



Will human nature always trump wisdom?

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INTRODUCTION

Wisdom is traditionally the highest form of intelligence, combining systemic experience, some deep thinking and knowledge. Human nature is a set of behavioural biases imposed on us by our biological heritage, built over billions of years. As a technology futurist, I find it useful that in spite of technology changes, our human nature has probably remained much the same for the last 100,000 years, and it is this anchor that provides a useful guide to potential markets. Underneath a thin veneer of civilisation, we are pretty similar to our caveman ancestors. Human nature is an interesting mixture of drives, founded on raw biology and tweaked by human evolution over millennia to incorporate some cultural aspects such as the desire for approval by our peer group, the need for acquire and display status and so on. Each of us faces a constant battle between our inbuilt nature and the desire to do what we know is the 'right thing' based on our education and situational analysis. For example, I love eating snacks all evening, but if I do, I put on weight. Knowing this, I just about manage to muster enough will power to manage my snacking so that my weight remains stable. Some people stay even slimmer than I, while others lose the battle and become obese. So already, it is clear that on an individual basis, the battle between wisdom and nature can go either way. On a group basis, people can go either way too, with mobs at one end and professional bodies at the other. But even in the latter, where knowledge and intelligence should hold power, the same basic human drive for power and status corrupts the institutional intellectual values, with the same power struggles, using the same emotional drivers that the rulers of the mob use.

So, much as we would like to think that we have moved beyond biology, everyday evidence says we are still very much in its control, both individually and collectively. But what of the future? Are we forever to be ruled by our human nature? Will it always get in the way of the application of wisdom? Or will we find a way of becoming wiser? After 100,000 years of failure by conventional social means, it seems most likely that technology would be the earliest means available to us to do so. But what kind of technology might work?

Many biologists argue that for various reasons, humans no longer evolve along Darwinian lines. We mostly don't let the weak die, and our gene pools are well mixed with few isolated communities to drive evolution. But there is a bigger reason why we've reached the end of the Darwinian road for humanity. From now on (well, a few decades from now on anyway), as a result of ongoing biotech and increasing understanding of genetics and proteomics, we will essentially be masters of our own genome. We will be able to decide which genes to pass on, which to modify or swap, which to dump. One day, we will even be able to design new ones. This will certainly not be easy. Most physical attributes arise from interactions of many genes, so it isn't as simple as ticking boxes on a wish list, but technology progresses by constantly building on existing knowledge, so we will get there, slowly but surely, and the more we know, the faster we will learn more. As we use this knowledge, future generations will start echoing the values and decisions of their ancestors, which if anything is closer to Lamarckian evolution than Darwinian.

So we will soon have the power, in principle, to redesign humanity from the ground up. We could decide what attributes we want to enhance, what to reduce or jettison. We could make future generations just the way we want, their human nature designed and optimised to our view of perfection. And therein lies the first fundamental problem. We don't all share a single value set, and will never agree on what perfection means. Our decisions on what to keep and dump wouldn't be based on wisdom, deciding what is best for humanity in some absolute sense, but will instead echo our value system at the time of the decision. Worse still, it wouldn't be all of us deciding, but some mad scientist, power crazy politician, celebrity or rich guy, or worse still, a committee. People in authority don't always represent what is best of current humanity, at best they simply represent the attributes required to rise to the top, and there is only a small overlap between those sets. Imagine if such decisions were to be made in today's UK, with a nanny state redesigning us to smoke less, drink less, eat less, exercise more, to do whatever the state tells us without objection. What of wisdom then? How often is wisdom obvious in government policy? Do we want a Stepford Society? That is what evolution under state control would yield. Under the control of engineers or designers or celebrities, it would look different, but none of these groups represents the best interests of wisdom either. What of a benign dictator, using the wisdom of Solomon to direct humans down the right path to wise utopia? No thanks! I am really not sure there is any

form of committee or any individual or role that is capable of reaching a truly wise decision on what our human nature should become. And no guarantee even if there was, that future human nature would be designed to be wise, rather than a mixture of other competing attributes. And the more I think about it, the more I think that is the way it ought to be. Being wise is certainly something to be aspired to, but do you want everyone to be wise? Really? I would much prefer a society that is as mixed as today's, with a few wise men and women, quite a lot of fools, and most people in between. Maybe a rebalancing towards more wise people and fewer fools would be nice, and certainly I'd like to adjust our institutions so that more wise people rise to positions of power, but I don't think it's wise to try to make humans better genetically. Who knows where that would end, with the free run of values that we seem to have now that the fixed anchors of religion have been lost. Each successive decision on optimisation would be based on a different value set, taking us on a random walk with no particular destination. Is wisdom simply not desired enough to make it a winner in the optimisation race, competing as it is against beauty, sporting ability, popularity, fame and fortune?

So if we can't safely use genetics to make humans wiser or improve human nature, is the battle between wisdom and nature already lost? Not yet, there are some other avenues to explore. Suppose wisdom were something that people could acquire if and when they want it. Suppose it could be used at will when our leaders are making important decisions. And the rest of the time we could carry on our lives in the bliss of ignorance and folly, without the burden of knowing what is wise. Maybe that would work. In this direction, the greatest toolkit we will have comes from IT, and especially from the field of artificial intelligence.

Much of knowledge (of which only a rapidly decreasing proportion is human knowledge) is captured on the net, in databases and expert systems, in neural networks and sensor networks. Computers already enhance our lives greatly by using this knowledge automatically. And yet they can't yet think in any real sense of the word, and are not yet conscious, whatever that means. But thanks to advancing technology, it is becoming routine to monitor signals in the brain to millimetre resolutions. Nanowires can now even measure signals from different parts of individual cells. With more rapid reverse engineering of brain processes, and consequential insights into the mechanisms of consciousness, computer designers will have much better knowledge on which to base their development of strong artificial intelligence, i.e. conscious machines. Technology doesn't progress linearly, but exponentially, with the knowledge development rate rapidly increasing, as progress in one area helps progress in others.

Thanks to this positive feedback effect, it is possible that we could have conscious machines as early as 2020, and that they will not just be capable of human levels of intelligence, but will become vastly superior in terms of sensory capability, memory, processing speed, emotional capability, and even the scope of their thinking. Most importantly from a wisdom viewpoint, they will be able to take into account many more factors at one time than humans. They will also be able to accumulate knowledge and experience from other compatible machines, as well as from the whole web archives, so every machine could instantly benefit from insights from any other, and could also access any sensory equipment connected to any other computer, pool computer minds as needed, and so on. In a real sense, they will be capable of accumulating many human lifetimes of equivalent experience in just a few minutes.

It would perhaps be unwise to build such powerful machines before humans can transparently link their brains to them, otherwise we face a potential terminator scenario, so this timescale might be delayed by regulation (though the military potential and our human nature tendency to want to gain advantage might trump this). If so, then by the time we actually build conscious machines that we can link to our brains, they will be capable of vastly higher levels of intelligence. So they will make superb tools for making wiser solutions to problems. They will enable their human wearers to consider every possibility, from every angle, looking at every facet of the problem, to consider the consequences and compare with other approaches. And of course, if anyone can wear them, then the intellectual gap between dumb and smart people is drowned out by the vast superiority of the add-ons. This would make it possible to continue to select our leaders on factors other than intelligence or wisdom, but still enable them to act with much more wisdom when called to.

But this doesn't solve the problem automatically. Leaders would have to be forced to use machine tools when a wise decision is required, otherwise they might often choose not to do so, and sometimes still end up making very unwise

decisions by following the forces driven by their nature. And if they do use the machine, then some will argue that the human is becoming somewhat obsolete to the process, and we are in danger of handing over decision-making to machines, another form of terminator scenario, and not making proper 'human' decisions. Somehow, we would have to crystallise out those parts of human decision making that we consider to be fundamentally human, and important to keep, and ensure that any decision is subject to the resultant human veto. We can make a blend of nature and wisdom that suits.

This route towards machine-enabled wisdom would still take a lot of effort and debate to make it work. Some of the same objections face this approach as the genetic one, but if it is only optional and the links can be switched on and off, then it should be feasible, just about. We would have great difficulty in deciding what rules and processes to apply, and it will take some time to make it work, but nature could be eventually over-ruled by wisdom using an AI 'wisdom machine' approach.

Would it be wise to do so? Actually, even though I think changing our genetics to bias us towards wisdom is unwise, I do think that using optional AI-based wisdom is not only feasible, but also a wise thing to try to implement. We need to improve the quality of human decision processes, to make them wiser, if future generations are to live peacefully and get the best out of their lives, without trashing the planet. If we can do so without changing the fundamental nature of humanity, then all the better. We can keep our human nature, and be wise when we want to be. If we can do that, we can acknowledge our tendency to follow our nature, and over-rule it as required. Sometimes, nature will win, but only when we let it. Wisdom will one day triumph. But probably not in my lifetime.

ABOUT THE AUTHOR

Ian Pearson is a futurologist, tracking and predicting new developments throughout information technology, considering both technological and social implications. He graduated in Maths and Physics and was later awarded a Doctor of Science degree. After a decade working in most engineering disciplines, he worked as BT's futurologist for 17 years, but now works for Futurizon, a small futures institute. He writes, lectures and consults globally on all aspects of the technology-driven future. He has written several books and made well over 400 TV and radio appearances. He is a Chartered Fellow of the British Computer Society, the World Academy of Art and Science, the Royal Society of Arts, the Institute of Nanotechnology and the World Innovation Foundation.