

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

Fall 8-18-2021

Academic Libraries support E-Learning and Lifelong Learning: a case study

Sivankalai S

PSN College of Engineering & Technology, skysivan@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Educational Leadership Commons](#), [Educational Technology Commons](#), [Higher Education Commons](#), [International and Area Studies Commons](#), [Online and Distance Education Commons](#), [Outdoor Education Commons](#), and the [Teacher Education and Professional Development Commons](#)

S, Sivankalai, "Academic Libraries support E-Learning and Lifelong Learning: a case study" (2021). *Library Philosophy and Practice (e-journal)*. 6154.

<https://digitalcommons.unl.edu/libphilprac/6154>

Academic Libraries support E-Learning and Lifelong Learning: a case study

Sivankalai, S

Librarian, PSN College of Engineering and Technology, Tirunelveli

skysivan@gmail.com Orcid: 0000-0002-1174-7594

Abstract

E-learning has proven to be the best method for corporations, primarily when MNCs conduct training programmes for their workforce worldwide. In e-learning, a teacher no longer directs students; instead, a step-by-step guide has replaced the teacher. The idea of web 2.0, life-long learning, open education, and social constructivism is often linked with this term. Librarians can benefit from e-learning as well as students and researchers. Staff training through additional online programmes assists employees in learning the latest ideas, handling new challenges, and meeting reader demands. E-learning is becoming more and more popular each year at universities across Canada. E-learning is a practical and effective option to practice on-the-job abilities, such as web searching, and address problems that stem from Internet resources. E-learning programmes can be custom-tailored to the profile, requirements, and collection features of academic libraries. Using e-learning in an academic library may provide many genuine benefits for users and instructors while also helping the institution. According to a new study by the University of Guelph's Department of Library and Information Technology, E-learning is essential for the growth of library facilities. India has 35 million students enrolled in higher education, compared to China's 51.6 million. The government is dedicated to achieving inclusive education, which necessitates an e-Learning system. Online learning must be prioritised to achieve the NEP 2020 goal of 50% GER by 2035. Some conventional institutions have twice the amount of ODL courses registered. The UGC must simplify its laws and streamline rules, says Naveen Thakur-Ganjibayyan.

Keywords: E-Learning, Academic library, Online Learning, Web-based Learning, online Education

Introduction

Additionally, the closure of educational institutions throughout the globe due to the COVID-19 epidemic has contributed to the growth of the e-learning sector. Over 1.2 billion pupils in 186 countries were impacted by the epidemic in March 2020, according to UNESCO. During the coronavirus epidemic, countries that are most impacted have experienced a surge in remote learning enrolment. Electronic materials aid in E-learning. However, the method itself is referred to as "formalised teaching." E-learning is founded primarily on the use of computers and the Internet. Similarly, e-learning may be described as a network-enabled method of transferring skills and information to many receivers across time as an educational delivery system (Peng, S. L., Etal. 2020; Taso, K., & Chakrabarty, A. 2020). Previously, many did not believe this method would succeed since they thought it missed the human aspect necessary for learning.

At the same time, people welcome it because of its quick growth in technology and advancements in learning methods. Computers are where this revolution began. As we use smartphones, tablets, and similar devices in our everyday lives, these gadgets have gained significance in classrooms, where students are exposed to technology. Electronic instructional resources, such as optical discs or pen drives, are replacing books in classrooms. The Internet allows knowledge to be distributed 24/7, anywhere, anytime.

According to MNC training and skill acquisition for professionals across the globe, e-learning has proven to be the best method for corporations, primarily when MNCs conduct training programmes for their workforce worldwide. Because of this, MNCs use e-learning for training programmes, which allows their crew to acquire essential skills from the comfort of their work while being in a board room or having seminars. While most schools still utilise the conventional teaching method, those that embrace e-learning strategies are several steps ahead. Indeed, the notion of non-electronic teaching can only be successfully advanced through books and lectures. However, the impact and efficacy of using technology in education cannot be discounted or disregarded. Although video or moving visuals are still new, it is thought that the human brain can readily recall and react to what is seen and heard through them. Some researchers have shown that, as well as retaining attention and images can have a longer-lasting impact on the brain. Every industry, from agriculture to government, has adapted to the notion of e-learning, which helps an entire nation grow.

The role of e-learning in the academic library's daily activities

Information technology has profoundly affected virtually every facet of human existence, especially with the advent of cyber-space exploration. Just as libraries have effectively modernised their online activities, using new chances to satisfy their customers' current and future demands, the same is true of schools. The extension of conventional library facilities, collections, and services now occurs remotely accessible digital sources and devices. Several library components, up to now, lack counterparts in the current world. The efficiency of labour improves due to the completion of conventional library responsibilities combined with the assistance of online activities.

One of the essential things an academic library does is support the school. Libraries promote academic research by offering access to books and information relevant to student coursework and scientific studies. Librarians bear responsibility for the education of library users and employees. Today, they help establish a knowledge society by becoming sources of information for people throughout the world. Currently, academic libraries' training initiatives often rely on e-learning. Promoting the transmission of knowledge, organising information resources, and making them available are all part of a librarian's job (Gruca, A. N. 2010).

Additionally, because of their new function, librarians worldwide must be informed of the teaching and learning trends. A modern kind of remote education focused on using digital equipment is referred to as e-learning. This article uses this word to describe online educational methods in which students are taught and study online. Generally, using remotely available information sources to help education involves quite a bit more than that. Experts emphasise using the Internet to manage the entirety of the educational process, which affects acquiring information.

Due to the vast diversity of approaches used in e-learning, it is an accurate way to describe it as comprehensive. Also referred to as informal learning, this might be an alternate teaching method or improve regular instruction (blended learning). It may be a synchronous or asynchronous procedure, in which learners can take on the role of avatars interacting with other avatars via computers and programmes (Syslo 2005; Lubina 2005; Tadeusiewicz 2007). In addition to helping to prepare instructional resources and overseeing knowledge quality assurance, teachers now do both tasks. A teacher no longer directs students. Instead, a step-by-step guide has replaced the

teacher. Students will have the opportunity to test their knowledge and inform their teachers of their findings if interactive assessment tools are provided.

This approach claims that there are several different relationships between students, teachers, and the education system. Even if the student is in the middle, the instructor, acting as a virtual guide, helps the learner assess progress. Technology acts as a channel for communication but does not serve as a replacement for the teacher. Students participate in many different activities when using a distant education platform. Group cooperation is supported by information exchange, which leads to more efficient schooling. The notion of web 2.0, life-long learning, open education, and social constructivism is often linked with e-learning. In determining which e-learning model to use, users should first consider the subject and target consumers.

Opportunities and Requirements

E-learning may be applied to teaching library customers in various ways, based on their educational requirements. While librarians might perhaps profit from e-courses, the first group who can potentially benefit is themselves. While they are online, students can earn credits that can be used to augment their current academic qualifications. They can also benefit from extra training that can be used to advance their career and personal growth. There may be a relationship between elements of online education and librarian training practice. Prepared digital materials made available to all librarians can be great tools for interns in the future. In addition, online education can enhance library procedures and services. Staff training through additional online programmes assists employees in learning the latest ideas, handling new challenges, and meeting reader demands. Adequate levels of ICT skills are critical, such as using professional computer programmes, the Internet, and other forms of online publishing. While search seems unstoppable in virtual space, there has been an excessive growth in the number of digital resources and tools available (Mgquba, S. K. 2015). Since librarians, who are guides to web information, require lifelong education and personal training to become specialists in subject knowledge and abilities, they need to educate themselves constantly. People accept online learning as the best method to stay current and prepared for any challenge.

Library customers come from many different backgrounds, disciplines, and fields of interest. It comprises students and researchers, as well as those who are not enrolled. Furthermore, there are

library visitors who use nearby sources and library resources that are physically accessible and users of digital resources who interact with the library solely via the Internet. Because there are so many different types of library users, it gives users many opportunities to create an exciting e-learning experience designed for a wide range of people. A library is a beginner-friendly establishment, and so library instruction plays an essential role for novices. Students become acquainted with the library, helping them to learn about collections, services, catalogues, and equipment. The programme teaches students the knowledge they will need in their studies. The rise of online teaching is similar to that of library training in that it is becoming more and more popular each year.

Many library materials and services are now available online. Thus, providing education on the correct method of use is reasonable. Information online, especially speciality engineering databases, electronic services, catalogues, and other elements of the virtual library environment, seems to be quite helpful. These features of an e-learning programme may be especially beneficial for students who are far away from educational institutions, such as in rural locations.

Scholarly study of information and knowledge is an essential component of library training. It develops several vital skills, such as the ability to define information needs, use various information sources, identify, evaluate, and apply results, and manage those results. It is not only students who benefit from having these skills, but people who use the Internet also benefit. E-learning is a practical and effective option to practice on-the-job abilities, such as web searching, and address problems that stem from Internet resources. Thus, library education may benefit from web-based training or, if designed as an open e-course, it may serve as an entry point to the web's content. Reference Lists, Text Editing, and Learning and Organising Knowledge may be provided to students in the form of an e-learning offering for their benefit. Specialist databases may also suit the demands of researchers, although virtual guides to specialised databases or important little-known collections might be a solution. E-learning programmes can be custom-tailored to the profile, requirements, and collection features of academic libraries. In this way, its digital environment may become a source of exciting and valuable educational materials.

Opportunities for Libraries; Benefits for Users

To broaden the viewpoint, using e-learning in an academic library may provide many genuine benefits for users and instructors while also helping the institution. While e-learning may greatly enhance library training and relieve staff from some of their teaching responsibilities, it should be seen to educate the community rather than just as a resource for education. Creating an online library course prepared properly and fascinating in design may work with conventional training, acting as a supplement instead of a replacement. It is not limited to a certain number of users. It is fair to say that full-time and remote students alike have equal access to e-courses, and for the disabled, e-courses represent a step towards inclusion.

By adding e-learning to their mix, educational institutions have a new and exciting chance to diversify their offerings. One of the great things about online learning is that it encourages feedback and evaluates students' progress. After students in online courses contribute to the body of knowledge, this study may provide the opportunity for future groundbreaking discoveries.

For instructors and students, e-learning in library training is a time-saver since they do not have to go to the library. An e-course, once uploaded, may be revised and utilised again and again. Students may return to any course area to refresh their knowledge, no matter how much time has passed. One must study at the time and location most suitable for him or her. It is not uncommon for them to additionally decide how issues will be organised. All of this enables individuals to modify the learning process to suit their preferences. Because completing e-training may be done on one's own gives the student a sense of accomplishment.

Some mandatory portions of a lesson may become more engaging for students if a class is offered in a digital format. Learning online is a type of education that is quite popular these days. While the internet features, interactive, multimedia, and hypertextual nature affect mental processes and promote active learning, these qualities impact learning primarily through influencing active learning. Presenting many kinds of information and promoting user control of educational resources are all offering content diversity. Students may look up more material on the Internet or instantly use quizzes to assess their understanding at every step.

E-learning is essential for the growth of library facilities. More library librarians are better equipped for their work, and thus, the library can achieve its objectives more quickly. By attending

e-courses and studying via self-education in the digital world, one may put the concept of lifelong learning into reality. The use of the intranet may also help enhance communication across departments. Employing the computer as an instructional tool is encouraged by using online training. Preparing e-courses enhance employee creativity at the same time. It is also valuable for other libraries since it helps organise and manage materials in a digital context. These added advantages help advance the library's promising future and align with the transition it must undergo to become a learning organisation able to confront new challenges and handle changes.

In this viewpoint, e-learning may help to spread library resources and services to a broader audience. A service component, such as online training, is provided to increase the use of library resources, including collection materials. Additionally, it is not only a registered library user who benefits from it. Promotion in the case of open e-courses is almost limitless. Information regarding the e-courses must be available and accessible for students. Courses that provide exciting and helpful e-learning for the library and increase users are all great benefits. This picture helps to portray the institution as dynamic and creative and its location in the global knowledge economy.

A Brief Overview of E-Learning in India

Now that technology has advanced, India's eLearning development has gone far. In terms of the advancement of technology, India is on a constant rise. With over one billion residents with high-speed Internet and cellphones, India boasts the most significant number of individuals who use technology to benefit their daily lives. People in India live a different lifestyle because of the development of the Internet. Everyone prefers doing things online. They use the Internet to buy things, do business, and make friends. Internet education and learning are among the top online industries, alongside eCommerce. As knowledge becomes more readily accessible on the Internet and through many online courses, more Indians study independently rather than attend an institution.

The Indian government envisioned using digital technologies to help change the country and provide opportunities for everyone, which led to the government launching the "Digital India" project. The programme encompasses numerous health, education, employment, and so on initiatives. More and more institutions and colleges are offering online correspondence courses as part of the 'Digital India' initiative. Since we have a topic of interest to research, let us go through some fascinating statistics regarding online education in India.

The development of technology has brought considerable progress to eLearning in India. In many other nations, like India, new technology is dramatically increasing. Internet connectivity is ubiquitous in India, with an estimated 1.3 billion residents. Due to the Internet, the manner of life in India has drastically changed. In other words, individuals want to do all their daily activities online, from buying to socialising to studying and operating their own companies. Internet education and learning are essential online businesses, but eCommerce is just behind them. Given the amount of knowledge accessible online and the many online courses, the country tends to study online. India's widespread use of digital technologies has created a huge development opportunity for India's eLearning sector.

This prediction is rather astounding: India's online education market is expected to grow by 50% between 2021-2025, and it is expected to reach \$5 billion by the financial year 2025. Over the 2021-2026 period, the global e-learning industry will grow by \$370 billion, with a CAGR of 8.56 per cent. Based on these findings, it is evident that eLearning will play an essential role in India's future. While discussing the benefits and drawbacks of online education over conventional education, let us look at some of the advantages and disadvantages of each.

E-Learning in Higher Education

Education is one of the 17 UN Sustainable Development Goals (SDGs) that the global community is committed to achieving. According to the government's replies for creating a New Education Policy in 2019, India has also sought to address education issues with utmost priority. The government is dedicated to achieving inclusive education, which necessitates an e-Learning. Because it is difficult to educate the elephant population, this article attempts to analyse the experiences and problems of e-Learning in India's higher education system (Taso, K., & Chakrabarty, A. 2020). With 35 million students enrolled in higher education, India has a GER of 26%. China, with a larger population, has a GER of 51.6%. Online learning must be prioritised to achieve the NEP 2020 goal of 50% GER by 2035. Moreover, the NEP's studied provision of multi-point entry-exit and credit banks will only be feasible if adopted online.

All non-hands-on subjects will go online. Others require a mix of online and offline skills. In the early days of open and distance learning, approximately 85% of lectures were delivered via mail, with the remainder delivered in person at university-run centres. In an online learning system, the model is hybrid if some lectures are also done in person for some reason. Except for IGNOU, all

other open universities had to operate within the state boundaries. Online teaching gradually replaced postal teaching as the IT infrastructure improved. As online exams become more popular, they solve issues like handling question papers, answer scripts, exam room scheduling, invigilators, and coordinating with examiners.

Unlike Massive Open Online Courses (MOOCs), all programmes leading to degrees must be approved by the regulator, the University Grants Commission (UGC). One of the requirements is that the course is a mix of online and in-person lectures. The Ministry of Education and IGNOU are also involved in open and distance learning. The Indian Institutes of Technology's National Programme on Technology Enhanced Learning (NPTEL) for engineering students is hugely popular.

Online learning is also rapidly becoming the norm as the globe moves towards virtual universities (VU), lacking existing campuses and employees. Everything is online, including remote labs and haptic gadgets. This would kill the notion of a typical brick-and-mortar institution. Artificial intelligence (AI) would also customise education by considering students' skills, weaknesses, and interests. It separates slow learners from the rest of the class and delivers extra content as needed. With the advent of holographic technology, renowned academics may now conduct lectures in many languages simultaneously. The Indian government's Budget 2020 announced the National Digital Educational Architecture (NDEAR), leading to a learning management system. The LMS is powered by AI and serves as a platform for online material and courses in synchronous and asynchronous modes. The LMS also extracts meta-data from learning resources to make course suggestions more accurate. The concern of commercialisation and the arrival of fly-by-night operators has been one of the primary reasons for the sluggish expansion of online learning degrees. Some conventional institutions, including Mumbai and Pune, have twice the amount of ODL courses registered. The UGC must simplify its laws aside from streamlining rules and eliminating the false difference between ODL and online learning programmes.

E-learning in Academic Libraries

Most academic librarians work to offer information on teaching, learning, and research for academics. Most colleges throughout the country use e-learning as part of their curricula. The

experience has been very worthwhile in that it has assisted in the integration of library resources and services for educational, research, and outreach activities. Over the last several years, many very innovative ideas have been introduced to combine e-learning with on-the-job training seamlessly. Today's academic libraries are almost all digital, and studying in a digital environment is a great option. Academic libraries use the necessary communication technology to integrate the digital world into e-learning and e-research activities to provide smooth access to electronic materials and services. The resources in this category include catalogues, databases, multimedia, journals, and so on, all accessible through the Internet (Sen, S. 2009). Today, academic libraries use cutting-edge technology to offer access to materials and services for on-campus, part-time, and distance learners. We may engage in educational activities and research as students and teachers, even if not at the library. Using suitable technology to assist learning and accessing resources and services is only some of the academic libraries, professors, and academic development departments with e-learning functions may do. These aspects of e-learning come into play in two distinct ways: because the infrastructure of e-learning is more sustainable, it can support more students and faculty than would otherwise be possible; and because the environment is completely integrated, it enables students and faculty to access knowledge, course content, information resources, and services all from a unified service point.

Libraries should create an e-learning support centre, staffed by academic personnel, that offers training for professors on integrating educational technology into the curriculum to make material available to students. In furtherance of these objectives, the Educational Technology division will design e-learning smart classrooms, video conferencing tools that enable students to pursue their education when and where they choose, and assignment systems that enable dynamic learning and teaching. A holistic approach to e-learning includes integrating conventional and digital learning and teaching techniques and using new media to meet the needs of students best. Faculty are using online learning techniques in their classrooms. A significant contribution to the educational process is made by libraries, which help locate and arrange materials to complement programmes and courses that use e-learning to assist students in working on their assignments.

For academic libraries, OCLC suggests that resources must be integrated to make them more effective. Academic libraries may carry out their function in e-teaching and e-learning if they have two different sets of criteria completed:

- technological criteria and functional specifications
- compatibility with technical and cultural needs

The technical and functional requirements are discussed below.

1. As part of a learning exercise, show and combine several windows of information.
2. Material aggregation in learning environments (finding and sharing of content).
3. Enable simple searching and reference fulfilment by providing appropriate bibliographical tools.
4. Let people use whatever tools they want to prepare and deliver their material.
5. Use plagiarism detection tools to promote ethical practices and evaluate content validity.

Technical and Cultural Requirements

enabling remote access, which includes providing services to students and employees

- use third-party commercial information services.
- Save individual choices in portal facilities.
- Make it possible to access virtual reference services easily when users need them.
- informational training modules may be included for aiding information discovery

Library Resources in Course Management Systems.

- For each department, new purchases will signify newly obtained supplies.
- View the library records of a certain patron to determine whether he or she has already borrowed any of the items. Then, users have the option to renew the items without visiting the library.
- Request for resources borrowed by another user Communication is provided to the user who asked to borrow the item whenever the material is returned.
- Librarians are open to suggestions from users about things the library could purchase that will better meet their needs. Users may make the request online.
- Material that lecturers have put on reserve for the course they are teaching.
- Users may utilise email to communicate with the library in two-way communications.
- Users charges are made accessible to users on the Internet.
- These faculty, department, and course numbers offer the complete text of previous examination papers.

Online Library Use Training

Learning to utilise an online library may be done in a variety of ways. The training may be made available as an e-course (or an online handbook) to many Internet users if it is voluntary. Because it is part of a formal school, the system may be limited to a select set of registered users. Only students are permitted to apply, and they must complete a test. At specific libraries, the user must first take a test to be accepted to further library-related classes. However, because of the variety of library users, users do not have to take any tests to be accepted into other classes that apply to the library (including external users).

On the topic of online training, some courses may serve as traditional substitutes for on-site classes. In contrast, others can serve as supplemental material for self-study or an alternative to an established library lecture series. The kind of A-Z knowledge and skills about accessing library resources and services that may be taught in many ways may be divided into different subject areas. Poland's libraries offer many services compared to other countries, but the most popular ones are easy to identify. Simple tutorials in individual files are a less complicated way of increasing consumers' knowledge via the Internet.

While it is true that this is not strictly speaking e-learning, it should be emphasised that it is an essential beginning for self-study. In addition, there are newer users' guide websites that provide information about the library, its holdings, and services, as well as step-by-step instructions on how to use information technology. Additionally, they answer frequently asked questions. The elements, like accommodation plans, may contain text, images, links to websites, and interactive features from the Internet. A growing number of online library teaching is provided via Moodle. Examples include educational resources that are either short modules or standalone HTML pages (text, pictures, slideshows, and internet connections). a website established with questions and navigation

Using e-courses that are pre-programmed or digital guides to help the user find exciting content may be an example of making an educated choice and encouraging text-based and visual learning (i.e. textbooks, images, movies) and fostering active training (i.e. videos) (by following instructions, quizzes, etc.). Most communications follow a one-way path. Online courses in Polish

academic libraries focus on using screens, tutorials, and images to disseminate knowledge and aid presentation. Instead of teaching specific skills, information is delivered in many ways. This digital library training is geared toward using information resources and digital technology. The relationship between learners and librarians seldom comes into consideration.

If online training takes the role of library teaching, it should complement traditional instruction with digital alternatives to help fill the lack of physical experience. If the user would want to avoid a library tour, there are other options. There are many options available, including visiting Second Life, a virtual world. Students produced a virtual rendering of the UMCS library building in Poland (BG UMCS). Written teaching, virtual "help locations," digital demonstrations, or instructional films may all be substituted for this. When creating an online course, one must first identify the project's objectives, the types of people who will use the product, what the course will contain, how the course structure will be organised, information architecture, navigation, training techniques, instructional resources, teaching and learning tools, and communication channels between instructors and students. In creating a course, a course designer must illustrate the learning process. After completing the online course, it will be exciting, useful, beneficial, and aesthetically attractive.

Conclusion

With e-learning, many people may learn at the same time. UNESCO estimates that the coronavirus affected 1.2 billion students in 186 countries in 2020. Corporate e-learning has proved to be effective. A contemporary kind of distance education, e-learning uses digital technology. Students engage with other avatars through computers and programmes (blended learning). Since then, the DOE has utilised e-learning. E-learning is a modern teaching method that seeks to enhance student-teacher relationships. Technology facilitates communication but does not replace the instructor. When utilising a distance education platform, students do numerous things. Because instructors and students do not have to educate staff, e-learning saves time.

E-learning is vital for library expansion. More library librarians are more prepared, allowing the library to accomplish its goals faster. The intranet may also assist improve departmental communication. Encouraging innovation and creativity via e-learning India's eLearning growth is accelerating. The Indian online education industry is projected to double by 2025. This initiative

seeks to promote health, education, and employment. Academic libraries use cutting-edge technology to serve on-campus, part-time, and distance learners. John O'Neill proposes that academic libraries establish an e-learning support centre staffed by academics. Academic libraries may do e-teaching and e-learning if they fulfil two requirements. OCLC says resources must be interconnected to be successful. Polish libraries provide online learning resources. Learning to use an online library may be done through e-courses or self-study. Compared to other nations, Polish libraries are easily identifiable. If online library training replaces conventional library education, it should supplement it with digital alternatives. Students used Second Life to create a virtual representation of the UMCS library in Poland. The online course creator must depict learning.

References

1. Antczak-Sabala, B. (2009). Where do on-line library training in Polish libraries come from? Research report. EBIB Newsletter [on-line], (4), 104.
2. Bednarek-Michalska, B. BIBWEB: online course for librarians. <<http://www.bibweb.pl/>>
3. Bigum, C. and Lankshear, C. (1998). Literacies and Technologies in School Settings: Findings from the Field. Keynote Address to 1998 ALEA/ATEA National Conference, Canberra, July 7th.
4. Cambre, M. and Hawkes, M. (2001). Twelve steps to a telecommunity. *Learning and Leading with Technology*. 7 (3), 22-27, 52.
5. Campbell, N. G. (1997). *Learning to teach online: An investigation of practice in teacher education* (Doctoral dissertation, University of Waikato).
6. CEL AGH Centre of e-Learning. Web. 19 Feb 2010. <<http://www.cel.agh.edu.pl/>>
7. Clay, M. & Grover, R. (1995). Throw me a rope: A distance learning faculty guide. In D. A. Willis, B. Robin & J. Willis (Eds.), *Technology and teacher education annual*, 1995, (pp.621-625). Charlottesville, VA: Association for the Advancement of Computing in Education.
8. COME The Centre for Open and Multimedia Education. Web. 19 Feb 2010. <<http://>>
9. Divjak, M., Rupel, V. P., & Lešnik, K. M. (2018). The impact of study attitudes and study behaviour on satisfaction of online students with the implementation of online study programmes. *Educational Media International*, 55(3), 287-300.
10. Długolecka, H. "Przysposobienie biblioteczne: od tradycyjnych metod nauczania po e-learning." *Przegląd Biblioteczny* 3.77 (2009): 359–369. Print.

6. Draves, W.A. (2000). Teaching Online. River Falls, Wisconsin: Learning Resources Network.
11. Fancy, H. (2000). Text of a speech delivered by Howard Fancy at the International Workshop on Advanced Learning Technologies at Massey University. [Online]. Available: http://www.minedu.govt.nz/web/document/document_page.cfm?id=5432
7. Feenberg, A. (1999). Questioning Technology. London: New York.
12. Giwer, O. (2005). Selection of resources in academic libraries as an element of collecting and shaping policy. In Materials from the nationwide scientific conference Rzeszów-Czarna, June 1-3, 2005 (p. 146).
8. Goodwin, B. N., Miklich, B. A. & Overall, J. U. (1993). Perceptions and attitudes of faculty and students in two distance learning modes of delivery: Online computer and telecourse. Orlando: FL. (ERIC Document Reproduction Service No. ED 371 708).
13. Gruca, A. N. (2010). E-learning in academic libraries. *New Review of Information Networking*, 15(1), 16-28.
14. Gruca, A. N. (2010). E-learning in academic libraries. *New Review of Information Networking*, 15(1), 16-28.
15. Levkoe, C. Z., Knezevic, I., Appavoo, D., Moraes, A., & Scott, S. (2020). Serving up food studies online: teaching about “food from somewhere” from nowhere. *Food, Culture & Society*, 23(3), 434-453.
16. Lubina, E. Konstruktywistyczne i behawioralne aspekty kształcenia zdalnego, 2005.
17. Mgquba, S. K. (2015). *Library as a collaborative partner in teaching and learning: role and Contribution of the library in e-learning at Monash University* (Doctoral dissertation, University of Pretoria).
18. OKNO Center of Open and Distance Education. Web. 19 Feb 2010. <<http://www.okno.pw.edu.pl/>>
19. Open AGH Otwarte zasoby edukacyjne. Web. 19 Feb 2010. <<http://open.agh.edu.pl/index.php?id=1&theme=1280>>
20. Peng, S. L., Suseendran, G., & Balaganesh, D. (2020). *Intelligent Computing and Innovation on Data Science*. Springer Singapore.
21. Piotrowicz, G. Model hybrydowy współczesnej polskiej biblioteki akademickiej, 2004.
22. Popławska, K. E-learning and its supporting role in the improvement of professional qualifications and education for librarians. The Polish experience to date, 2009. Web. 19 Feb 2010. <<http://bg.uwb.edu.pl/konferencja2009/materialy/Poplawska.Karolina.doc>>

23. PTNEI Polish Scientific Community for E-learning. Web. 19 Feb 2010. <<http://www.ptnei.pl>>
24. PUW Polish Virtual University. Web. 19 Feb 2010. <<http://www.puw.pl/english/>>
25. Sen, S. (2009, October). Academic libraries in e-teaching and e-learning. In *International Conference on Academic Libraries (ICAL)* (pp. 5-8).
26. Swigon, M. "Library anxiety: przegląd współczesnych kierunków badan." *Przegląd Biblioteczny* 3.77 (2009):313–324. Print.
27. Sysło, M. M. (2005). Old educational challenges, new technologies - new educational challenges. In: J. Mischke (Ed.), *Online Academy*. Łódź: University of Humanities and Economics in Łódź.
28. Taso, K., & Chakrabarty, A. (2020). E-learning in Higher Education in India: Experiences and Challenges—An Exploratory Study. In *Intelligent Computing and Innovation on Data Science* (pp. 715-723). Springer, Singapore.
29. Taso, K., & Chakrabarty, A. (2020). E-learning in Higher Education in India: Experiences and Challenges—An Exploratory Study. In *Intelligent Computing and Innovation on Data Science* (pp. 715-723). Springer, Singapore.
30. Van Scoyoc, A.M. (2003) Reducing library anxiety in first-year students: the impact of Computer-assisted instruction and bibliographic instruction. *Reference & User Services Quarterly* 42.4 : 329–341.
31. Web. 19 Feb 2010. <http://bg.p.lodz.pl/konferencja2004/pelne_teksty/piotrowicz.pdf >
32. Web. 19 Feb 2010. <http://www.e-mentor.edu.pl/artykul_v2.php?numer=8&id=111>
33. www.come.uw.edu.pl/?q=en >
34. Zieliński, W., & w Łodzi, W. S. H. E. Implementation of e-agriculture and e-tourism projects as an attempt to break the barriers to e-learning development in higher education.
35. www.nordinfo.helenski.fi/publication
36. www.elu.bc.ca/misc
37. www.carl-abrc.ca
38. <https://economictimes.indiatimes.com/definition/e-learning>
39. <https://www.gminsights.com/industry-analysis/elearning-market-size>
40. <https://theprint.in/opinion/online-learning-is-the-future-education-ministry-and-ugc-must-not-hold-india-back-anymore/605503/>
41. <http://www.sea.edu.pl/tasksgoals.php>
42. <https://inflibnet.ac.in/>

