

VIRTUAL ROBOT AS A COACH FOR COGNITIVE STIMULATION THERAPY

GOAL: The goal of this assignment is to create interactive games for elderly in the domain of cognitive stimulation therapy (CST) using a virtual robot in Unity. In general, CST serves for keeping the elderly's mind fresh and slowing down their mental decline. The games can be from various disciplines, such as math, geography, Slovak, etc.

EXAMPLE: The following video shows an example of such a game in an elderly-care facility:

<https://www.youtube.com/watch?v=6OEPhJsCeUM>

REFERENCES:

- John E. Morley, Dulce M. Cruz-Oliver: "Cognitive Stimulation Therapy," Journal of the American Medical Directors Association, 2014.
- A. Tapus, A. M. Vieru: "Robot Cognitive Stimulation for the Elderly," International Work-Conference on the Interplay Between Natural and Artificial Computation, 2013.
- J. Broekens, M. Heerink, H. Rosendal: "Assistive Social Robots in Elderly Care: A Review," Gerontechnology, 2009.
- A. Sharkey, N. Sharkey: "Granny and the robots: Ethical Issues in Robot Care for the Elderly," Ethics and Information Technology, 2012.
- T. Shibata, K. Wada: "Robot Therapy: A New Approach for Mental Healthcare of the Elderly – A Mini-review," Gerontology, 2011.
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