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Big Data Analysis for Health Information Access: Towards Hospital Websites as Interactive Communication Channel

Dr. Sanja Seljan

University of Zagreb, Information and Communication Sciences - Faculty of Humanities and Social Sciences, Zagreb, Croatia

Abstract

The aim of the analysis is to present publicly available health information sources that can be used to gain insight into health information needs. Hospital websites are widely used the access point for information search or for communication. Information presented on hospital websites should be presented in clear, up-to-date and understadable way enabling easy information access and interactive communication.

The research presents Big Data analysis performed on three types of data: i) hospital websites offering information on healthcare services and ii) social media monitoring of social networks iii) analysis of blogs and forums as communication tools. Hospital website analysis is performed according to five dimensions: Technical items, Hospital information and facilites, Admission and medical services, Interactive online services and External activites. Social media monitoring can reveal sentiment analysis of the specific instiution or service, as well as mentions or time of the specific interest. Blogs and forums represent digital meeting places where users' needs can be detected and analyzed.

All three types of Big Data sources can be used for creation of digital interactive online services for health-related puroposes. Digital health services and applications are one of indicators of the *Global Digital Health Index* that include use and assessment of digital health systems, services and public facilites.

Creation of digital interactive communication tools on hospital websites would reperesent an added value in order to retrieve multilingual health information in time, to augment accountability practices and meet public expectations in health management. Well-designed, multilingual and functional website can contribute to satisfaction of domestic population and tourists and influence institution evaluation. Quality of information presented on hospital websites is relevant not only for patients but also for other stakeholders, such as authorities, policy makers, hospital managers and healthcare service providers.

Key words: Big Data, health, analytics, interactive tools, Global Digital Health Index

Biography

Dr. Sanja Seljan is full prof., tenured, in Information and Communication Sciences, Faculty of Humanities and Social sciences - University of Zagreb, Croatia. She is board member of the National Scientific Field Committee for Information and Communication Sciences, Faculty board member, formerly Deputy Head of the Department and Head of Chair, researcher, Ph.D. supervisor and consultant. Author of more than 80 research and professional papers, invited and keynote speaker world universities, conferences and in European institutions. Her expertise is natural language processing (NLP) and text mining, machine translation, data science, language technologies in business, data analytics and visualization. Languages: English, French, Italian.