



Ambient Intelligence

Enveloped by Ambient Intelligence

Today's smart devices are only the beginning. When everything around us is instrumented, interconnected, and intelligent, we will move through a world of subtle but ubiquitous connectivity. Our surroundings will react to our voices, gestures, and presence – and respond automatically, proactively, almost intuitively.

All Around Us, Always On

Smart rings, smart contact lenses, and other wearables will be essential to creating an interactive world.

Sharing data and intelligence among smart appliances, switches, and devices will make homes, offices, and other locations safer, more comfortable, and more efficient.

Sensors, devices, and AI will enable us to knit commands, gestures, and environmental cues into intricate, interconnected sets of actions that we can execute with a single phrase or a wave of a finger.

The Self-Adapting Environment

Researchers have developed modular building blocks that can be programmed to change shapes at room scale and conductive inks that can be stenciled on anything to create sensor-embedded displays.

Linking these to AI could someday allow rooms or entire buildings to reconfigure themselves on a schedule, on command, or in response to events.

The Path to Ambient Connection

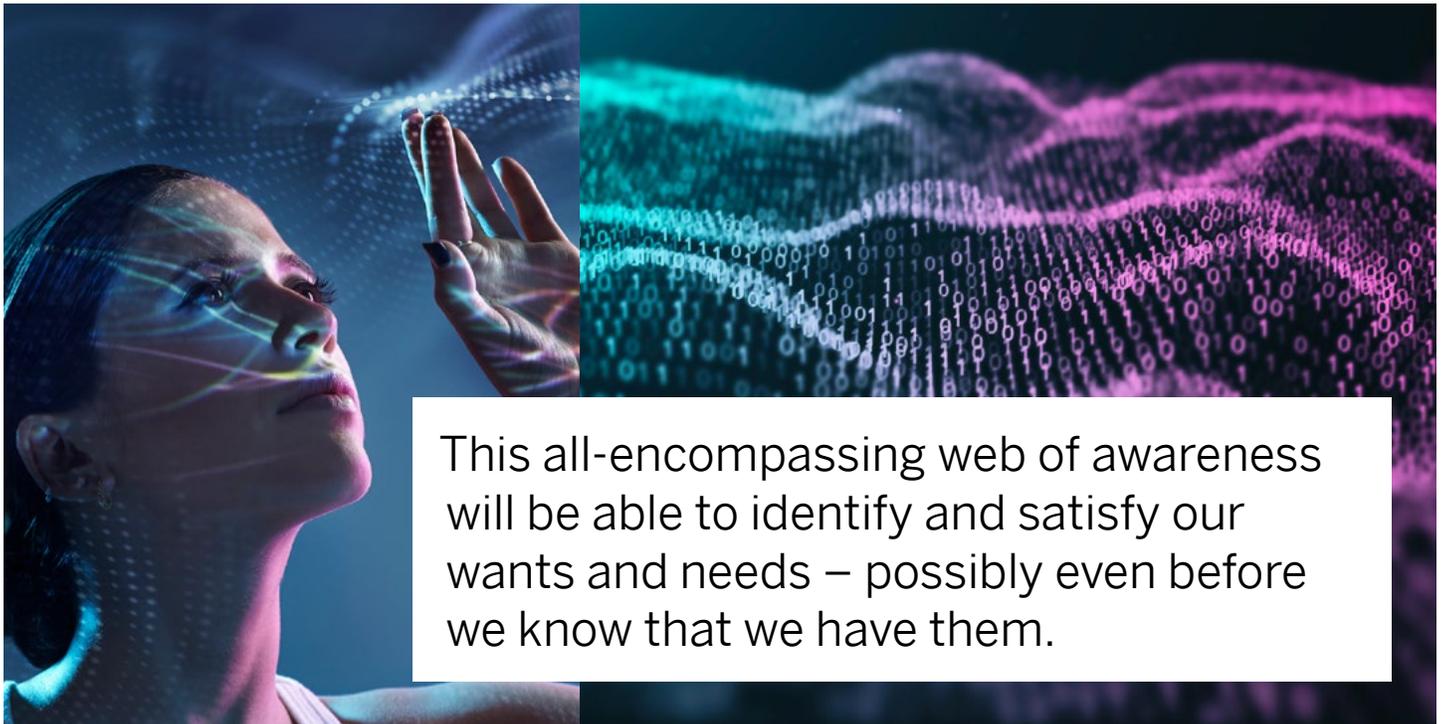
To create real-time interactions, ambient intelligence will require massive bandwidth so that devices can stream data to number-crunching servers, receive the results, and act on them almost instantly.

The next generations of cellular broadband and Wi-Fi will help solve this problem with much faster connectivity while supporting more devices with less power consumption.

Smart home devices and digital assistants will need common standards in order to work together smoothly even as vendors jockey for position in an increasingly crowded market.

The more data ambient intelligence gathers, the more it will infer about our wants and needs at any given moment. Privacy and security protections must ensure that our data will only be used in our best interests.

 [Read More in *Ambient Intelligence When Computing is All Around You*](#)



This all-encompassing web of awareness will be able to identify and satisfy our wants and needs – possibly even before we know that we have them.