Creating You-Are-Here Maps: Mapping location and orientation using photographs

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Abstract: Difficulty in interpreting and using spatial information from You-Are-Here maps (YAH maps specify a viewer’s location and orientation) stems from a misalignment between one’s physical orientation and the map’s orientation. The current research investigates the relationship between the participant’s physical location and orientation in accurately placing the location and orientation of another individual onto a map – essentially creating a YAH map for another individual. The other individual’s location and orientation was conveyed to the participant using a photograph. The photographs were of highly familiar building facades from around campus, which were oriented towards the cardinal directions. This research reveals how the participant’s location and orientation interacts with the photographer’s location and orientation, given the properties of the environment. Task performance was related to individual difference factors, such as self-assessed sense-of-direction, gender, familiarity with photographed locations, and the spatial reference frame used by the participant.