

Online usage inequalities

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Valorization Addendum



The present dissertation describes to what extent people with different personal characteristics use the Internet, health related websites, and Web-based computer tailored health interventions differently. This valorization addendum will discuss the findings in a broader perspective, beyond their scientific relevance.

RELEVANCE

Sociodemographic differences are not only measurable as inequalities of education, income, and occupational status (American Psychological Association & Task Force on Socioeconomic Status, 2007), they also affect health. Health inequalities among different sociodemographic groups are responsible for a large part of the total burden of diseases in Europe (Dahlgren & Whitehead, 2007; Mackenbach, et al., 2008). In the Netherlands, socioeconomic differences as well as differences between people with different personal characteristics (e.g., age, gender, and relationship) are also associated with variations in health and health behaviors. Hence, there is a need to reduce health inequalities among people with different characteristics, for example by providing health information and health interventions. The Internet is a promising channel to deliver health information and health interventions to improve health behavior. There are a multitude of websites presenting health related information and several Web-based computer tailored interventions have shown very promising results regarding changing health behavior and improving health outcomes (e.g., Broekhuizen, Kroeze, van Poppel, Oenema, & Brug, 2012; Kohl, Crutzen, & de Vries, 2013). Based on differences in health behavior among people with different personal characteristics, it could be assumed that there is also a difference in online use. If there are subgroups which might not use Web-based information to their full potential, it could increase the knowledge and health gap between people with different personal characteristics. If Web-based information and health interventions should have an impact, then such information and interventions must be used firstly. Whether the Internet and accordingly Web-based health related applications are used differently by people with different personal characteristics was assessed within this dissertation. Findings about differences between subgroups with regard to online use could provide indications how to adopt Web-based information and intervention to be useful to people with different sociodemographic characteristics.

SCIENTIFIC RELEVANCE

The findings of the present studies have shown that people with different personal characteristics use the Internet (Chapter 2), Web-based information (Chapter 3) and Web-based interventions (Chapter 4, 5) differently. These findings might give reasons to

concern because those people who have in general an unhealthier lifestyle and those who have a higher risk to develop preventable diseases could potentially benefit the most from behavior change interventions. Also, the impact Web-based health related interventions could have might be biased by our finding that people with lower educational levels dropout more frequently from follow-up measurements (Chapter 6). While these studies have demonstrated that there are differences in online usage, the reasons for these inequalities are still unknown and further research might follow up on this in order to improve the usability of Web-based applications and to improve the measurable impact of interventions.

SOCIAL RELEVANCE

Inequalities in Internet use might result in disadvantages for specific groups that are not able to benefit from the information and health interventions provided online. Improving online use by tailoring the Web-based information to specific subgroups (like people with a lower level of education) might increase the usage and could reduce inequalities between these groups since it was found that those people less frequently search online for information, read news, use health interventions as recommended, and drop out earlier from Web-based health related studies. Adapting Web-based information and intervention might stimulate use of these applications and might reduce the health inequalities among subgroups with different personal characteristics. These implications might also be adaptable for other Web-based information and applications like online banking or searching for information and could improve accessing information and opportunities equally among subgroups with different personal characteristics.

Economic relevance

Inequalities in Internet use can have also implications for different economic parts. In particular, disadvantaged people (in terms of income, education, employment situations) often have an unhealthy lifestyle (smoking, high alcohol consumption, physical inactivity, unhealthy nutrition; (e.g., Charafeddine, Demarest, Van der Heyden, Tafforeau, & Van Oyen, 2013; Gidlow, Johnston, Crone, Ellis, & James, 2006; Pampel, Krueger, & Denney, 2010)) and are more likely to suffer from preventable diseases such as obesity, diabetes, cancer, and cardio vascular diseases (Committee on Health and Behavior: Research Practice and Policy Board on Neuroscience and Behavioral Health, 2001; Lampert, Kroll, von der Lippe, Mütters, & Stolzenberg, 2013; Merletti, Galassi, & Spadea, 2011). Therefore, it is important that it can be assured that those people at risk are able to make use of Web-based information and interventions to change their lifestyle. This could have a positive impact on reduced health care related costs (e.g.,

Drost, et al., 2016; Schulz, et al., 2014; Stanczyk, et al., 2014). Next to health related cost there are also other examples why improving Internet use skills could be beneficial for the economy. For example, unemployed people could be trained to seek for job advertisements online and could return to the job market earlier.

Target groups

The results have shown that people with different personal characteristics also use the Internet differently. It is not clear what causes these differences, but it is reasonable that there are specific skills necessary to use the Internet in the most beneficial way. Some people might be able to learn these skills by themselves or on the job, other people might have not these capabilities and possibilities. To reduce inequalities in online use in the future, it might be useful to implement Web-based learning materials in school so that children have to learn to use the Internet, find information, and being able to use it. By improving Internet literacy people might be able to use the Internet beneficially for different purposes inter alia to improve their health.

Furthermore, the findings from this dissertation can be useful for the government which often provides information to the general public. Using the Internet as medium to fulfil this task makes sense but as we have seen in Chapter 3, not many people are using the website to seek information in depth. Changing those websites to the needs of people with different personal characteristics (e.g., educational levels), should become a priority.