

"Cybernetic immortality": How to live forever as a robot

Jason Lomberg, Technical Editor



Could humanity achieve immortality this century? A Russian multimillionaire thinks so and is pouring a fortune into his ambitious plan “to eliminate aging and even death and to overcome the fundamental limits of the physical and mental capabilities currently set by the restrictions of the physical body.”

Of course, this isn't Ponce de León searching for the Fountain of Youth, nor does the [2045 Initiative](#) [1] — a nonprofit founded by Russian tycoon Dmitry Itskov — want to cure cancer or deadly disease.

Rather, the organization seeks to achieve “cybernetic immortality” by fundamentally transforming the nature of our existence and evolving beyond the human body, which is frail, brittle, and prone to failure. After the “resources of the biological body have been exhausted,” the 2045 Initiative would enable an indefinite extension of our individual consciousnesses.

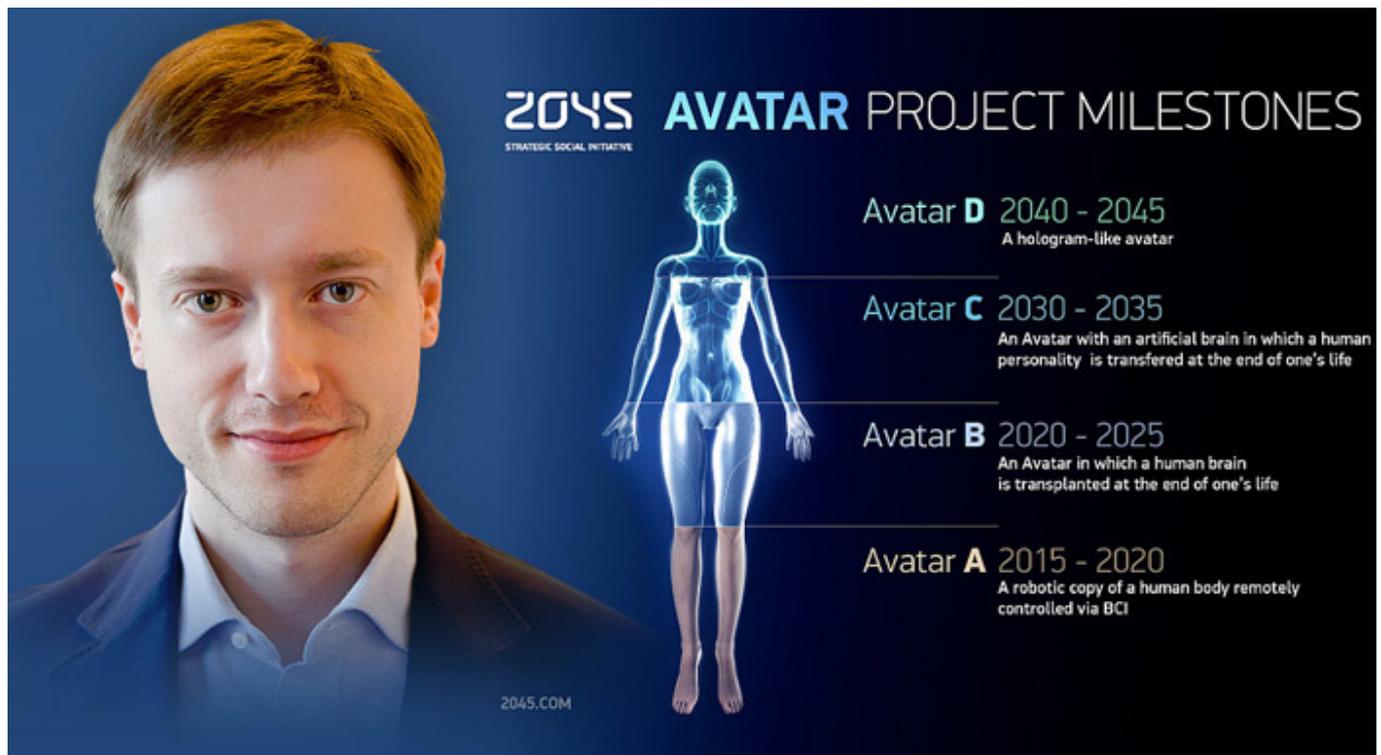
Following the grand tradition of life imitating art — specifically, science fiction — the 2045 Initiative wants to extend the evolutionary process by turning us all into robots. No, seriously. And it's not as crazy as it seems (well, maybe a little).

By 2020, the nonprofit wants to create "avatars" controlled by a "brain-computer" interface — picture the movies [Avatar](#) [2] and [Surrogates](#) [3]. This would allow disabled individuals a greater degree of freedom and give soldiers, first responders, and emergency personnel a literal safety buffer.

Five years later, we'll be able to transfer the human brain into an “autonomous life-support system” linked to an avatar (think: TV's [Futurama](#) [4]). And here's where it gets a bit ... science fiction.

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The 2045 Initiative will then create a computer model of the brain and transfer our individual consciousness into an artificial carrier. The foundation is light on details but wants to accomplish this phase by 2035, in the process defining what makes us human and enabling a real form of “cybernetic immortality.” Again, light on details.

Finally, by 2045, the project will have created a hologram-like avatar, and humanity will transition into a new species. Feel free to stop at this point and call Mr. Itskov a crackpot.

And given the fact that Itskov justifies his ambitious agenda by referencing sci-fi authors, futurists (including Ray Kurzweil), and even John F. Kennedy (who surely wasn't referring to robotic avatars and a cybernetic fountain of youth), you wouldn't be too far off.

But at least some of what Itskov proposes seems feasible (in a forward-looking, crackpot sort of way). We already have sophisticated humanoid robots capable of imitating human expressions. At the Global Future 2045 conference, Japanese robotics researcher Hiroshi Ishiguro [demonstrated](#) [5] the “Geminoid,” a like-like robot representation of himself, capable of passing as a human — Ishiguro uses it to meet with students remotely. And Itskov is set to unveil “the most sophisticated robotic head in history” (a replica of his own, naturally), with 36 motors and realistic facial expressions. The system will be able to read Itskov's expressions, gestures, and voice and reproduce them in real-time. Not exactly a “brain-computer” interface, but it's close.

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As for how to reconcile pretty robots with avatars and cybernetic immortality — how to get from point A to 2045 — that’s anybody’s guess.

Of course, I haven’t even discussed the ethical implications — the 900-pound elephant in the room. By transitioning to cybernetic immortality, do we lose an essential part of what makes us human? Who regulates the sale and operation of these avatars? How do we propagate the species? (Or does this and other forms of “procreation” lose all meaning?). And — the million-dollar question — will the fountain of youth be affordable?

Your average humanoid robots costs about \$300K, but with mass-production, [Itskov feels](#) [6] they’ll be in line with automobiles. Most of us can at least afford a beat-up Chevy, right? (Insert quips about high-end sports avatars for the wealthy).

I see a lot of potential here, but I also see a ton of red flags. Itskov laments the fact that our consumerist culture “cannot save mankind from the limitations in the physical abilities of our bodies nor from diseases and death.” He complains about the relative dearth of scientific funding — 2.7% of GDP in the U.S. and 1.03% in Russia. In turn, he urges the world’s scientific community to work together in the sort of utopia envisioned on Star Trek where humanity dispenses with material concerns (and money) and devotes itself to scientific inquiry.

For those concerned with personal liberty, the potential implications are frightening. Would the government avail itself of what’s left of our privacy rights? Are avatars entitled to any sort of privacy?

Obviously, Itskov and his 2045 Initiative obviously have a lot of blanks to fill in. Even

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amongst futurists and dreamers, the concept of “cybernetic immortality” seems a bit far-fetched — especially within 50 years. But I’m intrigued. To potentially live forever, I’ll risk the ire of plausibility and reality.

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Links:

[1] <http://2045.com/about/>

[2] http://www.imdb.com/title/tt0499549/?ref_=sr_1

[3] http://www.imdb.com/title/tt0986263/?ref_=sr_1

[4] <http://images.wikia.com/en.futurama/images/e/e6/AHeadinthePolls.png>

[5] http://hosted.ap.org/dynamic/stories/U/US_TEC_FUTURIST_CONGRESS?SITE=MA&SECTION=HOME&TEMPLATE=DEFAULT

[6] <http://2045.com/faq/>