Humanity and Technology

The Druk Journal talks to Gerd Leonhard, a well known European underlined futurist, keynote speaker, author and filmmaker who specialises in the debate between humanity and technology.

The Druk Journal: We Bhutanese are asking how far behind are we in technology? The digital literacy in our society is relatively low and we are becoming increasingly aware of the explosion of the digital industry worldwide.

Gerd Leonhard: I think it's really a two-sided effort. You have to improve the digital technology literacy and the skill level of the population in using technology, because that is increasingly the key to success no matter what industry you are in… you need to train people so that they understand and use technology, because that increases economic possibilities and the likelihood of being able to work remotely or virtually (which will increasingly become the new normal).

It's quite clear that in five to 10 years, a lot of work will be done online, i.e, in virtual spaces. So if you are 25 years old and you live in Bhutan, you may soon have a job on the Internet, like many people do already, and you can participate in the global economy right there, from Bhutan.

The Druk Journal: What kind of training are you talking about? And what kind of digital jobs are becoming, or will become available?

Gerd Leonhard: I'm not really talking about training in the sense of programming. I'm talking about being deeply familiar with using digital and online tools, understanding the Internet and technology, in general. You'd be surprised how many people don't even know how to search efficiently, or how to store their findings online or how to use simple Cloud tools. Also, being able to research quickly, looking up things, saving things, organising your reading, and using Web technology for phone and video calls, setting up your computer or mobile, and understanding the basics of online security, etc..

The Druk Journal: One of the decisions the Bhutanese government has made is that information communication technology is a flagship priority project. This includes technical education or ICT in schools and other institutions, and training for the workforce.

Gerd Leonhard: That's very important, even though I don't think it should be too technical per se, but more about immersing in the practical use of technology. We must be mindful that powerful technology is always a double-edged sword. On the one hand, you want to train people in technology, and allow them low-cost yet fast access, but on the other hand, you want them to also use technology in a balanced way; as I like to say, keep the magic, prevent the manic and toxic use of technology, such as, smart phone addiction, gaming addiction, or social media obsession. So you have to also teach people about the values of unintermediated human-to-human communication, and generally about "remaining human", which in many ways means avoiding the problems of having "too much of a good thing".

The Druk Journal: In Bhutan we claim to have Gross National Happiness as our vision rather than GDP. So we have that (theoretically) to guide the use of technology to achieve our own priorities and not be completely driven by technology.

Gerd Leonhard: Yes, this is not an easy distinction to make, because it's obvious that simply "more and better technology" does not make people happy (it is just a tool, after all) but the reverse — not having access to such technology — makes a lot of people very unhappy because they cannot communicate freely, they cannot participate in the global conversation, and they cannot prosper as part of the global workforce. But once you have access to "magic" technology, it is merely a tool that you have to use wisely in order do more things that may facilitate your happiness.

The Druk Journal: Do we also need a vision for technology… where we want to be in the technological sphere?

Gerd Leonhard: Yes, I think this is a very important distinction: If you don't have access to technology and the Internet isn't working, then you don't have the advantages, because you simply don't have the tools to even participate. But when you are connected, and you are competing with your

skills on a global level, and you're opening up to the world virtually, then many good things can happen. Like I wrote in my book www.techvshuman.com, we have to embrace technology, but not become technology — that's the #1 principle of being human in a hyper-connected world.

The Druk Journal: Is there a simple way of describing a digital society, and can you think of any country that has got a good grasp of it?

Gerd Leonhard: I think that the distinction between digital and physical is going away. Essentially, everything is becoming digital; we are moving towards a world that is becoming de-materialised (look at music, films, books etc.); smart cities and "smart everything" is becoming the new normal (read www.megashifts.digital for more on this).

In countries like Bhutan that are not so well-connected yet, you have a very big gap between those who are online and those who are not. But in five to 10 years, we are heading into a world that will see 90 percent of the citizens connected.

Yet society is never just digital. Many things aren't digital; most of what we are as humans has very little to do with data and algorithms (at least as we understand it today). I would say it's a connected society, or networked society. I think the key for us is to determine how do we use these new tools to our best possible benefit, while minimising the negative side-effects and externalities.

The Druk Journal: You mentioned that technology is not a magic wand.

Gerd Leonhard: Well, when you have great tools, it doesn't mean that you're going to be able to build something, automatically. You still need to have the human parts — the creativity, imagination, ingenuity, the entrepreneurship as well as compassion and empathy. And so my take is we should invest as much in humanity as we invest in technology; both in terms of financial resources, as well as in attention and time spent.

For example, it doesn't make sense to simply connect people and give them all these new tools if they don't also get training in being more entrepreneurial and inventing things, thus using the new tools to do new things. As I like to say, "The Future is a mindset not a timeframe."

So we also have to train people to rediscover their human-only skills, such as creativity, and show them how to explore and participate; to be curious and to question things. Those are the human skills I call the androrithms https://androrithms.com/. They have very little to do with technology, but everything to do with our happiness. It's probably equally bad if you're disconnected and you can't reach out to the world, or when you are connected but you don't know what to do with all these new possibilities.

The Druk Journal: You said we'd be surprised by the number of people who don't even know the basics. I'm not surprised. It's all around me and people feel that it's so sophisticated and they are intimidated. We still have senior decision-makers who say "give it to me on paper".

Gerd Leonhard: Of course, this is a question of habits, culture and re-learning things. Contrary to popular belief, it's not a question of age; it's a question of mindset (again, the future-ready mindset). There's no secret source to understanding technology — it's more often our fear of it that keeps us from mastering it!

The Druk Journal: You've said that technology can solve certain problems, like in mathematics, science, mechanics and all that, but that technology is not a solution for everything.

Gerd Leonhard: I think this is an important realisation because, you know, in Silicon Valley, a lot of people are saying that pretty much everything is a technology problem, right? But we know that's not true. Human relationships are not simply about logic and data; they are actually completely the opposite.

The Druk Journal: So when we talk about training government and the leadership, we are talking about starting with the basics?

Gerd Leonhard: Yes. I was just involved in a project in the GCC region and it was quite clear that the very same government leaders who are looking to train the wider population in what we call "digital transformation" are themselves still afraid of technology.

The Druk Journal: One of the fears everywhere is that technology will take away jobs, isn't it?

Gerd Leonhard: Well that's true…and it's also not true. It will take away big chunks of the jobs that are routine, i.e commodity work, like call centres and check-out counters at the supermarket, but it will not take away more complex routine jobs, such as driving, any time soon, even though there are many people talking about self-driving. Can you imagine a self-driving car in Bhutan? That's probably at least 25 years away. Also, keep in mind that there are many totally new (and previously unimagined) jobs that are being created by technology. For example, if you look at the 20 million people working in social media, these jobs didn't exist 10 years ago.

The Druk Journal: In one of his Royal Addresses, our King advised the decision-makers to draft a 21st century economic roadmap to develop the economy. So that would be largely technology-based?

Gerd Leonhard: Yes, but this may be a bit too simplistic (and let's not forget the whole climate change and sustainability challenge we are currently facing). Let's put it this way: If you don't have the tools, you don't have access, then you're in a disadvantaged position and chances are high that not much progress will happen (especially if you are GenY or Z). But if you have all the digital tools at your disposal, you also have to know what to do with them (i.e purpose and context), and that involves foresight, understanding, imagination and intuition. So when you train people in technology, you also have to train them in character-skills and in human capability, because that is the human ingenuity that we need. Machines are not going to tell us what the next job is, or what is right or wrong. We are inventing new jobs every single day — the future is something we make, not something that just happens to us.

The Druk Journal: Can technology be an answer to climate change? I'm asking this because the whole world seems to be talking about it.

Gerd Leonhard: Yes, there are giant steps happening. For example, in India it is now becoming cheaper to not build new coal plants but to build solar plants instead. The cost for solar energy is already fewer than two cents per kilowatt hour in India, (https://rameznaam.com/2016/09/21/new-record-low-solar-price-in-abu-dhabi-costs-plunging-faster-than-expected/) compared with five cents per kilowatt hour for coal.

We are also seeing tremendous advances in battery technology, de-salination and all related fields.

We can safely say that the technology is getting there soon, and now we "just" need the political will to change to implement the shift, for example, by carbon taxation and renewable energy subsidies. For Bhutan, this is certainly a major topic: How to become a leader in the sustainable economy (in the widest sense, i.e not just limited to environmental or energy issues).

The Druk Journal: I worry about security and privacy. I was secretary for the Information Technology Ministry and I was quite convinced that even if I sent a message to one of my office colleagues, it might be read in Beijing or Delhi or the US or somewhere, before my colleague gets it. We feel that vulnerable.

Gerd Leonhard: The reality is that there is always a balance between security and freedom, and in technology, there's always a balance between empowerment and enslavement. Technology, if over-done and un-regulated, can enslave you. But it would be wrong to argue that we shouldn't use it just because it could be dangerous if misused. I mean, we're flying in airplanes, we're driving cars, we're drinking alcohol or smoking cigarettes. You know many of these things are dangerous, right? But it's about the balance. I think the crucial point that needs to be made in Bhutan is that technology is not a miracle machine — it is not a magic wand — but without tapping into technology, you're missing the powerful tools you could be using. Therefore, we need a strong and wise balance between the human part and the technology part.

The Druk Journal: And the gap which we see even here, in terms of potential, is a widening gap because, like everything else, there will be people who can afford technology, those who are less able to afford it, and those who cannot afford it, so that widens social, economic and other gaps.

Gerd Leonhard: This is always a cultural question: Take India for example, where many people are living in a world that's still largely unconnected; they're not yet a part of the digital world in the same way that people in the developed world are, where the Internet has become kind of like water or air. They may have a simple mobile phone but they don't yet transact,

buy things, read or watch things online, like people in Europe or the US do. I think that connectivity is always regulated by the culture in which it exists, i.e what are the economic benefits, what social contracts and norms are impacted by the use of technology, and so on. We certainly can't just say that connectivity (and technology in general) is always a good thing — look at what happened with social media!

The Druk Journal: You've said that technology can even make our lives worse. You mean random unguided use of technology?

Gerd Leonhard: It is clear that "too much of a good thing" can be a very bad thing, and that goes for many things, not just for technology. Too much technology may in fact make us unhappy if we start "forgetting ourselves", losing our skills because we stop using them, or fall into the social media "pleasure traps". We must be very careful to cherish our human values and our self-understanding, because that's where everything comes from. So we need to make sure our children don't just get fluent with technology, but also immerse themselves in music, history, sports, ethics and philosophy, so that they become awesome humans, who also master powerful technology.

The Druk Journal: When we talk about cyber security, we are also talking about privacy, and that is an important issue?

Gerd Leonhard: I think this is one of the key issues. In this next decade, we're going to connect everyone and everything, and that's inevitable. But when we connect everyone and everything, we must also protect the things that make us human, which are generally more ephemeral things, such as emotions, mystery, privacy, identity, anonymity and free will. I think that Bhutan now has a great opportunity to pursue a connected yet private and safe society.

The Druk Journal: You've also said that sometimes technology should not be applied for certain things that should remain the domain of humans — not for deciding a jail sentence, or probation and all these areas where you really need the human-in-the-loop.

Gerd Leonhard: Yes, I think we should not seek to automate things that really should remain human, even if they will be less efficient that way. Online dating is a good example. It can be a good thing, of course, but

should we really automate marital match-making with the help of AI (this now widely deployed in India www.betterhalf.com)? Should we really trust algorithms to that degree?

I think the first objective should always be human happiness, human flourishing and human progress (always in the context of sustaining the planet, as well, of course), and then the second objective should be efficiency, security and things like that. You always have to balance one for the other. Countries like Sweden, Finland, or Switzerland have made a good balance, but then there are other countries where technology is primarily used to suppress people.

The Druk Journal: We've talked about the huge amount being invested in or for cyber security, with national security threatened.

Gerd Leonhard: I think this is going to become a big topic and it's quite clear. I think also for Bhutan you have to realise we're moving towards a global society. I mean, we're moving towards a world where we're probably going to have a world government within 20 years.

So maybe Bhutan has an opportunity to become a platform for the discussion of what human happiness means in this digital world: Maybe Bhutan can become a thought leader in this domain? GeneralIy, I have observed that smaller countries are successful when they are thought-leaders: Look at how Spain and Portugal have pulled out of the global recession that started in 2008.

The Druk Journal: Becoming a thought leader would involve a lot of debate, discussions, openness, and transparency.

Gerd Leonhard: Yes, it would require vision and a tenacious attitude in realising that vision. But of course, it's always a mix of social, cultural, religious, and practical things that constrain or empower thought leadership. On the other hand, it is quite clear that Bhutan also needs a plan for growth and progress, so finding a strong middle path between vision and reality will be essential.

The Druk Journal: You talked a lot about "Big Tech" (Facebook, Google, Amazon, Baidu, Alibaba, Apple, Microsoft, Tencent, etc.), and it seems like the general discussion is very much about their ethics and values.

Gerd Leonhard: Yes, these companies are so powerful because their rate of innovation (and growth of user base) has been exponential; they are more powerful than anybody else in the world. Mark Zuckerberg, the CEO of Facebook, with approximately 2.5 billion people, is practically the leader of the world: He owns the majority of the preferred shares of the company and can do with all our user data pretty much as he pleases. Yet, do we really want to have private companies that are essentially cartels, without any public supervision of their power? We need to have a balancing factor of public good versus private good, and how will that come about?

The Druk Journal: In this conversation, you've really emphasised the need to balance technology and humanity.

Gerd Leonhard: If you look at how Bali has changed in the last 20 years, I don't think enough people in the Bali government are asking the question of what kind of future they WANT rather than what they CAN HAVE. Connecting everyone to 4G is not enough, we really must also consider the externalities of technology, the unintended side effects, such as security issues, addiction, emotional disconnection, and dehumanisation. How will their CULTURE change because of technology (and of course because of over-tourism), and what needs to be done to protect it?

The Druk Journal: We began by talking about what Bhutan needs to do, either to catch up or to balance. It's almost like (and you even said that) we probably could start with a Future Manifesto, like we really seem to need a clever, driven, movement to catch up or to find, or even define, the balance?

Gerd Leonhard: I think the idea of catching up is already over. It's not that you have to catch up to anything, because you don't know what to catch up to, because you know every state you're looking at has its own problems with what it is. Maybe you don't want to catch up to Singapore, because it does not make a good blueprint for Bhutan, and Singapore is also certain to struggle with what they want to be in the future.

You have to carve out your own position in your own balanced way. And that's the mission, to figure out what that is. Where are you going to invest? What is your unique position in the world, now and in 10 years? My take is that Bhutan needs to invest as much in people as it invests in technology.