

HUMANITY 101: CREATIVITY, FAILURE AND THE POWER OF EMPATHY

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Introduction

If there is a time in human history that deserves to be celebrated as the renaissance of humanity, it is this. The dawn of singularity has triggered unprecedented, profound introspection into human nature by scholars and scientists. For the first time, we are trying to build a collective self-awareness of our humanity, irrespective of the many differences in our nationalities, races, sexual preferences, wealth, beliefs and attitudes. This by itself is a glorious achievement, although admittedly a little chuckle worthy. It took a great fear of intelligent, powerful machines usurping control and jeopardizing our future to bring us closer to our human nature. It could be that subterranean lessons in “survival of the fittest” learned over 200,000 years of evolution are driving us to formulate a survival strategy for when the machines catch up in the near future. Our proverbial “selfish gene” in a rare instance of altruism, intent on survival is facilitating a deeper connect among us, utilizing our capability for compassion, collaboration, discussion, empathy and optimism to ensure its replicating DNA code is not vindicated by binary code¹. In any case, a close look reveals that our fear of the automated future has two distinct components: one, “how do we keep pace with the machines?” and two, “how do we ensure humanity persists in a robot society?”

To address the first challenge, technocrats among us have begun experiments aiming to merge us with the machines. Augmenting our abilities with the computational proficiency of silicon chips and artificial neural networks shall help ensure that we are not left behind in the race towards super intelligence. It is believed that such developments coupled with advances in genetics and neuroscience shall lead to the emergence of a new, advanced species of super-humans who will cohabit with smart machines, at times partially and sometimes substantially fused with them. While these anthropological transformations are plausible means to avoid falling behind the machines, it cannot be said with certainty whether they can establish man-machine equity. The answer is held by the future, which will be shaped by our politico-legal, social and cultural adaptation to a world of inorganic, engineered minds where grey cells co-exist with silicon processing. From a Kantian perspective, we realise that this is a future we cannot foresee today with our biological, organic minds which shape and limit our experiences within our empirical perceptions of space and time.² The most we can possibly do is exercise our limitless human imagination.³

¹ (Dawkins, 2006)

² (Kant & Meiklejohn, 1899)

³ (Harari, 2016)

Our second question, on how humanity can live on in a robotic world, is of great significance. Addressing it involves an examination of several subtle premises. For one, the question makes it explicitly clear that humanity is not merely the survival of the human species on the planet. The question isn't whether we will exist in the robot society, instead it is whether we will live, fully, happily and meaningfully when machines upend the natural order we have always known. Second, the question leads us to realize that our humanity is the most vulnerable and unique feature of our species, and that we must endeavour towards saving and perpetrating it across generations. It might be the only thread tying the superhuman generations of the future to their ordinary, human ancestors. Third, it leads us to wonder whether or not can we program our humanity into robots- can they be our partners in the objective of sustaining humanity on the planet? Finally, the question captures the zeitgeist of our current human renaissance by demanding that we try to understand our humanity better than ever before so that we are able, by choice, to design a human world powered by the machines. It empowers us to think, devise, create, dream, empathize with our future generations and demands that we be innovative in this pursuit. Very simply, this question calls upon our most human, non-programmable faculties to sustain humanity in a robot society.

So how do we go about defining 'humanity', the essence of 7.6 billion people on the planet which cannot be encoded into machines? Today, gadgets may emote and they may talk, they may blink and hold our hands, perform calculations at several peta-flops a second and lift tons of weight, work our jobs and teach our kids, paint pixels or write poetry, take care of the elderly or provide financial advice, drive our cars and control our homes, dress and look like us or receive citizenships of various countries, summarily perform all our human tasks and yet we know that gizmos built on logic, algorithms and sometimes heuristics cannot embody humanity. In this knowledge lies a key realization: 'performing a set of tasks' or 'being capable of performing tasks' does not define humans. Our reasons for performing them do. Our human essence is contained not in what we do, but in why we do it. We are our decisions and judgments, our reasons and feelings, our understanding that goes beyond mere cognition and is shaped by experience, not data. Meanwhile, machines functioning on code and dependent on data are and shall continue to be limited by determinism of some kind, devoid of even the most basic moral agency without human support. And this is because they may never know three defining attributes of humanity that aren't programmable, downloadable or installable on the smartest of machines: the chaotic and organic nature of *creativity*, the hidden possibilities that arise from *failure*, the power of *empathy* and how the interplay between these forces shapes individuals and societies at large.

Robot Societies: Evolution, Values and Other Considerations

The robot society shall not arrive upon us in a singular, defined moment in time. Like all preceding epochs of colossal leaps in technology such as the steam, electricity and the internet age, we shall experience, such as we have already begun to perceive, a continuum of time which shall introduce new, technologically advanced members in our society who will profoundly

impact the ways in which culture, beliefs and human experience shall evolve. It is riveting to observe here, that unlike preceding technological revolutions which were driven by external, mechanical transformation of non-living matter, changes in the prevailing era stem from fundamental changes in the very biology of two organisms: one, the human organism by means of trans-humanism and two, the society (a super-organism) by means of introduction of robots (both industrial and social). This metamorphosis which is currently underway makes for a highly interesting and challenging new study: an observation of shifting values, norms and culture as the human society undergoes reorganization to accommodate new, highly productive androids and gizmos.

Until now, the study of society was believed it to be an exclusively human product that acts upon its producers.⁴ Now that producers are no longer singularly human, an altered texture of society breeds striking questions. Today, one may ruminate: what values, beliefs and assumptions shall hold in the post-industrialist, robot world? In asking this question we effectively disrupt a pattern of thought that holds men and machines as factors of production only, their interchange and substitution a function of economic means. Instead, we begin to honestly evaluate the possibility of restructuring society to accommodate men, machines and all in between, reflecting on relevant values that shall serve as common behavioural guidelines. Additionally, it becomes very clear that if humanity is to persist in the robot society, our distinct human values must prevail in the future.

The beginning of this AI technological revolution also calls for an honest concession: with every huge technological leap *some* of us have taken forward, *many* of us have been left behind. For instance, despite the progress ushered in by steam, electricity and internet, fractions of human population continue to lead lives devoid of the conveniences of the 21st century. Perhaps we have lacked the empathy, will and imagination necessary to undo this crisis. As AI technology pervades our world, we will have to make a moral choice between taking everyone along (an inclusive progress) and letting a competitive, marketplace-like trickle effect take place before benefits of the robot revolution percolate the bottom of our economic pyramid. This deliberation is more important in our AI era than any other because the divide that the prevailing AI revolution is capable of creating shall be greater than any of its predecessors- segments of the human population shall be able to move towards super-humanity with advanced genetic code and trans-human augmentation of their human abilities together with access to the latest robotic technology. Others, in less privileged and impoverished states may find it extremely difficult or nearly impossible to catch up- the ever widening socio-economic divide serving as an inescapable trap.

Returning to our erstwhile discussion, the question on ‘values of the new society’ is two-pronged. One, as machines characterized by superior productivity, symbolizing superhuman efficiency, precision, and result-orientation institutionalize these values in society, how shall

⁴ (Berger, 1967)

humanity, with all its aberrations, weaknesses, conscience, creativity, chaos, failure, emotion, empathy, complexity of thought and action adapt and thrive? Further, now that most of our work can be accomplished by machines and devices of our own engineering, what is our new task, new purpose? What shall we think or know about the meaning and motivation of life beyond economic yield or mechanistic efficiency? How do we build a sense of community and belongingness while balancing our individuality in the new robotic world?

A grave crisis of any worldview rooted purely in materialism (both economic and philosophical) lies in its myopia towards the potential of the human mind and an inability to grasp the tremendous possibilities that characterise humanity which remain inexplicable by rigid, reductionist, anthropic mechanism. And yet this is a prominent possibility in the machine world as gizmos and cyborgs shape the culture and ethos of the new era. As connections shall increasingly mean electrical or nerve signals, work is equated with achieving pre-determined targets and the pressure to achieve success on measuring rods unsuitable to the aberrations and chaos of human nature rises, our collective consciousness shall ache for the relieving balm of being accepted in failure, the freedom of digressing in creativity and the tremendous comfort of being understood through empathy.

The other half of our question on values explores the possibility of whether or not can machines embrace human values and contribute to improved quality of human life. Can machines, in the course of their evolution, be moulded by human and social values so that their orientation in decision making and understanding of socially desirable behaviour is aligned with humans? Interestingly, we have always tried to humanize the external appearances and behaviour of robots, trying to bring them closer to our own species. Perhaps such an effort is rooted in our natural inclination towards companionship, a need for emotional bonding with human forms so much so that experiments around the world demonstrate that the elderly and children develop lasting affection and fondness for 'social robots' that evoke our most profound emotions by way of mimicry. On the other hand, we may also carefully look at instances of 'robot racism' and 'robot sexism' where deep learning algorithms in unsupervised learning models imitate human psychological constructs and stereotypes, learning bias from the data around them and making decisions accordingly. Either way, it is amply clear that the onus of shaping a human future by making human choices lies on our shoulders. Moreover these human choices must pervade our institutions, policy making, managements, leadership and overall culture – a goal realizable by conscious and dedicated effort.

In the maze of such ideas, a fuzzy picture appears before the inquiring mind, for there is almost no framework to support the extrapolation of our current Darwinian understanding of human evolution to the dimension of robot societies. Over the coming years, this transition into the new milieu may appear seamless. However, the undercurrent of this transformation shall be our introspection and broader questions on identity, humanity, conscience as man and machine come uniquely close- a hallmark of un-programmable human intelligence.

Creativity, Failure and Empathy: A Human Quest for Meaning in the AI Age

Modern science's proclamation of the absence of a scientifically established purpose of life although is vastly disappointing is also frankly, empirically true. However, what is at once amusing and inspiring, is that even against the backdrop of such knowledge, mankind has always spawned new purposes by means of complex social structures of education, governance, healthcare, and the economy- all of which provide an anchor to the human identity and add meaning to human life. Now, as these old structures undergo mammoth changes with the introduction of robots in almost every sphere, we see a great calamity before us: being uprooted and unimportant in a world of our own design, being unable to comfortably define our individuality and grappling to find meaning in our ordinary and till date transient human lives. Here, it is important to mention this human ache for meaning and purpose, for as the reader will eventually see; it is the fountainhead of all human endeavours, the seed of creativity, failure and empathy- elementary human qualities, which bear the potential to redeem humanity in this AI era.

If we were to analyse carefully, the AI revolution is more an opportunity than a threat in our quest for meaning- we have a moment to go back to the very fundamentals- 'Humanity 101' and choose what we may take forward with us in our evolutionary journey. It is the great chance of our modern human civilization to re-organize the division of labour between men and machines, restructure society and jettison beliefs and systems that no longer serve our purpose. As mundane, rhetorical, rhythmical problems are assigned to machines equipped to solve multi-variable optimization problems and hard decision making, we effectively end up freeing human potential which can then engage in greater pursuits demanding the best use of our creative reserves, our fortitude in failure and our power to empathise with each other despite competitive pressures. It is our turn to look at each other with a fresh pair of eyes, rediscover our will and vulnerability and work together towards enriching our cumulative human experience- to discover a brand new meaning of life. The best use we can make of this opportunity is to build and sustain a human focus as the next giant steps are taken towards the future

Aristotle, in his teleological approach believed that human nature is the cause of human being, implying that human nature is independent of humans themselves. This makes it very difficult to define human nature before we endeavour to preserve humanity in the robot era. The intense philosophical debate on the topic offers no definitive conclusion either. However, if humanity were to be examined in terms of its defining characteristics, it becomes possible to appraise the fundamental traits that make us exclusively human-boundless creativity, inevitable failure and all-encompassing empathy. Creativity, as the prime vehicle for self-expression, the conduit of imagination, provides an individual with the necessary purpose, focus and meaning that monotonous, undiversified jobs cannot and are therefore best assigned to machines that excel at such tasks. In the same vein, it is important to admit that creativity cannot flourish without an adequately nurturing environment. An invariable element of this creative ecosystem is the permission, the freedom to fail. Our world as we know it today has seen great innovative

solutions and inventions grow from initial setbacks and yet failure remains a taboo so much so that most of us in our lives, jobs, ambitions and dreams do not abandon the shores of safety in search of the new for the fear of failure. It is to avoid failure that we have designed fool proof processes, mechanistic approaches to work and life in general, eliminating the probabilities and risks one by one. And yet if any greatness is to be achieved and human potential is to blossom, the freedom to fail is absolutely necessary. It is sad to think of human genius and novel ideas suppressed by uncompromising and austere approaches best suited to automatons rather than individuals. And embracing failure shall want, more than anything, tremendous compassion and superior powers of empathy which is humankind's unique ability to look beyond oneself and into the other.

Conclusion

Somewhere in the medium future lies a world of tremendous possibilities arising from the man-machine fusion. Mankind may see some of its greatest victories and evolve by leaps and bounds. If we can make this transition together, in human-centric manner, exploring the very best in each of us and allowing our contributions to flow in from what Hubert Dreyfus called 'unconscious instincts and skills' (which cannot be represented symbolically in a formal manner thenceforth forming a set of activities that machines cannot accomplish)⁵, then we are on a threshold of a great human revival and a true, progressive leap towards one of the best phases of our evolutionary journey.

However, it shall serve us well to remember, that technology is only a means while human life an end in itself. What makes our otherwise scientifically meaningless lives bearable, meaningful and also beautiful is the continuous channelization of our creative force and self-expression, rigorous and enlightening lessons learned from failure and a sense of belongingness, community, social support and recognition that we are able to both receive and give because of our power of empathy. And therefore for humanity to prevail in the robot society, we shall have to make a cumulative effort to make small, human choices in every sphere of work and life- the policies we make, to the leadership we nurture, from the code we write to the behavioural patterns we leave for algorithms to learn from, we must align ourselves with our deeper human nature- Humanity 101, to feel to embrace, to empathize, to create, to forgive, to challenge, to find our great inner will that reinforces our most surreal, brilliant imaginations. For this is our one great chance.

⁵ (Dreyfus, 1992)

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