

Revolution in Progress: The Networked Economy

No question about it: The Networked Economy is the next economic revolution. In the coming years, it will offer unprecedented opportunities for businesses and improve the lives of billions worldwide.

In fact, the revolution is already under way.

“Over the last few decades, we’ve grown beyond the industrial economy to the IT economy and the Internet economy, each of which led to significant inflection points in growth and prosperity,” says Vivek Bapat, SAP’s global vice president for portfolio and strategic marketing. “Now we’re looking at the Networked Economy.” This new economy, resulting from a convergence of the economies that came before it and catalyzed by a new era of hyperconnectivity, is creating spectacular new opportunities for innovation.

And, like any revolution, the Networked Economy is going to be big. Very big.

“Over the next 10 to 15 years, it has the potential to double the size of the gross world product,” Bapat says. SAP estimates that the Networked Economy will represent an economic value of at least \$90 trillion.

Three Questions — and Answers — About the Networked Economy

What exactly is the Networked Economy?

It’s an emerging type of economic environment arising from the digitization of fast-growing, multilayered, highly interactive, real-time connections among people, devices, and businesses.

What’s driving the Networked Economy?

Over the past decade, the world has seen significant changes in how people and businesses connect to each other. Social networks let billions of people collaborate in a variety of ways. Meanwhile, business networks have enabled new types of frictionless commerce. Now these two trends are converging, catalyzed by the exponential increase in the network of devices connected via the Internet of Things (IoT). In fact, Gartner projects that the number of connected devices in the IoT will increase nearly 30-fold in just over a decade, growing from about 900 million connected devices in 2009 to more than 26 billion by 2020.

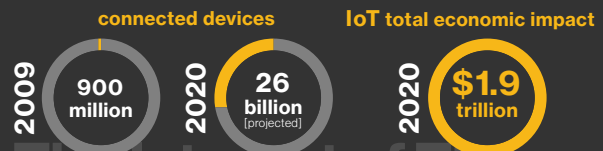
“The numbers of people-to-people connections — business networks, social networks — they’ve all been growing over the past 10 years,” says Dinesh Sharma, SAP’s vice president of marketing for the Internet of Things. “Now businesses, processes, data, and things — everything — can be connected in a network. That is transforming everything.”

What must businesses do to thrive in the Networked Economy?

First, they must understand that their customers, employees, and business partners expect them to be mobile, social, always on, and continually connected. (Those who aren’t yet thinking about that requirement should keep in mind that their competitors are already

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Source: Gartner Inc.

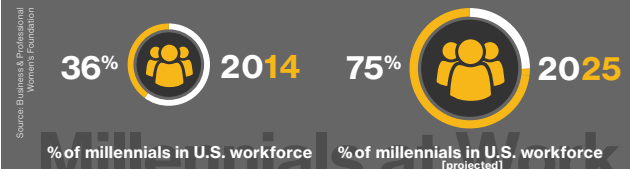
“Personalization of the **customer experience** in almost every field can become the norm.”



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Vivek Bapat, SAP



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addressing it.) But while social, mobile and cloud computing helped set the groundwork for the Networked Economy, it's important for businesses to understand that this revolutionary economic environment goes far beyond those technologies, creating unprecedented new opportunities for collaboration and customization.

Equally important: Businesses must embrace and fully engage in both internal and external business networks. "We believe that revolutionary, disruptive business models are now possible with these real-time, digital connections across people, businesses, and devices," Bapat says. Pioneering companies that have leveraged such networks to create new business models include **Airbnb**, the pioneering lodging-rental service; **Google Waze**, an app allowing drivers to share local real-time traffic and road information; and **Uber**, a mobile app that connects people seeking taxicabs or ridesharing services.

Businesses should also recognize, and take advantage of, one of the biggest and most immediate changes of the Networked Economy: the convergence of business and consumer networks. "They used to be entirely separate," Bapat says. "Now we're seeing a dissolving of those types of boundaries."

For example: A business looking to purchase, say, a particular machine part can now turn to the ultimate consumer marketplace — eBay. "A company traditionally had its own limited B2B network of suppliers," Bapat explains. "Now technology can easily extend a search via a consumer network like eBay. That dramatically increases the number of choices available and creates new opportunities for savings."

Three Pillars of the Networked Economy

SAP has identified three main areas where the Networked Economy is having, or soon will have, the most impact. They are:

- **Earning Customer Loyalty**
- **Enabling Open Innovation**
- **Enhancing Resource Optimization**

1. EARNING CUSTOMER LOYALTY

The Networked Economy is already helping companies provide better, more personalized customer experiences. But there's much more opportunity on the near horizon. For example, Bapat says, a "smart" vending machine could recognize you and provide beverage choices based on its knowledge of your preferences: a diet cola with lime, a classic root beer, unsweetened iced tea, spring water, or a favorite sports drink. Such customized delivery capability opens up all kinds of bundling and promotional opportunities. And the information is tied directly back to the company's supply chain, enabling more precise fulfillment and logistics based on real-time purchases.

That's just one example of how businesses can provide the kind of customized service that will earn their customers' loyalty. Over the next decade, the world will see similar innovations in just about every industry, Bapat says. "In the Networked Economy, personalization of experience in almost every field, from retail to medicine, will become the norm."

2. ENABLING OPEN INNOVATION

The Networked Economy will create entirely new ways of working. "It will change the contract between employers and workers that's been in place for decades, if not centuries," Bapat says. "The whole idea of

employees and their relationship to business will be reimaged."

In some ways, that's already happening, thanks to the "millennial" generation's impact on work life. Millennials — people born between the early 1980s and the early 2000s, now in their teens, 20s, and early 30s — are quickly replacing the older "Baby Boomer" generation in the workplace. Today, millennials make up 36 percent of the U.S. workforce; by 2025, they'll account for 75 percent.

As the first generation of digital natives — people who have never known the world without computers and the Internet — millennials are natural networkers. They're completely at home in highly connected, collaborative spaces like those underlying the Networked Economy. In fact, they thrive there. That's a reality that businesses must embrace to attract the best employees and leverage their talents to fuel true innovation.

In addition, the Networked Economy relies on what SAP's experts describe as a new currency based on knowledge, not on geographical proximity. "This notion that you need to live near where you work may no longer apply," Bapat says. "Companies are increasingly able to source knowledge from anywhere that it might happen to be and at any time." Put another way, he says: "Work is no longer a place, but an activity." Adapting quickly to that sea change will also help businesses foster innovation and, ultimately, gain competitive advantage.

3. ENHANCING RESOURCE OPTIMIZATION

The Networked Economy will make it possible for businesses to use all kinds of resources more efficiently — enough, SAP's experts believe, to move from a world of scarcity to one of abundance.

"There is hidden capacity all around us," Sharma notes. "We don't always need to make more things — we just need to be able to tap the capacity that we already have. The Networked Economy is going to allow us to do just that."

If there's one area where resource optimization is needed more urgently than any other, it's agriculture. Projections call for the Earth's population to exceed nine billion by 2050, up by about two billion from today. Feeding all those people will require increasing food production by 70 percent, according to the United Nations Food and Agriculture Organization. But, of course, the world is running out of new land for farming. The solution, Sharma says: "Precision agriculture will allow us to optimize resources so that it should be possible to deliver 70 percent more food on the land we have today."

The Port of Hamburg offers one ongoing example of enhanced resource optimization in action. The German port, among northern Europe's busiest, wanted to boost its shipping business, but it had no room for physical expansion. So port officials explored ways to become more efficient in their existing space. In 2011, with SAP's help, the port developed a cloud-based system to better coordinate both land-side and port-side traffic based on a steady stream of incoming data.

The result: "The whole supply chain works much more efficiently," Sharma says. The port, which handled nine million containers in 2012, is on track to move 25 million by 2025 — all without growing its physical footprint.

"Hyperconnectivity is allowing them to get more out of what they already have," Sharma concludes. "The capacity is here today. The Networked Economy is the key to unlocking it."



The Networked Economy: Meeting the Challenges

As with any revolution, the shift to the Networked Economy comes with a whole new set of questions that must be answered. The big-picture ones involve the networked information itself.

“The Networked Economy hinges on information, whether it’s inside a business or resulting from a transaction or coming from a person,” Bapat says. “The questions are: Who owns that information? How is that information shared? Is it private? Is it secure? Intellectual property, privacy, security — those are some of the friction points in terms of growth.”

For existing business models, the immediate challenges include preparing for the new workforce and identifying exactly which projects for improving customer experiences or optimizing capacity are most likely to yield the fastest return on investment. Bapat’s advice for where to start: “Look for areas of quick wins — such as supply-chain, procurement, or asset utilization — that may not even be noticeable to customers at first, but that will bring gains in efficiency and drive cost reduction.”

The potential benefits of the Network Economy far outweigh any growing pains that accompany it. Bapat sums it up this way: “We believe that this is a huge inflection point, one that businesses must prepare for now. The opportunities for both efficiency and growth are tremendous.”

As the business world continues to evolve, and technology becomes an increasingly integral part of it, we feel it’s important to continually consider the opportunities and challenges that direct our decisions, both professional and personal. It is in that spirit that SAP conducts these Conversations on the Future of Business.

The answers we offer in this report are meant to reflect the insights of an insightful, influential global community. We are thankful that the readership of MIT Technology Review contributed such thoughtful responses. And we hope that this brief synopsis of their answers serves as a catalyst for further discussion.

Please visit the [The Networked Economy](#) site to continue the conversations.

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