

Y-L. HSU. **Facilitating the caring embracement between generations: Gerontechnology design philosophy from the Sinophone world (keynote).** *Gerontechnology* 2016;15 (suppl):38s; doi:10.4017/gt.2016.15.s.955.00 **Purpose** Gerontechnology is a design field, which emphasizes a lot more on designing for people, rather than technological functions<sup>1</sup>. Gerontechnology product/service design requires a much broader view than technology alone. People are of great diversity. The success of a gerontechnology product/service also depends heavily on culture and social acceptance. The culture and social diversity of different parts of the world may provide different perspectives in this field. Filial piety is a concept originating from Confucianism, and has been an essential element of Chinese culture sharing across the Sinophone world. Typically, filial piety refers to the responsibility to care for, respect, and obey parents. Many interpretations describe the ancient Chinese character of filial piety (pronounced as 'xiao') as "*the young kid carries the older person on the back*". A warmer interpretation describes the character as "*the caring embracement between the older person and the young kid*". Filial piety, "*facilitating the caring embracement between generations*", has been used as the 'design philosophy' of the Gerontechnology Research Center (GRC) of Yuan Ze University (YZU), Taiwan, the ultimate goal of gerontechnology product/service development. Under this design philosophy, this presentation demonstrates several examples of smart living / Internet of Things (IoT) developments, designed to enhance the connectedness of the older adults with the environment, family members, and the society. For better acceptance, smart living design for the older adults emphasizes on how 'smartness' is integrated into 'living', how 'lo' can be built into existing 'T'. **Method** Gerontechnology research is only valuable if it can be realized into products or services that benefit older persons and their caregivers. For industry, gerontechnology also represents an important opportunity facing the aged society. GRC, YZU is taking one extra step in entrepreneurship, and is transforming into a start-up company 'Seda G-Tech'. Seda is the translation from the Chinese pronunciation of our partner company. It also happens to mean "silk" in Spanish. In fact, numerous practical details have to be taken care of, so that gerontechnology product/service can be "silky smooth" when used by older adults and their caregivers. Moreover, as in all commercial products, manufacturing cost, supply chain, business model, promotion, all require careful planning. Most of these practical issues are viewed as having little of no academic value. However, they are critical in realizing gerontechnology product /service. Bouma et al.<sup>1</sup> listed 'business management' as one of the disciplines of related technology, and pointed out that "*Management science has established itself as an indispensable enabling discipline to bring the fruits of technology to the global market place, and ensuring that the products, services, and infrastructures are realized*". **Results & Discussion** The technology part in gerontechnology is interdisciplinary in nature. As a design curriculum, turning prototype into product and actually sell it to end users, it is also an important dimension which further requires knowledge in business management. Beyond interdisciplinary collaboration, transdisciplinary talents are really needed for gerontechnology product/service design and development. Facing this challenge, a graduate level 'Innovative Product Development' program, using gerontechnology product/service as the design domain, has been implemented in YZU. Student designers are expected to explore social, technological and economic trends, perform user needs, patent, product and market analysis, generate innovative design concepts, and complete a full-function prototype using engineering tools. Student designers then move from prototype to product, aiming at completing the manufacturing process and business model planning, and getting ready to bring the product to the market. Experiential learning, such as constantly working with older adults, user experience evaluation and aging simulation, are also emphasized in the program to build strong empathy of our student designers with older adults. Only with such empathy, designers can create gerontechnology product/service that facilitates the caring embracement between generations.

#### References

1. Bouma H, Fozard JL, Bouwhuis DG, Taipale VT. Gerontechnology in perspective. *Gerontechnology* 2007;6(4):190-216; doi:10.4017/gt.2007.06.04.003.00

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