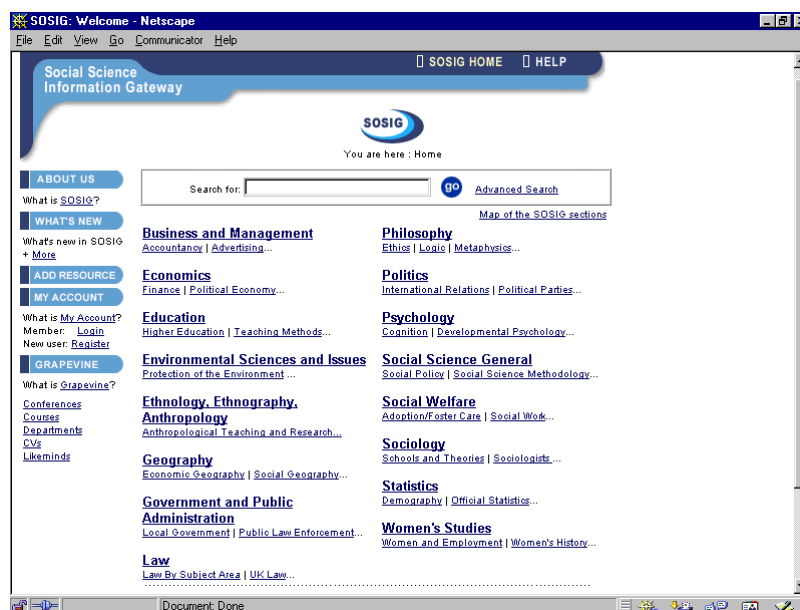
Fortunately the idea and value of gateways and portals - services pinpointing quality sources on the Internet has been recognised, as a result of excellent work by a number of individuals - many of them librarians with proven abilities to manage and organise information. Much of this parallel work has involved simple HTML pages listing links and sometimes noting content with brief annotations. The UK's Resource Discovery Network has been established to help rationalise, co-ordinate and consolidate this effort.

Resource Discovery Network
The Resource Discovery Network (RDN) is a co-operative network of independent subject-based Internet Services supported by a central organisation, the Resource Discovery Network Centre located at King's College in the University of London.[3] RDN services are based on open source web technologies and descriptive databases using metadata formats, formal classification schemes and following appropriate selection criteria. The RDN was officially launched in London in November 1999. The Resource Discovery Network has been established to provide effective access to high quality Internet resources for the UK learning and research communities, forming part of a national strategy for gateway development involving the academic and library sectors. The RDN and its Resource-Finder facilities are currently freely accessible to all over the Internet, twenty-four hours every day, every week, initially funded

through the UK's higher education funding councils for three years, subject to an annual review procedure. The RDN includes a number of new and developing subject-centred portal services covering: Health and Life Sciences, Engineering, Maths, and Computing, Humanities, Physical Sciences, and Social Science, Business and Law.

Social Science Information Gateway (SOSIG)

The Social Science Information Gateway has responsibility for law within the RDN and thereby sets law within an increasingly important socio-legal context. SOSIG is a freely available, fully-searchable subject-based Internet service giving access to business, government, parliamentary, social welfare and legal materials.[4] SOSIG offers a trusted source of selected high quality Internet information for researchers and practitioners. At the core of the service is a catalogue with detailed descriptions of international Internet resources evaluated for quality by subject specialists.

SOSIG was originally established as a pilot project in 1994 by the UK's Economic and Social Research Council. SOSIG was created and is run by the Institute for Learning and Research Technology (ILRT) at the University of Bristol in collaboration with a number of subject content partners with a reputation for excellence in other academic institutions. ILRT have been at the forefront of developments in Internet technologies in the UK and Europe. The systems they have developed facilitate distributed working so the database can be accessed and edited remotely from any authorised PC with a web browser and so support collaborative work amongst partner institutions. In February 2000, SOSIG was successfully re-launched with a new interface, more content and extra facilities as one of the leading services within the Resource Discovery Network.

The Law Gateway and its services

The SOSIG Law Gateway is establishing a service for the new information era – it aims to help legal academics and professionals gain maximum benefit and value from their time on the Internet. The Gateway is easily accessed over the web from any networked computer. The purpose is to find law and help others find law on the web. The service identifies and evaluates legal resource sites, offering descriptive records and links both to service sites publishing primary and secondary materials and to specific documents of legal interest – helping to make it easier to find useful sites for a given jurisdiction or legal subject area.

The contents include sites offering: primary legal documents (legislation, law reports and treaties); governmental bodies (law reform commissions); government documents (research reports and consultation papers); professional organisations and societies (bar councils, law societies); regulatory bodies (publishing codes of practice, standards and rules); electronic

journals and texts; current legal news; companies (solicitors' and barristers' sites); legal publishers and online databases; learning and teaching resources (including information about legal researchers, law conferences and law courses).

To achieve its aims the Law Gateway includes a number of integrated components:
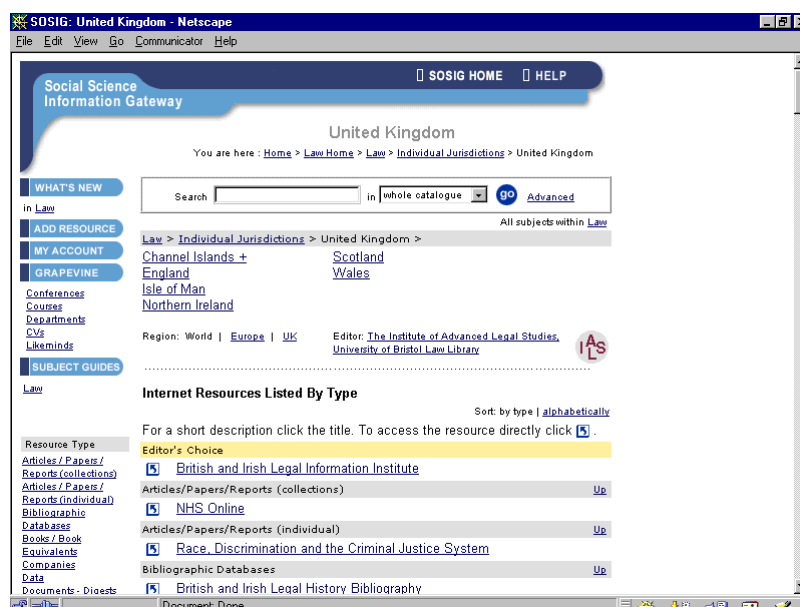
- The main element is an Internet Catalogue - containing descriptive records and entry points for legal materials and law related Internet sites, selected, classified and reviewed by experienced law librarians.
- A Social Science Search Engine is also provided - this is a limited area search engine drawn from a supplementary database of over 100,000 links gathered by a web robot which visits each of the quality websites featured in the Catalogue (including all the Law section sites) and follows any links it finds for those pages and automatically indexes the content.
- A Grapevine service - allowing users to establish professional contacts and search or browse details of university departments, trace like-minded researchers, conferences and courses relevant to their field.
- A personalised account and current awareness service called "My Account" - allowing users to publish their own information, customise their use of the Gateway and register to receive e-mail alerts with notifications of new information on the system from the full range of legal jurisdictions and subject areas.
- An interactive online legal research tutorial called "Internet for Lawyers".
- Options to search across the whole SOSIG database containing over 14,000 records including business, government and political sources relevant to socio-legal studies.
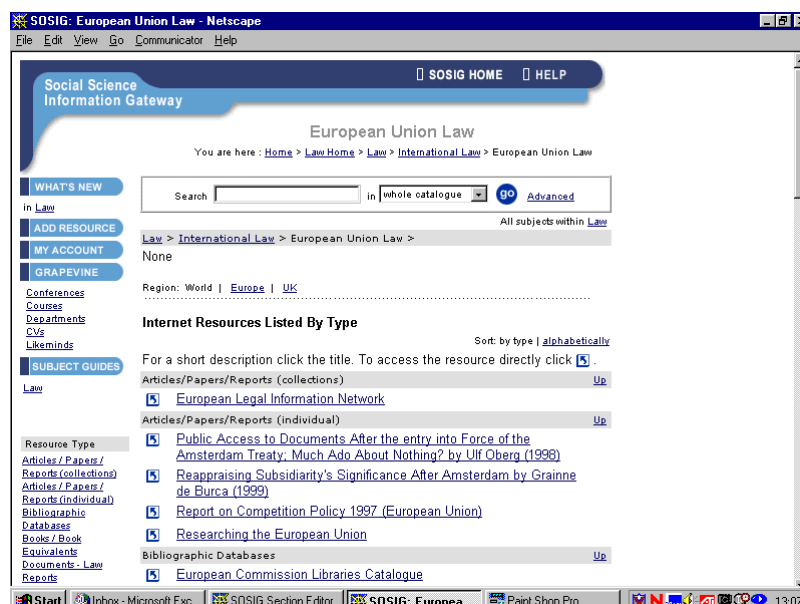
Tour of the Law Gateway
The Law Gateway is located at: http://www.sosig.ac.uk/law. It provides both browse and search options, guiding researchers to relevant and reliable law sources on the web. You can choose to search for something specific or browse to see what is available in a particular topic or country section.

Browse options
Hypertext links lead users through the browse screens, providing them with an overview of the size and scope of the Law Gateway's Internet Catalogue. For example the "United Kingdom law" section presents UK-wide resources with links to subsections offering sites specifically related to England, Northern Ireland, Scotland, Wales, the Channel Islands and Isle of Man. The browse option displays all resource titles within the subject and subsections. Resources are organised and presented alphabetically in categories or can be sorted into a single alphabetical title list.
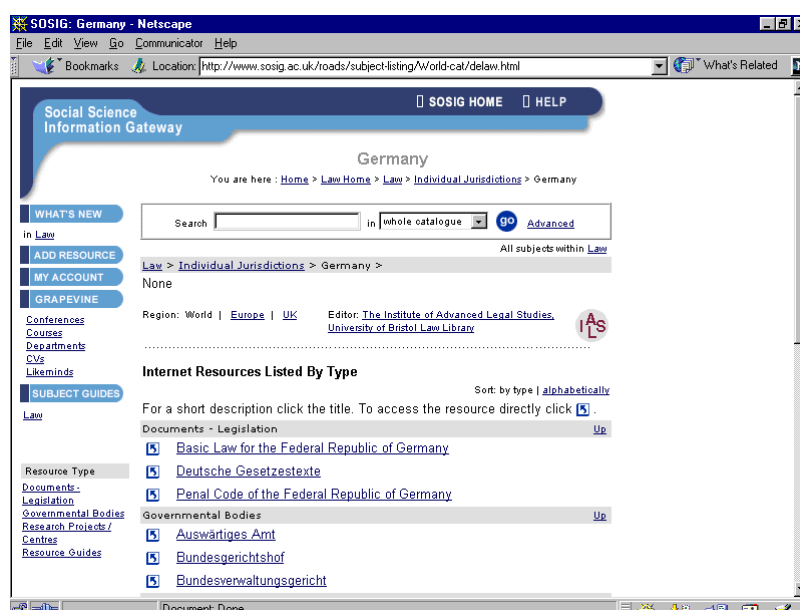
A "European Union law" browse section is developing links to quality sites covering European Communities law, providing ready access to treaty texts, regulations, directives, case law and comment as well as access to key bibliographic databases such as EDC sites and the European Commission Libraries.

A section for "Other Jurisdictions" contains link collections for a growing number of individual countries, jurisdictions and regions world wide, concentrating on legislative and court materials.

A browsing hierarchy displayed below the title at the top of the screen helps users navigate back and forth from parent sections to subsections, from Law >> Individual Jurisdictions >> Germany for example.

The browsing screens also support a subject approach to resource discovery. We have introduced a detailed subject classification for law based on UDC (Universal Decimal Classification) allowing the Gateway to extend its coverage of legal subject areas such as international law, human rights, environmental law, e-commerce, family law and so on in the "Law by Subject" section. More will be added as the project continues.

The browsing features demonstrate a flexibility, a facility to adjust to the angle of approach, so users can be looking for law in a particular country, or type of material or a specific subject and the database will adjust dynamically to help them find relevant resources.

Law Categories + Classification

In this way the Law Gateway has developed a database structure to accommodate the distinctive requirements of the subject. It aims to emulate a legal research library - giving appropriate weight and ease of access to the primary materials (stating the law) and secondary materials (commenting on law) that are the substance of legal research. Researchers need an opportunity to compare different legal systems, civil law and common law and law derived from written constitutions, to access and appreciate different legal traditions. We wanted a structure for the gateway that would support this process.

To aid browsing, resources are grouped and categorised by type. Resource Types include: bibliographies, companies, Governmental Bodies, Government publications, Journals, News, Organisations and Societies, Research Centres and Projects, and Resource Guides. If users are interested in a particular type of source, such as full text journals, they can select that Resource Type from the left of the frame and jump to the relevant section and either consult the site description by clicking on the title or link directly to the service via the arrow icon to the left of the title. A number of specific law categories have been added under the Documents heading to help locate: Legislation, Law Reports, Digests and Treaties.

The Law Gateway is built on a modified version of the ROADS [5] web database software. ROADS (an acronym for Resource Organisation and Discovery in Subject-based Services), was originally developed as part of the UK Electronic Libraries Programme (eLib) by a consortium including the Institute for Learning and Research Technology at the University of Bristol, and the UK Office of Library and Information Networking at the University of Bath, with the bulk of the software development being done by the Department of Computer Science at Loughborough University. It is utilised by a number of services around the world.

ROADS is a set of free, open source software and standards designed specifically for Internet gateway development. ROADS is written in Perl to run on any UNIX or LINUX based system. WHOIS++ and Z39.50 are used to link distributed databases and provide the possibility of interoperability with other services. ROADS offers a configurable interface for users and contributors. Browse subject sections are automatically generated from classified database entries, Boolean searching and web interface administration are also available.

ROADS provides the necessary underlying technical infrastructure. Static web pages were not felt to be feasible or advisable for a project on this scale. The database software provides
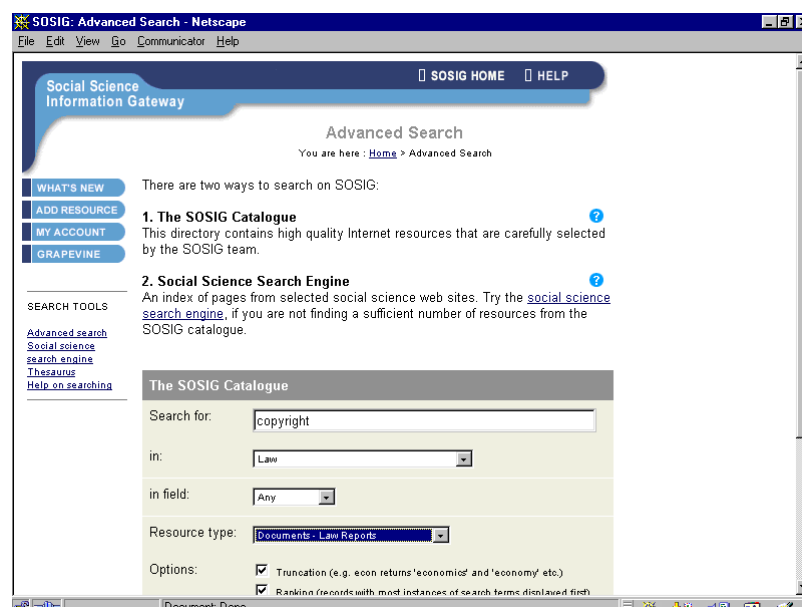
automatic housekeeping tools for reliability and systematic update - there are facilities to check the currency of links, track and repair broken links, prompt for record review and generate search statistics.

Search features

The Law Gateway also provides a range of sophisticated search features. A search box is offered on each browsing screen. Users can type one or more terms in the search box and click go. There is an option to restrict the search to the Law Gateway or extend it to the full SOSIG Internet Catalogue which includes many government sources and links to official publications. The search facility is dynamic, automatically limiting or extending its scope according to the section or subsection in which it is initiated. The default search is free text. Phrase searching and boolean connectors are supported. A search for "copyright" returns records containing the term, batched in sets of 10 records, ranked by the number of occurrences of the search term in each record.

Users can scroll through, consulting record details, jump to the type of Resource they are most interested in or modify the search to reduce the record set. Advanced search options enable users to search specific fields such as title, description or keywords or to limit a search to a particular resource type such as Documents: Law Reports. There are truncation and ranking options and a facility to change the number of records per page and amount of detail displayed.

Record Details

A record is created in the database for each of the quality law or legal interest sites discovered on the Internet. The service follows a well-defined scope policy in terms of collection development and selection criteria and uses a set of cataloguing rules based on Dublin Core metadata standards to help maintain consistency across all the RDN subject gateways[6]. Record details include: site title, keywords, url and a description. A "full record" option displays additional information. The description is the key intellectual input of the service, written by legal reference specialists utilising their knowledge of legal materials and evaluative skills, providing an informed and objective assessment of the source.[7]

The description highlights the qualities of the site, indicates who is responsible for the site (the author, publisher or host), with e-mail and contact details, says what the site's aims and scope might be, its authority and accuracy, its coverage, currency and contents, with a note of geographical or temporal limitations, site language(s) and special process features such as the format of documents offered on the site (HTML, Word, PDF and so on). The description tells legal researchers more about a site before they connect, so they can decide to go there (spend time and money) only if it really offers what they need. Some of these sites (AustLII and Cornell for example) are more comprehensive than others, some are subject specific. SOSIG will soon have a feature that labels and prioritises key sites selected by the section editors.

Specialist Legal Thesaurus

Each site and record added to the database is assigned appropriate keywords from a specialist legal thesaurus. The highly regarded legal thesaurus developed by Christine Miskin for Legal Information Resources and used as the authority file for Sweet & Maxwell's Current Legal Information databases (now part of Westlaw UK) has been very generously lent to this project[8]. If a search fails to match any records on the Gateway, the system offers an option to check terms in the thesaurus. Users can find broader or narrower or more accurate terms and then link directly to records using those terms.

Legal Information Specialists - SOSIG Law Gateway Editors
The structure and content of the Law Gateway is being developed by experienced legal information professionals at the Institute of Advanced Legal Studies[9]. IALS is a constituent member of the School of Advanced Study of the University of London. The Institute was established in 1947 as a national centre for advanced legal research. From September 1999 a small team of reference librarians including David Gee, Jill Newell, Gerry Power and Steven Whittle have been working on the project at the Institute in collaboration with Sue Pettit at the University of Bristol Law Library. Work for SOSIG involves seeking, evaluating, recording and linking to quality legal materials available (but often hidden) on the Internet.

The project is also guided by a Law Advisory Group. Leading figures in the field have kindly joined the Group, including: Sarah Carter (Librarian, Templeman Law Library, University of Kent at Canterbury and LAWLINKS editor), Dr Peter Clinch (FLAG Project Manager, Institute of Advanced Legal Studies, University of London), Professor Abdul Paliwala (Director CTI Law Technology Centre, UK Centre for Legal Education, University of Warwick), Sue Pettit (Librarian, University of Bristol Law Library), and Jules Winterton (Librarian and Deputy Director, Institute of Advanced Legal Studies, University of London). A shared aim is the creation and support of a national gateway to law on the web.
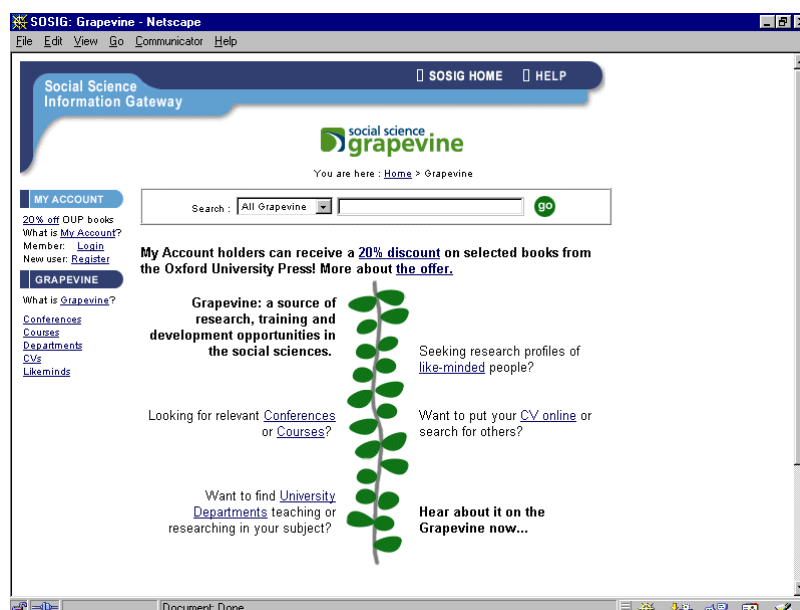
Concept of a national gateway
The idea of a dedicated UK Gateway to legal information on the net is very valid. We see it as a very necessary tool for our legal communities. Law with its specialist range of materials and forms was clearly a key area for support under the RDN programme and other programmes. What we need to achieve is a truly comprehensive UK national gateway service for law on the Internet, accountable and responsive to the needs of the UK and international academic legal communities - we need to build a service people can rely on and we see that very much as an inclusive, collaborative process. The transition from traditional to electronic information continues. Legal information professionals in law departments, libraries and law firms are all involved in facilitating the change, establishing single access points to services - local web services, network CDs, online subscription services, web-based library catalogues. A national law gateway, serving law schools, law firms, and law libraries, has a role in that movement - assisting developments for the best advantage of the user communities.

Reaching the legal community
The service is all about making worthwhile connections. A series of related facilities offered through the Gateway are also about establishing that contact - supporting an interactive

approach to legal research. The "Add Resource" feature offers an online form for submitting suggested additions to the site. A "What's New" feature allows you to check the records that have been added recently. The Social Science Research Grapevine provides details of conferences or courses or departments by subject.

The additional service components like the "My Account" and "Grapevine" facilities are optional free features that enable users to establish a personal profile and set email alerting preferences. Users can register personal and professional details on the gateway, publish information about conferences or courses they are organising as well as their own cv or research interests. The email notification option helps registered users keep track of new additions to the Gateway in self-selected areas of subject interest. Grapevine helps people keep in touch with legal events and make contact with like-minded researchers. Registration is free and easy at http://www.sosig.ac.uk/grapevine/User. The service aims to promote proactive research, to create a virtual community supporting the real community – it will assist academics sourcing new research and courses, enable the exchange and sharing and exchange of information and ideas, stimulate and facilitate practical scholarship.

Service development - growth
The SOSIG Law Gateway will continue to develop, adding facilities and extending the reach of the service to fully represent law and the special needs of legal information professionals, librarians, students, academics, researchers and practitioners. The Law Gateway now describes and links to over 2000 quality law resource sites. Use of the service has also increased. There are currently over 1 million accesses to SOSIG in peak months. 25% of usage is from the UK. 97% of UK Higher Education institutions have a link to SOSIG from their websites, and Alta Vista reports that there are over 10,000 links from other websites to the SOSIG main page.

Promotion and future funding
As we enter the second half of the project we will be adding more records for quality sources to the gateway, extending the global coverage of jurisdictions, subjects and international organisations and looking to introduce new features to the service, including a facility to generate and comment on reading lists of web links and the ability to interface and integrate with library OPACs via Z39.50 technology. We will also be raising awareness and promoting use of the service through user education and training. We will be encouraging researchers to use quality services, help people make the best choices to meet their information needs. As the project continues Government funding is likely to phase out so we will need to make our own appropriate commercial connections and partnerships - look at sponsorship, co-operation with publishers and opportunities in niche markets. The challenge will be to achieve a sustainable service without compromising integrity and quality.

Collaboration

We are also keen to be involved in collaboration with others - to make the best use of all our time and resources. We plan to pursue opportunities for both inter-disciplinary and international co-operation.

We are building a specialised subject centre for law whilst maintaining an integrated service for all of the social sciences with a potential to inter-operate with other subject portals. As the whole Resource Discovery Network evolves, adding to the 30,000+ records for quality sites currently available, so the system adds the value of cross server searching to assist with the support of inter-disciplinary approaches and the demands of socio-legal studies. It's clear that the margins of law and legal research are expanding, crossing with other areas - particularly in the social sciences and business.

The SOSIG Law Gateway seeks to provide a core UK service. The aim through out is to improve access to legal information and there is certainly scope here for linking with other allied projects sharing that aim. We have established mutual links with the Australasian Legal Information Institute's World Law service and discussed co-operation in principle and practice with Cornell's InSITE service and The American Society of International Law. These projects create scope for collaboration, an opportunity to reduce duplicated efforts and maximise mutual benefits. SOSIG is already involved through the European Union's DESIRE project and now the Renardus project with a number of European gateway initiatives. Such projects have shared experience in developing gateways and portals and are documenting their considerations on strategic, information and technical issues.

There is scope for multi-national collaboration, developing links with international partners based on distributed efforts that utilise expertise in particular regions - share expert contributions, resources, records and technical skills. Similarly the possibility of mirroring sites, setting up reciprocal arrangements with key sites around the world is something to look into.

Conclusion

In the 21st Century we want there to be more law on the Internet (new law, current law and back files of legal materials). We want there to be more law to find. All the signs are that there will be more law to find. The SOSIG Law Gateway is all about making it easier to find. This is an ever expanding and important area of work. The number of substantive websites will continue to grow and with your help our services will evolve and explore the most effective ways of providing legal information professionals and the wider communities we serve with reliable access to world wide legal information.

Notes

[1] NUA Internet Surveys provides an "educated guess" as to how many people are online. As of November 2000 the number is 407.1 million.
http://www.nua.ie/surveys/how_many_online/index.html

[2] See S. Lawrence and C.L.Giles 'Accessibility of information on the Web' Nature, Vol.400, 8 July 1999, pp.107-9 (UK: Macmillan, 1999) for further details.

[3] RDN Resource Discovery Network http://www.rdn.ac.uk

[4] SOSIG Social Science Information Gateway http://www.sosig.ac.uk

[5] ROADS Resource Organisation and Discovery in Subject Based Services
http://www.roads.lut.ac.uk/

[6] Martin Belcher and Emma Place discuss the background to quality descriptive databases in 'People power and the semantic web: building quality controlled portals'
http://www.desire.org/w9-poster.htm

[7] See also Diana Botluk 'Evaluating the quality of web resources' LLRX Research Wire April 3, 2000 http://www.llrx.com/colums/quality.htm

[8] Christine Miskin, A Legal Thesaurus (Hebden Bridge: Legal Information Resources, 3rd ed. 1997)

[9] IALS Institute of Advanced Legal Studies http://ials.sas.ac.uk