User experience and critical success factor of implementing the intelligent bed in Denmark and China
by
Hao Cai

In 2007, the concept of welfare technology was introduced as a new discourse in Denmark by the Danish Board of Technology. Welfare technology is defined as technology that can help and assist users in their daily lives. Welfare technology is closely linked to Ambient Assisted Living (AAL) whereas AAL focuses on "addressing the needs of the aging population". Welfare technology addresses not only the elderly but also other users of public services such as chronic ill patients, handicapped, etc. The overall aim of this PhD study has two fold: Firstly, to evaluate the healthcare professionals’ user experience of implementing the intelligent bed in Denmark and China. Secondly, to identify critical success factors on translating welfare technology from Danish to a Chinese context. The concept of the intelligent bed is developed by a Danish company. The intelligent bed consists of a hospital bed combined with sensor technology to improve the comfort and use of the bed for users and healthcare professionals. The intelligent bed consist of functions like: light under the bed, out of bed sensor, moisture sensor, alarms for bed-rails and brakes, etc. Case studies were conducted in a nursing home in Soenderborg Municipality, Denmark and on a rehabilitation ward at a hospital in China.

In conclusion, critical success factors mentioned in the thesis are important for transformation of the intelligent bed from Denmark to China. The identification of the critical success factors is a valuable knowledge for future project management, Danish companies and municipalities in Denmark when performing transformation of welfare technology from Denmark to China.
To fulfill the requirements for the Ph.D. degree, Hao Cai has submitted the thesis: User experience and critical success factor of implementing the intelligent bed in Denmark and China, to the Faculty Council of Medicine at Aalborg University.

The Faculty Council has appointed the following adjudication committee to evaluate the thesis and the associated lecture:

**Professor Marie-Pierre Gagnon**  
Laval University  
Canada

**Professor Aksel Hagen Tjora**  
Norwegian University of Science and Technology  
Norway

**Chairman:**  
Associate Professor Ulrike Pielmeier  
Aalborg University  
Denmark

**Moderator:**  
Associate Professor Birthe Dinesen  
SMI, Aalborg University  
Denmark

The Ph.D. lecture is public and will take place on:

**Wednesday 6 July 2016 at 13:00**  
Aalborg University – Room D2-106  
Fredrik Bajers Vej 7 D2  
9220 Aalborg East

**Program for Ph.D. lecture on**

**Wednesday 6 July 2016**

by

**Hao Cai**

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Chairman:  
Associate Professor Ulrike Pielmeier

Moderator:  
Associate Professor Birthe Dinesen

13.00  
Opening by the Moderator

13.05  
PhD lecture by Hao Cai

13.50  
Break

14.00  
Questions and comments from the Committee  
Questions and comments from the audience at the Moderator’s discretion

16.00  
(No later than)  
Conclusion of the session by the Moderator

After the session a reception will be arranged