

Observations on mobile communication and well-being research

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The rise and rise of mobile phone and well-being research

The year 2013 marked not only the inaugural issue of *Mobile Media & Communication*, but also the start of my academic career and the development of my first mobile phone and well-being study (Chan, 2015). Whether it is conceived as “mental health,” “subjective well-being,” “flourishing,” “positive thinking,” “life satisfaction,” or another term, well-being has been the subject of scientific research for more than a century (Rodman & Fry, 2009). The longevity of the literature is understandable because of the accumulative evidence across the decades that high citizen well-being produces a variety of normatively desirable individual and societal benefits. These include increased mortality, health, academic achievement, workforce productivity, and prosocial behaviors (Maccagnan et al., 2018). During my graduate studies, I was especially fascinated by the ongoing academic and societal discourses on the beneficial and deleterious consequences of mobile phones (i.e., Rainie & Wellman, 2012; Turkle, 2011) as well as my own gradual realization that the mobile phone has become so integral to my everyday life.

The successive emergence of new communication technologies since the 1990s such as the Internet and social media have stimulated a vast literature on whether they engender or diminish psychological well-being. Research on mobile phones is no exception given that it is one of the fastest-diffusing technologies in the world (Wei, 2013). Indeed, a cursory search of mobile phone and well-being related keywords in Google Scholar exemplifies the growth, which shows few signs of abating (Figure 1). As an author, reviewer, thesis supervisor, and associate editor of two journals, I have also

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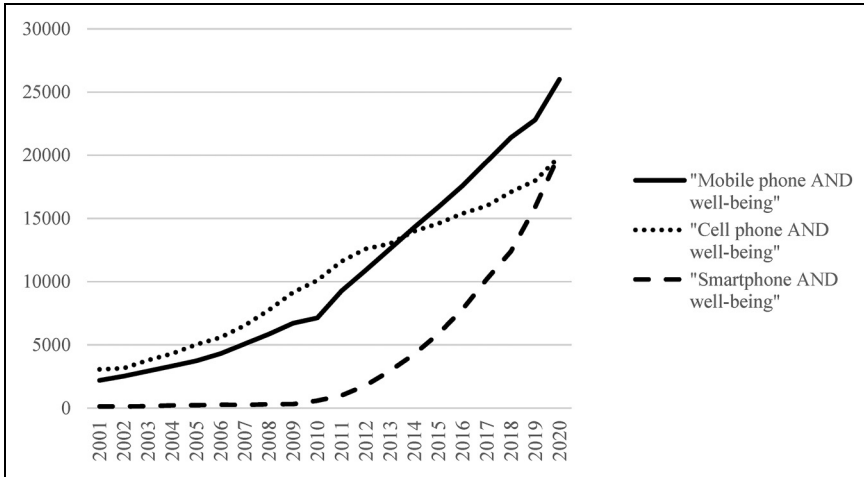


Figure 1. Number of Google Scholar results by year based on keyword searches.

observed in the past decade an exponential rise in the number of submitted and published mobile and well-being studies in our field. Indeed, not a month goes by when I am not invited by a journal to review a mobile- and well-being-related manuscript. This anniversary issue therefore provides me a timely opportunity to share some thoughts on this area of research as well as make several calls to action on how to move this literature forward.

Moving the literature forward

Call to action I: Focus more on how mobiles affect well-being

A prototypical quantitative mobile and well-being paper I have often come across typically situated some type of mobile phone use as the independent variable that almost always significantly predicted one or more aspects of well-being. What these studies did not tell me, though, is *how* it engendered these outcomes. Consider a typical measure such as “How often do you use your mobile phone to talk to your family and friends” and replace “mobile phone/talk” with “Facebook/interact.” Both measures can reasonably predict well-being and the strength of the coefficients can be quite similar. It means that the explanatory weight of the relationship falls on the communicative act rather than actual use of the mobile phone or mobile-mediated communications. One productive avenue for future research would be the adoption of a *communicative affordances* framework that considers the “interaction between subjective perceptions of utility and objective qualities of the technology that alter communicative practices or habits” (Schrock, 2015, p. 1232). The idea of applying the concept of affordances to mobile communication research is certainly not new (see Helles, 2013, in the inaugural issue), and holistic frameworks such as the Theory of Interactive Media Effects (TIME) (Sundar et al., 2015) provide researchers with the conceptual lens to uncover how specific modalities, interactive features, and functions of the mobile phone can affect individuals’

subsequent attitudes and behaviors. Yet, I feel that these frameworks have so far been severely underutilized to help us better understand what it is specifically about mobile phones and mobile communications that engender or diminish well-being.

Call to action II: Test theoretically informed models to elucidate mechanisms

Another prototypical feature of a mobile and well-being paper is the inclusion of one or several mediators to explain the indirect relationship between mobile variables and well-being, such as social capital (Chan, 2015). By adopting this sociality axiom of mobile communications, a vast number of studies in past years have tested a smorgasbord of similar mediators such as social support, self-disclosure, intimacy, relationship satisfaction, fear of missing out, and the list goes on. While the findings of these studies are interesting, the relative interchangeability of these mediators offers few theoretical advancements to the literature. More meaningful are mediators drawn from theoretical frameworks that were tailored specifically to explain the effects of mobile use. One example is the sociocognitive model of connectedness (Bayer et al., 2016). Drawing insights from psychology and sociology, it sought to explicate the roles of communication norms and cues (e.g., salient expectations of being available to others enacted by technical, spatial and mental triggers) that can influence certain connection habits (e.g., constant unconscious checking of the mobile), which could then be deleterious for well-being. The more recent Integrative Model of Mobile Media Use and Need Experiences (IM³UNE) (Schneider et al., 2021) utilized self-determination theory to explain how the extent of individuals' basic psychological needs of autonomy, competence, and relatedness can be fulfilled by mobiles, which have implications for well-being. Granted, both models contextualized the mobile use and well-being relationship in terms of the "demands" of everyday mobile use that affect individual cognitions and subsequent well-being, which is somewhat different from the communicative affordances mentioned earlier. But there is no reason why future theorizing cannot integrate both perspectives to generate more substantive insights and explanations on how mobiles affect well-being.

Call to action III: More rigorous research designs that attest causal relations

The emphasis on indirect effects has been an ongoing trend in the field of communication in the past two decades as researchers continuously search for mechanisms that explain underlying relationships between independent and dependent variables via one or more mediators. Yet, as noted by Chan et al. (2022) in their content analysis of mediation analysis in the field, the preponderance of correlational research designs often meant that causal inferences from these studies could not be made with confidence, which limited the validity and contributions of the findings. A typical boilerplate paragraph offered by authors would be to call for "more experimental studies to establish causality," but manipulation of the independent variable can only show that it affects the mediator and the outcome. The relationship between the mediator and dependent variable is still correlational because the mediator was not manipulated. Therefore, I reiterate the recommendations by Chan et al. (2022) and those by Schneider et al. (2018) for more multi-study papers in mobile communication research so as to accumulate evidence for the proposed causal chain among the variables of interest.

Other productive avenues would be the adoption of panel and longitudinal designs as exemplified by the two-wave panel used by Matthes et al. (2020), which examined the mediating roles of information overload and depressive symptoms on the mobile and well-being relationship. Granted, the authors readily admitted that a four-wave panel would be required to test the whole causal chain that they proposed, but the initial establishment of causal order among some of the key variables provided an important starting point and theoretical justification for future studies to further test and validate the causal chain. Mobile scholars have also elaborated on the possibilities of “mobile methods” to study social phenomena (Boase & Humphreys, 2018). In this regard the experience sampling method is especially useful for examining and testing causal mechanisms as users’ self-reported attitudes, feelings, and behaviors can be monitored across different time points under different contexts. An excellent exemplar of this approach was the study by Taylor and Bazarova (2021) that examined the mobile use and well-being relationship among romantic partners.

Call to action IV: Carefully consider the multidimensional nature of well-being

My final main observation is that many mobile and well-being studies dedicated much space to explicate what variables and mechanisms predicted well-being but paid little attention to the actual concept of *well-being*. Psychologists have long noted its hedonic and eudemonic facets where the former emphasizes happiness and pleasure while the latter emphasizes self-realization and optimal functioning (Ryan & Deci, 2001). The recent addition of “digital well-being” into the already burgeoning literature incorporated both the affective and cognitive aspects; and it emphasized the “subjective individual experience of optimal balance between the benefits and drawbacks obtained from mobile connectivity” (Vanden Abeele, 2021, p. 938). This conception of well-being is theoretically necessary and useful because it reflects specific psychological appraisals derived from perpetual connectivity to others, and it acknowledges that mobile communications has fundamentally altered peoples’ psychological functioning and balance in their everyday lives. Therefore, digital well-being is not only an important outcome, but it can also be an important mediator of general well-being.

Other scholars also pointed to “quality of life” and “wellness,” which are more holistic concepts of well-being that also encompass physical and social dimensions (Cooke et al., 2016). Of course, all these concepts of well-being are likely to be correlated to some degree due to their conceptual overlap. Nevertheless, they are theoretically distinct, and researchers’ choices of their well-being concept and subsequent measurements in their study will have important implications for the boundary conditions of their theories and explanatory utility of their models and results. Yet, these decisions and their implications are rarely discussed. Elaborating on the key mobile-related variables and mechanisms that can engender or diminish well-being is of course important, but equally important is the explication and justification of the chosen well-being concept that is most suitable for and relevant to the phenomena being studied. In Taylor and Bazarova (2021), for example, it was logical to measure both affective and cognitive facets of well-being as they examined romantic partner dyads. It would also be logical for studies that have the purpose to provide substantive policy recommendations to

adopt more holistic and multidimensional approaches to conceptualize and measure well-being, rather than use narrow measures such as perceived life satisfaction.

Conclusion

The above observations and recommendations are not by any means exhaustive. Admittedly, they are based primarily on my field of knowledge in communication and social psychology as well as my leanings towards quantitative-based approaches to the literature. Given the centrality of the mobile phone in our everyday lives it is not surprising, then, that research studies on its well-being implications are being conducted in increasing numbers in such diverse fields as economics, education, and biomedicine. In this regard, *Mobile Media & Communication* has been instrumental in contributing its part to the literature from a communication perspective in the past decade. Notably, it has published what I consider to be very important and soon-to-be influential works. These include articles and special issues offering new research directions to explore mobile use and well-being (e.g., Schneider et al., 2021), highlighting the possibilities of new mobile methods (e.g., Boase & Humphreys, 2018), and considering well-being from a distinct mobile perspective (e.g., Vanden Abeele & Nguyen, 2022), to name but a few. By integrating these theoretical, conceptual, and methodological insights, I am very confident that research in the coming decade would continue to further our understanding on how and under what conditions mobile devices and communications can shape different aspects of well-being for good and/or for bad.


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