THE FUTURIST Magazine Releases Its Top 10 Forecasts for 2013 and Beyond

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Each year since 1985, the editors of THE FUTURIST have selected the most thoughtprovoking ideas and forecasts appearing in the magazine to go into our annual Outlook report. Over the years, Outlook has spotlighted the emergence of such epochal developments as the Internet, virtual reality, the 2008 financial crisis and the end of the Cold War. But these forecasts are meant as conversation starters, not absolute predictions about the future. We hope that this report--covering developments in business and economics, demography, energy, the environment, health and medicine, resources, society and values, and technology--inspires you to tackle the challenges, and seize the opportunities, of the coming decade.

With no further ado, THE FUTURIST Magazine releases its top ten forecasts for 2013 and beyond.

1. Neuroscientists may soon be able to predict what you'll do before you do it.

The intention to do something, such as grasp a cup, produces blood flow to specific areas of the brain, so studying blood-flow patterns through neuroimaging could give researchers a better idea of what people have in mind. One potential application is improved prosthetic devices that respond to signals from the brain more like actual limbs do, according to researchers at the University of Western Ontario.

2. Future cars will become producers of power rather than merely consumers.

A scheme envisioned at the Technology University of Delft would use fuel cells of parked electric vehicles to convert biogas or hydrogen into more electricity. And the owners would be paid for the energy their vehicles produce.

3. An aquaponic recycling system in every kitchen?

Future "farmers" may consist of householders recycling their food waste in their own aquariums. An aquaponic system being developed by SUNY ecological engineers would use leftover foods to feed a tank of tilapia or other fish, and then the fish waste would be used for growing vegetables. The goal is to reduce food waste and lower the cost of raising fish.

4. The economy may become increasingly jobless, but there will be plenty of Work

Many recently lost jobs may never come back. Rather than worry about unemployment, however, tomorrow's workers will focus on developing a variety of skills that could keep them working productively and continuously, whether they have jobs or not. It'll be about finding out what other people need done, and doing it, suggests financial advisor James H. Lee.

5. The next space age will launch after 2020, driven by competition and "adventure capitalists."

While the U.S. space shuttle program is put to rest, entrepreneurs like Paul Allen, Elon Musk, Richard Branson, and Jeff Bezos are planning commercial launches to access low-Earth orbit and to ferry passengers to transcontinental destinations within hours. Challenges include perfecting new technologies, developing global operations, building new infrastructure, and gaining regulatory approval..

6. The "cloud" will become more intelligent, not just a place to store data.

Cloud intelligence will evolve into becoming an active resource in our daily lives, providing analysis and contextual advice. Virtual agents could, for example, design your family's weekly menu based on everyone's health profiles, fitness goals, and taste preferences, predict futurist consultants Chris Carbone and Kristin Nauth.

7. Corporate reputations will be even more important to maintain, due to the transparency that will come with augmented reality.

In a "Rateocracy" as envisioned by management consultant Robert Moran, organizations' reputations are quantified, and data could be included in geographically based information systems. You might choose one restaurant over another when your mobile augmented-reality app flashes warnings about healthdepartment citations or poor customer reviews.

8. Robots will become gentler caregivers in the next 10 years.

Lifting and transferring frail patients may be easier for robots than for human caregivers, but their strong arms typically lack sensitivity. Japanese researchers are improving the functionality of the RIBA II (Robot for Interactive Body Assistance), lining its arms and chest with sensors so it can lift its patients more gently.

9. We'll harness noise vibrations and other "junk" energy from the environment to power our gadgets.

Researchers at Georgia Tech are developing techniques for converting ambient microwave energy into DC power, which could be used for small devices like wireless sensors. And University of Buffalo physicist Surajit Sen is studying ways to use vibrations produced on roads and airport runways as energy sources.

10. A handheld "breathalyzer" will offer early detection of infections microbes and even chemical attacks.

The Single Breath Disease Diagnostics Breathalyzer under development at Stony Brook University would use sensor chips coated with nanowires to detect chemical compounds that may indicate the presence of diseases or infectious microbes. In the future, a handheld device could let you detect a range of risks, from lung cancer to anthrax exposure. All of these forecasts plus dozens more were included in Outlook 2013, which scanned the best writing and research from THE FUTURIST magazine over the course of the previous year.

Patrick Tucker is deputy editor of THE FUTURIST and director of communications for the World Future Society. He's writing a book for Current, Penguin's new science imprint, on big data and prediction.