

Ambassadors of life.

Life has been around for 4 billion years. All this time life has been limited to a space known as the biosphere (<https://en.wikipedia.org/wiki/Biosphere>). Basically, this is a shell of only 10km thick around the earth's surface (5km up, and 5km down) where life can exist. For a system to function uninterrupted for such a long time in a limited space requires certain attributes. One of which is the ability to quickly adapt to a constantly changing environment and capitalize on new opportunities. Our very adaptive genetic make-up is testament to that, and we humans are very good at exploiting new opportunities. Emergent from this drive for flexibility is intelligence, which can adapt on very short time scales. When combined with cultural (as opposed to genetic) transfer of adaptive behaviour, the flexibility of life is tremendously increased. We humans are a prime example of cultural learning which leads to flexibility on very short time scales and the seizing of whole new opportunities not open to life before.

With our appearance, life now even has created the potential to spread beyond its traditional boundaries. For some years now people have been continuously living in space, and with private enterprise entering low earth orbit the riches and possibilities of space are now opening up to us.

Moreover, the technology created by humans is now capable to change life down to its genetic core. Whole new adaptive solutions that do not have to prove themselves in Darwinian terms of survival are now possible. Post-Darwinian life is on the brink of expanding into unprecedented realms. Especially when we consider that life is foremost an information system. And information can be coded into other carriers than DNA and brain cells (<https://en.wikipedia.org/wiki/Information>).

Being limited to one planet is dangerous. Life was lucky to hold out for so long on this one spot in space, and time. The spread into space might be one of the best moves the system of life has produced to ensure its longer term survival.

We are part of the system of life and owe our existence to it. And from life's perspective we could be considered its finest product. Even though our appearance has cost the biosphere dearly in terms of loss of diversity, and the loss of resources. But if we would be the salvation of it, we would make amends.

And then there is sentience. This can simply be explained as an emergent property of the drive for flexibility and complexity. But this very property has now brought the system of life to a whole new level of existence. And as a consequence life can now be considered to be aware. And if the universe can be considered to have spawned life, by the basic rules of physics, it can be argued that humans have given the universe the potential to become sentient.

We should go into space for ourselves, but also as ambassadors for the system of life. The first will probably be driven by capitalist incentive, but the latter will give us purpose. Society is looking for new meaning now the old ways of making sense of our existence are becoming obsolete. Maybe it is time for humanity to define new purpose and fulfil the potential of life.