

How to become part of the future of the Internet of Things

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The “Wild West” of Innovation is Hotter Than Ever

While working as a general partner at **Kleiner Perkins Caufield & Byers**, [Trae Vassallo](#) became fascinated by the marriage of everyday household objects with network connectivity, a phenomenon known as the Internet of Things. One of the successful ventures she funded, Dropcam, allowed people to keep tabs on their children and pets at home through Wi-Fi video-streaming cameras. Another new company, Nest Labs, promised to change the world through its sensor-driven, Wi-Fi-enabled thermostats.

Today **Vassallo**, after working for 12 years at **Kleiner Perkins**, is an independent investor, those two startups are parts of **Google**, and the Internet of Things is hotter than ever. “It is the next frontier of **innovation**,” says **Vassallo**, a former **IDEO** product developer who earned her master’s degrees in business administration and mechanical engineering from **Stanford**. “The Internet of Things is the next new platform area: post the iPhone, the smartphone, and the tablet ecosystem.”

Following a May 1 symposium sponsored by the [Center for Entrepreneurial Studies](#) at **Stanford** Graduate School of Business, **Vassallo** discussed how to be part of the future of the Internet of Things.

Reinvent Old Models

People have been trying to connect their environments to the internet since it was created, **Vassallo** says. The difference today is in the hardware. Smartphone technology is now so cheap, and sensor technology so good, that smart devices can understand the context in which they operate, and then take action that makes people’s lives better. “Dropcam is a great

example of this,” **Vassallo** says. The device allows people to catch robberies in action, or watch from across the country while their kids take their first steps. “It provides great new functionality, yet it fits very easily into this old paradigm of home security and wanting to keep an eye on things.”

Package It with the Customer in Mind

While many network-connected devices are tricky to install and use, these products are becoming increasingly user-friendly. Nest thermostats, for example, were **designed** by engineers who worked on the **Apple** iPhone. “The key is making sure that you not only have the right technology, but you have it packaged in the right way. It has to be easy for a customer to see the value, and then ultimately deploy it.”

Keep It Simple

“I really look for products and services that use sensors to understand context and do something on behalf of the customer that ultimately makes decisions faster, easier, and improves things in some way,” she says.

Nest thermostats, for example, are essentially smartphones that manage household temperatures. Their sensors determine whether the occupants are home, and the house’s heating or air conditioning systems adjust accordingly. “It’s not adding complexity; it’s actually simplifying your life,” **Vassallo** says

Does It Save Money?

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- Trae Vassallo

Vassallo has invested in a company called Enlighted, a startup that is essentially a Nest for commercial buildings. “They put a sensor in every light in the building, and these sensors allow them to control energy use based on occupancy,” she says. In addition to making the office environment better for workers, the sensors can save companies a lot of money — 50 to 70 % on lighting costs alone. “The environmental implications are massive.”

Having the Right People Matters

Companies that want to get involved in the Internet of Things need employees with a wide variety of expertise, **Vassallo** says. “What I look for is a lot of passion in the founder,” **Vassallo** says, “and someone who’s able to recruit great people.”

There’s Still a Long Way to Go

In Silicon Valley, waves of **innovation** usually start with hardware improvements, followed by a long period of software development. For these internet-connected devices, the basic hardware platforms still are in their infancy. Engineers are still trying to figure out basic communications standards to allow smart household objects to communicate more seamlessly with the internet

and each other.

As **Vassallo** puts it, “Right now, it is early and we are still in the Wild West.”

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