Journal of Infectious Diseases & Therapy

ISSN: 2332-0877

Alscher, et al., J Infect Dis Ther 2024, 12:2

Short Communication Open Access

Individualization Trumps Standardization in Health Platforms: Optimizing Digital Vaccination Services based on Enforcing Self-Efficacy and User Experience

Alexander Alscher* and Christian Wissing

Department of Business and Law, BSP Business and Law School, Berlin, Germany

***Corresponding author:** Dr. Alexander Alscher, Department of Business and Law, BSP Business and Law School, Berlin, Germany, E-mail: alexalscher@gmail.com

Received: 19-Feb-2024, Manuscript No. JIDT-24-127881; **Editor assigned:** 21-Feb-2024, Pre QC No. JIDT-24-127881(PQ); **Reviewed:** 06-Mar-2024, QC No. JIDT-24-127881; **Revised:** 13-Mar-2024, Manuscript No. JIDT-24-127881(R); **Published:** 20-Mar-2024, DOI: 10.4172/2332-0877.1000582.

Citation: Alscher A, Wissing C (2024) Individualization Trumps Standardization in Health Platforms: Optimizing Digital Vaccination Services based on Enforcing Self-Efficacy and User Experience. J Infect Dis Ther 12:582.

Copyright: © 2024 Alscher A, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

About the Study

New innovative digital technologies such as mRNA-vaccines and vaccination platforms were key to master the COVID-19 pandemic [1] apart from the traditional use of nonpharmaceutical interventions (NPI) such as hygiene rules, mask usage, and social distancing [3,2] which prevented additional infections, hospitalizations, and death [4]. For the effective usage of vaccination platforms, our study Adoption of Digital Vaccination Services: It Is the Click Flow, Not the Value-An Empirical Analysis of the Vaccination Management of the COVID-19 Pandemic in Germany [5], presented a framework and analysis for policy makers and pandemic managers for how to develop public health services platforms and to increase its implementation success, in particular in vaccination processes. Based on adoption theories and resistance models from consumer market research, the study revealed (1) the usability barrier as the most important barrier affecting adoption, (2) the insignificant effect of consumer market's research highly emphasized value barrier, and (3) individualization (i.e., combination of personalization and personal communication) as the most important factor for mitigating adoption barriers. Thus, the development of individualized service offerings through digital health platforms and subsequently fast implementation by health care workers represents a critical premise and antecedent for a successful vaccination adoption [6,7]. Individualized methods of communication were shown to be an efficient measure to close the gap in care delivery of vaccinations [8] and stand in contrast to the standardization claim required by the efficiency imperative of organizations [9]. Against this background, we propose systematic research into individualization options and consequences for digital health platforms, especially for large-scale vaccination services such as the COVID-19 pandemic.

To elaborate on possible research streams for the individualization of digital vaccination services, we follow Sunikka and Bragge call for focusing on patients' individual health status, needs and interests which need to be recognized, understood, valued, and served [10]. In the context of digital platforms, individualization takes into account the patient's adoption of the entire value proposition of digital services along her/his individual requirements [10]. Typical objects of individualization in healthcare are diagnostics, therapies, medication, vaccination programs, nursing as well as digital services and applications [11,12]. For achieving a high success rate in the offering of digital health services, it takes two perspectives: First, patients need to be empowered to take action, and second, the information and action elements of health platforms needs to be designed it's in a very suitable way. Therefore, we suggest as promising research areas in the individualization of digital vaccination services the (i) self-efficacy stream and (ii) user experience stream.

Self-efficacy is a central factor explaining human agency and can be defined as an individual´s judgement of its capabilities to organize und execute courses of action [13]. For the adoption of vaccination platforms, self-efficacy and the motivation for self-efficacy play a major role for public health success in the vaccination registration and acceptance where constructs such as computer self-efficacy [14], computer anxiety [15] and internet self-efficacy [16] are relevant and were also shown to be significant psychological barriers in the digital vaccination service [6]. We propose to build on these findings and transfer them to digital vaccination services, provided on multisided platforms. We understand multisided platforms as the currently most important form of digital platforms and as a "set of digital resources-including services and content-that enable value-creating interactions" [17]. Therefore, multisided platforms show two key elements. First, they enable direct interactions between two or more parties involved. Second, each party is affiliated with the platform [18]. Future research may address questions of how the level of self-efficacy influences continuance intention and technology acceptance. Here, Bao and Shang, among others, have done preliminary work in consumer research, by demonstrating correlations between elf-efficacy and continuance intention of Web 2.0 platforms and identifying corresponding moderating variables - findings on digital vaccination services are still pending [19].

In healthcare, patient experiences are often negative due to the system-centric nature of the symptoms and causes of health issues and medical conditions [20]. The COVID-19 pandemic has shown that the negative perceptions of illness, injuries, and similar health problems can be conditionally resolved through fast, individualized solutions and a greater focus of organizations and services on the User Experience (UX). As patient experiences include all interactions patients have with healthcare systems represented by institutional staff and technology, UX is to be understood as a sub-era of the patient experience [21]. UX stands for the perceptions and responses of a person, that result from the use of digital services and includes all emotions, beliefs, preferences, behaviors, and accomplishments of a user before, during and after a service experience [22]. A central influencing factor on the user experience is a user´s ability to select between alternative configurations, service modules and setups [23]. In this context, a research focus should be placed on the number, origin, and interaction of individual vaccination services on multisided platforms to understand how they influence acceptance and adoption from the user's perspective. In addition, there are still no satisfactory

findings on how idiosyncratic antecedents, e.g., interoperability with other platforms and health services, affect the adoption of digital services on multisided platforms.

Conclusion

The COVID-19 pandemic necessitated the use of new technologies including vaccination platforms. Our study Adoption of Digital Vaccination Services: It Is the Click Flow, Not the Value-An Empirical Analysis of the Vaccination Management of the COVID-19 Pandemic in Germany [5] focused on the digital management of vaccination processes by adapting consumer market theories to public health. Individualization emerged as crucial for managing the usability barrier and tailoring digital health platforms to citizen needs such as for the successful adoption of digital vaccination services. Therefore, we propose systematic research into individualization options for digital vaccination services on multisided platforms in the two promising research streams (i) self-efficacy and (ii) user experience in digital health services. Gaps in research may be filled by understanding how self-efficacy affects continuance intention and technology acceptance of patients and how user experience affects the interaction of individual vaccination services on multisided platforms, as well as how idiosyncratic antecedents impact adoption.

References

1. Alscher A (2023) Pre-Registration in COVID-19 vaccination: The case of saarland. Quality Pri Care 31: 127-135.
2. Holzmann-Littig C, Frank T, Schmaderer C, Braunisch MC, Renders L, et al. (2022) COVID-19 vaccines: Fear of side effects among German health care workers. Vaccines 10:689.
3. Lee S, Zabinsky ZB, Wasserheit JN, Kofsky SM, Liu S (2021) COVID-19 pandemic response simulation in a large city: Impact of nonpharmaceutical interventions on reopening society. Med Decis Making 41:419-429.
4. Chhatwal J, Dalgic OO, Mesa-Frias M, Buyukkaramikli N, Cox A, et al. (2021) When can we lift nonpharmaceutical interventions with the availability of COVID-19 vaccine in the United States? Health Serv Res 56:78-79.
5. Alscher A, Schnellbächer B, Wissing C (2023) Adoption of digital vaccination services: It is the click flow, not the value-an empirical analysis of the vaccination management of the COVID-19 pandemic in Germany. Vaccines 11:750.
6. Alscher A, Wissing C (2023) Adoption of digital vaccination services from a literally professional view: A commentary. EPH Int J Bus Manag Sci 9:1-5.
7. Scroggins S, Goodson J, Afroze T, Shacham E (2023) Spatial optimization to improve COVID-19 vaccine allocation. Vaccines 11:64.
8. Wallia A, Khan A, Zimmerman L, Desai A, Blankemeier J, et al. (2021) Creation and translation of IMPACT (Illinois Medical Professional Action Collaborative Team) to amplify and address disparities in COVID-19: The case of vaccine delivery. Health Serv Res 56:33-33.
9. Ansmann L, Pfaff H (2018) Providers and patients caught between standardization and individualization: Individualized standardization as a solution; Comment on "(Re) making the procrustean bed? Standardization and customization as competing logics in healthcare." Int J Health Policy Manag 7:349-352.
10. Sunikka A, Bragge J (2008) What, Who and Where: Insights into personalization. IEEE Xplore 41:283.
11. Kuhl J, Ding A, Ngo NT, Braschkat A, Fiehler J, et al. (2021) Design of personalized devices-the tradeoff between individual value and personalization workload. Appl Sci 11:241.
12. López-Domingo B, Rodríguez-Martín B (2021) Factors associated with the provision of individualized care during hospitalization: A systematic review. J Nurs Manag 29:113-132.
13. Bandura A, Freeman WH, Lightsey R (1999) Self-efficacy: The exercise of control. J Cogn Psychother 13:158-166.
14. Hardin A, Chang J, Fuller M (2008) Clarifying the use of formative measurement in the IS discipline: The case of computer self-efficacy. J Asso Inf Syst 9:544-546.
15. Beckers JJ, Schmidt HG (2003) Computer experience and computer anxiety. Comput Hum Behav 19:785-797.
16. Fan YH, Lin TJ (2023) Identifying university students' online academic help-seeking patterns and their role in Internet self-efficacy. Internet High Edu 56:100893.
17. Constantinides P, Henfridsson O, Parker GG (2018) Introduction-platforms and infrastructures in the digital age. Inf Syst Res 29:381-400.
18. Hagiu A, Wright J (2015) Multi-sided platforms. Int J Ind Org 43:162-174.
19. Bao Z, Shang B (2021) Self-efficacy and continuance intention of Web 2.0 platforms: A meta-analysis. Data Tech Appl 55:511-526.
20. Pavlov K, Montalvo F, Sasser JA, Jones L, McConnell DS, et al. (2022) Applying user experience principles to patient experiences. Proc Hum Factors Ergon Soc Annu Meet 66:761-765.
21. Adarsha A, Reader K, Erban S (2019) User experience, IoMT, and healthcare. AIS Trans Comput Hum Interact 11:264-273.
22. Berni A, Borgianni Y (2021) From the definition of user experience to a framework to classify its applications in design. Proceedings of the Des Soc 1:1627-1636.
23. Gaß O, Ortbach K, Kretzer M, Maedche A, Niehaves B (2015) Conceptualizing individualization in information systems-a literature review. Commun Assoc Inf Syst 37:1.