Young people’s tech identity performances: why materiality matters

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36 young people aged 11–14 resreached over the course of one year at four UK-based informal STEM learning settings.

## Implications For Educators About

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# Abstract

AbstractBackgroundIdentity provides a useful conceptual lens for understanding educational inequalities in science, technology, engineering and mathematics (STEM). In this paper, we examine how paying attention to physical and digital ‘materiality’ enriches our understanding of identity work, by going beyond the spoken, written and embodied dimensions of identity performances that currently dominate the area of STEM identity scholarship. We draw on a multimodal ethnographic study with 36 young people aged 11–14 carried out over the course of one year at four UK-based informal STEM learning settings. Data collection included a series of interviews, observations and youth-created portfolios focused on STEM experiences. Illustrative case studies of two young men who took part in a community-based digital arts centre are discussed in detail through the theoretical lenses of Judith Butler’sidentity performativityand Karen Barad’sintra-action.ResultsWe argue that physical and digital materiality mattered for the performances of ‘tech identity’ in that (i) the focus on the material changed our understanding of tech identity performances; (ii) digital spaces supported identity performances alongside, with and beyond physical bodies, and drew attention to new forms of identity recognition; (iii) identity performances across spaces were unpredictable and contained by the limits of material possibilities; and (iv) particular identity performances associated with technology were aligned with dominant enactments of masculinity and might thus be less accessible to some young people.ConclusionWe conclude the paper by suggesting that accounting for materiality in STEM identity research not only guides researchers in going beyond what participants say and are observed doing (and thus engendering richer insights), but also offers more equitable ways of enacting research. Further, we argue that more needs to be done to support the translation of identity resources across spaces, such as between experiences within informal and online spaces, on the one hand, and formal education, on the other.

# Outcome

See abstract