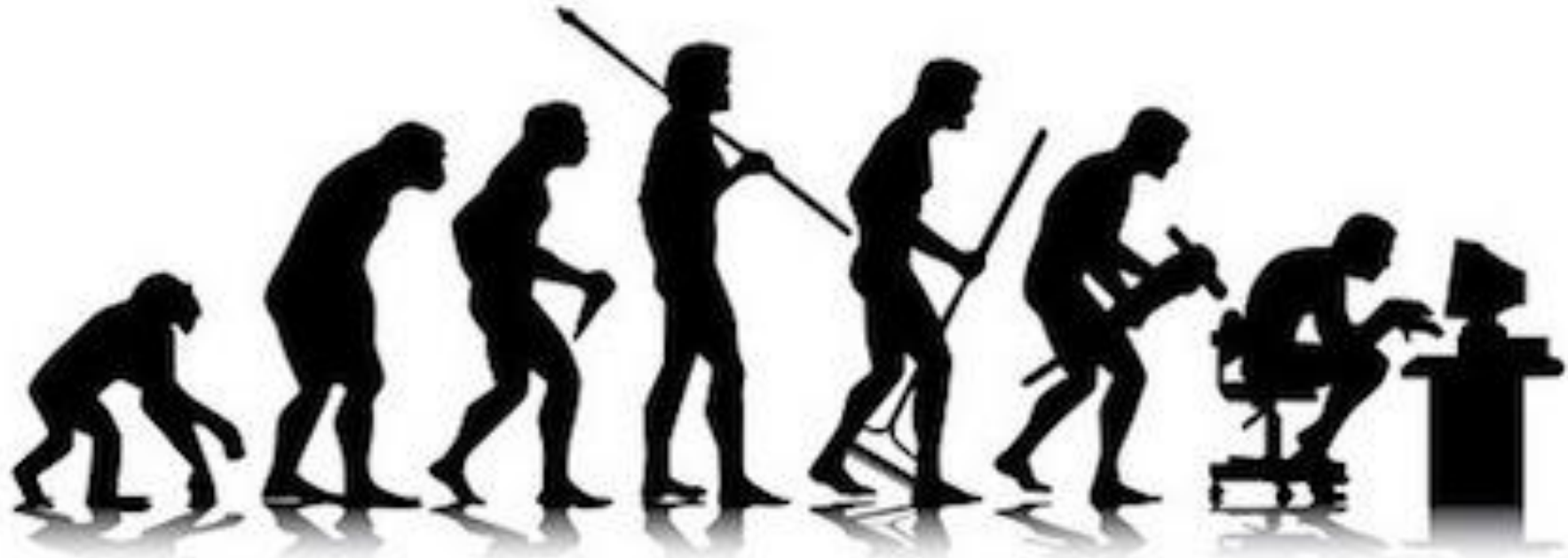


A vibrant, futuristic cityscape with flying cars and advanced skyscrapers. The scene is set against a bright blue sky with scattered white clouds. In the foreground, a large, white, curved structure with a central green circular area and a yellow ring is visible. The city is filled with tall, modern buildings, some with unique, colorful designs. The overall atmosphere is one of a highly advanced, futuristic urban environment.

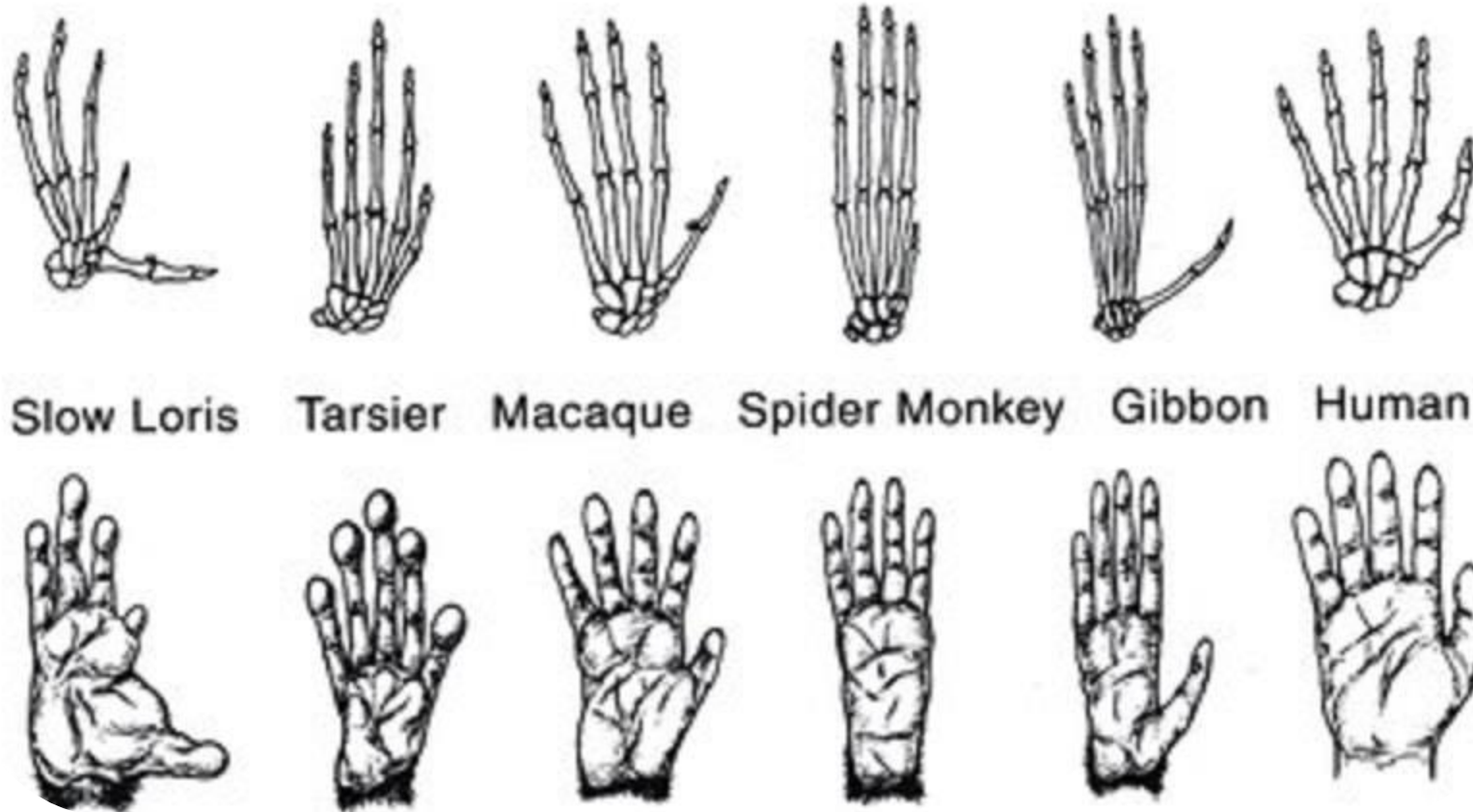
THE FUTURE

Darwinism is a theory of biological **evolution** developed by the English naturalist **Charles Darwin**.

The theory is that all species of organisms arise and develop through the natural selection of small, inherited variations that increase the individual's ability to compete, survive, and reproduce.



Humans, like all species, are continually evolving and adapting to their environments.



POLAR BEARS HAVE AN EXCELLENT SENSE OF SMELL.

THIS ADAPTATION HELPS THEM FIND THEIR PREY.

POLAR BEARS HAVE SMALL EARS.

THESE HELP TO KEEP BODY HEAT FROM ESCAPING, SO THEY STAY WARM

POLAR BEARS HAVE STRONG LEGS.

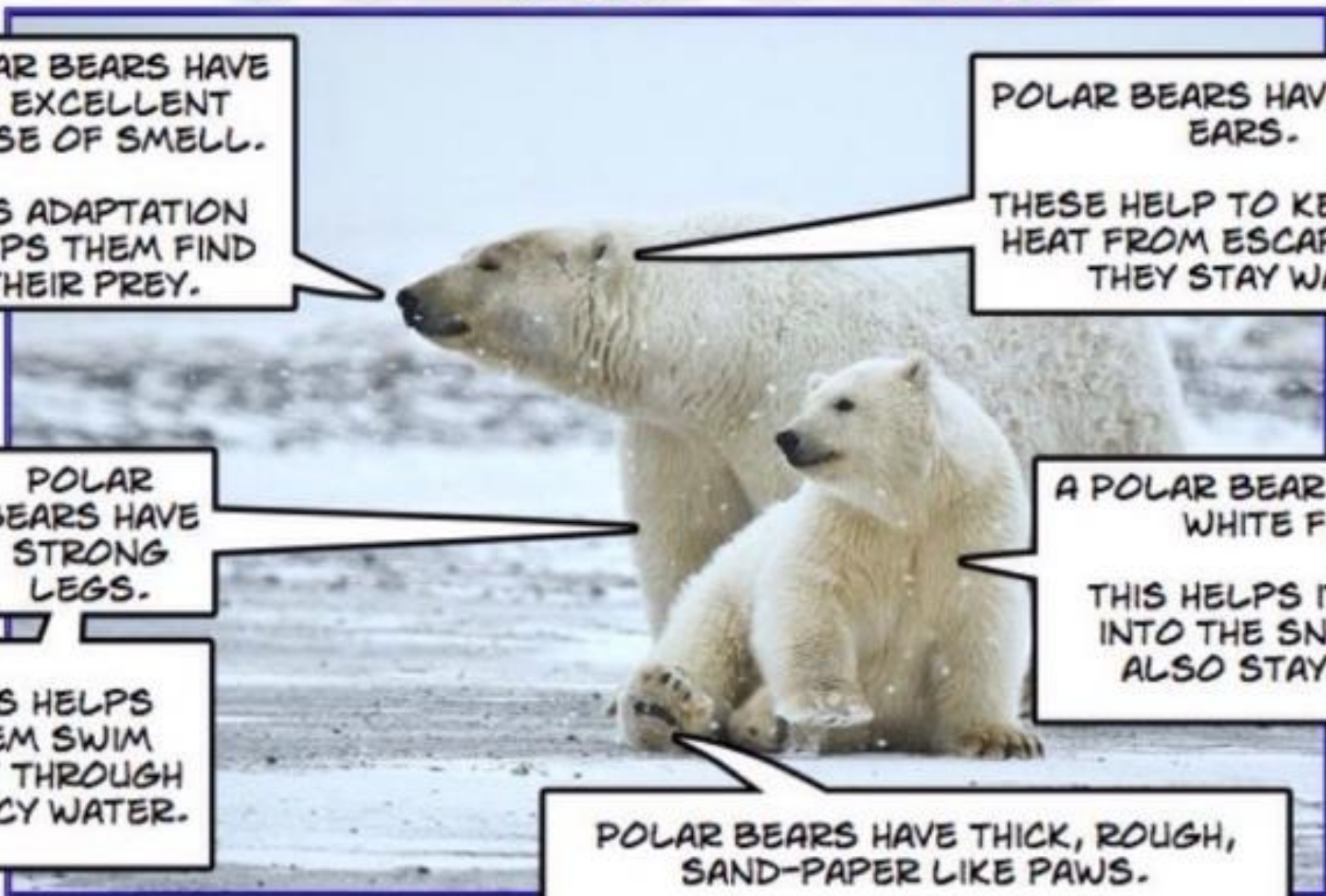
THIS HELPS THEM SWIM FAST THROUGH THE ICY WATER.

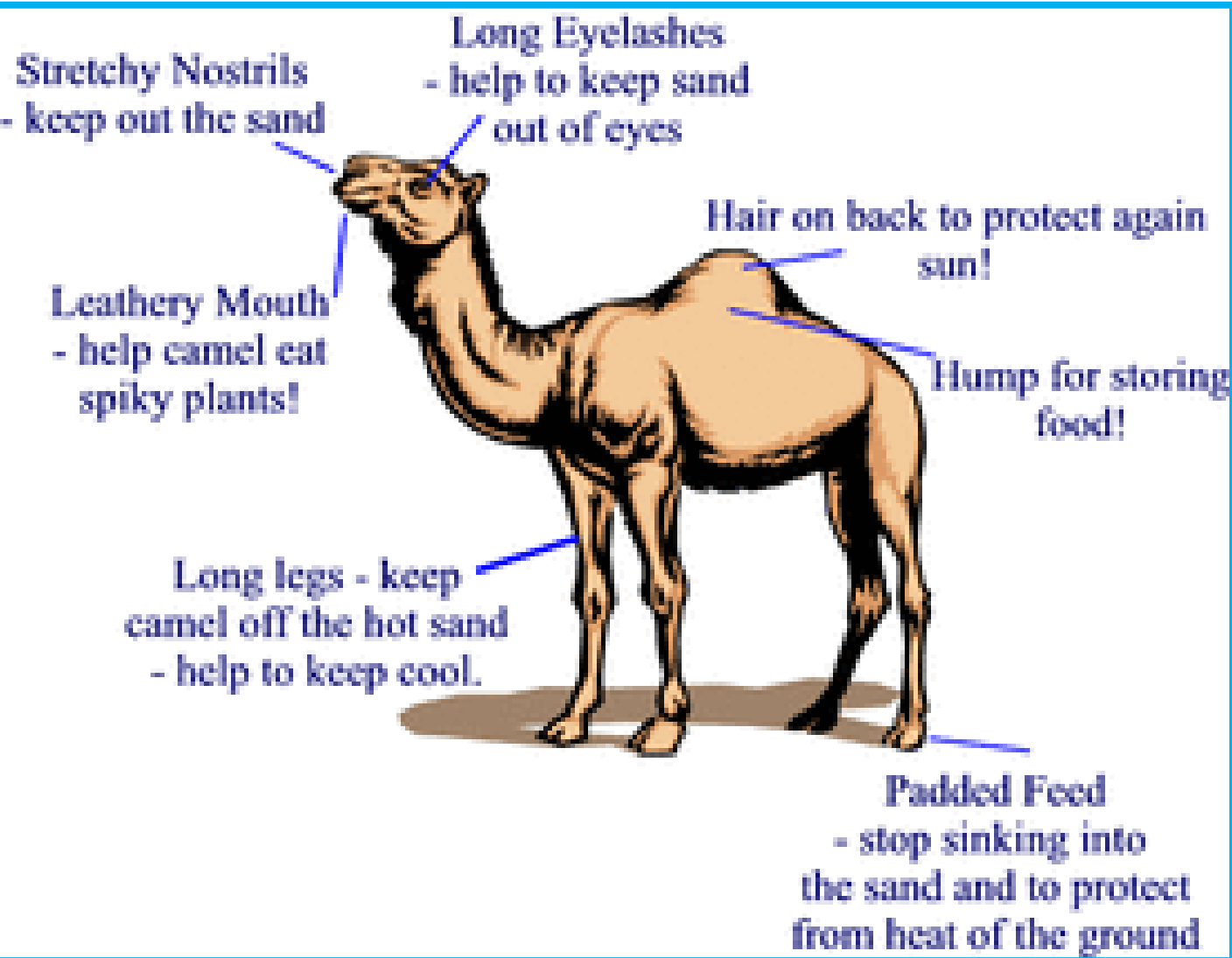
A POLAR BEAR HAS THICK WHITE FUR.

THIS HELPS IT BLEND INTO THE SNOW AND ALSO STAY WARM

POLAR BEARS HAVE THICK, ROUGH, SAND-PAPER LIKE PAWS.

THIS HELPS THEM GRIP THE SLIPPERY



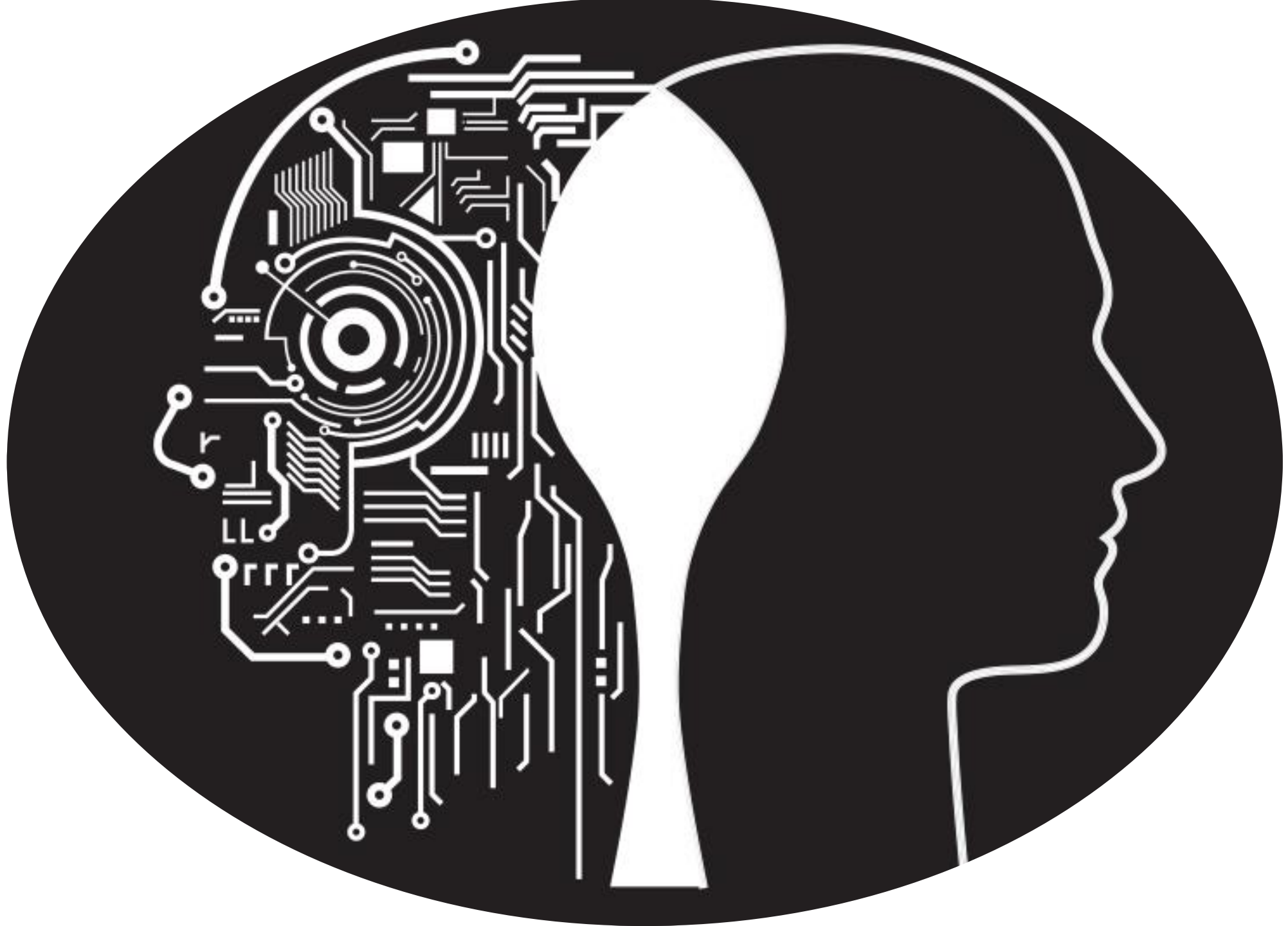




Types of Human Adaptation

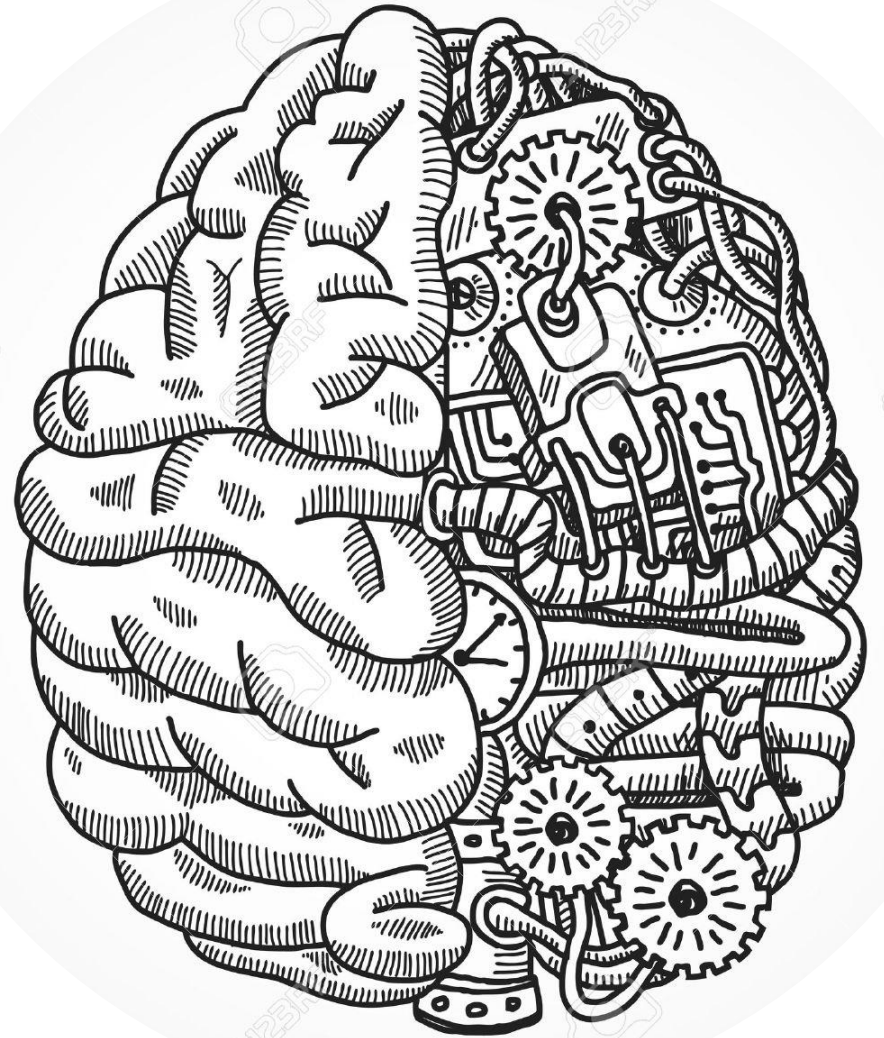
Humans have biological mechanisms for adapting:

- **Genetic adaptation**
 - Described by Darwin's theory of natural selection.
- **Developmental adaptation**
 - Permanent phenotypic variation from interaction between genes and the environment during development.
- **Physiological adaptation**
 - Short-term physiological change in response to a specific environmental stimulus.



Many scientists predict that humans will evolve into **electronic immortals.**

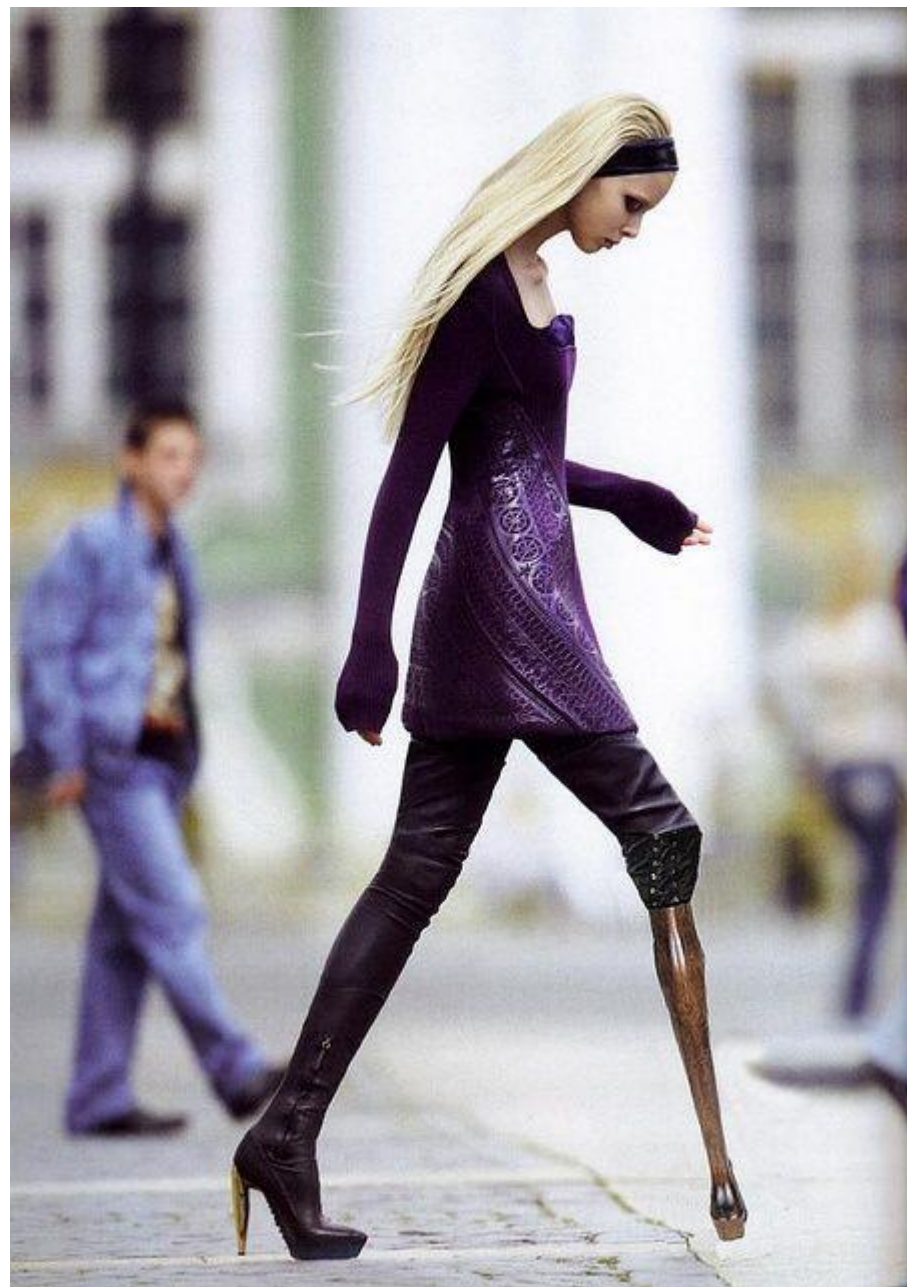
Here, humans will live forever, use uploaded (and faster) minds (using advanced operating systems), download themselves to become robots at will and even travel at the speed of light as a pattern of information. You also would not need to eat!



IS IT
ETHICAL?











The Incredible Bionic Man: Trailer

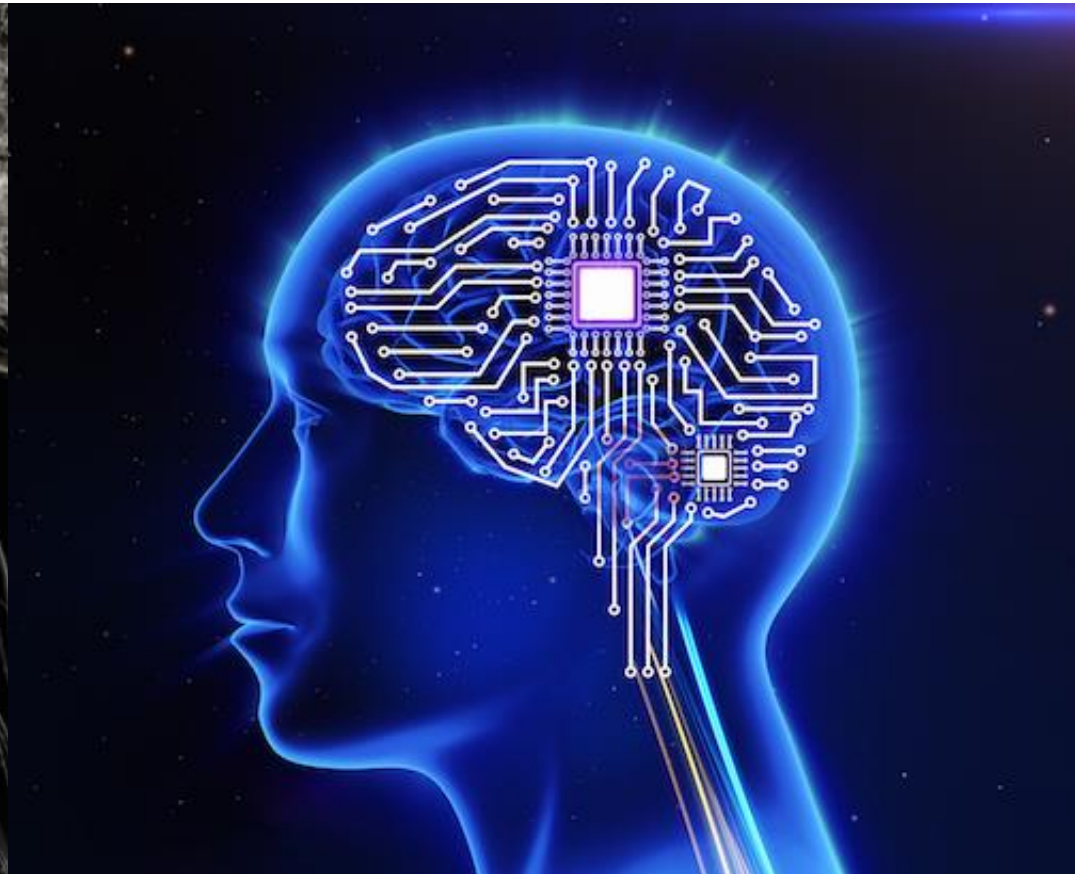
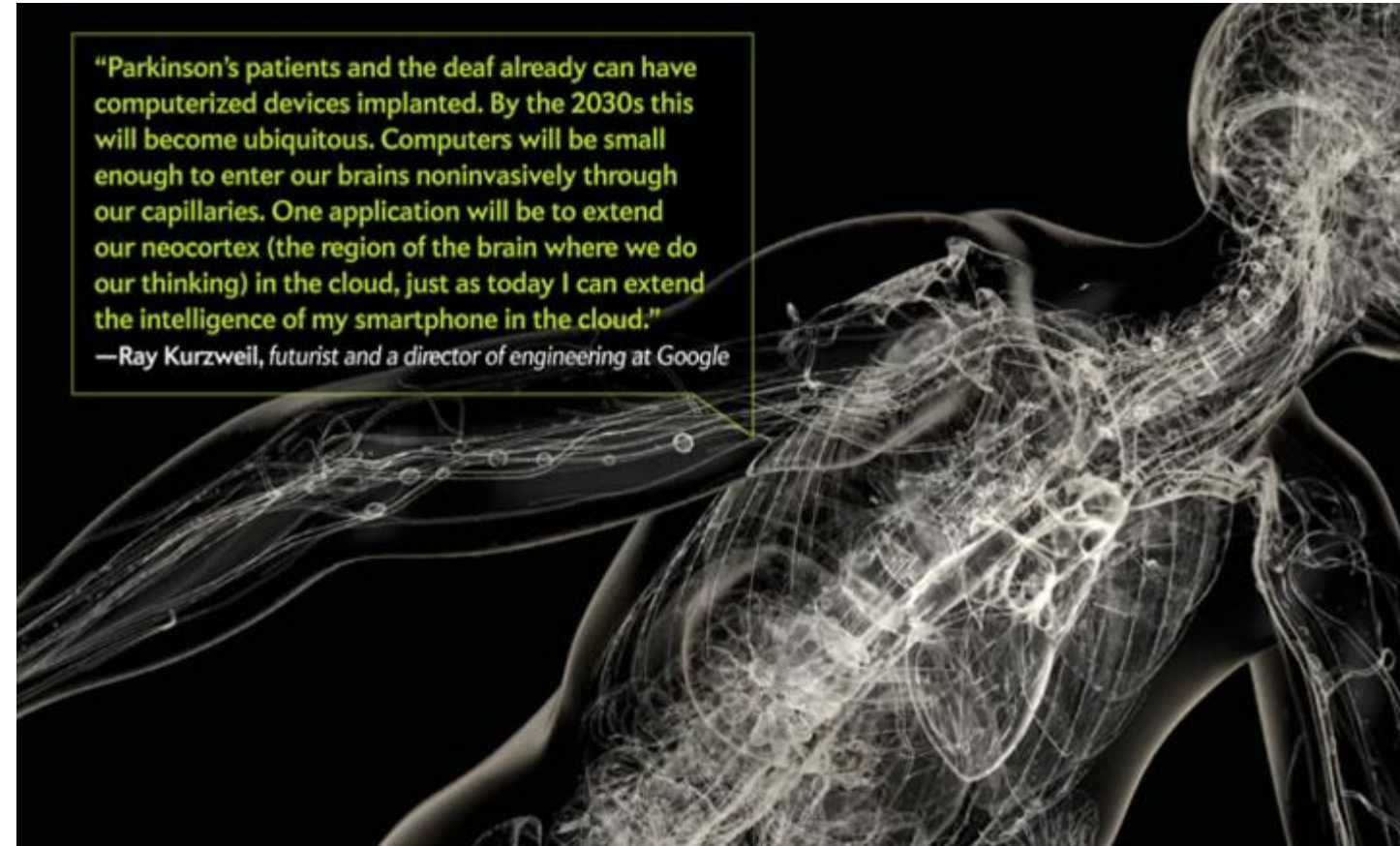


<https://www.youtube.com/watch?v=jvzu9MXC7e0>

<http://www.popsci.com/science/gallery/2013-07/5-body-parts-scientists-can-3-d-print#page-5>

"Parkinson's patients and the deaf already can have computerized devices implanted. By the 2030s this will become ubiquitous. Computers will be small enough to enter our brains noninvasively through our capillaries. One application will be to extend our neocortex (the region of the brain where we do our thinking) in the cloud, just as today I can extend the intelligence of my smartphone in the cloud."

—Ray Kurzweil, futurist and a director of engineering at Google



“The most obvious driver of physiological evolution in the future would be human manipulation of genes to favor certain characteristics—if we could learn to do that. The first thing we would do is try to get rid of the baggage that evolution left us with—so the diseases and disorders linked to aging bodies would probably be our first targets.”

—S. Jay Olshansky,
*biodemographer at the
University of Illinois at Chicago*

P A T E N T E D

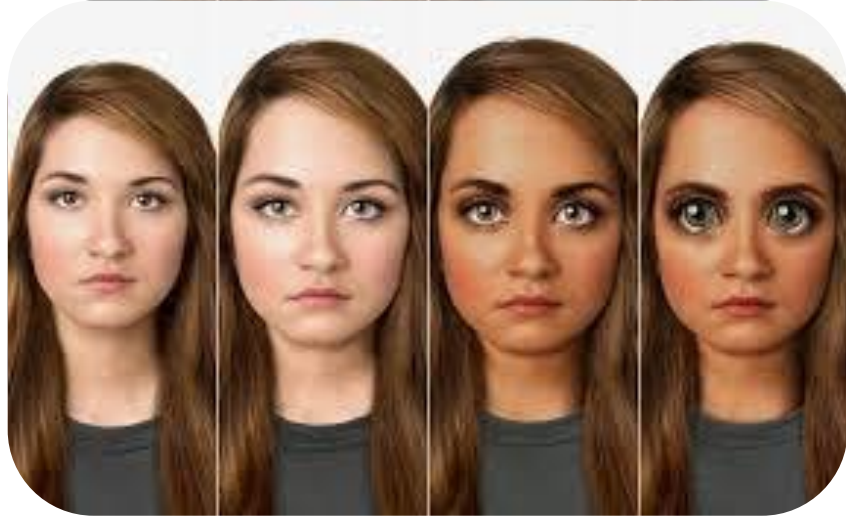


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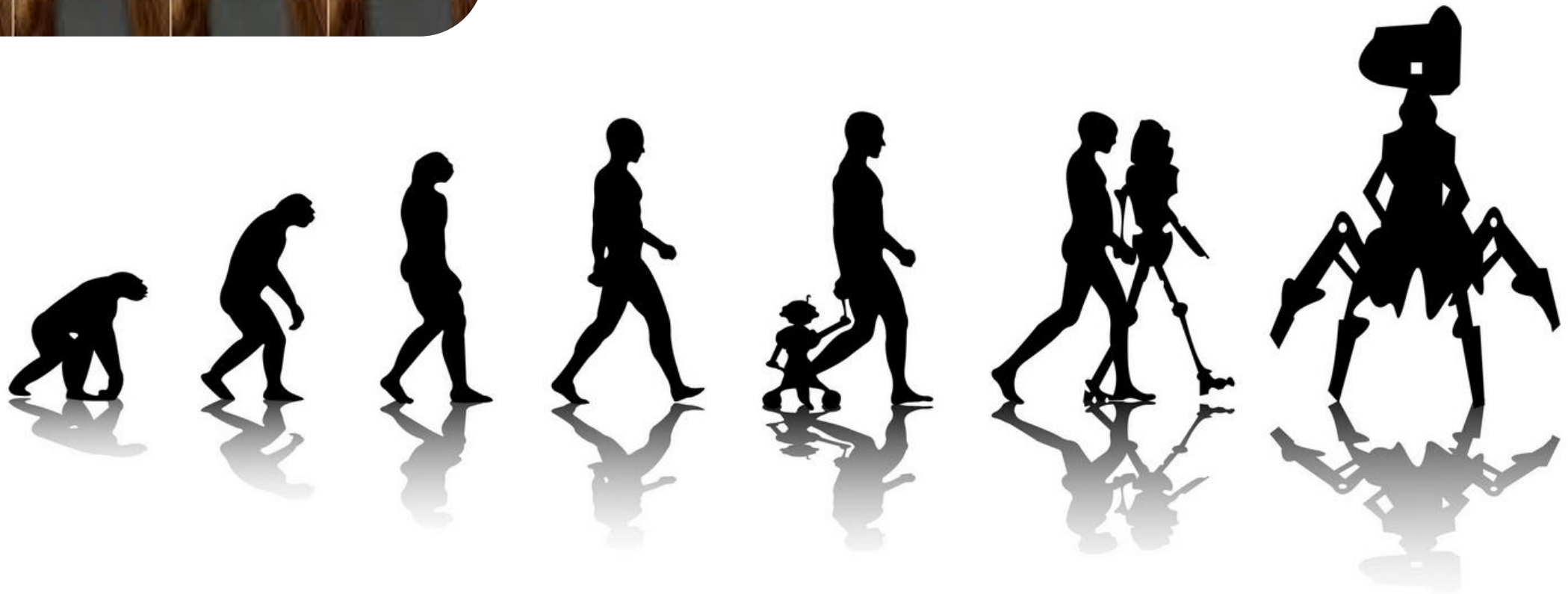
10 Ways Humans are Likely to Evolve

<https://www.youtube.com/watch?v=9Lmj6YBmOKE>



The Weirdest Ways Scientists Think we Might Evolve

https://www.youtube.com/watch?v=_mLLZ9gn8T0



YOUR TURN!

Design the future – what adaptations / advances would/could/should we make to enhance human body systems?

