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## Caregivers and old people - Digital platform for education and training

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The percentage of people over 60 years increased from 8.6% in 2000 to 10.8% at Brazilian population in 2010. In 78 cities of Brazil this portion of citizens already represents 20% of the total population. These health and social issues have increased concern of government health institutions regarding the care services and products development for this population in order to improve quality life and security. The purpose of this paper is to present a 3D digital interactive environment to improve education and training of caregivers in order to interact with them as a game to improve the daily care services tasks. The 3D interactive platform framework involved: first step - captured caregivers selected motions using 17 inertial sensors from XSENS Technology and Yei Technology inertial sensors; second step- 3D modeling and simulation - motion data are incorporated to virtual environment using biomechanical models in a game platform; third step - reports and descriptors. The conclusion are: the digital platform will assure more democratic visualization and improve available information for the stakeholders involved, as caregivers, designers, architects, health personnel's in the benefit of senior population The platform will also incorporate 1D anthropometric measurements database of the caregivers and old adults that can help designers and health care's personnel to improve design and care services.

### Biography

Dr. Carla Guimaraes has a bachelor's degree in Sports and Physical Education, a Masters in Biosciences of Physical Activity, and a Ph.D. in Production Engineering at Federal University of Rio de Janeiro (2002). She is a Senior Researcher at National Institute of Technology. She is now coordinating three projects involving Interactive 3D digital platforms for formation applied to caregivers, combat sports and Paralympics sports. Her areas of professional experience are in Human Factors and Ergonomics, 1D and 3D Anthropometry, Occupational biomechanics, Sports Biomechanics, Assistive Technology, Digital Human Modeling and Simulation.

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