On education

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J.E.M.H. van Bronswijk. On education (editorial). Gerontechnology 2008; 7(1):1-2. Gerontechnology may be variously described as a hypothesis, a philosophy, a movement, or an application-oriented field of study, but it always combines gerontology and technology, and has increased well-being of aging individuals as its measure of success. From the start it has also been developed as a higher-education teaching endeavour that stresses multidisciplinary aspects and the suitability for generalization of existing theories from the relevant monodisciplines. In a rising number of master classes for PhD students the theoretical and practical bases are made explicit.

Keywords: gerontechnology, application-oriented, impact, cross-fertilization

This is the 25th issue of Gerontechnology journal; time to look back. In 6 volumes or 24 issues, Gerontechnology as a quarterly journal brought 26 editorials, 10 reviews, 62 full papers (originals, keynotes of conferences), 48 short papers (shorties or student papers), 28 best practices, and 278 abstracts of international conferences. Interdisciplinary and multidisciplinary studies came along; but mainly case and pilot studies with few generalizations.

In content *gerontechnology is a combination* of gerontology, the interdisciplinary study of aging, and technology, the multidisciplinary study of design and engineering. We could well be 'trapped in the cage of interdisciplinarity' as was defined so clearly for gerontology. Daatland[1] observed that established (mono)disciplines and universities resist acceptance of interdisciplinary research, since theories as the corner stone of scientific development are discipline-specific by their nature.

What a wonderful world

Gerontechnology could be formulated as the hypothesis "Changing a person's (technical) environment from childhood on will have people live happily ever after". Fozard[2] summarized this in the lyrics of 'What a wonderful world' of Louis Armstrong. In the 15+ years that the problem area has been recognized[3] such a hypothesis was never formally tested. In his discussion of the development of gerontechnology, Pieper[4] calls this approach a philosophy, rather than a hypothesis. But if we cannot predict engineering effects on prolonging vitality, work ability and independence far beyond the age of 65 years, who will mass-individualize the results?

Gerontechnology can also be described as a viewpoint, or a movement[4]. The individual older person and his/her characteristics[5] is the measure in research and design. Success of environmental intervention from childhood to old age is assessed as the older person's prolonged pleasure, vitality, work ability and independence. In the end, aspirations and ambitions of older persons are the focus of functionalities and user interfaces, and the touchstone of gerontechnology's success. This application-oriented approach is basic to gerontechnology, and is a teacher viewpoint in higher education, the basic means to develop the professional cadre[2].

Towards Master Classes

Gerontechnology has been an educational issue from the wake of the gerontechnology movement. Funding of the European Commission was obtained for the development of a 3-year academic educational program. In GENIE (Gerontechnology Education Network in Europe)[6-8] 45 institutions of higher learning from 18 different European countries participated, but when European money ran out the project was abandoned. None of the participating universities or colleges continued the GENIE program as a formal BSc or MSc program. However, in the wake of the project a textbook was produced[9].

Next came 'Master Classes' with masters from both technology and gerontology, who targeted groups of young scientists, mostly PhD students. The special gerontechnology outlook is taught based on a cross-fertilization matrix indicative of methodologies and theoretical progress in useful concepts, theories and paradigms from the constituting monodisciplines, and an impact matrix of suitable products, services, and enabling environments[3]. Teaching is directed towards acquiring new insight and at theory concerning the realization of enabling technological environments for fulfilling ambitions and needs of aging individuals, stressing generalization from specific findings. The number of these classes is increasing with one in 2006 (Eindhoven, the Netherlands), two in 2007 (Nantou, Taiwan and Eindhoven, the Netherlands), and three planned for 2008 (May in Nantou, Taiwan; June in Volterra, Italy; November in Eindhoven). Gerontechnology is growing on the higher educational level. In a special issue on 'Gerontechnology Basics' to be completed by the end of this year, this approach should crystallize.

We may not yet be able to test the gerontechnology hypothesis on a long and happy life, but we advocate a theoretically founded view on research and design that -in the end- will make testing ever more possible.

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