easterseals Crossroads

Internet of Things

Internet of Things (IoT): the inter-networking of physical devices, vehicles, buildings and other items embedded with electronics, software, sensors, actuators and network connectivity which enable these objects to collect and exchange data

Experts estimate the IoT will consist of about 30 billion objects by 2020. What needs to be considered to apply this network of smart devices to the more than one billion people who are living with a disability?

HOW IT IS HELPFUL

QUALITY OF LIFE

- For those users who are blind or have low vision, home automation applications allow for easy control of appliances and the home thermostat, all with the touch of a button on a smartphone.
- For those users with mobility-related disabilities, IoT-connected technology holds the promise of allowing the user to control things in his or her home that may be physically difficult to reach, such as lights, door locks or security systems.

INDEPENDENT LIVING

- For people who are deaf or hard of hearing, one benefit of IoT-connected technology is improved security. A deaf person might not be able to hear a break-in, but a smart security system can give alerts through the user's phone in the event of suspicious activity picked up by a sensor outside the home.
- For adult children or caregivers of older adults or persons with disabilities, IoT and smart technology allow remote monitoring, alerting the children or caregivers when a routine task is not performed.

THINGS TO CONSIDER

ACCESSIBILITY

- Establish simple and intuitive user interfaces, which are keys to success in the IoT space
- Ensure all players in the IoT ecosystem consider accessibility when developing new products and services
- Commit to upholding the principles of universal design, making IoT accessible to all people

BROADBAND ACCESS AND ADOPTION

- Connect all devices
- Improve adoption of wired and wireless broadband, especially by persons with disabilities and older adults, so more people can experience the benefits of these technological advances

STANDARDIZATION

- Create standards for how all products in IoT will communicate
- Comply with approved standards from IEEE Standards Association and other major international standards development organizations

PRIVACY

- Research and learn about what data will be collected about the user by a particular device or system
- Exercise choices about that collection, based on what the user does or does not want to be shared

SECURITY

- Be aware of security issues with the collection and storage of large amounts of personal data
- Stay educated and updated on IoT-related news and trends

SOURCES:
CMSWire
G3ict Publications & Reports
M-Enabling Summit