Introducing assistive media
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Purpose One subset of Gerontechnology is assistive technology, designed to improve quality of life by restoring physical or psychological functions to individuals suffering from impairment of some kind. In this paper, we introduce another subset of Gerontechnology that we call assistive media systems, designed to improve quality of life, by enhancing existing functions through various forms of media creation and consumption. We believe this field is emerging from the convergence of assistive technologies and personal media technologies. It can already be seen in experiments to change the mood and emotion of people and spaces through immersive image projection and sound playback, to transport people to new worlds through virtual reality experiences, to trigger memories and conversation through photographs, music and memorabilia, to keep people in touch at a distance, and to use arts and crafts in occupational therapies that unlock human creativity and expression. Our proposal is that digital media content and systems could be designed specifically for therapeutic impact. **Method** To understand this design space better we have been reviewing literature on three existing media-based therapies and developing new media systems and therapies with older people's groups. The existing therapies include art therapy, reminiscence therapy, and music therapy. The two new media therapies include the use of sound recordings and digital stories by people with dementia and their carers. A longer account of this work is given in Frohlich et al. (2020). Here we simply introduce an emerging framework for understanding assistive media use, based on findings from the literature (Abrahão et al., 2018; Campbell et al., 2019). **Results and Discussion** Art and music therapy both involve the creation of visual or sonic media in the form of painting, drawing and playing music instruments. These activities are said to be therapeutic in their own right, as non-verbal forms of self-expression. Reminiscence therapy, in contrast, does not usually involve creating the materials acting as memory triggers, but rather looking and listening to them as given, in the context of a group discussion. Some forms of music therapy also involve passive listening to live or recorded music played by others. Finally, all three forms of media therapies involve discussion of media items with others. These three core interactions are illustrated in the triangle of Figure 1. They take place between the three primary 'actors' in assistive media systems, including assistive media items which have a kind of agency of their own. Some of the key activities of art, reminiscence and music therapy can be illustrated through the diagram, as can those of new therapies.

References

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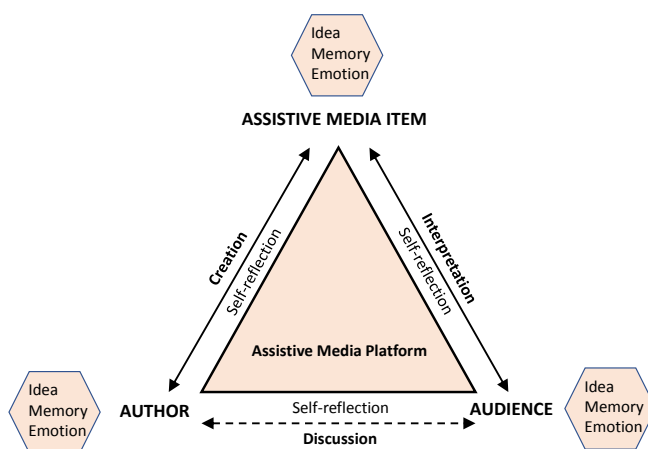
Figure 1. Framework for understanding assistive media