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Researchers and filmmakers imagine Year 2050

“In a world where scientists plot science fiction...”



What can filmmakers—those creators of our favorite science fiction and suspense—tell us about the future? And what are science and technology doing to make it a reality?

To begin a collaboration between the University of Southern California's School of Cinematic Arts and IBM, some of IBM's leading researchers met recently with USC students, faculty, alumni and others in the film community to discuss what the world might look like in the year 2050. The event and other future collaborations aim to give filmmakers access to IBM scientists for new ideas about the trajectories of science and technology as they create new films and for IBM to tap into the ideas of Hollywood's current and future creative minds.

At the kick-off event, IBM researchers discussed the potential for self-healing spinal cords; embedded digital assistants that remember all you hear or say; the concept of “longevity management” for life spans that stretch past the century mark; drinkable, purified water everywhere; changes to the human genome; and many other insights into what the world might be like in the year 2050 and beyond.

The evening also gave IBM a chance to hear what some of Hollywood's creative types want to see in the future. Watch a video to see the entertaining conversations and scientific highlights from the event.

 [Watch the video](#) (12.8MB, 5:48min)



video • TRANSCRIPT

IMAGINE THE WORLD IN 2050

USC School of Cinematic Arts and IBM Research

Dr. Elizabeth Daley, Dean, USC School of Cinematic Arts:

We think that we honor our tradition of 80 years by always looking forward. So we're very glad to be here tonight with some really distinguished IBM scientists to speculate on the future. We like nothing better than trying to look in a crystal ball.

Dr. Don Eigler, IBM:

I think we're going to see embedded technologies. What I mean by embedded, I mean both synthetic biological and nonbiologic technologies which we carry in our bodies. I don't think we're very far away from it; I think we're going to want it and it's going to prove to be very useful.

Dr. Sharon Nunes, IBM:

There's work going on today in photosynthesis in understanding the mechanisms, the chemical and biology mechanisms of photosynthesis and applying it to solar cells. So how can we take how plants derive energy from the sun, take that knowledge, replicate it in the lab, and create artificial systems that would actually help us to create much more efficient solar cells, which will help us in one phase of energy.

Jeff Jonas, IBM:

And here's how this changes 2050. Unlike "Minority Report," where Tom Cruise is like pushing the images around and looking for stuff, you don't have to look! That's so old school! Collective intelligence will locate what you need and it tells you.

Dr. Bill Pulleyblank, IBM:

Did you know that a Mini Cooper has got more computer power than Apollo 13 had? And you remember Apollo 13, it almost got Tom Hanks killed, as I recall, didn't it?

[LAUGHTER]

Dr. Richard Weinberg, USC School of Cinematic Arts:

We're holding this event at the USC School of Cinematic Arts because we believe that we have much to learn from IBM Research and that IBM Research has much to learn from the creative community so well represented here tonight.

Tim Washer, IBM:

So we're here with Michael Reisman...

Michael Reisman, Author, "The Gravity Keeper":

Reisman, actually.

Washer:

Reisman. Take 2, let's roll it back.

Washer:

Let me ask you something, as a screenwriter, a Hollywood screenwriter...

Paul Guay, Co-Writer, "Liar Liar," "Heartbreakers":

When you say Hollywood screenwriter, does that mean sell out? Is there any other way to interpret that? Does that mean hack loser?

Washer:

That's the implication, yes.

Guay:

Okay, good.

Washer:

Is it Reese man?

Reisman:

Reisman.

Washer:

Reisman.

Reisman:

Like Reese's Pieces...

Washer:

Let's do this. What's your name?

Reisman:

Hi, my name is Michael Reisman.

Washer:

Now, listen, I want to ask you, we've been talking about the year 2050. Do you have, for the school, do you have the curriculum done yet?

Daily:

We always have the curriculum done.

Guay:

When you mention the year 2050, I think of “In the Year 2525” by Zager and Evans, and I think they foresaw our future really well.

Washer:

We could not get them for our IBM panel.

Eigler:

People are coming up with schemes which look like they hold a chance of regenerating entire organs without going to stem cells. A colleague of mine, Professor Sam Stupp, at Northwestern University, has demonstrated with laboratory animals the reversal of paralysis—an absolutely extraordinary, extraordinary accomplishment.

Nunes:

This gives me hope that through multiple learnings from nature, taking the applied knowledge of nature, the chemistry, the biology, implementing it in the lab—we’re doing a lot of the designing, you can do some of the modeling in the lab with information technology—synthesize those materials. And the issue now over the next couple of decades will be scaling it and making it affordable.

Washer:

In the year 2050, Michael, what innovation would you like to see come to fruition?

Reisman:

Flying belts, so we can...not belts that fly on their own, but people who have belts and they can fly. Some sort of personal flying device. Jet packs, you name it.

Washer:

Okay, but it would need to be an accessory, you’re saying, versus like pants.

Washer:

There wasn’t any of that type of technology in the Austin Powers films, would you say?

Jay Roach, Director, “Austin Powers”:

We had...we had technology. Dr. Evil had a base on the moon and hollowed out, you know, volcanos. Dr. Evil had an anthropomorphic submarine with feet paddles. You know, that was...

Washer:

Which, by the way, was developed by IBM.

Washer:

You are the famous Kevin and Dan. Is that correct?

Kevin and Dan Hageman, Screenwriters

Hageman:

Yes. We’re brothers, actually.

Washer:

Are you really?

Hageman:

I know you're doubting me right now. You're looking in my eyes and you're doubting me, but actually, he's my younger brother.

Washer:

You're brothers. How long have you been brothers?

Guay:

But I think the future in that sense has already come here. People are walking around in their own bubbles a lot of the time. I'm surprised more people aren't hit by cars when they're crossing the street, because how can they hear what's going on? You know, there's no longer a communal space; there is a bunch of private spaces. As a libertarian of course I'm vastly in favor of that, but it looks awkward.

Washer:

What resonated with you the most, would you say, out of this panel?

Daley:

I think what was really interesting is the emphasis on biology, because certainly we've all seen what the emphasis on nano and DNA computing, and the real look back into biology as opposed to sort of pure computational approaches.

Tamara Berg, Screenwriter:

The possibilities that they were presenting were the most inspiring and the most exciting. They were just really opening up to not just the sort of scary unknowns of technology in the future, but also the great possibilities for creativity and advancement and great growth.

Guay:

This was a fantastic opportunity. Hollywood politically tends to be very resistant to technology and science and see it as a negative, see only the bad things that can come of it. And this was an evening where we saw tons of positive things, and the optimism that these people have for the future, and the future of science, technology and the human race, is engaging and it's great. It is just, it's wonderful.

Washer:

And...scene! Beautiful. I just want more anger. Let's do it again with more anger.

www.research.ibm.com/theworldin2050



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