

Exploring thumb usage in mobile typing: a comparison between digital natives and immigrants

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Mobile typing is a widespread activity for people of all ages and social backgrounds. Several factors can affect typing efficiency and accuracy including age, typing style (e.g., using two thumbs or a single index finger), keys size and whether the device provides feedback during input. The different use of each thumb on the keyboard between digital natives and immigrants (born respectively before or after 1980; Prensky, 2001) has received little attention and represents a gap in the literature. Specifically, it relates to how efficiently and symmetrically on the keyboard they alternate between the two thumbs during input. Effective thumb alternation and balanced use of the smartphone keyboard can be considered indicators of digital interaction proficiency and of bimanual coordination. 54 naïve right-handed participants, equally divided between digital natives and immigrants, were recorded while typing seven sentences on Google (content consumption) and on WhatsApp (content generation). Each sentence guaranteed a symmetrical and comprehensive distribution of letters across the keyboard. Right and left thumb usage rates for each letter were recorded and analyzed. Results showed that: (i) both groups used the right thumb significantly more than the left thumb for most letter-keys; (ii) digital immigrants relied on their right thumb for a greater number of letter-keys compared to digital natives; and (iii) the type of application did not influence the distribution of thumb usage. This work contributes to the emerging framework of digital competence by exploring how people of different ages have adapted to technology and the strategies they have developed.

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