P. WEBSTER. From cars to care: Providing context to the Internet-of-Things and how Industry 4.0 will revolutionise future healthcare. Gerontechnology 2018;17(Suppl):6s; https://doi.org/10.4017/gt.2018.17.s.006.00 The Internet of Things creates the promise of new paradigms for how people interact with technology, moving away from direct communication with specific computing devices and towards a ubiquitous way of working, whereby everyday activities themselves provide the user-interface. One critical element, often neglected from these discussions, is the importance of context, with one of the most powerful cues being the location of the specific interaction or sensor reading. While most people will be familiar with GPS, the Global Positioning System, this presentation will illustrate how other sensing technologies can provide significantly better location information, allowing the interactions between objects, or between people and objects, to become input events. The idea of Sentient Computing will be introduced; whereby a computer system uses one or more sensors to perceive the environment and allow it to react accordingly. Dr. Webster will then illustrate how such systems are creating the next industrial revolution, Industry 4.0, by improving process visibility and control for the manufacture of high-value goods. All of these tools and techniques can offer equally revolutionary benefits when applied to other application domains, including healthcare. Examples to be discussed will include the US Department of Veterans Affairs “Smart Home” project, where the sentient computing system provided an invisible assistant for people recovering from traumatic brain injury, and a second example where location data can itself become a diagnostic aid, unobtrusively measuring cognitive decline or providing an early warning of elevated fall risk in assisted living facility residents. Ultimately, however, this keynote speech will reveal how the true potential of these technologies will be realized when they migrate into our homes, allowing our future selves to live longer, healthier lives, watched over by a benevolent digital twin.