

iConference 2021 Session for Interaction and Engagement

Title: A Knowledge Management Approach to Covid-19 Application Development

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Abstract:

The Covid-19 pandemic has posed great challenges worldwide. Compared with other groups, older adults are less likely to benefit from online knowledge resources about this virus because of their limited access and health literacy, and usability issues arising from their physical limitations. Knowledge management (KM) refers to the process of creating, sharing, and storing information to maximize its usefulness to a specific group. A KM approach is useful to create and implement a Covid-19 application for older adults to address these challenges. This session will integrate KM theories and practices to develop an application to meet the information needs and to improve the user experience of older adults. Participants will work in groups to create different, competing versions of the application. The different versions will then be reviewed by all participants and integrated by consensus into a single application.

Description:

Background: The advancement of information and communication technologies (ICTs) has made the internet an important source for health information (Scantlebury et al., 2017). However, older adults are less likely to benefit from online health information resources compared to other age groups for many reasons including physical disabilities, lack of affordability, and limited digital skills and information literacy, which eventually affect the patients' health outcomes (Gibbons, 2011; Levine, Lipsitz, and Linder, 2016; Lyles, Schillinger, and Sarkar, 2015; Sealy-Jefferson et al., 2015; Zhang et al., 2019). Therefore, an online application meeting the healthcare needs of this socially and physically disadvantaged group is urgently needed, especially under such a critical public health crisis as the Covid-19 pandemic. The concept of knowledge management (KM) has been widely applied in many fields, such as business, education, healthcare, etc. An activity practiced by various enterprises and organizations, KM involves organizing, storing, sharing, creating both tangible and intangible knowledge using multiple techniques and strategies (e.g., communities of practice, information systems, human behavior). Effective and efficient KM requires knowledge, skills and collaborative efforts from multiple stakeholders, including IT professionals, managers, knowledge content creators and consumers. The purpose of this session is to use a knowledge management approach to develop an online application to meet the health knowledge needs for older adults.

Purpose and Intended Audience: This session is designed for scholars and students who are interested in KM in the healthcare arena and who wish to develop a healthcare application for a socioeconomically disadvantaged group with knowledge/skill gaps. The purpose of this session is to integrate KM theory and process in the development of an online application to help older

adults access healthcare knowledge about Covid-19. In this session, the participants will 1) explore the knowledge gaps of older adults in accessing healthcare knowledge about Covid-19; 2) develop a structure of an application designed to address those gaps; 3) merge the groups' contributions and evaluate redundancies and efficiencies in the application design; 4) optimize the application through group consensus; and 5) summarize and record the process of the application development. By the end of this session, participants will be able to 1) understand the knowledge management process in developing the application; 2) apply key KM resources for application development; 3) merge different perspectives from the groups to develop the application; 4) capture group consensus in graphic format and a 250-word abstract.

Proposed activities including agenda, ramp-up (development), and follow-through: We request two 90-minute sessions, back to back, to be held on the virtual platform provided by the conference organizers. There will be four presenters during the session. Participants will join the session online and work together virtually. The participants will be divided into different groups blending a range of academic and cultural backgrounds to complete their versions of the application design. The presenters will work with the participants to help record the knowledge management process and application development.

The agenda is as follows:

Session 1 (90 minutes)

1. Welcome and introductions
2. Overview of the session (Presenters)
 - a. Outcomes of the session
 - b. Directions for the session

3. Brief of the issues encountered by the older adults in seeking Covid-19 related knowledge (Presenters)
4. Discuss the knowledge needs of the target group and the knowledge gaps that exist within current online resources (Presenters and participants)
5. Divide the participants into groups (Presenters)
6. Each group will design and draw a diagram of the KM process and application

Session 2 (90 minutes)

1. Each group explains their KM process and application development
2. Critique and merge the individual group approaches into one diagram
3. Optimize the KM process outlined in the diagram to reduce the cost (time, money, human resources) and increase effectiveness
4. Record the process of optimization

Relevance to the Conference/Significance to the Field: The outcome of this session will be an initial design for a healthcare application providing critical knowledge about Covid-19 for older adults. Using a KM approach, we utilize a “best practices” tool to design an important health resource during the pandemic. The research community will gain an example of the valuable integration of KM and health informatics, while potentially serving users who will benefit from knowledge of Covid-19.

This session will bring together several streams of research and practice in information science, namely, health informatics, and knowledge management. Therefore, the session will benefit its participants, the application’s intended users, i.e., older adults, and the wider KM and health informatics research communities.

Duration: This program will need two consecutive 90-minute sessions.

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