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# The 5 Biggest Smart Home Trends In 2020



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Smart homes are the domestic face of the Internet of Things (IoT). In recent years we've become increasingly used to connecting everyday devices in our homes to the internet and to each other to make the places we live more comfortable, economical, entertaining, and safe.



The 5 Biggest Smart Home Trends In 2020 ADOBE STOCK

This trend is certainly set to continue into the next decade – research states that the value of the smart home device market is set to grow from \$55 billion in 2016 to \$174 billion by 2025. In other words, what we see today in terms of connected, smart home appliances and applications is just the tip of the iceberg.

As the technology underpinning this revolution in how we live continues to get faster and more powerful, we can expect home automation and artificial intelligence to offer domestic help in new and innovative ways. Here are some of the highlights of what we can expect to see during 2020:

#### **Increasing standardization**

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One of the headaches of putting together a smart home is undoubtedly the competing range of platforms and standards. Increasingly, manufacturers of smart home devices need to ensure their products and services will work on platforms provided by Amazon, Google, Samsung, and Apple to capture the broadest customer base. And consumers themselves face the danger of finding themselves "tied in" to a particular network provider – which can often limit the options available if a particular tool or device they need won't play nicely with their favorite platform. There's also the annoyance of needing to use a whole load of different apps to set up and control all of the different devices from different manufacturers in your smart home.

Relying on a mish-mash of different solutions can also cause security vulnerabilities - so it's encouraging to see plans from Apple, Google, and Amazon to team up to create a set of standards designed to make smart homes simpler and, importantly, more secure. Moves like this one designed to make it easier to develop and sell solutions that will work with the many

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available smart home systems will become increasingly common in the next decade.

#### Smart homes actually become smart, thanks to machine learning

The term "smart" gets misused a fair amount when it comes to home technology. Lights that can be programmed from your phone, automated window blinds, and video doorbells are all very nice and can make our homes more comfortable or safe. But home appliances don't automatically become "smart" just because they are plugged into the internet - a better term for much of the technology we've seen so far is "connected home."

That's set to change over the next decade, as more and more devices begin to make use of machine learning, computer vision, natural language processing, and other technologies that actually are capable of thinking, making decisions, and learning.

Sure, some devices do this already – smart thermostat systems from Nest and Honeywell use machine learning to adapt their behavior to the inhabitants of a house, based on observing and then replicating their habits. This year we can expect to see more AI-driven technology such as facial recognition becoming a feature of home security systems. We will also see more refrigerators that use computer vision to "see" what's inside, and machine learning algorithms to predict what you need to order in – and then making the order themselves.

#### **Robots in the home**

This trend started with robotic vacuum cleaners and lawnmowers. But thanks to advances in artificial intelligence, we can expect to see them becoming increasingly smart and capable of helping us with an expanding range of tasks.

From cooking and cleaning to providing companionship and healthcare, all manner of use cases are being explored for robots such as LG's CLOi and

# Trifo's Lucy.

Domestic robots promise a future where day-to-day tasks can be carried out by machines, freeing us to spend our valuable time on things other than chores and routine maintenance. For the elderly and disabled, they will also act as a reassuring pair of extra eyes, able to call for help if they sense that someone has fallen, or assist with mobility around the home.

While we probably won't see fully humanoid robotic butlers in most homes for some time, during 2020, autonomous, mobile robots will undoubtedly become more common, useful, and cheaper, as a number of manufacturers compete to develop the most helpful and marketable products.

### In-home healthcare gets smarter

In-home smart healthcare offers the potential to reduce some of the stress put on traditional healthcare channels – doctors and hospitals – that is inevitably caused by increasing life expectancy and a growing elderly population.

Some of this will be achieved by preventative measures – such as wearables that help us to lead a healthier lifestyle by monitoring our activity levels, quality of sleep, and nutrition. Other devices will offer interventionist services, for example, allowing us to remotely connect with medical practitioners, alert carers when an elderly person falls in their home, or even diagnose illnesses using AI.

Apple's current Watch can carry out an electrocardiogram (ECG) to monitor for patterns or irregularity in heartbeats that could be early warning signs of illness. This type of technology will become increasingly commonplace over the next year (and beyond), reducing the need for outpatient appointments. Data collected by smart home devices in the home will become increasingly useful in the medical field, due to the fact that it can offer 24/7 insights into

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the condition of patients in their "natural habitat," away from the stresses of clinics and hospitals.

## Faster networks mean smarter homes

With the global rollout of 5G as well as improved WiFi technology such as WiFi 6, smart home devices will be linked by faster, more powerful networks, meaning better access to data and processing resources in the cloud.

5G, in particular, promises to revolutionize the delivery of IoT services – including smart home technology – as it allows devices to work free of wires and cables while consuming a minimal amount of power. It also allows for far more devices to be connected simultaneously that was possible using older mobile network standards. This will be an essential factor as homes in densely populated areas continue to be filled with a growing number of devices, all hungry for data bandwidth. Similarly, WiFi 6 offers advantages over previous standards when it comes to enabling devices to handle competing requests for network access (an issue many of us will have experienced even if we only routinely connect a few smartphones, tablets, and laptops to our home networks at the same time.)

Faster networks don't simply mean a quicker transfer of data between devices, or between devices and the cloud. It also means increasingly sophisticated applications, utilizing bigger, faster data streams, become a possibility. Devices such as smart thermostats and automated security systems will have access to more varied and up-to-date information with which to make the predictions their usefulness is built around. This will make them increasingly reliable and efficient during 2020.

You might also want to have a look at my recent conversation with wearables expert Joao Bocas, in which we explore the key wearables trends:

