WHAT DO YOU THINK ABOUT SMART TECHNOLOGIES IN YOUR HOME ?

Smart home technologies are largely present in our households. How exactly do these technologies work, how do they handle your data and what are the consequences for your privacy? Read it in this brAInfood, developed by the Knowledge Centre Data & Society with the help of the research group imec-MICT-UGent.

Do you want to know more about smart home technology, and how Flemings experience it? Read this study [in Dutch only] of imec-MICT-UGent and the Knowledge Centre Data & Society (publication date: February 2023).

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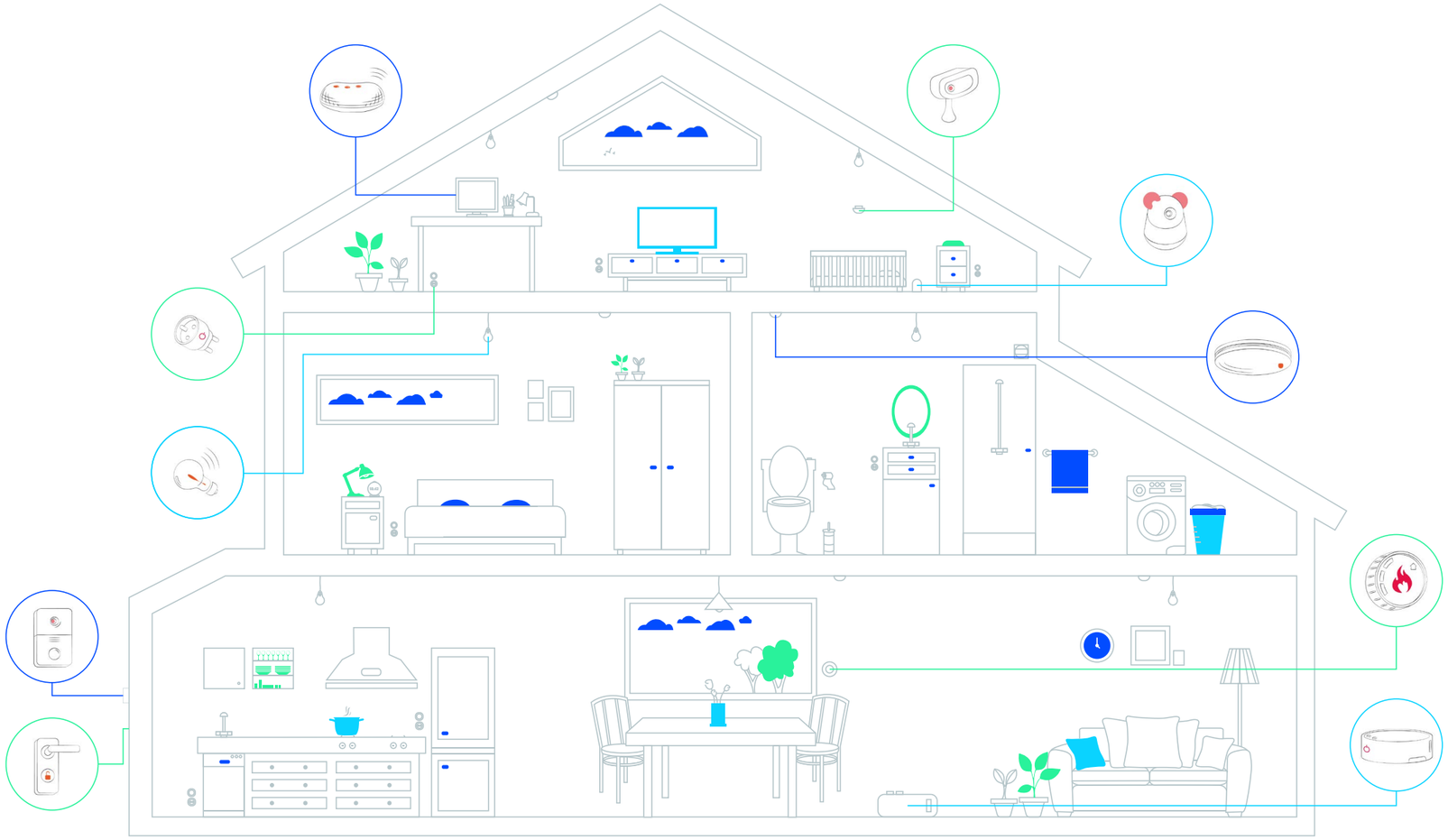

WHAT IS SMART HOME TECHNOLOGY?

Smart home technology makes certain aspects of your home '**smart**'. The technology is applied in many different smart home appliances, such as robotic hoovers, smart cameras, doorbells and speakers.

Smart home devices are often connected to the **internet** and can therefore communicate with each other. A smart home device is smart because it can **gather information** from its environment and **respond** to it. For example, by adding a voice assistant such as Siri or Google Assistant, a smart speaker can respond to the user's commands. Or smart heating switches itself off when nobody is present in the house.

Just over half of **Flemish people** own one or more smart home devices. Over the past few years, this number has grown steadily.

SMART HOME TECHNOLOGY & SURVEILLANCE

Smart home devices can collect a lot of information about us within our home context, an environment many of us would consider as private. We can look at the **privacy** of smart home devices on two levels, such as the

1. **volume and types of data** these smart devices collect about us and share with private companies. The security of the devices is also important here. A smart home device that is hacked could release unwanted information about users and their households, or
2. we can use these devices ourselves to collect **information about our family members or housemates** within our household.

1. YOUR DATA IS OUR DATA

When using smart home devices, data is exchanged between the device and its **manufacturer**. Insights derived from this data are used by the manufacturer, for example, to make product improvements. Depending on the **privacy settings** available and chosen, this data is collected, processed and even sold. For what **purposes** your data is used and with exactly which partners it is shared is often not easy to find out. The more intensive and obscure these **data processes** are, the less appropriate these processes are perceived by users.

Smart home devices are generally **less secure** than they appear. To keep the purchase price down, they use less sophisticated computer chips and/or there is limited software support for things as security updates. Also, in most cases, these devices come with **default passwords** that are not always changed to strong ones by the user. This often makes smart home devices a relatively easy entry point for **hackers** to enter your network and potentially steal and misuse personal data.

2. KEEP A WATCHFUL EYE

Smart home devices such as smart (security) cameras that can recognise people and objects indoors and outdoors, a smart doorbell that allows you to see who is at the door via your smartphone, or a smart speaker that you can operate hands-free, offer various possibilities to keep an eye on things (remotely). These products often have **additional uses** as well. For instance, a smart doorbell easily provides insight into when family members or housemates are coming home.

Parents who use smart home technology to keep a watchful eye on family members often do so with **good intentions**. Despite the fact that **parental monitoring** via technology is easily thought of as curiosity or mistrust, these are not necessarily the main motivations for parents. For example, many parents want to protect their children from others with bad intentions or want to have an overview of their children's activities. They therefore see the deployment of smarthome technology as a **tool** in contemporary parenting. An example could be parents using a smart doorbell to remotely see when their children are coming home, as well as giving directions in case someone rings the doorbell while they themselves are not at home.

PRIVACY, MONITORING & DIALOGUE

Many users of smart home devices indicate that they consider privacy important, but are not sufficiently aware of exactly what data is being collected, processed and sold. However, these users do indicate a need for a **transparent and clear way** to inform themselves about the (data) use of their smart home device(s).

Users would like **more control** over setting their own (privacy) requirements. In addition, today only a minority of parents in Flanders uses smart home technology to keep an eye on their children.

However, research shows that there is a fairly high intention among Flemish parents to use smart home technology to watch over their children. Combined with the growing adoption of smart home technology in Flanders, it is important to think about the **impact** that this use of smart home technology can have on children. It is therefore recommended to make proper arrangements around the use of these functionalities **in consultation with children**.

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