Technology Design to Support Caring for and Learning from Older Adults

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A new synthesis is emerging that integrates AI technologies with Human-Computer Interaction to produce Human-Centered AI (HCAI). Advocates of this new synthesis seek to amplify, augment, and enhance human abilities, so as to empower people, build their self-efficacy, support creativity, recognize responsibility, and promote social connections. An HCAI approach begins by understanding how older adults differ from younger adults and children. HCAI researchers study user needs through observations, interviews, and surveys to identify primary and secondary needs, while ranking frequent and rare needs. While many technology advocates describe their goal as caring for older adults, that is only half of the story. The other half is how others can learn from older adults, whose experiences, knowledge, and skills are an attraction for many adults, young adults, and children. Mentoring, teaching, and partnering is appealing for older adults who want connections with other people. This talk offers a taxonomy of 18 classes of user needs for older adults, and suggests how technologies can be designed to increase the level of automation, while preserving human control: Mobility, personal care, medical care, medical monitoring, shopping, cooking, finances, security, creative projects, home cleaning, home maintenance, gardening & pet care, mentoring, contributing, information & education, news & entertainment, wellness & emotional support, communication & social connection.

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