Understanding the Global Landscape of Digital Skill on Facebook

NADINE LEVIN (FACEBOOK) AND ELISSA M. REDMILES (MAX PLANCK INSTITUTE FOR SOFTWARE SYSTEMS)

The “digital divide” and the broader concept of digital skills have been the focus of a significant body of literature over the past two decades [7, 11, 15]. Digital skills have been shown to impact a variety of online behaviors and influence benefits from online participation [9], thus making digital skill an important topic for policy makers to consider when ensuring that all people are able to benefit from going online.

Prior literature on digital skill has two key, policy-relevant gaps. First, the vast majority of digital skill research has focused on American and European Internet users [15], yet, the majority of those online reside outside these regions. Second, research on the impact of digital skills nearly exclusively relies on self-reports, despite methodological literature suggesting that self-reports may not most accurately reflect actual online behavior [12, 14].

We aim to fill these gaps by measuring the digital skills of over 38,000 people from 17 different countries¹ and modeling the relationship between digital skills and actual online behavior. To assess digital skill, we use the Hargittai and Litt [8] Web Use Index² and a battery of five comprehension questions³. We deploy our survey using stratified sampling on Facebook, using Facebook users as a proxy for Internet users because: (i) Facebook is the most-used social network worldwide, used by over 50% of the worldwide Internet population [5], (ii) Facebook is among the best methods for sampling emerging market users [6], and (iii) survey results obtained using Facebook have been validated against national survey results (e.g., the American Community Survey [16]). We conduct our analysis on de-identified, aggregated data.

RQ1: How digitally skilled are Facebook users across the globe? A sizable minority of the global Facebook-using population has low digital skill: 24%⁴ of the 38,085 respondents who fully completed the Hargittai and Litt [8] scale scored a 3 out of 5 or below (equivalent to “Some understanding”), while 41% of the 30,903 respondents who completed all five comprehension questions answered two or fewer correctly. Digital skill is significantly lower in non-US/EU countries (mean: 3.97 out of 5 on the Hargittai and Litt [8] measure in the US and Europe, 3.59 elsewhere).

RQ2: Who has low digital skill? Lower-skill users globally tend to: be older, have had a Facebook account for less time, use fewer and older computing devices, and be from a non-US/EU region (Asia, Africa, or the Middle East)⁵. Interestingly, we find no gender difference in digital skill. This is in contrast with prior literature showing gender differences in self-confidence, but not actual behavior [10].

RQ3: How do digital skills relate to actual online behavior? Finally, digital skill significantly relates to a broad set of Facebook behaviors, including the amount of time spent on Facebook, number of Facebook friends [1], types of online social interactions (e.g., liking Facebook posts [2]), and use of more advanced Facebook features such as Facebook stories [3] or unfriending someone [4]. These findings validate the relationship between digital skill and actual online

¹The 17 countries across which we sampled equally and in which the survey was deployed in the three most-used languages: Brazil, Columbia, Egypt, France, Great Britain, India, Indonesia, Italy, Kenya, Mexico, Myanmar, Nigeria, Pakistan, Philippines, Turkey, the United States, and Vietnam.

²Cronbach alpha = 0.83 across our full sample and 0.86 in the US.

³These closed-answer questions assess people’s knowledge of downloads, QR codes, password strength – using a question from Olmstead and Smith [13], Facebook tags, and how to create a Facebook reaction.

⁴All results are weighted on gender, age, length of Facebook use, and country to best represent the Facebook-using population.

⁵Internet skill is a dependent variable in anonymous, weighted linear regression models that control for interactions with country, length of time on Facebook, language, age, gender, and context on computing devices.

behavior, underscoring the relevance of understanding and addressing inequity in digital skill to ensure that Internet users are able to fairly and equitably realize the benefits of being online.

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