

Profile: ProQuest LLC

Reviewers: Marie Waltz & Carolyn Ciesla
The Center for Research Libraries
April, 2010

PRODUCTS

ProQuest LLC provides a variety of services and over 450 individual products to the scholarly community. Scholarly content made available through several Web based electronic platforms includes ProQuest Historical Newspapers (a digital collection of the back runs of U.S. newspapers including The New York Times and Wall Street Journal); American Periodicals Series Online; and its ABI/INFORM online business databases. Libraries constitute ProQuest's primary market.

For a complete listing of products see <http://www.proquest.com/en-US/>

COMPANY HISTORY

ProQuest LLC began as University Microfilm International (UMI), founded by Eugene B. Power in 1938 in Ann Arbor Michigan. Power began the business with the idea of using microform technology to serve the low-demand publishing requirements of the scholarly community. One of UMI's first areas for content acquisition was doctoral dissertations, which it began microfilming in 1939, publishing the abstracts in Microfilm Abstracts, an annual catalog of the dissertations available for sale from UMI.

In 1951 the UMI initiative gained considerable momentum when the Association of Research Libraries (ARL) voted to approve publication of doctoral dissertations on microfilm and to endorse distribution of those dissertations through UMI. ARL libraries then agreed to discontinue the practice of interlibrary loan of paper copies of dissertations that were available through UMI.

UMI and Xerox

In 1962 UMI was sold to the Xerox Corporation for \$8 million. Eugene Power continued to run the company as a subsidiary of Xerox until he retired in June 1970. Xerox introduced some changes, creating a designated sales force and expanding the sale of reprints of publications from the company's microfilmed collections. In 1971 UMI changed its name to Xerox University Microfilms and in 1976 reverted to University Microfilms International.

UMI and Bell & Howell

In 1985 UMI was sold to Bell & Howell. In 1999 the name was changed to Bell & Howell Information and Learning. In 2001 Bell and Howell created the ProQuest Company out of two of its business units, Bell & Howell Information and Learning and Bell & Howell Publishing Services. In June 2001, "PQE"

began trading on the New York Stock Exchange when Bell & Howell sold a minority of shares to the public.

National Archive Publishing Company

In 2005, ProQuest divested of some of its assets to the National Archive Publishing Company (NAPC), a corporation formed by former members of ProQuest management. Under a long-term contract with ProQuest, NAPC serves as a producer and supplier of microfilm and digital content for ProQuest. Under the agreement NAPC stored ProQuest microform masters and fulfills microfilm requests for content retained by ProQuest such as dissertations, newspapers and research archives.

ProQuest LLC and Cambridge Information Group (CIG)

ProQuest's difficulties as an independent public company began in 2006, when its 2005 financial information was determined to have been incorrectly stated by the Securities and Exchange Commission. Independent auditors determined that ProQuest had "certain deficiencies in internal controls." At that time it was found that "there was no evidence of undue pressure from corporate management to attain certain results, but that one individual was responsible."

In early May of 2007 the ProQuest Company's stock was removed from listing and trading on the New York Stock Exchange because of the company's failure to file its 2005 annual report, Form 10-K, and certain of its fiscal 2006 Form 10-Q filings. As a result of the accounting irregularities, several shareholder lawsuits had been filed against ProQuest in 2006.

In June 2007 ProQuest changed its name to Voyager Learning Company and its ticker symbol from PQE to VLCY. Voyager re-located corporate operations to Dallas and has since concentrated on K-12 products. Prior to the name change, in Dec 2006, the unit of ProQuest then called ProQuest Information and Learning, which included UMI, was sold to the Cambridge Information Group (CIG). Alan Aldworth, ProQuest Company's chairman and CEO, said, "This pending transaction . . . will significantly improve ProQuest Company's capital structure." CIG merged ProQuest with CSA, a scientific database provider and named the new company ProQuest LLC.

The Cambridge Information Group (CIG) is a private, family owned company that has been in existence since 1971. It was founded by Robert N. Snyder and Philip E. Hixon. Philip Hixon has since retired, but Robert N. Snyder continues as the Chairman of CIG. The three original operating companies owned by CIG were CSA, Disclosure Incorporated (sold in 1987 to VNU, a Dutch publishing conglomerate), and National Standards Association (sold in 1993 to Information Handling Services, Inc.).

In addition to ProQuest LLC, CIG currently owns the publishing company Bowker; Navtech, a supplier of flight operations information and aeronautical charts to the airline industry; GWDI, a company that provides communication and data management to the aeronautics market; Sotheby's Institute of Art, which offers postgraduate degrees and undergraduate study abroad programs in art scholarship,

connoisseurship and art business; and Bach to Rock (B2R), a chain of music schools designed for students from pre-school through adulthood. CIG also holds equity in Jin Yun Wan Xiang, a chain of “retail establishments located in historic sites in and around Beijing that sell gifts inspired by cultural icons” and MetaMetrics, a company that develops products and services that focus on improving teaching and learning in grades K-12.

In 2009 ProQuest acquired National Archive Publishing Company (NAPC) microfilm assets in the areas of newspapers, collections (such as groups of books, manuscripts and historical documents) and dissertations.

DELIVERY & ARCHIVING

ProQuest Database and Database Center

ProQuest’s Database Center system houses all ProQuest information products. This includes the PQDT database of graduate works. The amount of content currently held within the ProQuest database system is over 125 billion digital pages.

The ProQuest Data Center is located in Ann Arbor Michigan. In 2000 ProQuest LLC migrated to a Red Hat Enterprise Linux environment All of the company’s online database products were combined into one Oracle database back end. This system utilizes 295 HP ProLiant BL35p blade servers powered by AMD Dual-Core Opteron processors. If there is a need for more capacity, it can be quickly supported by adding additional HP ProLiant servers. The system uses one third the number of processors and half the memory of the systems they replaced in 2000.

The New Data Center

ProQuest is building a new data center on the lower level of its Eisenhower Parkway office in Ann Arbor, Michigan. It will be used for computer equipment and preproduction housing and testing of new products. The new data center is projected to cost \$6.5 million. ProQuest was planning to hire an additional 303 employees in 2009 to staff the facility.

With the new building, ProQuest received a \$10 million state tax credit from the Michigan Economic Development Corporation, the State of Michigan’s economic development agency. Additionally they expect to receive a \$1.2 million property tax abatement from the city of Ann Arbor.

Archiving Arrangements

Microfilm continues to be a strong part of UMI’s preservation program. All graduate works are archived on two copies of microform. UMI creates both a master negative and a print negative of each work. The master negative is not used and is held for archival purposes; the print negative is used to generate print and digital copies. Each microform is stored in a separate vault. These vaults are climate and humidity controlled according to the industry standard and meets all Library of Congress qualifications. The microform created follows the ANSI/AIIM specifications that UMI helped establish

as an industry standard. Even “born digital” graduate works are archived on microfilm. All page-based material (e.g. material that can be printed out as either 8.5 x 11 or A4 paper formats) is captured using a state of the art Electron Beam camera, which converts born digital graduate works into microform.

In addition to microform, two digital backup copies are created. Dissertations are converted to TIFF images and wrapped in a PDF. These files are then stored in online electronic vaults housed within ProQuest facilities in Ann Arbor. The online copy is available in mirrored storage: multiple copies are stored on two or more drives in a RAID-5 (redundant arrays of inexpensive disks) system located in Ann Arbor. The second back up copy is kept on a Spinning Disk system located in Sterling, VA. Spinning disk systems are often used as an inexpensive, long-term storage solution. They are designed for fast writes and rewrites of data, and are a good choice for archiving purposes. In addition to ProQuest’s other storage solutions, a back up tape is kept at an undisclosed location in the Ann Arbor area.

One real world demonstration of ProQuest’s ability to recover from a disaster was during the Great Northeastern Power Blackout of 2003. Around 4:00 PM on August 14, 2003 the largest power outage ever to hit the U.S. cut the power to the Ann Arbor area. Power was not fully restored to the area until the evening of the following day. According to Austin McLean, Director of Scholarly Communication and Dissertation Publishing, ProQuest LLC’s systems were temporarily shut down. However, ProQuest had backup generators and once they were turned on, service was restored to customers worldwide. Other than a temporary halt in service, there was no evident loss or damage to the system.

A preservation policy is available on the ProQuest Web site. ProQuest has designated a group of staff members to be responsible for digital preservation management, and asserts a commitment to migrating content as necessary. This commitment was evidenced by their migration to a Linux-based system when it became necessary.

Sources

[*Repository Profile: ProQuest UMI Dissertation Publishing.*](#) Marie Waltz, Center for Research Libraries, April 23, 2008.

[JISC Academic Database Assessment Tool](#)