

# STAY AND THE SINGULARITY

AN h+ POLL

We asked several leading thinkers in the radical tech community the following question: Is there sex in the posthuman or singularitarian future? We invited them to pontificate in 400 words or less. These are the results.

## Michael Anissimov

Michael Anissimov writes a blog, *Accelerating Future*, on artificial intelligence, transhumanism, extinction risk and other areas.

Conventional sex will likely persist in a transhumanist future, but only as a small subset of a much larger space of pleasurable activities which have been deliberately engineered. The connection between certain activities and the sensation of pleasure lies entirely in our cognitive architecture, which we will eventually manipulate at will. It's probably less complex than we think — many drugs can directly stimulate the pleasure center, and these are much simpler than brain-to-computer interfaces.

With sufficient ability to intervene in my own neurology, I could make any experience in the world highly pleasurable or highly displeasurable. I could make sex suck and staring at paint drying the greatest thing ever. It scares some people to think that the connection between pleasure and experiences is entirely arbitrary and not based on some deeper philosophical meaning,

but too bad. We will likely choose to preserve sex as a highly pleasurable activity, but perhaps other people will decide to elevate philosophical discovery or artistic creativity to a higher pleasure level than sex. That's entirely their decision.

Sex is quite a simple act itself — much simpler cognitively than me writing this paragraph. Sex has existed for hundreds of millions of years, but general intelligence has only existed for a few hundred thousand. Sure, sex activates higher cognitive functions, but that is a credit to those functions, not sex itself. Sex is often idolized in our culture because it can be a largely risk-free form of pleasure. Given that sex has zero cost and great pleasure, it seems reasonable that everyone reading this should attempt to engage in it more often. One study of happiness in couples found that relationship satisfaction is correlated to the number of times the couple has sexual intercourse per week minus the number of fights.

Still, it is important to remember that sexual intercourse is a highly ancient, simplistic-at-its-core activity that we may choose to discard at

Courtesy of Clockwise from top left: Anissimov - Courtesy of Michael Anissimov, Andreadis - Courtesy of Athena Andreadis, DaSilva - Courtesy of Extropia DaSilva, Kurzweil - photo by Michael Lutch, Lightman - photo by Todd Huffman, Goertzel - photo by Joi Ito, background photo by Daniel Carter



some point in the future in favor of more complex activities that generate even more pleasure and connection between people. Whether we choose to call it “sex” will be entirely arbitrary, but it may bear little resemblance to the sex of today. We may choose to evolve beyond the less savory aspects of sex — nonconsensual dominance, as a tool for macho competition, or a superficial social signaler — in favor of its empathic and “sacred” core.

## Athena Andreadis

*Athena Andreadis is Associate Professor of Cell Biology at the University of Massachusetts Medical School.*

Jacking Off while Jacked In... cryonics, robotics, uploading, singularity by AI... the concepts speak for themselves: no Eros, only Thanatos — at best, endless (and simulated, yet!) masturbation in VR lotusland. Besides, if you're obsessed with control over all your functions, how are you going to let go enough to have an orgasm?

## Extropia DaSilva

*Extropia DaSilva is a resident of the virtual world Second Life.*

Anything that has persisted for hundreds of millions of years clearly has high survival value. Transhumanism seeks to enhance the positive aspects of the human condition, so love and sex are unlikely to be abandoned.

Differences? Yes. Sex for procreation will be separated from sex for pleasure. Polyamorism will be the norm. After all if “I” have uploaded, duplicated myself and exist as self-similar copies in cyberspaces co-existent with realspace, where does the “self” end and the “other” begin?

Relationships will be tried out in simulation, combining variations of each self, weeding out combinations that do not optimize cooperation and mutual gain. Selective memory editing may be used to erase memories of sub-optimal relationships, leading to love affairs that are always subjectively ideal.

A committed relationship would be to accept a complete merging of two selves. True love would be expressed by transferring the two uploads into a single, higher capacity “brain” (such as the sentient Internet itself) in which both minds run simultaneously.

Such “twindividuals” might merge with others, resulting in an expanding hive-mind. Parts of the brain could be distributed over large distances, though if communication delays cannot be overcome that would impose a limit on how far the society of selves can expand and still be ALL=ONE.

Possibly, group-minds that expand far enough to experience significant communications delays will fragment. These, as well as others initially seeded from other twindividuals might expand until they are bounded on every side by neighboring group-minds. Moravec has speculated that competition for space, matter, and ideas might result in “vile offspring” (Charles Stross' term for posthumans that have diverged from the human species to the extent that nothing recognizably human remains within them) devouring the physical substrates of neighboring group-minds, “space, energy, material and useful thoughts reorganized to serve another's goals.”

It is interesting to note that humans rather enjoy romantic period dramas. For instance, Jane Austen's books concerning the trials and travails of love in upper-class society remain as popular in the 21st century as they were when first published in the early 1800s. If posthumans inherit their predecessors' love of historical romances, they might simulate the relationships of ancestors in the dim and distance past. Given the vast computational resources that Moravec, Seth Lloyd and Nick Bostrom have appealed to, it is perhaps astronomically more likely that, if you are in a romantic relationship right now, it is one being simulated by godlike intelligences, rather than being real in a physical sense.

## Ben Goertzel

*Ben Goertzel is the CEO of AI companies Novamente and Biomind.*

The experience of gaining pleasure via in some sense merging with another being... that will probably survive the Singularity, but will likely be customizable into various forms, which may end up bearing little resemblance to “sex” as we know it today....

## Ray Kurzweil

*Ray Kurzweil is an inventor, entrepreneur, author and futurist. His most recent book is The Singularity is Near: When Humans Transcend Biology.*

The short answer is Yes! The longer answer is that we've already separated at least some of the original biological function of sex from its social and sensual function. Human intelligence is directed towards our body, meeting its needs and desires, and we will continue to have bodies in the singularitarian future, except that we won't be limited to just one. We'll have

different virtual bodies in different virtual reality worlds, and morphable nanobot swarms for real worlds. A couple could become each other in a virtual reality environment and experience the relationship from the other's perspective. We'll be limited only by our imaginations. That will be true in general for virtual reality, which is where we will ultimately spend most of our time.

## Alex Lightman

Alex Lightman is the Executive Director of Humanity + (the organization) and CTO of FutureMax, a merchant bank.

The primary purpose of the Singularity will be seen, after the fact, to be Awesome Sex. There will be exponentially more sex, with exponentially more interfaces, and with exponentially more measures of pleasure. First, whole brain emulation (a more stealthy way to say uploading) will enable us to make almost perfect replicas of our brains, which can then imagine, aided by the

territory. If the posthuman is semi-biological, then the physiology of sex will remain the same sexy, smelly, wet sex that we so dearly love, but with added twists in virtuality and simulations. But what happens when our human genitalia is gone? What will we rub instead?

Exosex, sex outside the biological body, would be simulated in virtuality, much like Second Life or Skype and other digital formats where sex is enhanced, extended, digitized, and synthetic. It would be more real than real — a hyper-real experience.

Endosex, sex within the body or form, would exist even if the posthuman is so-called disembodied or, better, a distributed collection of selves (multi-selves) co-existing on multiple platforms, including biological personas, virtual avatar personas or other types of forms in different substrates and platforms.

Sex is all about nerves, and the human brain is the pleasure center. Nerves would be replaced with synthetic fibers or electrical charges that continue to detect and transmit nerve-like sensations. The posthuman's

# Natasha Vita-More: For the most part, we could be rubbing neurons.

cloud that puts thousands of supercomputer-equivalents at our beck and call to generate millions of sexual fantasies and to engage in variations of them. There will be no limit to the number of our own brain replicas we can create, host, and send off to have great sexual adventures in imagination, and then bring the "best of" back for reintegration.

Second, we will be installing bioports into our body, a la *The Matrix* or *Sleep Dealer*, each of which can stimulate our nervous system. In heterosexual men penetrate women, but with this, men and women will interpenetrate each other multiply, and, as with USB 2.0 daisy-chaining, so will men, women, and androids be able to multiply-interpenetrate, locally or remotely.

Third, one of the most profound pleasures of sex, in my experience, is what I call the "empathy hall of mirrors effect." That is, to be able to not only feel what you are feeling, but also feel what your lover is feeling, almost as deeply as she is. If she is also an empath, then you can get a positive feedback loop of sensation. After the Singularity, most transhumanists who choose to stay embodied will *present* as empathic metamorphs, possibly surrounded by utility fog that enables us to become anyone or anything, seemingly anywhere, and, with telepathy common, to be able to transform ourselves into our lover's heart's desire at a moment's notice.

I love the future. Bring it on.

## Natasha Vita-More

Vita-More is a media artist/designer, Founder and Director of Transhumanist Arts & Culture, and Artistic Director of H+ Laboratory.

Will there be sex in a posthuman future? Yes. It will not look, sound, or even feel like the traditional act of rubbing membranes against each other.

The aesthetics of posthuman sex takes a giant leap into uncharted

post-neurological brain would experience a series of sudden spasm, contraction and surges, a sense of pleasure and release. For the most part, we could be rubbing neurons.

If we are distributed multiple-selves co-existing on different platforms, a sexual experience could be a community event or a selection process to determine how many selves would be involved.

The entire field of posthuman sex could give new meaning to sex freedom and gender differentiability — where a person could have different scenarios, depending on what form or type he/she is in. Human form: membrane, wet sex. Semi-human form: neurological ecstasy (extasy). Post-human form: multiple exchanges of digitized codes reaching a crescendo.

But sex is not just about the crescendo. The physical and/or electrical charges brought about by excitation could be relocated to different parts of the brain. In a bio-body, instead of reaching climax, a person could have that energy-charge redistributed to the memory center of the brain for deeper focus. Likewise, a non-bio-body could use the energized charge for a totally different activity.

Sex is a means of communication. In posthuman futures connectivity is paramount. All the connectivity — from simulated environments to the noosphere could end up being one very big bang. ©

## RESOURCES

Michael Anissimov  
<http://www.acceleratingfuture.com/michael/blog/>

Athena Andreadis  
<http://ieet.org/index.php/IEET/bio/andreadis/>

Extropia DaSilva  
[http://cosmeng.org/index.php/Extropia\\_DaSilva/Articles](http://cosmeng.org/index.php/Extropia_DaSilva/Articles)

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