

Create workshop 2014: Leveraging Mobile Technology and Social Media in Behavioral Research

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The 2014 CREATE workshop brought together some forty young health behavior researchers from thirteen different countries, all sharing an interest in mobile technology and social media research. The three-day workshop was held in Innsbruck, Austria, prior

to the general EHPS conference and was facilitated by Dr. Sherry Pagoto (University of Massachusetts Medical School, Massachusetts, USA) and Dr. Kristin Schneider (Rosalind Franklin University, Illinois, USA). Throughout the workshop, participants garnered valuable understanding of the many possibilities of modern-day technologies and received insightful tips for unlocking this great potential. During the workshop, we zoomed in on two particular topics. The first day of the workshop was reserved for an extensive discussion of mHealth. Particularly, the focus was on mobile applications, which have outstanding potential for health behavior research. During days two and three, the focus shifted to social media. The facilitators demonstrated how social media can be leveraged with great success for conducting health behavior research as well as for the development of our professional careers.

Applications for mobile devices, or apps, are being developed at a rapid pace and they offer unforeseen research opportunities for various fields. A vast amount of these apps are specially designed to change health behavior (such as diet or physical activity) and therefore make health accessible “on the go”. The potential of these health-related apps is

so great because for the first time, behavioral researchers have the opportunity to measure, monitor and guide individual behavior anywhere and anytime, providing countless new possibilities to explore, and intervene on, health behavior. In order to encourage, for instance, healthy food choices and/or increase daily step counts, apps are – in principle – designed to enhance motivation, influence self-regulation and advocate for social support – reliable predictors of a variety of health behaviors. However, we learned during the workshop that unfortunately, many apps fall short of actually employing best-practice behavior change techniques that have been validated and shown to be effective. For instance, Conroy, Yang and Maher (2014) found that apps designed for the promotion of physical activity only utilized on average 4 out of 40 valid behavior change techniques that are potentially effective in increasing healthy behavior (Michie et al., 2011). The authors further reported that the techniques that are used in apps are typically either motivational or educational in nature, whereas techniques that have been shown to be more successful in bridging the gap between intention and behavior are less commonly applied.

In addition, as Dr. Pagoto and Dr. Schneider pointed out, apps tend to be designed narrowly around behavior change, ignoring the larger context in which many health behaviors occur. One important reason for this is a lack of expertise among app developers, who are not usually experts in behavioral theory and who may be primarily driven by economic incentives. It hence appears essential to engage researchers in the development, adjustment and scientific evaluation of mobile apps in order to successfully impact individual as well as public health. However, there are challenges, both to the

development of useful apps as well as to reliable content analysis and rigorous efficacy testing of apps. During the workshop, we were sensitized to the elaborate process and the many steps involved in the development of an app by testing an app that one of the facilitators was currently developing. With regard to the evaluation of apps, some of the difficulties are that apps often change over time and the fact that behavior changes only occur after a longer period of use and thus cannot be evaluated immediately. Moreover, a discussion emerged among workshop participants about the fact that the research cycle, with a potentially long delay between study and publication, might inhibit the swift delivery of urgently needed evidence. It therefore appears necessary to develop and implement innovative research designs that allow rapid but reliable evaluations of apps as well as communication of the results (Kumar et al., 2013).

The second part of the workshop focused on the use of social media for behavioral science. Social media are Internet-based applications that allow the users to generate and exchange content, e.g. social networks, video platforms and blogs (Kaplan & Haenlein, 2010). Focusing mainly on the social networks Facebook and Twitter, the CREATE participants learned about the potential of these platforms and explored the possibilities with some hands-on testing. Due to their tremendous reach across diverse populations and their inherent versatility, these platforms offer great opportunities for behavioral researchers in terms of recruitment and assessment of study participants as well as for the delivery of interventions. Additionally, the workshop participants learned that social media can not only be used for passive observation, but also to monitor disease outbreaks, to disseminate health messages and to create online patient communities. Moreover, delivering behavioral interventions via social networks has become increasingly popular in recent years. Dr. Pagoto shared a personal success story of an unexpectedly effective Twitter-intervention using a health-related hashtag (#PlankADay) and showed how

such interventions can be used to encourage health behavior change. Hashtags can rapidly spread across a social network and thus can cause a snowball effect, reaching a great number of people with minimum effort (Pagoto, 2013). Furthermore, there are also advantages from the participants' perspective. In particular, they value the possibility of setting up reminders, e.g. via automatic tweets, and the opportunity to exchange experiences and support one another within the community.

Not only are social media used to support health research; during the workshop we also learned how to leverage social media to promote our professional development. Personal Facebook pages, Twitter profiles and blogs are useful tools for building an online presence aside from static homepages. These services allow the user to actively disseminate results of current research to a wider audience, to network within the scientific community, and to interact with the public. While signing up for Twitter is done within seconds, one has to be aware that time needs to be invested in maintaining the profile to accumulate followers and to keep the audience interested. In order to maximize efficacy of an online presence, it is advisable to present oneself to the public with a short but appealing profile description, to frequently interact with other users, to adopt a liberal following strategy, and to post concise updates several times per week.

The workshop offered the participants with plenty of food for thought (and action). New avenues for recruiting participants and conducting research were opened up for us, and many felt inspired to give our own online presence a boost. Indeed, many participants were directly applying what they learned during the workshop by opening Twitter accounts and sharing their experiences of the workshop and the subsequent EHPS conference using the official conference hashtag (#EHPS2014). Furthermore, the social program of the workshop provided us with plenty of time to get to know researchers from different countries and to discuss the workshop insights. In sum, the 2014 CREATE workshop on

leveraging mobile technology and social media in behavioral research was valuable and provided interesting content, both for the fruition of the participants' research as well as for their professional development.

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