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TREO

Technology, Research, Education, Opinion

Work-Learn: Necessary and Sufficient Conditions for Upskilling Homeless Adults with Entry-level Programming and Tech Sector Skills

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The Work-Learn project addresses three novel gaps in IS research: generalizability of online learning tools; tech workforce development; and how IS research can contribute to the emergent trans-discipline focus on empirical validation in social justice programming.

Disparities in accessing online education are an example of how adults experiencing homelessness do not benefit from the opportunities of the digital age to the same degree as better-resourced communities. Economic, social, and educational disparities reinforce—and are reinforced by—a lack of access to and knowledge about new Information Technologies. Simply connecting underserved communities to the Internet is insufficient; to realize equitable opportunities, learners need additional infrastructure and incentives to support their ability to leverage digital opportunities. Work-Learn provides these supports and interlocks the learning-by-doing aspects of apprenticeships as a part of a public-private partnership. Learners benefit from targeted financial remuneration, akin to paid crowdwork, to support extrinsic motivation.

The foci are on theoretical and empirical connections between online education (MOOCs) and job opportunities, and reducing the financial gap between lesser-resourced communities and traditional learners by providing students with an income during their studies. We hypothesize that the extrinsic value-add of paid learning will buttress learners' intrinsic motivation of gaining financially stable careers. The research effort behind this hypothesis has value to the research community regardless of a positive or negative finding; if our hypothesis is supported, the findings could inform upskilling programs broadly speaking. If our data is consistent with the global research findings of MOOCs being a beneficial tool for <10% of the population, more fundamental research into the design and delivery of these platforms is required as it suggests that the specific affordances of MOOCs are likely driving their low completion rate.

Work-Learn is designed to generate rich formative and summative data on how the model can support underserved learners, and how public-private partnerships can help marginalized individuals retrain for jobs in IT. Participants will be interviewed at the beginning and end of the modules to obtain demographic information and clarification about prior workforce, housing, and computing experiences. Interviews ensure that learners understand the assignments, with interviewers able to ask probing and clarifying questions to fully explore participants' expectations and experiences with the project. The MOOC will be outfitted with learning analytics capacities to collect data on participants as they interact with learning materials, assignments, and assessments. This will help inform which material may be not challenging enough and where participants are struggling to be successful, which will inform curricular revisions. Interviews with hiring managers at industry partners will elucidate successes and barriers in hiring and retention of these newly-minted apprentices whose education and job history typically otherwise precluded inclusion. This work is supported in-part by the NSF [grant # 2100355]; the Engagement Scholarship Consortium; and Facebook Research.

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