Distance education: basic resources guide

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Abstract

The past two decades have witnessed the rapid developments in distance education. Though debates surrounding issues related to distance education have yet abated, more and more institutions, entrepreneurs, educators, and learners embrace distance education with the aid of improved information technologies. The present guide introduces the historical development, major theories, and leading agencies and organizations associated with the discipline. Furthermore, it provides an annotated selection of resources including periodicals, books and monographs, and Internet sites. Though emphasis is placed on representative resources and information of distance education of the USA, important international resources are also analytically introduced.

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Introduction

With the advent of new information technologies, the past decades have witnessed an enormous growth of distance education programs. Distance education increasingly involves learners, educators, information professionals, entrepreneurs, and other groups of people in education-related institutions and organizations in the information age. As a result, there is a growing interest in locating and utilizing information on distance education. In response to such a demand, this guide aims to introduce the development of distance education, its major theories, the major organizations associated with the discipline, and a variety of print and electronic resources representing various perspectives on teaching, learning, research, and information services in the field. The intended audience of the guide includes educators and information professionals, and anyone else who is interested in distance education.

In recent years, more and more books and Internet resources on distance education have been produced and made available. There exist enormous resources related to the discipline ranging from agencies and organizations, books and monographs, periodicals, journal articles, to portals and homepages among others. Thus, it is impossible for this literature to be complete and exhaustive. We provide an annotated selection of periodicals, books and reports, and Internet resources based on the selection criteria of scholarly representativeness, authority, coverage, and currency. We focus our discussion and analysis on the distance education resources of the USA. Yet, important international resources are also analytically discussed.

Overview and background

Different educators and information professionals define distance education differently. We define distance education as the

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information transfer process of delivering instructional resource-sharing opportunities to learners away from conventional learning institutions or sites. In the process, instruction and learning are conducted interactively with the aid of media ranging from mail, telephone, fax, audio, video, computer, e-mail, to Web-based multimedia. Distance education is the extension of traditional and formal learning and instruction. Traditional and formal learning and enhanced by the use of distance education media and mechanisms.

Generally speaking, distance education can be understood in terms of the following five dimensions:

- (1) separation of teacher and learner;
- (2) use of media;
- (3) provision of two-way communication;
- (4) influence of an educational system; and
- (5) an industrial base operation (Keegan, 1990; 1996).

With the advancement of information technologies, particularly the Web-based technologies in the 1990s, distance education has been shaped into a new type of information process of instruction and learning, covering both pre-tertiary and tertiary levels as well as lifelong education activities. It offers opportunities and challenges for librarians and information professionals to provide a new type of information service to a growing number of distance education instructors and learners both in and outside educational institutions.

Although the question of the origin of distance education is controversial, the first documented evidence of a correspondence course in the modern sense was an advertisement in a Swedish newspaper in 1833 offering to teach composition by mail (Holmberg, 1986). When the uniform penny postage was established in 1840 in England, Isaac Pittman provided students with shorthand instruction by correspondence. In 1843, the Phonographic Correspondence Society was founded, and it later evolved into Sir Isaac Pitman Correspondence Colleges. Organized distance education was first started in Germany in 1856 by Charles Toussaint and Gustav Langenscheidt, who established a school in Berlin for language teaching by correspondence (Holmberg, 1986). The university extension movement in the latter half of the nineteenth century in Great Britain encompassed systems of popular lectures of Oxford University and Cambridge University, and correspondence study hereafter (Holmberg, 1986; Watkins, 1991).

Distance education in the USA can be traced back to the year of 1873 when correspondence course materials were delivered to learners for home study by the Society to Encourage Studies at Home founded by Anna Ticknor in Boston (Watkins, 1991). From 1883 to 1891, the Chautauqua College of Liberal Arts was authorized by the state of New York to grant academic degrees to students who successfully completed work at the summer institutes and by correspondence during the year (Watkins, 1991). Among the pioneers in the nineteenthcentury university extension movement in the American institutions were Illinois Wesleyan University, the University of Chicago, and the University of Wisconsin (Holmberg, 1986; Watkins, 1991). Despite controversies and debates, correspondence study gained popularity and acceptance in the 1910s. The National University Extension Association (NUEA) was founded, and its first meeting was held in 1915 at Madison, Wisconsin (Watkins, 1991).

During the first half of the twentieth century, a great number of educational institutions in the USA obtained radio broadcasting licenses from the federal government to conduct credit courses by radio. During the years between the two world wars, 13 educational institutions offered instructional radio courses (Watkins, 1991). In the mid-twentieth century, distance education gained more and more nation-wide organizational and social support. After the Second World War, television was considered as another major delivery option for distance learning and instruction. Distance education experienced development amongst controversies in the 1960s and 1970s (Nasseh, 1997).

Since the creation of the Open University in the UK in 1970, the past three decades witnessed acceleration of distance education development in the USA and other countries (Keegan, 1996). In the 1980s, cable and satellite television came into use as a more

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effective delivery medium for distance education. Advancement in telecommunications and computer technologies in the past two decades, in particular in the 1990s, has made the supply and demand of distance education more effective and productive. In the USA, it was reported that the total annual enrolment in distance education programs was estimated at 8 million in the early 1990s (Keegan, 1996). In 1997-1998, the number of enrollments in distance education courses at the US postsecondary institutions was 1,666,100 (US Department of Commerce, US Census Bureau, 2002, p. 167). Computing technologies represented by the Internet and Web-based multimedia communications are becoming the popular and even more effective media to distribute and create knowledge and skills in distance education (NIL, 2000).

In tertiary education, the establishment of virtual courses and degree programs in traditional institutions and virtual institutions gained rapid expansion in the late 1990s throughout the USA. Besides, businesses, industries, and others see themselves also as knowledge generators and disseminators, thus ending the semi-monopoly of higher education over creation and dissemination of new knowledge (Saba, 1999).

As far as theories in distance education are concerned, Desmond Keegan classified them into the following three categories:

- (1) theories of independence and autonomy;
- (2) theories of industrialization of teaching; and
- (3) theories of interaction and communication.

In addition, Hilary Perraton advocated a synthesis of the existing theories with philosophies of education, and there emerged theories of equivalency and reintegration of teaching acts (Simonson *et al.*, 2000).

Among the theories of independence and autonomy, those by Charles Wedemeyer and Michael Moore are well known. Believing that distance education is essentially a kind of independent study, Wedemeyer proposed a system with ten characteristics highlighting learner independence and the means of achieving it. His theoretical framework also describes the characteristics and

teaching-learning situations in an independent study system (Simonson *et al.*, 2000). Michael Moore formulated his theory of distance education in the early 1970s, which he later developed into the theory of transactional distance (Moore, 1993). Transactional distance refers to psychological space of potential misunderstanding between the behaviors of people involved in distance education due to the physical separation. Moore built his theoretical models based on the interplay of three concepts, dialog, structure, and autonomy.

The theory of distance education as a product of the era of industrialization was developed by Otto Peters. Comparing distance education with the mass production in industry, Peters claimed that distance education could be analyzed on par with industrial goods (Simonson et al., 2000). Based on this analogy, he set forth a number of economic and industrial concepts for analyzing distance education – division of labor, mechanization, mass production, planning, organization, to name only a few. Although Peters admitted the inadequacy of his theory in satisfying the new needs of new students in the postindustrial society and called for a need of new models, he did insist that distance education is a typical product of industrial society (Peters, 1993). Peters' theory has received renewed attention recently and resulted in new debates.

Börje Holmberg is one of the most articulate theorists on interaction and two-way communication in distance education. His theory seeks to explain the relationship between two-way communication and the effectiveness of distance teaching and learning. The relationship is reflected in several assumptions in his theory, which have to do with interaction, emotional involvement, learning pleasure, motivation, and teaching effectiveness (Simonson *et al.*, 2000).

Hilary Perraton is another representative theorist in the field. Her contribution to distance education theory lies in her integration of the existing theoretical paradigms with philosophies of education. Her theory consists of 14 statements or hypotheses that concern education expansion, interaction and communication, and teaching methodology (Simonson *et al.*, 2000).

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The utilization of emerging technologies in distance education led to the American theory of equivalency, which seeks to make equivalent the learning experiences of all students no matter how they are linked to the resources or instruction they require (Simonson *et al.*, 2000). According to this theory, distance education providers have the responsibility to design instructions that provide learners with equal learning experiences and values.

Finally, Desmond Keegan's theoretical framework for distance education focuses on the concept of reintegration of teaching acts. To Keegan, education requires intersubjectivity, and it is crucial to recreate artificially this shared experience between teacher and student by making learning materials as dialogical as possible and by utilizing different communication techniques (Simonson *et al.*, 2000).

Agencies and associations

American Center for the Study of Distance Education (www.ed.psu.edu/acsde)

Located at the Penn State University, the center was founded by the renowned distance education expert, Michael G. Moore, in 1986. The mission of the center is to promote teaching, learning, and research in distance education and to disseminate knowledge in the discipline.

American Distance Education Consortium (www.adec.edu)

It is an international consortium of state universities and land grant institutions providing high quality and economic distance education programs and services via the latest and most appropriate information technologies. Its "virtual universities", however, do not include the typical virtual universities such as the University of Phoenix and Western Governors University.

Center for Distance Learning Research (www.cdlr.tamu.edu/)

Established in a partnership between Texas A&M University and Verizon, the center provides timely and appropriate information on

the development, application, and maintenance of information technology systems in distance education. Its academic and professional activities include training, conferences, research, technology development, and technical assistance. The center's services are available to all public agencies and private businesses interested in information technology and distance education.

The Distance Education and Training Council (www.detc.org)

Formerly the National Home Study Council, the organization is a non-profit educational association with a history of over 70 years. It provides people with information on distance education and sponsors a nationally recognized accrediting agency – the Accrediting Commission of the Distance Education and Training Council.

The United States Distance Learning Association (www.usdla.org)

Founded in 1987, this nonprofit organization promotes the development and application of distance learning for education and training. It develops and publishes national policy recommendations that are claimed to have been the basis of legislative and administrative proposals in education and telecommunications policy.

Additionally, listed below are a number of international associations and organizations of significant importance.

Asian Association of Open Universities (www.ouhk.edu.hk/~AAOUNet)

As a regional organization of distance education in Asia, it includes a number of institutions offering distance education programs from the major Asian countries. Its objectives are to widen the education opportunities in the region by promoting distance education, disseminate information on distance education among its members, and facilitate cooperation with other organizations of distance education in the world.

Canadian Association for Distance Education/Association canadienne de l'education a distance (www.cade-aced.ca)

This is a Canadian association of distance education professionals who are committed to

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excellence in distance education. Established in 1983, the association provides services to its members, sponsors various academic activities, and publishes the internationally recognized journal – Journal of Distance Education.

European Distance Education Network (www.eden.bme.hu)

A non-governmental educational association, the network was established in 1991. Its membership is open to any network, institution, or individual in Europe with an interest in distance education. The organization promotes developments in distance education by providing a platform of cooperation among various interested networks, institutions, and individuals. It publishes conference proceedings, books, and policy studies on distance education.

International Centre for Distance Learning (www-icdl.open.ac.uk)

An international documentation center for collecting and disseminating information on distance education, the organization maintains databases on distance education courses offered in the UK, bibliographical information on distance education, distance education program providers worldwide, and internal and external research projects in the discipline. Members of the center are provided with guidelines and newsletters and can attend workshops and conferences that are sponsored by the center.

International Council for Open and Distance Education (www-icdl.open.ac.uk/pop_accred.ihtml? p=1&accreditation_id =233)

Founded in 1938, the council is the international membership organization of open learning, distance education, and flexible, lifelong learning. Its members include educational institutions, national and regional associations, corporations, educational authorities and agencies worldwide. The organization is officially recognized by the United Nations as the global non-governmental organization responsible for the field of open and distance learning, and is affiliated with the United Nations through UNESCO.

World Alliance in Distance Education (www-icdl.open.ac.uk/external.ihtml? loc=http://www.wade-universities.org)

Based in the UK, this organization consists of four universities located on four continents of North America, Europe, Asia, and Australia. Its members are committed to setting standards for high-quality open and distance learning. They cooperate to develop new and innovative approaches of producing and delivering distance education materials to learners.

Periodicals

Distance Education: An International Journal

As the official journal of the Open and Distance Learning Association of Australia (ODLAA), this journal is published twice a year to disseminate research and scholarship in distance education, open learning, and flexible learning systems.

The European Journal of Open and Distance Learning (www.eurodl.org)

This journal serves as a forum for discussing open and distance education issues at all educational levels and in all training contexts, with special emphasis on European concerns and cross-cultural collaboration. The journal is published online in English, French, and German.

Indian Journal of Open Learning (www.ignou.ac.in/institute/ijol.html)

Published twice a year, this journal disseminates information about theory, practice and research in the discipline of open and distance education, and provides a forum for debate about areas of concern in India's distance education in particular.

International Review of Research in Open and Distance Learning (www.irrodl.org/)

Published twice a year by a Canadian open university, this is a refereed electronic journal to advance theory, research, and practice in open and distance learning worldwide.

Journal of Distance Education (www.cade-aced.ca/en_pub.php)

A bi-annual publication of the Canadian Association for Distance Education, the journal

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focuses on scholarly articles, research papers, and reports. Past articles are archived online.

Online Journal of Distance Learning Administration

(www.westga.edu/~distance/jmain11.html)

This peer-reviewed online journal publishes original work of practitioners and researchers with a specific focus on the management of distance education programs.

Open Learning (www.tandf.co.uk/journals/carfax/02680513.html)

Published three times per year in the UK, this journal covers various aspects of open and distance education stressing the use of learning materials and technologies for teaching and learning purposes.

The American Journal of Distance Education (www.ajde.com)

Based at the Penn State University and edited by Michael G. Moore, it is a leading academic journal of distance education in the USA, with a focus on theoretical and empirical research.

The Journal of Asynchronous Learning Networks

(www.aln.org/alnweb/journal/jaln.htm)

A peer-reviewed online journal published by Vanderbilt University since 1997, it is a part of the ALN Web. It focuses on original research and practices in ALN.

The Journal of Library Services for Distance Education

(www.westga.edu/~library/jlsde/)

This is a peer-reviewed e-journal run by the State University of West Georgia. It publishes refereed articles on issues and challenges of providing research and information services to students enrolled in post-secondary distance education. It only carries issues of 1997 and 1998.

The Online Chronicle of Distance Education and Communication (www.fcae.nova.edu/disted/index.html)

This is the electronic source for information about distance education produced by Nova Southeastern University. The Chronicle appears quarterly and provides an information exchange related to distance education and online communication.

Books

Bates, A.W. (1995), Technology, Open Learning, and Distance Education, Routledge, London

This is a valuable book on the relationships between technology and distance education. On the question of pros and cons of technology, the author argues that it is how technology is utilized that matters. Using a decision-making model called ACTIONS (standing for Access, Costs, Teaching functions, Interactivity, Organizational issues, Novelty, Speed), the author examines different education technologies, ranging from print, television, radio, telephone, to computer, and multimedia. The strengths and weaknesses of each technology are also discussed.

Connick, G.P. (Ed.) (1999), *The Distance Learner's Guide*, Prentice-Hall, Upper Saddle River, NJ

This guide is designed to help distance learners navigate their ways through the field of distance education. It discusses issues that are essential to the success of distance learning students. The book not only provides students with a basic understanding of distance education as a discipline, but also presents practical guidance on academic and student support issues. Students will learn strategies on choosing distance education providers, using a computer and library services for distance learning, overcoming barriers to successful learning, and planning a career.

Duggle, J. (2000), How To Be an Online Tutor, Gower, Brookfield, VT

This book provides the updated principles, skills, and know-how on how to be a successful online instructor. The author gives potential online instructors specific guidance on the Internet and its use, online course design, and course delivery. The concept of online learning is discussed in relation to other modes of delivering learning.

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Evans, T. and Nation, D. (Eds) (1996), Opening Education: Policies and Practices from Open and Distance Education, Routledge, London

This book brings international insights into the relationship between government and organizational policies and their practices in distance learning. Cases under discussion are selected from educators, educational managers, and policy-makers of different cultural and national backgrounds. The authors write from their own national and organizational perspectives, and ground their discussion in their specific fields.

Goodson, C. (2001), Providing Library Services for Distance Education Students: A How-To-Do It Manual, Neal-Schuman Publishers, New York, NY

Designed to help distance education librarians initiate, improve, and implement library services to distance learners, this book offers a practical conceptual guide to building such a library service program. It focuses on strategic planning, coordinating different services, and marketing the service program. The concepts are illustrated with concrete examples - sample policies, forms, marketing tools and promotional materials, Web sites, and existing model programs. Also included in the book are the background information on distance learning, accreditation guidelines for distance education programs, and Association of College and Research Libraries (ACRL) Guidelines for Distance Learning Library Services.

Holmberg, B. (1995), Theory and Practice of Distance Education, Routledge, London

This book provides a comprehensive survey of distance education, examining each component involved and discussing the different perspectives and models used. It discusses the place of distance education in educational thinking, various theories, principles and techniques of presentation, organizations, and administrative issues. The updated edition also demonstrates how practice has changed by discussing recent research in the field.

Keegan, D. (Ed.) (1993), Theoretical Principles of Distance Education, Routledge, London

This book discusses theoretical principles of distance education from five perspectives – didactic, academic, analytic, philosophical, and technological. In each of the five categories, three leading experts present theoretical principles in relation to practice, either using their own theories or drawing upon theories in philosophy, organization, communication, and other fields. Popular issues in distance education are examined in broader theoretical contexts.

Keegan, D. (1996), Foundations of Distance Education, Routledge, London

As one of the most important introductions to distance education, this book explores the theoretical and practical aspects of the discipline in a substantial manner. Various definitions of distance education are discussed from a historical perspective, along with a detailed introduction to the representative theories in the field. The practice of distance education is explored in terms of student and staffing, choice of medium, administration, and evaluation.

Keegan, D. (2000), Distance Training: Taking Stock at a Time of Change, Routledge, London

Speaking from a global perspective of distance education at a time of change, the author studies four models of the field and their future. He examines the case studies of distance education, and provides insights into their structure and advantages. The author challenges the view that academic excellence cannot be achieved at a distance, and assesses the role of distance education in providing effective and efficient training for employees in the era of the Internet.

Mood, T.A. (1995), Distance Education: An Annotated Bibliography, Libraries Unlimited, Englewood, CO

This book focuses on distance teaching and learning instead of the technology applied to this field. It is divided into seven chapters, with an introduction to each covering the major trends in the area it deals with. Major topics

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included in the bibliography are the history, philosophy, management, teacher, student, special groups, and international scene in distance education.

Moore, M.G. and Kearsley, G. (1996), Distance Education: A Systems View, Wadsworth Pub. Co, Belmont, CA

Synthesizing the history, concepts, theories, issues, and research in distance education, this book provides a comprehensive and authoritative introduction to the field. The authors present a systems model with such components as sources, design, delivery, interaction, and learning environment, and demonstrate how these components are interdependent upon one another, and how the system can be viewed in terms of input and output. The effectiveness of distance education is also discussed within this theoretical framework, with the argument that a more integrated system produces a more effective distance education organization.

Noah, C.B. and Braun, L.W. (2002), The Browsable Classroom: An Introduction to E-learning for Librarians, Neal-Schuman Publishers, New York, NY

This title discusses various components of distance education for librarians who are interested in experiencing e-learning offered by the cutting-edge information technology. Major distance learning environments are explored in relation to the successful distance education models for the library community. The book offers guidance on online course design, and online teaching and learning. Librarians are also advised on how to assess the needs of distance education students.

Peters, O. (1998), Learning and Teaching in Distance Education: Analyses and Interpretations from an International Perspective, Kogan Page, London

As an internationally recognized scholar in distance education, the author presents a unique and comprehensive overview of open and distance education. The book reviews several popular models bridging the distance between instructor and student, and examines the concepts of "dialog", "structure", and "autonomy" in theory and in practice. The

emerging technology in distance education is assessed in terms of pedagogies. The discussion of the international cases adds to the practical nature of the book.

Prummer, C. von (2000), Women and Distance Education: Challenges and Opportunities, Routledge, London

This book studies the gender issue in distance education around the world. Using the two open and distance education universities in Germany and the UK as the major cases, the author examines the situation of women in distance education by identifying process and gender patterns that distinguish women from men in distance education. The learning environments of women distance students are studied and the issues of minority women are covered. The author concludes that distance education offers women both challenges and opportunities for their life.

Simonson, M. et al. (2000), Teaching and Learning at a Distance: Foundations of Distance Education, Merrill, Upper Saddle River, NJ

As an introduction to the major aspects of distance education as an academic discipline, this title consists of two parts – foundations and applications. The first part offers a concise but comprehensive coverage of the concepts, history, and theories of distance education. The major research areas and educational technologies in the field are also explored in this part. The second part serves as a practical guide to distance teaching. Topics such as copyright and distance education, instructional design and models, distance education via the Internet, and program evaluation, are adequately treated.

Slade, A.L. and Kascus, M.A. (1996), Library Services for Off-Campus and Distance Education: The Second Annotated Bibliography, Libraries Unlimited, Englewood, CO

As a companion work to the first bibliography on library services for open and distance education, this title presents a comprehensive record of the literature on various topics pertaining to the same subject matter. The bibliography consists of 15 chapters, each dealing with one issue or theme related to

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library services to distance learning. A new addition to this bibliography is the chapter on remote access to electronic resources.

Slade, A.L. (2000), Library Services for Open and Distance Learning: The Third Annotated Bibliography, Libraries Unlimited, Englewood, CO

This work identifies and describes 764 works since its precursor was completed in 1995. The literature covered in this book extends up to 1999. In terms of content management, the bibliography continues the pattern of its precursors, covering various topics related to library services to distance education. Like the first two similar bibliographies, the USA, the UK, Austria, and Canada are the major countries represented. The remaining works come from other countries.

Internet resources

A Brief History of Distance Education (www.bsu.edu/classes/nasseh/study/ history. html) and Computer-based Distance Education (www.bsu.edu/classes/ nasseh/study/computer.html)

Written by Professor Bizhan Nasseh, both are concise papers reviewing the historical development and technological application in distance education in the recent two decades in the USA.

Distance Education at a Glance (www.uidaho.edu/eo/distglan.html)

This is a very informative and useful Web site maintained by Engineering Outreach at the University of Idaho. It includes 13 quick guides to distance education in general, instructional design and development, technology, research, and practice.

Distance Education Clearinghouse (www.uwex.edu/disted/home.html)

This is a popular comprehensive Web site on distance education, created and maintained by the University of Wisconsin-Extension. It includes everything one needs to know about distance education – teaching, learning, research, technology, learning environment, and program providers.

Distance Education in Post-secondary Institutions, 1997-1998

(www.nea.org/he/heupdate/vol6no2.pdf)

This document presents findings from a survey on distance education conducted by National Center for Education Statistics (NCES). It reports 72 per cent rise in the number of distance education programs in 1997-1998.

Distance Education Links & Resources (www.itcnetwork.org/resources.htm)

This informative site contains many links to individual Web sites on distance education.

Distance Education Resources of National Education Association (NEA)

(www.nea.org/he/abouthe/distance.html)

In addition to a few links to relatively reliable sites on distance education, it lists NEA's most recent research reports.

Distance Education, the Chronicle of Higher Education

(http://chronicle.com/distance/)

It reflects updated authentic reports and analysis of important issues on distance education.

Distance-Educator.com (www.distance-educator.com)

Founded by Dr Farhad Saba, this Web site provides unique and rich resources on distance education. The contents on the Web site are designed and written by experienced professionals in distance education and educational technologies. It offers multiple solutions for several user groups – learners, instructors, managers, researchers, etc. Users may also subscribe to daily news.

Distance Learning: An Introduction (www.ihets.org/consortium/ipse/fdhand book/dist_lrn.html)

The Web site presents a collection of articles that give a clear introduction to distance education concerning its history, research, course development, technology, and copyright issues.

Distance Learning on the Net (www.hoyle.com/distance.htm)

This site helps users find information on distance education courses, programs, and institutions.

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Distance Learning Resource Network (www.dlrn.org)

The network is the dissemination project for the US Department of Education Star Schools Program. It highlights the Star Schools programs, and offers general information on distance education, K-12 distance education courses, and course design tools.

Library Support for Distance Learning (www.lis.uiuc.edu/%7Eb-sloan/libdist. htm)

Maintained by Bernie Sloan of University of Illinois at Urbana-Champaign, this Web site collects a wealth of informational resources for librarians who are interested in various aspects of library support for distance education. Topics range from general information on distance education to specific services to distance learners.

Policy Update: How States are **Implementing Distance Education for Adult Learners**

(www.nifl.gov/nifl/policy/distance.htm)

It is a policy report by the National Institute for Literacy, updating the policies and plans for distance education of each state in the USA since 2000.

Resources for Distance Education (http://webster.commnet.edu/HP/pages/ darling/distance.htm)

Maintained by Charles Darling of Capital Community College, CT, this Web site has rich information covering diverse resources on distance education.

TeleEducation NB

(http://teleeducation.nb.ca/english)

This Web site provides direction and support to those who are involved in designing, developing, and delivering distance education programs.

Conclusion and suggestions for future selections

To conclude, an annotated selection of important periodicals, books, and Internet resources on distance education has been

presented. Additionally, the historical development, major theories, and leading organizations in distance education have been analytically introduced. Because the intended audience is primarily educators and information professionals and the focus of examination is mainly on items that constitute basic resources, the criteria of scholarly representativeness, authority, coverage, and currency have been used in selecting the materials. These general selection criteria, though not perfect for all people, do adequately serve our purpose of selection.

Distance education as a full-fledged academic discipline continues to grow rapidly with new areas of study and issues. More research publications and practitioner's guides will be produced in increasingly diversified and specialized forms. To continue to follow this field, we suggest that interested future selectors keep abreast with the overall trend in the field by grasping the big picture of this dynamic discipline from the perspectives of philosophical foundations, theories, and emerging issues. Thus, seminal and representative literature will not be overlooked in the selection. Equally important, future selectors may pay attention to the specialized areas of the discipline as reflected in the multitude of new materials. With different types of audiences and institutional missions in mind, librarians and information professionals as well as educators who are interested in distance education may focus on selecting specialized materials - instructional design, curriculum development, teaching skills, collaborative learning, technology application, and distance education library services among many others. We believe that both the broad vision and the specialized focus will help select and collect the best materials needed.

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