

# The Medical and Law Libraries – and the Digital Challenge

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## Medicine and law

The Law Library and The Medical Library both represent old sciences, medicine with a long tradition at the University of Bergen<sup>1</sup>, law with a rather short one.<sup>2</sup> From a library point of view we share some characteristics, and differ in others. Both libraries represent profession studies, and both faculties have researchers well acquainted with advanced information retrieval systems.

While law may have a focus on existing situation, based on earlier experiences and rereading of law sources, medicine is focused on development and research in new fields. Even if law is developing in new fields, and medicine have strong traditions and need to reread history, we may say the medical information need is characterized by its currency.

Research and teaching are of course interwoven, and the number of students compared to the number of researchers may have an impact on how we organize our library services. The Faculty of Law in Bergen has approximately 2000 students registered, while the Faculty of Medicine has 1300 students.

While the medical library spends most of its budget on journal and database subscriptions, the law library has a relatively greater need for books.

In this chapter we give some general introductory remarks on the two faculty libraries, present information resources important to the libraries and their patrons, describe the libraries as part of the learning and research environment, and present some challenges that we consider important for a successful future development.

## History

The Medical and the Law Libraries were established in the early 70's, the Medical Library with a predecessor on medicine as early as 1956 at Haukeland Hospital.

<sup>1</sup> The study of medicine was introduced in 1946, and the Faculty of Medicine was established in 1948.

<sup>2</sup> The law study started up at the University of Bergen in 1969, from 1970 under the Faculty of Social Science until the Faculty of Law was established in 1980.

The Law Library was until the early 90's formally organised as a part of the Social Science Library. The Law Library moved to new premises in 1995, The Medical Library in 2003.

Medicine and law were, in different ways, pioneers in the development of electronic information, and have a history of sophisticated systems of printed information storage and retrieval, like manuals, bibliographies and indexes.

### **From Index Medicus to PubMed**

The printed reference works for the biomedical literature dates back to the US Library of the Surgeon General's office, and their first printed catalogue from 1864. In 1874 they started indexing the journals in the library, and Index Medicus appeared as a monthly publication in 1879. Index Medicus was a classified subject guide with author index, which made it possible to keep up with the current research results published in medical journals.

In the middle of the 1960s the Index Medicus went electronic with MEDLARS, The Medical Literature Analysis and Retrieval System, the largest publicly available information retrieval system of the time (Blake, 1986, Miles, 1982). In the beginning one had to order searches from specialists, then magnetic tapes were distributed to selected libraries, and later floppy discs and CD-ROMs were offered to be installed on single computers or on servers. The final product was web based versions of MEDLINE, and the most well known version of Medline, PubMed<sup>3</sup>, is now available without costs from The National Library of Medicine.

### **Law**

Within law the electronic age started in the US with "Legal Information Thru Electronics" – LITE – in 1963, and in Europe the first system was CREDOC in Belgium from 1967.<sup>4</sup> The electronic systems were based on the printed ones. In Norway the printed Supreme Court law report was established in 1836<sup>5</sup>, the history of published acts and regulations is older than the history of print. The different collections have always had more or less sophisticated systems of indexing. The predecessor of the legal information system Lovdata<sup>6</sup>

<sup>3</sup> [www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed)

<sup>4</sup> From Bing (1989). Professor Jon Bing, University of Oslo, has been – with director Trygve Harvold in Lovdata – one of the core persons in the development of legal information systems in Norway from the very beginning. Both Bing and Harvold are still very central in this work.

<sup>5</sup> "Norsk retstidende" still runs.

<sup>6</sup> Some information in English is given at [www.lovdata.no/info/lawdata.html](http://www.lovdata.no/info/lawdata.html).

started its' work in 1979, and the opening to the public was in 1983. Governmental information, including legal documents, was available online from 1995 in ODIN<sup>7</sup> – Offentlig Dokumentasjon i Norge (Public Information in Norway<sup>8</sup>), while the parliament's web-service<sup>9</sup> was launched in 1996.

Besides these important three, a number of other more or less specialised databases on Norwegian, foreign and international/multinational law have been introduced through the recent years, and the law library subscribes to an increasing number of these. Some are also available for free. The three academic law libraries at the universities of Oslo, Bergen and Tromsø were established in 1956, 1974 and 1987 respectively.<sup>10</sup> We have cooperated closely through the years. In 2000 the law web portal Juridisk nettviser<sup>11</sup> was introduced as a joint product from these libraries, which later also included the Norwegian Bar Association as a partner. The potential in the digitalisation of the primary legal sources was utilised at an early stage, as pointed out. On the other hand – secondary materials like journal articles and books were not presented in digital version until recently. This is partly due to a general conservatism, partly to the fact that law is a “book-subject” and partly a question of copyright. This is now under change, due to the success of the Lovdata online information system and the general development of digital journals combined with satisfactory solutions of copyright questions. Today law students tend to overlook relevant sources of law only available in printed versions.

Law is basically and principally national, and in Norway mainly written in Norwegian for a Norwegian audience. On the other hand; the influence of and relation to international and foreign law is of more significance than ever – reflecting the general globalisation. This has the last decades given new and increasing challenges to the library and its information services, including both acquisition and competence. What the Swedish law professor Peter Wahlgren wrote in 1999, is even truer today:

“The fact that several legal systems are approaching each other implies, among other things, that the volume of legally relevant material is growing drastically. In addition, the rate at which legal material is published increases all the time” (Wahlgren, 1999:38).

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<sup>7</sup> The ancient Norse god Odin left his eye in the purifying waters of Mimir's spring for wisdom (English Wikipedia March 2006).

<sup>8</sup> The English pages start at [odin.dep.no/odin/english/bn.html](http://odin.dep.no/odin/english/bn.html). The predecessor of ODIN was DOP (Dokumentbase for offentlige publikasjoner = Document Base for Public Publications), originally run by Lovdata.

<sup>9</sup> [stortinget.no](http://stortinget.no)

<sup>10</sup> See Bertnes, P. A. & Kongshavn, H. (2006) for more details on Norwegian law libraries.

<sup>11</sup> [juridisk.net](http://juridisk.net)

## **BIBSYS and the web**

Public access to the online catalogue BIBSYS<sup>12</sup> around 1980 aided researchers within both law and medicine – in particular within law which to a large extent is a “book-subject” in the Scandinavian countries.<sup>13</sup> During the approximately 30 years of BIBSYS, the system has developed a lot and is today an integrated part of everyday life both for library staff and our users. Besides, the national article reference bibliography NORART<sup>14</sup> developed, and is of value for the work in law libraries. Medicine is internationally orientated, and PubMed and other international databases index only a few Norwegian journals. To search for health related publications in Norwegian or other Scandinavian languages, the health community has to rely on NORART and the database Svemed<sup>15</sup> produced at the Karolinska Institutet in Stockholm, Sweden. The University of Bergen Library went on the web in 1995. Both medicine<sup>16</sup> and law<sup>17</sup> have been very active in the developments of their web pages, which has brought them to be the most visited departmental web sites at the library.

The use of the online systems has increased slowly. The start was very limited with one user, modem connection and terminals in the library. Now every student and researcher at the University of Bergen has access to an amazing amount of online information, both references and to a larger extent full text version. The library has changed, but the tasks remain pretty much the same.

## **Where are we now?**

We are definitely at a turning point. The importance of printed documents is decreasing rapidly and more rapidly within medicine than law. Does this mean changes when it comes to the understanding of the concepts of “library” and of “librarian”?

## **The Medical Library**

The Medical Library is representing a wide field of research and teaching, from molecular biology to international health. This means that we must offer a wide

<sup>12</sup> [ask.bibsys.no](http://ask.bibsys.no)

<sup>13</sup> This varies around the world, i.e. in the United States academic law libraries today use up to 90 % of their acquisitions budget on non-book materials.

<sup>14</sup> See English version [www.nb.no/baser/norart/english.html](http://www.nb.no/baser/norart/english.html), references to articles from 390 Norwegian periodicals and yearbooks.

<sup>15</sup> [micr.kib.ki.se/netahtml/arti.html](http://micr.kib.ki.se/netahtml/arti.html)

<sup>16</sup> [www.ub.uib.no/avdeling/med](http://www.ub.uib.no/avdeling/med)

<sup>17</sup> [www.ub.uib.no/avdeling/jur](http://www.ub.uib.no/avdeling/jur)

selection of resources both in the physical library, and on the Web. For the medical researcher PubMed (or Medline in another version) is still the most important database. The number of references in PubMed has now exceeded 16 millions, and every month around 40.000 new references are added. ISI Web of Science<sup>18</sup> is also a database much used to search for research results in biomedicine, and getting access to the articles through the connection to our collections. As a needed supplement to PubMed, researchers who want to publish in scientific journals are often advised to search the more European oriented database EMBASE (Excerpta Medica Database)<sup>19</sup>.

The librarians at the Medical library always strongly suggest that researchers and students use several databases if they need a good overview over what has been published in their field. A lot of research projects also involves more than one faculty (pharmacy, psychiatry), and the field of interest is not covered only in medical databases. We therefore focus on the databases PsycInfo<sup>20</sup> and Biological Abstracts<sup>21</sup> in our presentations on the Web and during courses.

The medical library in Bergen is also the research library of the Haukeland University Hospital. In the clinic the need of information is often more focused towards diagnosis and therapy than research, and we promote the evidence based medicine databases Cochrane Library<sup>22</sup> and Clinical Evidence BMJ<sup>23</sup>. PubMed also has “clinical queries” searching, with predefined search filters to locate clinically oriented publications.

These databases are also of interest among user groups like nurses and midwives, which have used the library and its electronic resources to an extended degree during the last years. Nursing literature may be found in the already mentioned databases, but also in the nursing database CINAHL (Cumulative Index to Nursing and Allied Health)<sup>24</sup>.

Open resources with medical information on the net are mostly indexed in BIBSYS when it comes to publications like books, journals or databases, and in the BIBSYS Subject Portal<sup>25</sup> (BIBSYS Emneportal) if it is web pages dedicated to certain subjects.

How does the library promote its services? The starting point on the web is the subject resource page, where we obviously have links to the library portal and BIBSYS Ask catalogue and other information of interest: How to publish, news

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<sup>18</sup> [www.isinet.com](http://www.isinet.com)

<sup>19</sup> [www.embase.com](http://www.embase.com)

<sup>20</sup> [www.apa.org/psycinfo/](http://www.apa.org/psycinfo/)

<sup>21</sup> [www.biosis.org](http://www.biosis.org)

<sup>22</sup> [www.cochrane.org](http://www.cochrane.org)

<sup>23</sup> [www.clinicalevidence.com/ceweb/conditions/index.jsp](http://www.clinicalevidence.com/ceweb/conditions/index.jsp)

<sup>24</sup> [www.cinahl.com](http://www.cinahl.com)

<sup>25</sup> [emneportal.bibsys.no/ep/cgi-bin/ep](http://emneportal.bibsys.no/ep/cgi-bin/ep)

service (new databases journals, books and so on), and open courses on how to search different databases and reference handling programs like Endnote.

We promote the library towards the students on different levels, and the library has for many years done courses as an integrated part of the doctoral education programme. The researchers are contacted by visiting institutes and departments with special courses, or introduction to library services during lunch breaks. We also offer a “Book a librarian” service, where researchers and students can get help with literature searching.

A lot of the resources we offer may be accessed without knowing that the library is offering the services (like journal articles in full text on the net). This may mean that the library is not recognised as the most important provider of research sources any longer (Borgman, 2002).

### **The Law Library**

In 2006 Lovdata, Stortinget and ODIN give access to all sorts of primary legal materials for the Norwegian lawyer; that is pre-law – or preparatory – documents starting from the 1990’s; all acts and regulations in force; and reports from the Supreme court from 1945<sup>26</sup> and from the appeal courts from 1993<sup>27</sup>. Stortinget.no and ODIN are freely available, both with loads of easy accessible information on law (and more), while Lovdata has become close to a complete library – of acts, regulations, reports from courts and other law enforcing bodies, full text articles from law journals, EU materials and treaties which include Norway as a part, etc. Lovdata’s free web version includes complete full text consolidated acts (published in 1995) and regulations in force (published 1997).

The web portal Juridisk nettviser provides “user friendly and [...] quick access to legal information and other information which could be useful in research, studies and other practice – all in a Norwegian context”<sup>28</sup>, all together around 1400 registrations in 2006.

The conservatism regarding online publishing of articles is changing. The last couple of years we have seen a radical change with the development of Idunn<sup>29</sup> – full text articles from the main academic journals publishers from 2001, including law – and within Lovdata with more than 2100 full text articles.<sup>30</sup>

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<sup>26</sup> In addition comes all the “important” reports from the period of 1836-1945.

<sup>27</sup> Reports from one appeal court are available from 1991.

<sup>28</sup> From the English pages of Juridisk nettviser – [juridisk.net/english/info](http://juridisk.net/english/info). Juridisk nettviser has an English interface at [juridisk.net/english](http://juridisk.net/english)

<sup>29</sup> [www.idunn.no](http://www.idunn.no)

<sup>30</sup> 2141 articles by 16 March 2006. The numbers are increasing every month, and each article is equipped by Lovdata with hyperlinks to acts, reports, etc – giving a substantial added value.

The use of the web accessible information has, as pointed out, literary exploded through the recent years, while the use of the analogue library has decreased some. At the same time the use of the library facilities has increased quite a lot, due to the introduction of both the medicine and the law libraries as so called “learning centres” (Tonning, 2006, this volume)

The Law Library is successfully integrated in the faculty system, and has for many years done courses on different levels as part of the curriculum. The courses include legal research, library knowledge, introductions to relevant databases, law information literacy<sup>31</sup>, the use and quoting of the sources of law. The library’s premises are in the centre of the law faculty building, very close to the students who have to pass the library several times every day to and from their activities in the building and the faculty who has a separate entrance to the library premises. We try to maintain a high profile and the library is active in promoting its’ services in various ways, e.g. through the “Tip of the day”<sup>32</sup>, through “Book a librarian”<sup>33</sup>, through our news on the front web site, through our extensive student pages<sup>34</sup>, through exhibitions<sup>35</sup> and through publications, including a textbook in legal research<sup>36</sup>.

The integration with the faculty is very valuable when it comes to choose the acquisition of resources – books, journals, electronic sources. We communicate both formally through the circulation of prospects and through our “Suggest a book” service<sup>37</sup>, and informally through daily conversation, lunches etc.

## Where do we go from here?

The University of Bergen Library is planning to transfer all journal subscriptions from paper to electronic versions during the years 2005-2008. This will have some obvious benefits like full access to electronic journals from all computers in the university and hospital networks.<sup>38</sup> This also means that we no longer have possibilities to store our own archives of journals, and we have to depend on good internet connections, with dependable providers to offer continuous access.

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<sup>31</sup> The term “law information literacy” is used here for the first time.

<sup>32</sup> See archive from 1998 on [www.ub.uib.no/fag/rettsvit/dt/index.htm](http://www.ub.uib.no/fag/rettsvit/dt/index.htm).

<sup>33</sup> [www.ub.uib.no/avdeling/jur/arkiv/bestillbibleng.htm](http://www.ub.uib.no/avdeling/jur/arkiv/bestillbibleng.htm)

<sup>34</sup> [www.ub.uib.no/fag/rettsvit/jus-rettskilde.htm](http://www.ub.uib.no/fag/rettsvit/jus-rettskilde.htm)

<sup>35</sup> We have several exhibitions every year, i.e. in this Henrik Ibsen year of 2006, which is 100 years after the author’s death, an exhibition of Ibsen and the law will be opened – with particular emphasis on the use of contemporary law in Ibsen’s plays. Each exhibition is followed by a text on the web, check the archive starting in 1996 on [www.ub.uib.no/avdeling/jur/arkiv/utstillinger.htm](http://www.ub.uib.no/avdeling/jur/arkiv/utstillinger.htm)

<sup>36</sup> Bertnes and Kongshavn, 2005.

<sup>37</sup> [www.ub.uib.no/avdeling/jur/arkiv/suggestabook.htm](http://www.ub.uib.no/avdeling/jur/arkiv/suggestabook.htm)

<sup>38</sup> And – of course – the premises vacated will provide more workspace for students and other users.

There will no longer be increasing demands for storing space, and we may decide to get rid of paper versions already electronically accessible. What do we do next? We may let the National Library be the sole owner of paper versions already paid for and catalogued. This will secure access to old volumes, if something should destabilize the electronic delivery system.

### **Paper out, computers in**

Less need for storing paper means more space for other activities. The medical and law libraries have already started to remove shelves and are replacing them with computer working places for students. This trend will continue. There may also be need for teaching rooms, like computer labs in the library area, since the demand to promote and teach the library resources will increase.

The medical researchers approve totally to the expanded electronic access policy, and we have experienced only few negative reactions to a complete stop in paper subscriptions. When the Medical Library started with electronic subscriptions and – among other changes in our routines – ceased circulating paper copies some patrons were opposing. The paper copy was considered the real journal, and the electronic version an extra service. Today the attitude is totally opposite, and we experience that users now tend to reject paper copies, and rather pay for electronic access with their own credit cards. This change in attitude has evolved in only a few years time, and may also be seen among the users of the law library.

We may choose to see the reduction in paper subscriptions in a more humorous way, and be thankful for not having a library as described in Terry Pratchett's Discworld books: "Wise students in search for more distant volumes take care to leave chalk marks on the shelves, and tell friends to come looking for them if they're not back for supper. Even wiser students don't go in at all" (Pratchett and Briggs, 2003).

### **Finance**

One of the challenges in collection development is now to be able to finance access to the most important databases, journals and other online resources. The subscription prices have been rising much faster than the general increase in prices, and value added tax (25%) on electronic journals in Norway, in contrast to paper journals that have no such tax, makes the budgeting even more difficult. An example illustrates the challenges in making electronic access to scientific journals: Although the University of Bergen Library now offer access to around



13.000 journals online, the Medical Library had to order articles from more than 1000 different journals in 2005.

Also; to secure access to older journal volumes we should give a high priority to buy good archives.

### **Something lost, much gained**

Have we lost something on the way? For the researchers in medicine the access to journals from their own computer, have led to a nearly zero contact with the physical library, tendencies we also can see within law. And at least in the Medical Library this has obviously led to less direct contact with the researchers. These days the contact is mostly through suggestions of new subscriptions or new books, or complaints when the data network is not functioning. This leads to a greater demand for the library to contact the researcher, or the researchers' representatives at the faculty, to discuss library topics.

What have we gained? Besides the positive aspect of increasing electronic access, we have become much more a library for students (meaning the actual library room). The Law Library has always focused on accessing student material, while the Medical Library without doubt has had a priority towards the researchers. The new study reforms at the university with stronger follow-up from the teachers, more writing, problem based learning and more have forced us to have a stronger priority towards the students. This has manifested itself in more work places and computers in the library, and a focus on the need of student literature. Even in a journal based science like medicine students still need a good book collection.

### **New possibilities**

The libraries' websites present resources for studies and research, and we offer ways of getting in touch through phone or e-mail. These are pretty standard ways of communication. May we use some new technology to strengthen the contact, including again getting close to the researcher? Library workers have traditionally had a rather formal and regulation oriented attitude. To assure quality is a strong value and this has led to good catalogues and good information retrieval systems. Should we still loosen up a bit, e.g. by setting up wikis<sup>39</sup> on the library home page? Is it possible to have chat groups for students, researchers and library people?

One of the more popular new ways of using the web is by web-logging (blogging). Private stories, political writings and hobby topics are easily presented

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<sup>39</sup> The encyclopaedia Wikipedia is an example of new ways of using the web.

on the web in a web-log. Each librarian may perhaps have his own blog to share new ideas or raise discussions related to the library. This is a system that opens for easy communication, since comments may be posted directly to the last publishing on the blog, and the library will be dynamic and interactive (Plutchak, 2005).

The medical and law libraries give a large number of courses and presentations every year. Could oral presentations or perhaps videos be presented on the website? With the technology oriented student it will perhaps be just as natural to listen to a PodCast or watch a presentation with sound and pictures in a videocast on the screen? Utilizing these technologies may increase the interest of the user towards the library services. The technology for setting up blogs and podcasts are inexpensive and easy to use, and therefore adapted by a lot of users in their leisure time (Cochrane, 2005). We also see that scientific journals like Nature are presenting podcasts.

How about the library staff? Do we need librarians with special skills for cataloguing, or will most of the resources we access be supported by additional material like keywords and signatures ready to put on the shelf or in the network? Do we need staff with degrees in the topics we represent in the library, to support the need of the student and researcher? We still need staff to fetch journals or books to copy or lend out. We still need librarians to organize the information, and people with degrees or a very good understanding of the field researched or taught at the faculty. We also have to be more and more like teachers, teaching how to use the different sources we supply, either in the library, on the campus visiting departments, or as part of the teaching program, where searching for information is a natural basis for the work students have to do. But still – the most useful and important contact with our users is in the one-to-one basis.

We do not think that the student and researcher will be fully satisfied with search robots in the near future, even if they get better and may help the internet surfer in many ways. An editorial in BMJ even states that building “Google medicine” would be of immeasurable benefit to human health (Giustini, 2005). The information should be instantly accessible from anywhere the student and researcher are working, and the library is the logical entity to manage the resources needed (Lindberg and Humphreys, 2005)

## **New roles?**

The decentralised faculty libraries of medicine and law are successful, in particular when it comes to the focus on and the closeness to the main users – the faculty and the students. This includes the necessary flexibility when changes are needed.

A lot of important and relevant challenges happen around us and at University of Bergen Library and in our local faculty libraries.

But the basics of library thinking remains – the British library professor Peter Brophy concludes in 2001 in his book “The library in the twenty first century: new services for the information age” thus:

“There are many, highly valued, roles that libraries can fill in the 21st century, but the most powerful will be the ‘community information intermediary’, a body that understands and has empathy with its community of users, has deep understanding of the information universe and its organization, and actively develops and promotes the mechanisms that link the two together” (Brophy, 2001:184).

We agree. The need for libraries and library people has never been higher. We have a bright future.

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