Existing practices regarding health care in relation to smart living spaces for older persons

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Products

HoneyCo
https://www.honeyco.com
Based in Nashville USA

HoneyCo delivers peace of mind to families concerned about a loved one living independently. The user-friendly software collects information from smart devices throughout the home to provide resident activity summaries, wellness trends, and proactive alerts so that you are prepared to take action should a concerning event arise.

In addition, with HoneyCo, gain insights into care visits to ensure your loved one is receiving the level of care they need and deserve. The mission is to improve the level of care and safety of aging adults. This is done by designing easy-to-use technology. Specifically, for the elder care industry and families of older adults. Aging in place can be safer and more comfortable with the help of these technology platforms.

These products check and report on professional care visits and daily in-home safety. With HoneyCo, home care providers and families can work together.

QORVO
Based in USA

The Senior Lifestyle System, developed by Qorvo® and Sensara®, is designed to help seniors feel safe and live independently at home. The system learns seniors’ everyday behavior patterns using unobtrusive wireless sensors located around the home, and detects changes in behavior that may cause concern. It then alerts family members and/or caregivers via messages. The system uniquely uses proven technology that has been successfully tested in residential care facilities for several years, and is now available to service providers, retailers, and smart-home system integrators for home installation. Qorvo’s wireless Internet of Things technology makes the system robust, virtually maintenance free, low cost and easy to install.

Senior behavior pattern recognition
When does Grandma get up in the morning, eat breakfast, or watch TV? When does she leave and come back? Within a few weeks, the application learns what is "normal" vs. unexpected and sends an alert when something is wrong or irregular.

Alerts on exceptions
When the system identifies irregular behavior or exceptional situations, it notifies family or caregivers via an alert on their smartphone or messages on social media platforms like WhatsApp or QQ. The system always keeps family members informed wherever they are.

**Long-term trends**
The Senior Lifestyle Service also provides information about longer-term behavioral trends, such as sleep patterns, eating less frequently or starting to move slower over time.

**Unobtrusive and respects privacy**
The system does not use cameras or require people to wear devices.

**Lively**
http://www.getmylively.com/
Based in USA

Lively is a new smart home system, which is specifically designed for senior citizens. It gives children the ability to monitor their parent’s every move in a less invasive manner. The system is capable of monitoring a wide array of products and items: televisions, pill bottles, doors, electricity usage, flood monitoring, stoves, etc.

**How it Work**
The Lively System includes several different components, such as a smart watch. The watch, which is worn by the elderly, is capable of monitoring their moves. It can also help to provide them with daily reminders. If they’re required to consume pills each and every day, the watch will ensure that they do so. For sensors, which can be placed almost anywhere, accelerometers are used. These devices are capable of determining, whether or not an item has been moved. If pill bottles have not been touched, you will receive a notification. This will give you the ability to visit your parent’s residence or place a call to the authorities. All of these activities can be monitored from your smart phone.

Lively allows: to customize what to watch (with the use of the sensors, you have total control over what exactly to monitor. If you’re worried about your mother and father using their oven, you can place a sensor on it. You can even place a sensor on their television, which will let you know, when they go to sleep at night), monitoring activities of daily living and monitoring blood pressure.

**Research papers**

**Medical and Home automation Sensor Networks for Senior Citizens Telehomecare**
https://hal.inria.fr/inria-00431096/PDF/Medical_and_Home_automation_Sensor_Networks_for_Senior_Citizens_Telehomecare.pdf

The research paper presents the research about a home Tele-healthcare system for the senior citizens. The system uses home automation sensors to detect activity level of the persons. It is equipped also with other technologies to monitor them and detect any abnormal state in their health.
situation, like as bed and chair sensors, a mini PC connected to a TV, medical sensors, a wireless camera network. The system detects health abnormalities at an early stage through the frequent monitoring of physiological data. The system is designed for the elderly patients who wish to spend their old age in their own home, because of its potentials to increase independence and quality of life for seniors who prefer to live in their own homes and to realize cost savings for the health care system. By using this system, MEDEITIC (www.medetic.com), a non-profit organization, offers a new concept of building smart homes by using telemedicine and home automation, named in French —Maisons Vill’Âgel. The first housing schemes are in building with implements of the system’s components.