Central to our understanding of learning today is the relationship between various tools, technologies and their socially situated practices. This talk focuses on a novel set of tools and materials called e-textiles--computers and electronics integrated into clothing and other accessories--which represent a unique nexus of three distinct and historically gendered practices: crafting, coding and electronics. Drawing on mediated discourse theory as well as constructionist learning theory, this work examines how these tools and materials bear traces of their unique histories of cultural use and access, tacitly communicating gendered scripts that invite participants to perform masculinities and femininities in socially recognized ways. These scripts implicitly grant access to and participation in educational activities, thus affording opportunities to disrupt participation patterns in the classroom for non-dominant youth and, in the process, lead to significantly improved learning outcomes. The implications for rethinking our current educational toolkits to better align with deeper conceptual understanding as well as a set of general design principles for fostering more equitable participation in classrooms will be discussed.

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