

Discussion on information and communication technologies

H-M. CHANG, Y-T. CHENG, C. PEI. **Discussion on the elderly's needs in information and communication technologies.** *Gerontechnology* 2014;13(2):178; doi:10.4017/gt.2014.13.02.284.00 **Purpose** Societies in the 21st century are facing two waves of challenges, rapid development of information and communication technology (ICT) and an aging population. The widespread usage of ICT products has founded the digital era, yet the elderly are still in a disadvantaged group in the ICT market because the market has usually ignored their needs. This makes the elderly unable to make their life more convenient through the use of ICT. This research aimed to explore the impact of the accessibility issue on the elderly when they are faced with ICT options. Through the increase of technological acceptance and network application service through learning procedures¹, the elderly shall be able to enjoy a comfortable LOHAS life with respect, thereby being able to enjoy a successful ageing process. **Method** This research first established a preliminary mind map that can be used to analyze and compile the key factors² that affect the demand of ICT by the elderly through a literature review. Then, key factor confirmation was done through a questionnaire survey of the Delphi method. **Results & Discussion** Fifteen experts in various fields of industry, official, and academia were invited to conduct the Delphi method expert survey twice. The result shows that 24 key factors all average ≥ 7 , based on the Delphi method scale. This means the experts have reached a consensus. Six key aspects of the elder's ICT demands were obtained through the mind map as follows: (i) acquisitions to information and communication behaviors, (ii) learning by the elderly, (iii) information technology hardware, (iv) network application service, (v) THC system, and (vi) future development. *Figure 1* shows the 24 secondary factors. In the future, two analytic methods, Decision Making Trials and Evaluation Laboratory (DEMATEL) and Analytic Hierarchy Process (AHP), will be adopted to find the causal relationship among the factors and their degree of impact, and to calculate the priority of each of the influential factors, respectively³.

References

1. Lin MH. Bimonthly Magazine Adult Education 2004;78(2):2-9
2. Buzan T. The Mind Map Book. New York: Penguin Books; 1996
3. Chang SS. Fuzzy multi-criteria decision making for evaluation method. Taipei: Wunan; 2012

Keywords: communication & governance, ICT, population aging, network application service

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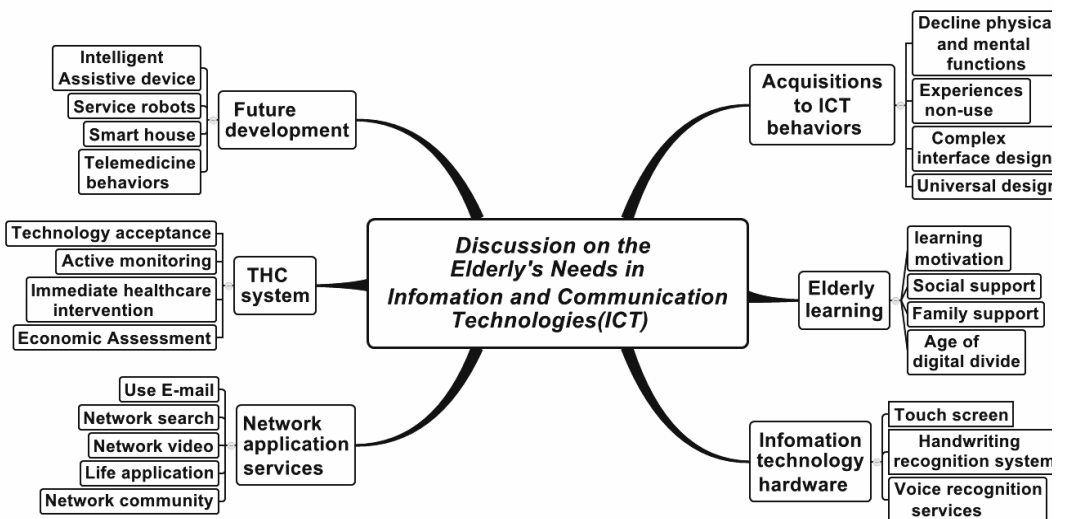


Figure1. Discussion on elderly's needs in ICT (Mind map)