Increasing the Impact of JMIR Journals in the Attention Economy

Ricky Leung, PhD
University at Albany, School of Public Health, Rensselaer, NY, United States

Corresponding Author:
Ricky Leung, PhD
University at Albany
School of Public Health
1 University Pl, Room 181
Rensselaer, NY, 12144
United States
Phone: 1 6083348781
Email: rleung122@hotmail.com

Abstract

The Journal of Medical Internet Research (JMIR) has attained remarkable achievements in the past twenty years. By depth, JMIR has published the most impactful research in medical informatics and is top ranked in the field. By width, JMIR has spun off to about thirty sister journals to cover topics such as serious games, mobile health, public health, surveillance, and other medical areas. With ever-increasing data and research findings, academic publishers need to be competitive to win readers’ attention. While JMIR is well-positioned in the field, the journal will need more creative strategies to increase its attention base and maintain its leading position. Viable strategies include the creation of online collaborative spaces, the engagement of more diverse audience from less traditional channels, and partnerships with other publishers and academic institutes. Doing so could also enable JMIR researchers to turn research insights into practical strategies to improve personal health and medical services.

(J Med Internet Res 2019;21(10):e16172) doi: 10.2196/16172

KEYWORDS

JMIR; medical informatics; digital health; publishing; knowledge translation; peer-to-peer community; impact

The Journal of Medical Internet Research (JMIR) has engaged many health researchers since the journal published its inaugural issue in August 1999 [1]. JMIR is now ranked number one in the field of medical informatics, and the JMIR publishing office has issued close to 30 additional sister journals, including JMIR mHealth and uHealth, the Journal of Serious Games, and others. These are remarkable achievements. In this short article, I provide a quick review to highlight the important role of JMIR in promoting innovative research in the field of medical informatics. Building on its achievements, JMIR is well-positioned not only to maintain its leading position in medical informatics but also to contribute excellent research to the academic community at large.

Medical informatics researchers have long recognized that the internet is a big treasure of useful data to improve medical practice and health behaviors. For example, JMIR research published in earlier years studied how practitioners could utilize available statistical data on the internet to measure health quality [2-4]. As online tools became accessible, researchers analyzed whether the internet could serve as an effective platform for primary data collection through surveys [5,6], experiments [7], and even interviews [8]. Some researchers evaluated the efficacy of online medical treatment and found positive results in terms of reducing depression and other medical symptoms [9,10]. This research has paved the way for the emerging subfield of real-world data/evidence [11]. Pharmaceutical companies and public health agencies, such as the US Food and Drug Administration, have expended considerable efforts to promote real-world evidence to supplement and even replace expensive clinical trials.

JMIR research has applied some of the most sophisticated methods in the field. For instance, some researchers examined unstructured data with advanced text-mining techniques [12]. This line of research can detect the sentiments of participants in social media platforms [13] and can determine other deep meanings embedded in qualitative data. In addition, researchers are now able to build robots [14] and apply artificial intelligence [15] to conduct research projects that were not feasible in the past, such as using machine learning algorithms to capture real-time data from social media channels [16]. To reduce the impact of fake news on health outcomes, other JMIR researchers evaluated the veracity of news reports from multiple channels [17].
The rapid development of connected devices, such as wearable technology, smart appliances, and body sensors, has presented new opportunities and challenges for medical informatics research. JMIR has already published some exciting research about the Internet of Things which has multilevel implications for patients and health providers. For instance, many recent studies published in JMIR have shown a strong patient-centered orientation [18]. These studies focused on how the internet has enabled patients to incorporate first-hand experience into research to increase its practical value, whether from actual health care experience, usage of Internet-based devices, or information from peer groups. Funding agencies such as the Patient-Centered Outcomes Research Institute and the National Institutes of Health have paid attention to this research published in JMIR [19].

Beyond personal health, new information technology has improved the quality of health care delivery. For example, interorganizational networks have allowed hospitals to access patients’ records from different healthcare settings, facilitating the transition from electronic medical records to electronic health records [20]. Many studies published in JMIR were products of collaborative networks in health care. More recently, research published in JMIR has built ambitious frameworks useful for studying issues at the community and societal levels. Researchers have used these new frameworks to study such important global issues as aging [21], climate change [22], poverty [23] and sustainability [24].

The availability of big data in the medical sector has led to the challenge of limited attention for researchers [25]. While research institutes and established journals have employed aggressive marketing campaigns to attract attention from existing and potential consumers [26], medical researchers now receive enormous amounts of information from social media, personal devices, and other online platforms. In this context, JMIR needs to come up with creative strategies to increase its intellectual breadth and depth to maintain its leading position in the field. One viable strategy is to provide more collaborative space for JMIR subscribers and potential authors. That is, instead of serving only as a publisher of completed research, JMIR could also become a platform to promote collaboration for early-stage research. In fact, JMIR has recently started a Digital Health Community [27] within the JMIR Publications Knowledge Base and Help Center [28] to support the germination of new ideas and allow authors to provide feedback to the journal. The question is how to engage digital health researchers in platforms like that. To encourage increased participation in this community, JMIR may offer Karma points (already implemented to reward reviewers) that can serve as credits to reduce publication fees. Besides that, the JMIR editorial team can reach out and engage researchers from related fields to increase the journal’s impact. Increased attendance of academic conferences and professional meetings may be very useful for increasing the exposure of JMIR in various academic communities. Finally, JMIR may consider forming new partnerships with other publishers, professional organizations, academic institutes in different countries, and even funding agencies. Used properly, these strategies can increase the impact of JMIR in the next 20 years - beyond the impact factor.

Conflicts of Interest
None declared.

References
1. Eysenbach G. Welcome to the Journal of Medical Internet Research. J Med Internet Res 1999 Aug 11;1(1):e5 [FREE Full text] [doi: 10.2196/jmir.1.1.e5]
2. Hernández-Borges AA, Macías-Cervi P, Gaspar-Guardado MA, Torres-Alvarez de Arcaya ML, Ruiz-Rabaza A, Jiménez-Sosa A. Can examination of WWW usage statistics and other indirect quality indicators distinguish the relative quality of medical web sites? J Med Internet Res 1999 Aug 11;1(1):e1 [FREE Full text] [doi: 10.2196/jmir.1.1.e1] [Medline: 11720910]
3. Nørum J. Evaluation of Norwegian cancer hospitals web sites and explorative survey among cancer patients on their use of the internet. J Med Internet Res 2001 Dec 26;3(4):e30 [FREE Full text] [doi: 10.2196/jmir.3.4.e30] [Medline: 11772545]
4. Jeannot J, Scherer F, Pittet V, Burnand B, Vander J. Use of the World Wide Web to implement clinical practice guidelines: a feasibility study. J Med Internet Res 2003 Jun 13;5(2):e12 [FREE Full text] [doi: 10.2196/jmir.5.2.e12] [Medline: 12857668]
5. Brøgger J, Nystad W, Cappelen I, Bakke P. No increase in response rate by adding a web response option to a postal population survey: a randomized trial. J Med Internet Res 2007 Dec 31;9(5):e40 [FREE Full text] [doi: 10.2196/jmir.9.5.e40] [Medline: 18174120]
6. Eysenbach G, Wyatt J. Using the Internet for surveys and health research. J Med Internet Res 2002 Nov 22;4(2):e13 [FREE Full text] [doi: 10.2196/jmir.4.2.e13] [Medline: 12554560]
7. Overberg R, Otten W, de Man A, Toussaint P, Westenbrink J, Zwetsloot-Schonk B. How breast cancer patients want to search for and retrieve information from stories of other patients on the internet: an online randomized controlled experiment. J Med Internet Res 2010 Mar 09;12(1):e7 [FREE Full text] [doi: 10.2196/jmir.1215] [Medline: 20215101]
8. Powell J, Inglis N, Ronnie J, Large S. The characteristics and motivations of online health information seekers: cross-sectional survey and qualitative interview study. J Med Internet Res 2011 Feb 23;13(1):e20 [FREE Full text] [doi: 10.2196/jmir.1600] [Medline: 21345783]
9. Meyer B, Berger T, Caspar F, Beevers CG, Andersson G, Weiss M. Effectiveness of a novel integrative online treatment for depression (Deprexis): randomized controlled trial. J Med Internet Res 2009 May 11;11(2):e15 [FREE Full text] [doi: 10.2196/jmir.1151] [Medline: 19632969]

10. Roeke S, Copeland J, Norberg M, Hine D, McCambridge J. Effectiveness of a self-guided web-based cannabis treatment program: randomized controlled trial. J Med Internet Res 2013 Feb 15;15(2):e26 [FREE Full text] [doi: 10.2196/jmir.2256] [Medline: 23470329]

11. McCall HC, Helgadottir FD, Menzies RG, Hadjistavropoulos HD, Chen FS. Evaluating a Web-Based Social Anxiety Intervention Among Community Users: Analysis of Real-World Data. J Med Internet Res 2019 Jan 10;21(1):e1566 [FREE Full text] [doi: 10.2196/jmir.11566] [Medline: 30632965]

12. Celi LA, Ippolito A, Montgomery RA, Moses C, Stone DJ. Crowdsourcing knowledge discovery and innovations in medicine. J Med Internet Res 2014 Sep 19;16(9):e216 [FREE Full text] [doi: 10.2196/jmir.3761] [Medline: 25239002]

13. Greaves F, Ramirez-Canio D, Millett C, Darzi A, Donaldson L. Use of sentiment analysis for capturing patient experience from free-text comments posted online. J Med Internet Res 2013 Nov 01;15(11):e239 [FREE Full text] [doi: 10.2196/jmir.2721] [Medline: 24184993]

14. Broadbent E, Garrett J, Jepsen N, Li Ogilvie V, Ahn HS, Robinson H, et al. Using Robots at Home to Support Patients With Chronic Obstructive Pulmonary Disease: Pilot Randomized Controlled Trial. J Med Internet Res 2018 Feb 13;20(2):e45 [FREE Full text] [doi: 10.2196/jmir.8640] [Medline: 29439942]

15. Contreras I, Vehi J. Artificial Intelligence for Diabetes Management and Decision Support: Literature Review. J Med Internet Res 2018 May 30;20(5):e10775 [FREE Full text] [doi: 10.2196/jmir.10775] [Medline: 29848472]

16. Cole-Lewis H, Varghese A, Sanders A, Schwarz M, Pugatch J, Augustson E. Assessing Electronic Cigarette-Related Tweets for Sensitivity and Content Using Supervised Machine Learning. J Med Internet Res 2015 Aug 25;17(8):e208 [FREE Full text] [doi: 10.2196/jmir.4392] [Medline: 26307512]

17. Chen L, Wang X, Peng T. Nature and Diffusion of Gynecologic Cancer-Related Misinformation on Social Media: Analysis of Tweets. J Med Internet Res 2018 Oct 16;20(10):e11515 [FREE Full text] [doi: 10.2196/jmir.11515] [Medline: 30327289]

18. Dyson MP, Shave K, Fernandes RM, Scott SD, Hartling L. Outcomes in Child Health: Exploring the Use of Social Media to Engage Parents in Patient-Centered Outcomes Research. J Med Internet Res 2017 Mar 16;19(3):e78 [FREE Full text] [doi: 10.2196/jmir.6655] [Medline: 28305293]

19. Sadasivam RS, Borglund EM, Adams R, Marlin BM, Houston TK. Impact of a Collective Intelligence Tailored Messaging System on Smoking Cessation: The Persist Randomized Experiment. J Med Internet Res 2016 Nov 08;18(11):e285 [FREE Full text] [doi: 10.2196/jmir.6465] [Medline: 27826134]

20. Rodrigues JPC, de la Torre I, Fernández G, López-Coronado M. Analysis of the security and privacy requirements of cloud-based electronic health records systems. J Med Internet Res 2013 Aug 21;15(8):e186 [FREE Full text] [doi: 10.2196/jmir.2494] [Medline: 23965254]

21. Peek STM, Wouters EJ, Luijkx KG, Vrijhoef HJ. What it Takes to Successfully Implement Technology for Aging in Place: Focus Groups With Stakeholders. J Med Internet Res 2016 May 03;18(5):e98 [FREE Full text] [doi: 10.2196/jmir.5253] [Medline: 27143097]

22. Tizek L, Schielemn M, Rüth M, Ständer S, Pereira M, Eberlein B, et al. Influence of Climate on Google Internet Searches for Pruritus Across 16 German Cities: Retrospective Analysis. J Med Internet Res 2019 Jul 22;21(7):e13739 [FREE Full text] [doi: 10.2196/jmir.13739] [Medline: 31301128]

23. Gopalan A, Makelarski JA, Garibay LB, Escamilla V, Merchant RM, Wolfe MB, et al. Health-Specific Information and Communication Technology Use and Its Relationship to Obesity in High-Poverty, Urban Communities: Analysis of a Population-Based Biosocial Survey. J Med Internet Res 2016 Jun 28;18(6):e182 [FREE Full text] [doi: 10.2196/jmir.5741] [Medline: 27352770]

24. Greenhalgh T, Wherton J, Papoutsi C, Lynch J, Hughes G, A'Court C, et al. Beyond Adoption: A New Framework for Theorizing and Evaluating Nonadoption, Abandonment, and Challenges to the Scale-Up, Spread, and Sustainability of Health and Care Technologies. J Med Internet Res 2017 Nov 01;19(11):e367 [FREE Full text] [doi: 10.2196/jmir.8775] [Medline: 29092808]

25. Shaikh AR, Butte AJ, Schully SD, Dalton WS, Khoury MJ, Hesse BW. Collaborative biomedicine in the age of big data: the case of cancer. J Med Internet Res 2014 Apr 07;16(4):e101 [FREE Full text] [doi: 10.2196/jmir.2496] [Medline: 24711045]

26. Cugelman B, Thelwall M, Dawes P. Online interventions for social marketing health behavior change campaigns: a meta-analysis of psychological architectures and adherence factors. J Med Internet Res 2011 Feb 14;13(1):e17 [FREE Full text] [doi: 10.2196/jmir.1367] [Medline: 21320854]

27. JMIR Publications. Digital Health Community. 2019. URL: https://support.jmir.org/hc/en-us/community/topics [accessed 2019-10-24]

28. JMIR Publications. JMIR Publications Knowledge Base and Help Center. 2019. URL: https://support.jmir.org/hc/en-us/ [accessed 2019-10-24]
Leung R
Increasing the Impact of JMIR Journals in the Attention Economy
J Med Internet Res 2019;21(10):e16172
URL: http://www.jmir.org/2019/10/e16172/
doi: 10.2196/16172
PMID: 31674916

©Ricky C Leung. Originally published in the Journal of Medical Internet Research (http://www.jmir.org), 31.10.2019. This is an open-access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in the Journal of Medical Internet Research, is properly cited. The complete bibliographic information, a link to the original publication on http://www.jmir.org/, as well as this copyright and license information must be included.