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KNOWLEDGE CONSTRUCTION IN
HEALTH SUPPORT GROUP ONLINE DISCUSSIONS

A thesis presented in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

in

Management Information Systems

School of Management, Massey University, Palmerston North, New Zealand

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ABSTRACT

The ongoing transition to the patient-centred healthcare paradigm suggests that patients adopt an active role in managing their health conditions. As the result, the Internet is becoming an important source of health-related information. Internet-based health support groups allow patients to access diverse information relevant to their particular situation by participating in online discussions. The quality of such information may have effects on the patients’ outcomes.

According to social constructivism, knowledge in online discussions is constructed in interactions between the individuals involved, as recommendations made over the discussion are clarified and scrutinized. Therefore, knowledge construction is likely to affect the quality of health-related information generated in health support group online discussions.

The purpose of the present study was to investigate the effects of knowledge construction in health support group online discussions on perceived information quality, information quality from the perspective of information consumers, and on information integrity, information validity from the point of view of the current state of scientific knowledge. It was hypothesized that knowledge construction results in better perceived information quality and in higher information integrity.

A health support group online discussion site devoted to weight management was used as a source of data. Quantitative content analysis was used, with a discussion thread as a unit of analysis.

Knowledge construction was operationalized as a two-dimensional construct with the dimensions of explicitation (lower level knowledge construction activities) and evaluation (higher level knowledge construction activities). The coding scheme was based on the prior studies of knowledge construction in the field of e-Learning. Perceived information quality was operationalized by adapting an existing measure from survey-based research. Information integrity was operationalized by using a simplified Delphi technique—health-related recommendations were extracted from the discussion content by coders and were assessed by domain experts.
Explicitation was found to affect perceived information quality with a medium effect size. Evaluation did not affect perceived information quality, and information integrity was not affected by any of the dimensions of knowledge construction.

Thus, low level knowledge construction contributed to perceived information quality, resulting in health-related information that is more relevant and useful from the perspective of its consumers. Nonetheless, knowledge construction activities were not found to result in higher prevalence of scientifically sound recommendations.

Based on the findings, the study suggested that moderators of health support group online discussions should promote explicitation by encouraging clarifications and refinements of health-related recommendations. Moreover, participation of qualified health practitioners is desirable to promote health-related behaviours based on evidence-based knowledge and to expose recommendations that have uncertain or even dangerous effects.
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<td>AVE</td>
<td>Average Variance Extracted</td>
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<tr>
<td>CMC</td>
<td>Computer Mediated Communication</td>
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<td>CR</td>
<td>Coefficient of Reliability</td>
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<td>CSCL</td>
<td>Computer Supported Collaborated Learning</td>
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<td>EFA</td>
<td>Exploratory Factor Analysis</td>
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<td>KM</td>
<td>Knowledge Management</td>
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<td>KMS</td>
<td>Knowledge Management System</td>
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<td>PLS</td>
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