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LIS 407 Summer 2011, Section 1

Final Project: Annotated Pathfinder and Annotated Webography

Topic: Health Informatics

A Pathfinder for

Health Informatics

Health informatics is a hybrid discipline that combines information science, computer science, and health care. It focuses on the use of information in health and biomedicine. This pathfinder is intended to help members of the Simmons College community, particularly students from the School of Nursing, research and learn about this growing field.

An Introduction to Health Informatics

Staggers, N., & Nelson, R. (2009) Overview of nursing informatics. In McGonigle, D., & Mastrian, K. G. (Eds.), *Nursing informatics and the foundation of knowledge* (pp. 83-96). Sudbury, Mass.: Jones and Bartlett Publishers.

Call number: RT50.5 .N8693 2009

This short chapter provides an excellent overview of the subject with a focus on the conceptual framework and history of health informatics, particularly as it applies to the field of nursing. This resource is best suited for patrons approaching the field of health informatics with some experience in nursing or healthcare.

Englebardt, S. P., & Nelson, R. (2002). *Health care informatics :An interdisciplinary approach*. St. Louis: Mosby.

Call number: RT50.5 .E54 2002

The first two chapters of this book provide a good overview of the foundations and theories behind health informatics. This resource may be is suited for both patrons approaching the field from a healthcare background and those approaching from an information systems background.

Hebda, T., Czar, P., & Mascara, C. (2005). *Handbook of informatics for nurses and health care professionals (3rd ed.)*. Upper Saddle River, N.J.: Pearson Prentice Hall.

Call number: RT50.5 .H43 2005

The first several chapters of this book of the field of informatics and the computer technology used by nurses. Later chapters in the book focus on practical information for day-to day use, making it particularly useful.

Library of Congress Subject Headings

<u>Recommended term</u>: Medical informatics

<u>Broader Terms</u>	<u>Narrower Terms</u>	<u>Related Terms</u>
Information science	Dental informatics	Clinical informatics
Medicine--Data processing	Information storage and retrieval systems--Medicine	Health informatics
	Medical telematics	Medical information science
	Neuroinformatics	
	Nursing informatics	
	Pharmacy informatics	
	Picture archiving and communication systems in medicine	

Classification Numbers

The Simmons College Library uses the Library of Congress (LC) classification system. Search in these call number areas for more specific information about Health Informatics.

R – Medicine

R858 – Computer Applications to Medicine

RA – Public Aspects of Medicine

RT – Nursing

A note about locations in the Simmons College Library:

Each item in the catalog has a location in addition to the call number. Without this location, you could look in the wrong section, even with the right call number.

The locations are:

- Level G - These items are located on the ground floor of the Library. Books beginning with the call numbers PQ-V, children's literature, older periodicals and media are located on Level G. Once you enter the Library, use the internal staircase or elevator just past the circulation desk to get to Level G.
- Level 1 - These items are located on the first floor of the Library. Books beginning with the call number Z, bibliomysteries, current periodicals, and reference books are located on Level 1. Once you enter the Library, these items will be on the same floor.
- Level 2 - These items are located on the second floor of the Library. Books beginning with the call numbers A-PR and the Archives are located on Level 2. Once you enter the Library, use the internal staircase or elevator just past the circulation desk to get to Level 2.

(from http://libfs2.simmons.edu/libraryguides/index.php/Call_Numbers)

Reference Sources

(Library Use Only)

American Nurses Association. (2008). *Nursing informatics: Scope and standards of practice*. Silver Spring, Md.: American Nurses Association.

Call number: RT85.5.A54 N873 2008

This resource covers concepts, tools, competencies, ethics, and standards that are either helpful or required for nurses.

Krapp, K. M. (2002). *The gale encyclopedia of nursing & allied health*. Detroit: Gale Group.

Call number: RT21 .G353 2002

This five-volume encyclopedia has some similarities to the well-known *Gale Encyclopedia of Medicine*, but the articles are somewhat more focused on the topics as they relate to nurses rather than to medical practitioners in general.

Circulating Books

(Available for check-out)

Jordan, T. J. (2001). *Understanding medical information :A user's guide to informatics and decision making*. New York: McGraw-Hill, Medical Pub. Div.

Call number: R858 .J67 2001

A "first book" on how to access the vast and expanding array of medical information now available and how to critically evaluate it, intended to help medical professionals manage information in order to make sound decisions.

Weaver, C. A. (2010). *Nursing and informatics for the 21st century :An international look at practice, education and EHR trends* (2nd ed.). Chicago, IL: Healthcare Information and Management Systems Society.

Call number: RT50.5 .N864 2010

The most current edition of this book is a good resource for anyone curious as to how the field of health informatics will continue to evolve.

Joos, I. M. (2006). *Introduction to computers for healthcare professionals* (4th ed.). Sudbury, Mass.: Jones and Bartlett.

Call number: R858 .I58 2006

For patrons with little or no experience with computers, this workbook provides a foundation for understanding the computer world.

Fraser, R., & Sigma Theta Tau International. (2011). *The nurse's social media advantage: How making connections and sharing ideas can enhance your nursing practice*. Indianapolis, IN: Sigma Theta Tau International.

Call number: RT50.5 .F73 2011

For patrons who use social media and Web 2.0 technologies extensively, this book contains some interesting ideas on how to leverage those skills to improve your nursing skills. Of particular interest are the sections on how to use social media without violating HIPAA regulations or nursing ethics.

Young, K. M. (2000). *Informatics for healthcare professionals*. Philadelphia: F.A. Davis Co.

Topics covered include needs analysis and system design, change management, legal and ethical issues, telemedicine and distance education, Internet and intranet, and healthcare taxonomy. Although published over ten years ago, annual updates are available on the publisher's website.

Journals/Periodicals

Computers, informatics, nursing: CIN

The Simmons Library has v. 20 – v. 27 (2000 – 2006) available in print form. While an excellent resource for staying abreast of developments in the field and writing research papers, this resource is perhaps better suited to patrons who have already had an introduction to the field.

Indexes/Databases

Health Reference Center (available through http://library.simmons.edu)

Search term: "health informatics"

Gaylin, D. S., Kelly, J. A., Lundeen, K., Mohamoud, S., & Moiduddin, A. (2011). Public attitudes about health information technology, and its relationship to health care quality, costs, and privacy. *Health Services Research, 46*, 920.

This article gauged Americans' attitudes concerning health information technology's potential to improve health care and differences in those attitudes based on demographics and technological affinity.

Georgiou, A., Hordern, A., Prgomet, M., & Whetton, S. (2011). Consumer e-health: An overview of research evidence and implications for future policy. *Health Information Management Journal, 40*, 6.

This article is an interpretive review that categorizes how consumers interact with electronic resources for managing their health, and offers some suggestions for future policy initiatives.

Murphy, J. (2011). The nursing informatics workforce: Who are they and what do they do? *Nursing Economics, 29*, 150.

This article is a survey of the nursing informatics workforce, and serves as a kind of annual snapshot of the job and its practitioners. Of particular interest to patrons seeking a job in informatics or looking to change careers.

Search Engines

Google Scholar

Search terms: health informatics, medical informatics

Abdelhak, M., Grostick, S., Hanken, M. A., & Jacobs, E. *Health information: Management of a strategic resource* (3rd ed.). St. Louis, MO: Saunders.

This book is a comprehensive resource for health informatics, although it is written to be used as a textbook, it can serve as a useful day-to-day reference for health informatics workers.

Wager, K. (2009). *Health care information systems : a practical approach for health care management*. San Francisco, CA: Jossey-Bass.

This book, currently in its second edition, is notable because it includes an entire section on health informatics and how it pertains to management and senior management. Although this section will be most useful for people who have been in the field for awhile, the earlier parts of the book are still useful for people starting their careers and/or educations.

Google

Search term: health informatics

"Health Informatics": http://www.openclinical.org/healthinformatics.html

This web page, from a medical knowledge management site, provides a succinct definition and many useful links. The information and links provided are primarily aimed at medical professionals or advanced students.

"Health informatics": http://en.wikipedia.org/wiki/Health_informatics

This article from Wikipedia is aimed at a more general audience and provides a brief history of the field, an international survey of current trends, and some suggestions for further reading.

Government Documents

Catalog of U.S. Government Publications (catalog.gpo.gov)

Search term: health informatics

Government Accountability Office. (2010). *Electronic personal health information exchange [electronic resource] : health care entities' reported disclosure practices and effects on quality of care : report to congressional committees* (SuDoc No. GA 1.13:GAO-10-361). Washington, DC: Author. Retrieved from http://purl.access.gpo.gov/GPO/LPS121949

This is a report on how health care entities are complying with the HITECH act and the effect of that compliance on the quality of health care for patients.

Government Accountability Office. (2010). *Electronic health records [electronic resource]: DOD and VA interoperability efforts are ongoing; program office needs to implement recommended improvements : report to congressional committees* (SuDoc No. GA 1.13:GAO-10-332). Washington, DC: Author. Retrieved from http://purl.access.gpo.gov/GPO/LPS121905

This is a report on ongoing efforts to ensure interoperability of electronic health records between the Department of Defense and the Veterans Administration.

Statistics

Bureau of Labor Statistics. (2010-2011). *Medical records and health information technicians*. Retrieved from http://www.bls.gov/oco/ocos103.htm

This web page provides an overview of employment statistics for medical records and health information technicians. It is of particular interest to those considering a career in the field.

Kansas Department of Health and Environment. KDHE Bureau of Public Health Informatics. Retrieved from http://www.kdheks.gov/hci/annsumm.html

This is an annual summary of vital statistics for the state of Kansas, currently covering the years 1997-2009. While the statistics themselves are of some interest, the site is also notable in that it provides an example of how state governments interpret their responsibility when it comes to health informatics.

Biographical Information

While health informatics is a growing field, there is a dearth of information on its history and founders in terms of published books.

Homer R. Warner: considered one of the fathers of health informatics, he is a former president of the American College of Medical Informatics. Some awards and centers have been named after him.

"Homer R. Warner": http://en.wikipedia.org/wiki/Homer_R._Warner

This Wikipedia page provides an overview of Dr. Warner's career and research.

Book Reviews

Book reviews on health informatics can be found on the website http://0-www.globalbooksinprint.com.library.simmons.edu/bip/ which, while it provides a list of all books in print in all markets, is sadly rather light on actual reviews. The reviews which are included are taken from other sources. The following is a review of *International Perspectives in Health Informatics - Studies in Health Technology and Informatics*, edited by E. M. Borycki and J. A. Bartle-Clar (Fairfax, VA: IOS Press Incorporated, 2011).

> The 2011 Information Technology and Communications in Health conference, in Victoria, British Columbia, covered such areas as clinical decision support, health records, human computer interaction, nursing informatics, and standardization and interoperability. Among topics of the 70 papers are harmonizing and competency cacophony, using biometrics in their personal health record, waiting time in emergency department by simulation, grounded theory evolution and its application in health informatics, mandatory public reporting, situation awareness and risk management, and teleoncology uptake in British Columbia. Annotation ©2011 Book News, Inc., Portland, OR (booknews.com)

In general, a better resource for book reviews is the American Library Association's Booklist, which is accessible at Simmons through the Expanded Academic ASAP database. Unfortunately, there is a dearth of reviews for health informatics books as of this writing, with the only review of a book on medical librarianship.

Annotated Webography for
Health Informatics

1. Health Informatics World Wide

Institute of Medical Biometry and Medical Informatics, University of Freiburg. (2011). Health
     informatics world wide. Retrieved from http://www.hiww.org/us.html

This web site, which purports to be "the first and most comprehensive health informatics/
medical informatics index site," contains links to professional organizations and schools in over
60 countries. A great resource for those looking to make connections with the international
health informatics community.

2. Health Informatics Forum

Health informatics forum. (2011). Retrieved from http://www.healthinformaticsforum.com/

A social network for health informatics professionals and students, with over 5000 members, an
active forum, event listings, and the capacity to create your own page on the site.

3. HealthTechTopia

Healthtechtopia. (2011). Retrieved from http://mastersinhealthinformatics.com/blog/

A blog, updated about once a month, with useful bits of information and lists gathered from
around the health informatics community.

4. electronic Journal of Health Informatics

Electronic Journal of Health Informatics. (2011). Retrieved from
http://www.ejhi.net/ojs/index.php/ejhi

This is an open access online journal. "Open access" means that the articles can be accessed without paying a subscription fee. This journal, founded in 2006, is based in Australia.

5. Health Care and Informatics Review Online

Health Care and Informatics Review Online. (2011). Retrieved from
http://www.hinz.org.nz/journal

Published since 2003 and based in New Zealand, this is another open access journal focused on health informatics.

6. Journal of Health Informatics in Developing Countries

Journal of Health Informatics in Developing Countries. (2011). Retrieved from
http://www.jhidc.org/index.php/jhidc

Another New Zealand-based open access journal, and publishing articles since 2007, this journal focuses on health and medical informatics in developing countries. The web site also includes a discussion forum to which readers are encouraged to post.

7. Online Journal of Public Health Informatics

Online Journal of Public Health Informatics. (2011). Retrieved from
http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/ojphi/index

This journal serves as an excellent resource for current developments in the field of Public Health Informatics, and has been published by the University of Illinois at Chicago since 2009.

8. Pharmacology & Pharmacy

Pharmacology & Pharmacy. (2011). Retrieved from http://www.scirp.org/journal/pp/

Published by Scientific Research Publishing, this last open access journal is not quite as open as the others – it charges a fee for publishing articles – nor as focused on health informatics as the four open access journals above, though it does have occasional articles on the topic.

9. Healthcare Informatics

Healthcare Informatics. (2011). Retrieved from http://www.healthcare-informatics.com/ME2/Default.asp

The website for this magazine is frequently updated (multiple times per day), and offers podcasts and occasional webinars on health informatics-related topics.

10. Clinical Informatics Wiki

Clinical Informatics Wiki. (2011). Retrieved from http://www.informatics-review.com/wiki/index.php/Main_Page

A wiki devoted to topics in clinical informatics. The community is currently working on over 800 articles. Of particular interest to academics is a listing of leading health informatics and medical informatics journals, including notations as to whether or not they are open access.

11. Biological Informatics

Zillman, M.P. (2011). Biological Informatics. Retrieved from http://www.biologicalinformatics.info/

This site is a frequently-updated index or directory of other web sites pertaining to health informatics, neuroinformatics, biodiversity informatics and biomolecular informatics. It is best suited to those continuing their education in health informatics rather than beginning it.

12. Meaningful Healthcare Informatics Blog

Chouffari, R. (2011). Meaningful Health Care Informatics Blog. Retrieved from http://searchhealthit.techtarget.com/healthitexchange/meaningfulhealthcareinformaticsblog/

This blog, updated about twice a week, is written by a healthcare technologist and focuses very much on the computer systems component of healthcare informatics.

13. Ted Eytan

Eytan, T. (2011). Ted Eytan, MD. Retrieved from http://www.tedeytan.com/

Written by a medical doctor, this blog offers interesting insights into e-health and health informatics from the perspective of a practicing physician.

14. New Media Medicine

New Media Medicine. (2006). Medical podcasts. Retrieved from http://www.newmediamedicine.com/blog/category/podcasts/

Although the post itself is old, this is a long list of medical podcasts, many of which are still active. Very useful for those with long commutes.

15. Health Care Renewal

Health Care Renewal. (2011). Retrieved from http://hcrenewal.blogspot.com/

A frequently-updated blog with an activist focus, featuring multiple contributors. An excellent resource for those concerned with ethics and accountability in the field of health care informatics and health care in general.