Higher education libraries face major challenges. There has been an extensive transition from printed books to digital material, but libraries still have large paper-based book collections.

These will eventually become obsolete or available in digital form. The use of printed material is dropping, while the use of electronic journals and e-books is on the increase.

Lisbeth Tangen, Library Director, NTNU University Library

Photo: Nils Kristian Th. Eikeland/NTNU UB
The character of libraries as we know them today will change. At the University Library, we have moved printed magazines and books out of the Library to make room for more study areas for students. Libraries will go from building collections and storing books for individual studies to places where students meet, collaborate and work together in more dynamic learning processes.

The physical library will change its character and must be set up so that it supports the new ways in which students work - from studying on their own to increasingly working with others. UB has started responding to this trend.
New Library in the St. Olavs Hospital Knowledge Centre

Library of Medicine and Health

The Library of Medicine and Health opened in 2013 in the St. Olavs Hospital Knowledge Centre. The Library is a joint integrated health care library for NTNU, HIST and St. Olavs Hospital and is a modern library for research, education and outreach.

The new Library offers students and staff tools and support for the entire medical and health educational chain – from studies to the clinic. The Library of Medicine and Health is designed to provide strong expertise and to serve as a central gathering place on the hospital grounds. The Library offers a total of 300 study places, 12 group study rooms and many computer workstations.
Publications

Bibliometry committee

The committee was appointed in 2012, and submitted its first report in 2013 on the basis of data in CRISTin. The report was entitled: “NTNU Publications 2010-2012: An analysis of scientific publishing, artistic productions and academic outreach.”

The report highlights the publishing activities of the university as a whole, as well as by faculty, University Museum and departments. It provides a more comprehensive picture of the university’s publications than can normally be generated from the Database for Statistics on Higher Education (DBH).

The report also describes the amount of publishing related to academic outreach, artistic efforts, national and international cooperative partnerships and scientific publications by gender, age and job category. The plan is to update the report annually.
NTNU’s publishing fund

NTNU launched its publishing fund on 1 March 2013. The programme was featured in Universitetsavisa and the pro-rector’s blog on research. The rector allocated NOK 1 million to the fund for 2013 and 2014, after which the scheme will be evaluated. The goal of the fund is to stimulate scientific publication in pure Open Access journals.

The fund can be used for journals that have been assessed as level 1 or 2 in the DBH and that are found in the Directory of Open Access Journals (DOAJ).

The maximum funding amount is NOK 20 000. Everyone who is affiliated with NTNU may apply for funding.

Both students and PhD candidates were among the applicants in 2013. Twenty-two applications from four faculties were granted funding.
Preservation, digitization

The University Library made major strides in preservation and digitization in 2013.

The Library’s Photo Collection was moved from the Gunnerus Library to the Dora Archive Centre, with the exception of large portrait folders, folders from historical events and photos from the Trøndelag Theatre.

This was also a year during which the focus of archiving shifted from a digital system to the use of the Asta archive system. Earlier this year, we had already recorded an average of 25 archives in Asta, while in all of 2013 this figure was 75. The goal is to record all archives in Asta over a short time and post them on the archive portal.

Trondheim city newspaper kiosks were elegant in 1900! This kiosk stood on the corner of Mellomila and Northern Ilevollen. Behind the kiosk to the left is the roof of the old Ila school. The buildings behind the kiosk are used today by the Trondheim Steiner School. Photo: Erik Olsen, Trondheim.
Erik Olsen Archive

An archive of work by Erik Olsen was fully recorded in 2013. Erik Olsen was one of the most significant photographers in Trondheim, with a company that operated from 1869 to 1917. The archive belongs to the Trondhjem Historical Society, but has been deposited with the NTNU University Library under a special agreement that gives the Library full rights to use the archive.

Erik Olsen took photographs throughout Trondheim around 1900, capturing images of streets, schools, workplaces and private homes. His work also includes also a good number of portraits. The archive provides a good picture of what the city looked like at this time, and how people lived, worked and dressed. His archive consists of approximately 3000 items, which is unfortunately only a small part of his original archive.

The archive consists of glass negatives and some prints. Olsen’s glass negatives are packed in acid-free envelopes and duplicate negatives have been made. A good portion of his archive has been scanned and copies have been made for use. All images except for his portraits have been listed in the BIBSYS Gallery.
VIKO (The Guide to Information Literacy)

The University Library plays an important role in helping NTNU students learn with its e-learning offering called VIKO. The programme was developed by the NTNU University Library as a toolkit to help students with different aspects of writing. The use of VIKO to help students with thesis writing and literature searches has grown each year.

Two of the most widely used modules are “Writing Papers” and “Evaluating Sources”. The pages that address the use of different referencing styles are the most frequently used. The use of VIKO on other continents has also increased markedly. VIKO is also an information provider for NTNU’s new intranet, Innsida, for topic pages on writing papers and research.

VIKO, number of visits:
- 2013: 161 479
- 2012: 116 000
- 2011: 102 000
Courses

In collaboration with NTNU’s different academic disciplines, the University Library has developed and implemented high-quality training programmes that contribute to an exciting and attractive learning environment at the university.

A great number of courses are offered throughout the year, both as individual courses and e-learning offerings. The courses are often tailored to various audiences, such as master’s students and PhD candidates. The University Library staff has great deal of expertise in the use of different information sources. The Library thus helps to increase skills in information searching and the evaluation of information sources among students, PhD candidates and staff. There is growing demand for training in the use of reference management tools such as EndNote. The Library also made video recordings of training conducted in the autumn of 2013, as was done in 2012.

Staff from the Architecture and Engineering Library helped instruct a new research methods course for fifth-year students from different building-related disciplines. The course, which is compulsory, was filmed by AV services and posted on It’s learning.
Social media

The University Library also has a presence on social media. Here we share everyday stories with our “followers”. By telling good stories in a simple and down-to-earth way, the Library uses social media actively to reach our diverse audiences and build our reputation externally. The main social channels we use are Facebook and Twitter, but individual library branches have also used YouTube and Instagram. Most libraries have their own Facebook page through which they communicate with their users.
Learning environment - More student study areas

Over the course of 2013, the University Library cleaned up and discarded book and journal collections. Several libraries have also made physical changes to their premises. The space that has been freed up is now being used for different purposes, such as improving the learning environment.

The Technology Library has expanded its mathematics area with more student workspaces. The Library counter area at the Natural Science Library has been cut back, and two former offices have been converted to group study rooms. The Gunnerus Library has revamped its reading room and replaced all the reading room tables so that students have a better study environment.

The Dragvoll Library has had a positive experience with extending its hours in the evenings and with the self-service bookshelf it introduced.

The Architectural and Engineering Library combined two rooms to create 16 study carrels. The room has been specifically designed for students with disabilities and has been named UniverSalen (the universal room).
Research Dissemination
The University Library helps share NTNU research and knowledge with the public.

The Library both participates in projects initiated by others and conducts its own events and exhibitions.

Schøning’s book of arms
The book Schønings våpenbok - Gamle Norske Adel Efter et gammelt Manuskript Assessor Æver Hirtzholm tilhørende was launched in 2013. The book, which contains drawings of weapons and arms, was written by Harald Nissen and Terje Bratberg and is based on a heraldic manuscript from the 1700s that is found in Gunnerus Library in Trondheim.
The Trondheim Science Fair was held on 20 and 21 September 2013. The University Library hosted a stand where the public could see marine life. The theme for the 2013 Science Week was “Ocean and water” and the Library’s stand was called “Crawling for knowledge” (Krabbe etter kunnskap).

The Library’s stand had two aquaria filled with sea creatures that were set up in collaboration with the Department of Biology. The exhibit was very popular with curious individuals both young and old.
Researchers’ Night

The University Library also hosted a stand at the Researchers’ Night for young adults, which was held on 27 September. More than 1,000 young adults visited NTNU’s Natural Science Building that evening.

The event is important for NTNU during Science Week and helps to illustrate the many exciting projects that are happening at the university.

The evening included 46 different activities. The University Library hosted a stand on medical apps.

Here, visitors had the opportunity to test different kinds of medical encyclopaedias, and play the game “The Hunt for Ultrasound” developed by the Faculty of Medicine’s Museum, located in the new Knowledge Centre.
Lunchtime arrangements

A number of lunchtime arrangements have been held over the course of 2013 at the Dragvoll Library, the Natural Science Library and others. The hosting library serves tea and coffee so that participants can enjoy their own lunches while they listen to a lecture on different topics.

Among the presenters were Aksel Tjora, a professor at the Department of Sociology and Political Science, who gave a lecture about the Life Offline project, which examines what Internet use does to us, and Tore T. Petersen, a professor at the Department of Historical Studies, who discussed Israel’s clandestine diplomacies.

50th anniversary for Oracle Support Services

An exhibit in conjunction with the 50th anniversary of Oracle Support Services was hosted by the Dragvoll Library and the Natural Science Library.
A Chilling Evening

The Dora Archive Centre held an arrangement called Skrekkveld (A Chilling Evening) as part of Trondheim’s Cultural Night on 13 September 2013. The event was based on broadside ballads from which different texts were excerpted, including one on witchcraft and witches in Sunnmøre in 1680, and one on a theft and four murders in Verdal in 1806. The State Archive and the Trøndelag Inter-municipal Archives (IKA) also provided archival material that documented the events described in the songs.

The audience was then invited on a tour of the archival storage area where they could see the archive material and hear the stories. “Skrekkveld” was a huge success, with 308 participants.

When Norwegians got their King

On the occasion of the royal jubilee, the Dora Archive Centre produced an exhibit on King Haakon’s meeting with the people during coronation day in Trondheim in 1906. The exhibition showcased various types of archival material, photographs, a movie and a lion-shaped beer keg. The exhibit presented stories of a thief and wood carver named Hompland, a fisherman from Frøya with eight sons, a sceptical Swedish journalist and other stories from the archives.
Right to Vote Jubilee 1913-2013:
In connection with the centenary of the women’s right to vote in Norway, the Dora Archive Centre arranged a seminar and exhibition on Fredrikke Marie Qvam, which included an exhibit of Qvam’s dress, among other objects.

Fredrikke Marie Qvam was a Norwegian feminist and central player in the women’s petition in support of the dissolving the union with Sweden in 1905.

Her private collection of letters from Gjævran farm in Steinkjer has been previously digitized by the University Library’s Special Collections.

Storting elections 2013
In connection with the general election in 2013, advance voting was set up at the Dragvoll Library and the Natural Science Library. There was great support and high voter turnout.

Photo: Nils Kristian Th. Eikeland/NTNU UB
Mubil

Photo: Nils Kristian Th. Eikeland/NTNU UB
MUBIL (Museum and Library)

Mubil is an international, interdisciplinary project between NTNU’s University Library and Department of Computer and Information Science and the Percro Laboratory at the University “Scuola Santa Anna” in Pisa in Italy.

The project started in 2012 with the goal of using new technologies to share digitized elements of the historical collections at Gunnerus Library. The idea behind the project is to share knowledge and engage people in the collections.

The Mubil project has established a virtual learning area in the Library with the use of 3D technology and interactive games. In collaboration with teachers, the project has been presented to school groups at seminars and workshops. The project has also collected information on the use of this kind of software and how much students learn from its use, as a way to contribute to the debate around the challenges facing libraries as they digitize archives and promote their use in today’s society.

The project has been funded by NTNU and the Norwegian National Library and has been presented at several conferences.

Mubil on Facebook.
Projects and partnerships

National clinical procedures and Mini Method evaluation NTNU’s Library of Medicine and Health (BMH) is a contributor to the national network for clinical procedures. The Norwegian Health Service has established tens of thousands of clinical procedures over many years. By sharing and coordinating this information, we can avoid duplication and ensure better quality in the content. The project is being coordinated by the Department for Evidence-Based Practice at the National Knowledge Centre for the Norwegian Health Service and the Norwegian Health Library. BMH is a member of the Librarian group, which is composed of librarians from the various member groups.

BMH assists groups at St. Olavs Hospital who want to create procedures both internally and for the network. A similar collaboration is underway for mini methodological assessments, which is a decision support tool used by the health authorities when considering introducing new methods.

Patron Driven Acquisition (PDA)

After a successful PDA project in 2012, the Library is now supports the user-controlled purchase of e-books. PDA provides access to a larger number of e-books than we otherwise would be able to offer. When a user reads one of the electronic books that are made available via the Library, the Library counts this as a loan. Popular books that are borrowed several times in this way are then purchased for the Library. Altogether, 540 e-books were purchased through this programme, with the number of loans totalling more than 2000 in 2013.
# Statistics

<table>
<thead>
<tr>
<th>The Library by the numbers</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of full-time equivalents 1)</td>
<td>120</td>
<td>122</td>
<td>122</td>
</tr>
<tr>
<td>Budget, in NOK 1000 2)</td>
<td>152 400</td>
<td>157 800</td>
<td>170 672</td>
</tr>
<tr>
<td>Number of volumes 3)</td>
<td>2 100 000</td>
<td>2 109 469</td>
<td>2 173 929</td>
</tr>
<tr>
<td>Visitors to the Library</td>
<td>986 000</td>
<td>929 069</td>
<td>906 156</td>
</tr>
<tr>
<td>Total number of loans and renewals</td>
<td>292 000</td>
<td>264 953</td>
<td>233 496</td>
</tr>
<tr>
<td>Study-/reading spaces</td>
<td>1 393</td>
<td>1 399</td>
<td>1 593</td>
</tr>
<tr>
<td>Number of courses</td>
<td>233</td>
<td>316</td>
<td>253</td>
</tr>
<tr>
<td>Number of course participants</td>
<td>5 674</td>
<td>6 969</td>
<td>5 633</td>
</tr>
<tr>
<td>Number of course Hours</td>
<td>558</td>
<td>602</td>
<td>492</td>
</tr>
<tr>
<td>VIKO, number of visits</td>
<td>101 799</td>
<td>115 943</td>
<td>161 479</td>
</tr>
</tbody>
</table>

1) The figures for 2013 include 11 full-time equivalents with student assistants.
2) Block grants and project funding
3) Books and periodicals
Use of the Library’s three major article databases in 2013

<table>
<thead>
<tr>
<th>Article bases</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Direct</td>
<td>577169</td>
<td>573712</td>
<td>641885</td>
</tr>
<tr>
<td>Springer</td>
<td>108653</td>
<td>103131</td>
<td>141144</td>
</tr>
<tr>
<td>Wiley</td>
<td>139144</td>
<td>142221</td>
<td>128510</td>
</tr>
</tbody>
</table>

Us of the Library's e-resources in 2013:

<table>
<thead>
<tr>
<th>The use of full-text databases</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downloads</td>
<td>2.500.000</td>
</tr>
</tbody>
</table>

Use of other databases: 2013

<table>
<thead>
<tr>
<th>Searches</th>
<th>2.130.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of displayed records</td>
<td>536.000</td>
</tr>
</tbody>
</table>
Digitization

The table below shows the number of pages that were digitized by Special Collections from 2011-2013.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scans</td>
<td>26.626</td>
<td>18.576</td>
<td>9.714</td>
</tr>
</tbody>
</table>

Scans from 2011-2013
Of the 26,626 scans in 2011, 22,300 were of the Royal Norwegian Society of Science and Letters publication “Skrifter” and 4,326 were manuscripts.

Open access at NTNU

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIRONOMUS Newsletter on Chironomidae Research</td>
<td>9 019</td>
<td>10 520</td>
<td>14 813</td>
<td>17 467</td>
</tr>
<tr>
<td>Norsk epidemiology (Norwegian epidemiology)</td>
<td>67 966</td>
<td>62 682</td>
<td>93 324</td>
<td>114 503</td>
</tr>
<tr>
<td>Fauna norvegica</td>
<td>4 114</td>
<td>3 746</td>
<td>6 399</td>
<td>10 130</td>
</tr>
<tr>
<td>The Royal Norwegian Society of Science and Letters Skrifter</td>
<td>39 949</td>
<td>59 309</td>
<td>80 270</td>
<td></td>
</tr>
</tbody>
</table>
Publications from private collections

The Library will digitize and publish unique material in full text from private collections, through its digitalization project. The table below shows the documents that were published in full text from 2009 to 2013.

<table>
<thead>
<tr>
<th>Publications in full text</th>
<th>2009 - 11</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscripts</td>
<td>211</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Books</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Theatre scripts</td>
<td>8</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Letters</td>
<td>0</td>
<td>2.500</td>
<td>1.980</td>
</tr>
<tr>
<td>In total</td>
<td>234</td>
<td>2.509</td>
<td>1.989</td>
</tr>
</tbody>
</table>

Manuscripts, books and theatre scripts are recorded in BIBSYS. The letters, published in 2012 and 2013 (estimated figure) are Fredrikke Marie Qvam’s private collection of letters Gjævran farm in Steinkjer. The letters have been published on the Archives Portal.
Trends in lending and downloads from 2010-2013

Use of the Library's budget funds

Accounts 2013. Total NOK 166.5 million