

# Unpacking Digital Dexterity: Cognitive and Sensorimotor Perspectives on Mobile Typing

*Friday, September 12, 2025 3:30 PM (1h 30m)*

From the tap of a thumb on a smartphone screen to the deliberate keystroke on a keyboard, digital writing encompasses a spectrum of sensorimotor behaviors that offer insights into human cognition and motor control. Building upon the understanding of digital interaction, this symposium brings together distinct yet interconnected contributions that investigate how writing unfolds on touchscreen devices, combining ecological validity with fine-grained kinematic analysis.

The opening presentation offers a theoretical perspective framing mobile typing as a sensorimotor skill shaped by ergonomic, contextual, and individual factors, highlighting the need for ecologically valid and methodologically innovative approaches. The first presentation introduces novel markers of touch interaction—pressure and duration—demonstrating how generational and contextual factors influence motor strategies across digital tasks. The second study applies 3D motion analysis to thumbs movements, revealing distinct kinematic signatures for content consumption versus generation and linking motor efficiency to digital intentions. The last empirical contribution delves into the cascaded nature of orthographic and motor processing during smartphone writing, revealing how linguistic variables modulate temporal dynamics, supporting an integrated model of written production. The concluding discussion integrates these findings through the lens of kinematic fluency and linguistic complexity, emphasizing how individual differences and device experience shape writing performance, and advocates for a unified framework accounting for both cognitive-linguistic and sensorimotor dimensions of digital writing.

Together, the symposium offers a timely and nuanced view of mobile writing as a window into cognitive-motor integration, with implications for experimental psychology, digital literacy, and behavioral assessment.

**If you're submitting a symposium talk, what's the symposium title?**

**If you're submitting a symposium, or a talk that is part of a symposium, is this a junior symposium?**

No

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