# Five Innovations Expected for the Next Five Years

Difficulty:

DIFFICULT

Date of release:

Tuesday 24th January 2012

## *Discussion activities to be done after completing this EA lesson*

Today's report was about technological innovations predicted to appear in the next five years. Who has made these predictions? What are they? Will they be useful?

## *Extension discussion topics*

### A. Talking about and going over the specific topic / idea / issue in listening text

*Introduction = What are the five expected innovations? Are they all really technological inventions?*

1. What are the five expected innovations?

   - Micro-electronic generation (e.g. charging a battery with energy from walking). The technology exists but needs to be generalized.
   - Biometrics (e.g. accessing e-mail without a password). The technology exists but needs to be generalized.
   - Personal habit learning device (e.g. automatic deletion of junk mail). The technology exists but needs to be improved and generalized.
   - Telepathic control of electronic devices. Neuroscience discoveries have been made but there is a long way to go before applications become available.
   - Elimination of the "digital divide". Not really one single technological invention, rather the continuation of a trend that has already started.

2. Who made the predictions? In what context? For what purpose?

   - IBM, the American technology company.
   - Every year it publishes its "Five-in-Five" list of predictions for the coming five years.
   - Apart from its interest value to the general public, and the popularization of the IBM name, IBM sees it as a way of encouraging researchers in their innovative work.

3. Have this organization's predictions always been fulfilled?

   - Not always. IBM's track record of predictions (...) has been mixed. Some predictions are still not reality.
   - In 2006, IBM researchers predicted that, by now, there would be a 3D Internet.
   - However some of their predictions have become reality ahead of time - example of city buildings which "sense and respond" to their environment. Just three years after the prediction, such a system is in operation in a New York art museum.

## B. Expanding on (one of) the topics / ideas / issues in listening text

*Topic = Of paper clips and soccer balls, and the usefulness of the predicted innovations.*

1. Take a quick look at the English Addicts lesson from 22 November 2011 "A soccer ball that gives you energy". (To find it just type "soccer" in the search window of the English Addicts site). To which of the five categories of innovations does this invention belong?

   - Micro-electronic generation. So the technology already exists.

2. Do you remember the Microsoft paper clip? What was it? Find out about it at http://uncyclopedia.wikia.com/wiki/Microsoft_Word_Paperclip What happened to it?
   To which of the five categories of innovations does this invention belong?

   - It was a personal habit learning device. The technology exists but needs to be improved!

3. Rank in order of usefulness the 5 categories of innovation in the "Five-in-Five" list. Compare your ranking with that of a partner or your teacher. Be prepared to justify your ranking.

4. Apart from those mentioned in the report, can you think of other applications or advantages for each innovation? Which categories of people could particularly benefit? Exchange your ideas with a partner or your teacher. *(Note to teacher: if this is too time-consuming, distribute the innovations so that each student works on just one or two innovations)*.

## C. Extending discussion of (one of) the topics / ideas / issues in listening text

*Topic = Predictions in Science Fiction.*

1. What literary works of science fiction do you know that make predictions about the future? Describe one to your partner or to your teacher. Do you know of any predictions in science fiction that have become true? One of the first popular science fiction writers was H.G. Wells. Research the plot of either "The War of the Worlds" or "The Time Machine" and swap summaries with a partner who has researched the other one.

   - One prediction that has become reality is in the books of Isaac Asimov in his "Robots" series (see the English Addicts lesson "Soft-Bodied Robots" from Tuesday 17 January 2012).

2. Science fiction films in the cinema often make predictions about the future. What predictions were made in "Mad Max" (G. Miller, 1979), "Blade Runner" (Ridley Scott, 1982), "Jurassic Park" (S. Spielberg, 1993), "Minority Report" (S. Spielberg, 2002) and "Avatar" (J. Cameron, 2009)? Recount the story of a film in this list that you have seen.

   - In order of appearance, the predictions were...
   - The breakdown of law and order.
   - Androids (robots) who start to have feelings and think independently.
   - The reconstitution of extinct prehistoric animals from traces of their DNA.
   - The intrusive use of mind reading (telepathy) to prevent crime.
   - Mineral extraction on other planets and the ability to inhabit other life forms while retaining one's own personality.

## *Audioscript*

As IBM begins its second century, the American technology company is releasing its sixth annual Five-in-Five. That's a list of five innovations the firm expects we'll see within five years.

One of them will enable us to generate small amounts of energy to supplement the electric power we use in our homes.
“You can do micro-electronic generation.”

Bernie Meyerson is vice president of Innovation at IBM.
“For instance, you can have somebody in the third world who has access to a phone or a smart phone, but doesn't have access to the power grid, which is a very common thing and literally in a shoe has something that recovers energy from walking and can charge a battery to enable that person to actually become connected with the rest of the world.”

Another innovation will make those hard-to-remember passwords obsolete. Soon, in order to access our e-mail or bank account, we'll use a technology known as biometrics.
“Imagine that things recognize you. You walk up to an ATM. (It) takes one look, says, 'Yep, you're you.'”

Within five years, we will no longer be inundated with junk mail. Meyerson says a new electronic device will delete it before we ever see it.
“The device, as you act upon it, as you eliminate mail, you don't read it, you just look at it and kill it. After a while it learns your habits and works for you as your assistant by eliminating stuff you never wanted anyway.”

IBM also sees us controlling many of our electronic devices telepathically.
“(A) simple ability to command a system to do something for you without actually doing or saying anything, literally thinking and having something happen, as a result, that's accurate. Something with really deep capability so that a person, for instance, a quadriplegic, a paraplegic, can actually utilize brain waves to make things happen and basically run their own lives independently.”

The fifth innovation on IBM's list, Meyerson says, is the elimination of the so-called “digital divide.”
“Think about the digital divide today, the haves and have nots, people who are and are not connected. We anticipate within five years, better than 80 percent coverage of the world's populations by cellular and smart phones. At that point, imagine having, for instance, the ability to speak openly with anybody anywhere, anytime and in any language, real-time translation - literally the old Star Trek idea of the universal translator coming to be, and how the world would change if there was that kind of communication and openness.”

IBM's track record of predictions over the past five years has been mixed. Some predictions are still not reality. In 2006, for example, IBM researchers predicted that, by now, there would be a 3D Internet.

But, in 2009, they predicted city buildings would “sense and respond” like living organisms. Just three years later, that future is here. At a New York art museum, sensors are detecting subtle fluctuations in temperature, humidity, air flow and light levels, and adjusting the building's environment to help preserve the works of art.

What's important about the Five-in-Five list, says IBM's Bernie Meyerson, is it encourages the researchers who are working to turn as much of their innovative imagination as possible into practical realities.

For writer Faiza Elmasry, I'm Faith Lapidus, VOA News, Washington.