Annotated Bibliography:

Advanced Health Informatics



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P. Bath, "Health Informatics: Current Issues and Challenges," *Journal of Information Science*, vol. 34, no. 4, pp. 501-518, 2008. Available: http://eprints.whiterose.ac.uk/78563/8/WRRO\_78563.pdf. [Accessed 6 June 2019].

This paper provides a review of the developments, challenges, uses, and importance of health informatics. It distinguishes health informatics from related fields, such as medical informatics and health information management, whilst describing how they overlap. The main focus of health informatics is developing systems for the exchange of information, which has proved essential between health facilities and also within the facility itself. Keeping records of patient data and history allows a more efficient diagnosis and cure. However, it has many disadvantages such as privacy concerns in individuals and a high cost to maintain and analyze the data. Also, this data may be lost with change in hospitals or operating systems. This article can be used to identify the main components of an efficient information system in health and can be used for evaluating solutions to the common challenges faced in the field.

E. Ammenwerth, "Evidence-based Health Informatics: How Do We Know What We Know?," *Methods of Information in Medicine*, vol. 54, no. 04, pp. 298-307, 2015. Available: https://www.researchgate.net/publication/280241014\_Evidence-based\_Health\_Informatics\_How\_Do\_We\_Know\_What\_We\_Know. [Accessed 10 June 2019].

The author recognizes the negative impacts of health informatics, in particular, existing failures of health IT implementations due to lack of evidence. She explains the importance of evidence-based health informatics and elaborates on its background as well as its current state. The article mentions that there needs to be evidence supporting the efficiency of decisions made using health informatics before they are implemented to avoid future problems. There are eight challenges that face evidence-based health IT, such as publication bias, quality of evaluation studies, and training of health IT experts. Finally, the paper is useful as it has plots that show the development of informatics in health over the years, this can be used to know the history of the field. The paper is rich in references and talks briefly about every source, which makes it beneficial as we need to use a lot of relevant literature in our project.

T. Goetz. "It’s time to redesign medical data," YouTube, Jan. 27, 2011. [Video file]. Available: https://www.youtube.com/watch?v=bCGlWQnzDVE. [Accessed: June 15, 2019].

The video asserts that health data should be accessible to patients, easy to understand, and more personalized towards them. It explains that those three aspects are needed to improve treatment efficiency. This is done by making medical prescriptions and reports comprehendible by patients using infographics, diagrams, and simple terminology. Once patients are able to understand the relevancy of the treatment and the trade-offs associated with it, they would more likely commit to it and make the right health choices. Moreover, making medical results more personalized according to patients’ information and history allows providing better approximations of their health risks and needs.