

## Framing Decisions

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- Well, hello and welcome to this conversation about a new and extra ordinary. book, "Framers: Human Advantage in an Age of Technology and Turmoil", coauthored by Viktor Mayer-Schönberger, Kenneth Cukier and Francis de Véricourt. I'm Urs Gasser, with the Berkman Klein Center. and delighted to host this conversation, featuring professor Malavika Jayaram, Mr. Sabelo Mhlambi, who's the Berkman Klein Center Fellow, and founder of Bantucracy, an organization focused on Ubuntu ethics and technology, and Viktor Mayer-Schönberger, the author of the book and Professor of Internet Governance and Regulation at OII. Thank you, Malavika, Sabelo, and Viktor, for joining us for this conversation about frames and framers. And just let me add immediately to frame this conversation about framings and frames, to point out, this will not be a session about the framers of the U.S constitutions. Although those framers make a guest appearance in the book as well, but this will be a conversation about all of us and the mental models we use to imagine and reimagine our futures, to write and rewrite our own constitutions, and make and revise decisions about how we live our lives. So, the game plan for the next hour is as follows, Viktor will give a short presentation, introducing the book can some of the core themes. We then have Sabelo and Malavika offering their frames and their takes and comments and faults in response to the book and the stage of Viktor is going to set followed by an open conversation. Feel free, please feel encouraged to leave your questions, comments, and observations in the chat. I will monitor that and try then to weave in your questions as we go along. So, with that brief introduction, where you are, welcome to everyone, Viktor, over to you. Thanks for being with us and the therefore, for writing a truly important book. Over to you.

- Thank you very much Urs. Thank you so much for having me on. As you know, I've been a huge fan of yours for decades now. I dare to say, which is kind of an embarrassing realization of my own age and fragility. I am even more excited to be talking with Malavika and Sabelo today. I'm humbled and grateful for their views and comments, and can't wait. So, therefore I'll try to be short and succinct, which is challenging for a professor from Oxford. With that in mind, let me start by suggesting that framers in our book, framers is not about framing in the communication sense. It's really about what frames do when it comes to human decision-making. And there is human decision-making is so central to what we do every day. We face decisions on an individual level, on an organizational level, on a societal level every single day. And as we make these decisions, of course we wanna make good decisions, but what actually is a good decision? How do we justify, how do we look at, how do we evaluate and assess a decision? And over the last two, three, four decades, we have learned from people in psychology and behavioral economics, that we humans actually are pretty bad at making decisions because we are biased. We have some cognitive deformations that make it difficult for us to decide in an entirely rational way. And so, there is all kinds of seminars, and books, and websites to help us make better decisions. But then Daniel Conaman just comes back with a book called "Noise", saying, well, we can try this, but it will have limited impact. Our bias is so

deeply rooted. It's not much we can do. In our book "Framers", we take this criticism, and we kind of put it on its head and say, well maybe a frame that is basically a mental model, or a cognitive model of the world that we have, maybe in some ways, this is constraining and restraining. Maybe it's deforming our decisions, but used right, used well, it actually can be incredibly liberating, and incredibly empowering to do that and to utilize frames. Now, what are frames? Frames are these mental models that we have, a representation of reality that we need as human beings, because reality is just too full of senses, too full of information. We need to somehow focus and perhaps simplify a bit. The beauty of a frame is that it highlights those elements of reality that mattered to us so that we can see better options and make better decisions. And depending on what frame we have, we see the world differently. Suppose you are a capitalist in timber farming, you look at the forest and you see money. You see profit. Think about environmental activists looking at the same forest. And that activists sees an incredibly important source of nature that needs to be sustained and maintained. And so, depending on what frame we have, we see the world differently and we have different options available to us. We see different decision options. The beauty of it is that, if we do the framing right, if we play with our frame the right way, we can see more and better options than if we don't, than if we just opt for the two or three conventional ones. And that's the problem with the sort of behavioral economists that are too focused on the actual decision-making moment, because that just focuses on choosing which of two bad options you wanna pick. It's far better to come up with better options in the first place, rather than then confine yourself, restrain yourself to focus on various small limited number of conventional options. And so, these frames help us, mental models help us to come up with better options. And in the book we suggested there were three elements for good frames and good framing. The through called three Cs; Causality, Counterfactuals, and Constraints. I'm sure we will talk more about them, but let me just focus on two out of the three. And that is in particular, Counterfactuals. We always, as humans, and as we play with these frames in our mind, we envision what would happen if we take a certain course of action or don't take a certain course of action. We play "What if" in our minds, we played the game of life a couple of moves ahead. It's it's quite interesting. Researchers has done studies letting people watch people playing pool like VR pool. And it's interesting because their eyes track not just the balls, but then track the imagined trajectory of the billiard balls. In other words, our mind is imagining where those balls are going and playing the what if game. And we do the same in sports, we do the same in business, we do the same in many, many decisions out there. We play the "what if" game, the counterfactuals, the dreaming. But this dreaming isn't like crazy brainstorming or wild borderless thinking. It's actually pretty disciplined. It's pretty confined and constrained. Because if we were just freewheeling dreaming and imagining, we would never come up quickly with valuable options for our decisions. So, we need to constrain our dreaming and we do that. Constraints are key, perhaps the most important element of it. The architect, Frank Gehry said that he works with constraints all the time. 85% of his work is that his constraints, the laws of gravity, for example. But then there is 15% of freedom that he is exercising. And similarly, Martha Graham, the famous dancer, she said, and told her dances to rip the corset off their bodies. So, she freed them of this constraint, but you introduced the different constraints different dance moves in order to create, but also discipline the creativity of her modern dance. that she introduced. So, counterfactuals are a constraint. We dream with constraints, and that empowers us to see

better options. Sometimes when everything changes, the context changes dramatically though, the frame that we have is not sufficient anymore. And that is when we need to switch to a whole different frame. And we can do that. We can reframe and see the world from a very different perspective. We do that repeatedly there's good examples, and some are better at it than others. This reframing is amazing. It's what innovators do, what famous artists and athletes do, but it's risky. It's not always guaranteed that we'll be successful. So, reframing is dangerous, but also highly successful potentially. We have framing, we have re-framing. What can we do to sort of sum up in order to become better? The interesting thing is that, getting better at reframing is much harder than getting better at framing. And where we are trying to get better at framing from an early age, And we unfortunately unlearn some of that as we grow older. But some of the important elements are to hone our skills for seeing counterfactuals, for imagining the world that isn't there, a reality that doesn't yet exist. Toddlers do that with pretend play, but we can also do it when we read a novel, or when we go to the movies, or play a video game. And another strategy for what a reframe is that, we already build up a repertoire of frames, of different frames in our mind. But how can we do that? And what frame shall we pick for our repertoire? It's a challenge. So, perhaps even better than just picking a repertoire, is to stay open-minded for new viewpoints and new frames. And this is a very interesting point, because it means that cognitive diversity is not just an ethical value, but it is a utilitarian value. It drives better decisions. It's key to us making better, fundamentally better decisions than we make today. So, diversity isn't a cost, it's actually a long-term investment that humanity makes in its own future. And it's very important to keep that in mind and to stay cognitively diverse, on the individual level as we argue in the book, but also at least as importantly on the societal level. With that, I'll just shut up and open the conversation to Malavika and Sabelo.

- Thank you so much, Viktor, for this wonderful introduction to the book, which is a really a fantastic read. Also the stories, the narratives, the examples you selected, this is impressive. And so, it's also a very accessible book in the best possible way and sense of the word. When I was thinking about this book conversation, and special guests we could invite and learn from, two names immediately to mind, exactly because they are among the most brilliant reframers that I've met during my time at Berkman Klein and beyond, Sabelo and Malavika. And Sabelo, one among the many things I've learned from you, one thing that made a very, that some sort of crystallizes the idea and notion of reframing is your work on ubuntu ethics. We got into conversations right at the moment where there's been a big conversation about the ethics and governance of AI, and what is so striking that these conversations were not only about technologies largely developed in the Western part of the world, and driven by Silicon valley companies, which by the way, also are touched upon in the book, but it's also that the thinking about the implications of these technologies, and how we wanna shape the futures as we reorganize the interplay between human beings and machines, that's that thinking is also framed through a Western lens. And your work and your engagement in the community has been so extraordinary to help us to reimagine an alternative futures, to see things differently. And so, it was just so delighted when you accepted the invitation to join us today for the conversation, and I'm so curious to hear your thoughts on the power of frames and framing, on the spaces for imagination and reimagination, this plurality of frames that Viktor's catch may

open up, and how it connects to your work, and your thinking, and your lived experiences. Thank you, Sabelo.

- Thank you so much Urs, and thank you Viktor, for that presentation you made, and for writing this fabulous book. I really had a great time going through it, and I'm also happy to be in conversation with Malavika as well. So, thank you all. What I liked the most about the book, and sort of building up on what others were saying, is that there's this emphasis that we all have the power of framing. And part of the work that I was doing as well was to even suggest that we can look beyond the typical Western frames that we use when we're thinking about artificial intelligence, thinking about social ills, thinking about even ethical systems that we can use in response to that. And I would even characterize this idea of a shared ability to frame a sort of even going to this emerging movement which we see today, which has to do with sort of using the word of decolonizing AI, decolonizing data science, decolonizing human rights, and so forth, which really suggests and really emphasizes that we can find solutions through this plurality, through this diversity which sort of the book is emphasizing. That it's not just one section of the world, or sort of one institution that has all the answers, but sort of through this plurality in views, we can have sort of in much, much healthier ecosystem. I really appreciated also sort of the the idea of the danger of a single frame. And I think that's one of the dangers, even if we look at artificial intelligence, that I liked how you used the word hyper-rationalist, the view that with enough data and enough information and logical rules, we can reach the right conclusions always. And there's a healthy balance that sort of the book points out, and which I think also is reflected in the work that I do, that we can just simply have hyper-rationalism without the other, I think he called his sort of, like sort of community-based or even having empathy and sort of having emotion. But that's the difficulty that we sometimes try to unravel sort of, moving away from this hyperrationalist view. And again, the danger, it's interesting that the danger as well applies to the response to the hyperationalist view, because even within the ethical systems, or the human rights frameworks that we tried to use in response to the possible negative effects of artificial intelligence. We may not even have enough diversity even within those framings as well. And so again, looking at other systems and different ways of thinking about ethics, different ways of thinking about what should the role of, purpose of technology should be, or even having sort of these ethical frameworks. So, I think, what I sort of took home, because at the end of the day, so we can have multiple frames. So, how do you choose the right frame? And maybe what is even the purpose of actually choosing a frame? Why not just have any random frame? And I think the point was really solidified, and there was a quote that you put where you say, "The end is a society that supports the people who comprise it, that protects their rights and freedom, both physical and cognitive". And I think this is certainly a view that is both cherished within the ubuntu philosophy that I've been writing a lot about within this past few years, where all the members of society can be supported, where they can be protected, have their rights protected, and have this physical and even cognitive freedom, and sort of having this plurality where both these worlds can exist. So, I certainly appreciated reading that part. And it speaks to the work that I've also been doing with the Malavika as well on a different project. We were working on some ethics manifesto sort of, a nod too many universe vision plurality. And they idea, again, is sort of shared with what you're writing in your book. That you can sort of have these different

universes, they can exist. And it's through this multiple universe that we can push humanity forward, through embracing, but it is difficult as you mentioned. And I mean, there's just so many gems in there, even about some of the tensions that can exist. You spoke a bit about the Cancel Culture as well, which could be sort of one way of even preventing a plurality, but it's just so nuanced, sort of going between both worlds. But I think, at the end of the day, I really appreciated the healthy balance between sort of finding that balance, and not just resting there, because I don't think it's possible to necessarily find the one way forward, but to also constantly re-examine it, and challenge it, and question it and keep on building upon it. And I think that's where the power of the diversity really comes from. So thank you for the great read and truly appreciate that.

- Thank you Sabelo, so much wisdom and wonderful questions too. And I hope Viktor, we can further build up on Sabelo's, also comments, and definitely I'd love to get back to this pluralism idea and chapter actually in the book. I think there's much there. We also have actually a question in that in the Q and A, that zooms in on this question of cognitive freedom and what it means, and how it relates to our cognitive templates. So, maybe that's something we can expand on. Now, Malavika, it's so wonderful to have you in this conversation in particular. You are the Executive Director of the Digital Asia Hub Bureau, a Professor at SMU Law School. You have done many wonderful things in your career. And when I read the book, one thing, one recurring theme was also about diversity of perspectives and some sort of different frames that we get when exploring different cultural contexts, when exploring different disciplines, when traveling the world essentially, and have eyes open, and have this agility of mind. And in your work and what you've been really leading in remarkable ways at the Digital Asia Hub, two themes again, that we're also introduced by Viktor just minutes ago, are so key factors. And one is, working with arts and artists. And you have approached the topic of AI, and governance, and technology futures, working with artists. You've worked with science fiction writers, you have done all sorts of amazing things with arts. And so, I thought that's, again, makes you an ideal contributor to this conversation. And the second theme that I also, through my frame, characterize so much of the outstanding work you're doing, is playing with constraints, both in terms of an organization that is very small, but has a big footprint already, but also really being an amplifier of constraints you see in different parts of the world, and the creativity that may unlock, and telling the stories on what people are doing on the ground as they reimagine their futures. And sometimes it's really bricolage, and the enormous creativity from which we can only learn, I mean, of. So, with that short introduction Malavika, I'm so glad to hear your thoughts and learn from you when it comes to frames and framers.

- Thank you Urs for that very, very generous introduction. I think you touched on the two things that for me were really interesting in the book. There's sort of the connection to the arts, all the examples from Spielberg, and how future forecasting ideas were brought into the design of minority report. Like how artists, designers, set designers worked on conceptualizing imaginary futures and road testing them. I think the interplay between these of mental models and frames and the arts was very evident in a lot of the book. Martha Graham's dancing, Frank Gehry... I think these mental models and sort of infrastructural constraints, and pluralistic models were really interesting, the breadth of them. But I think also this notion of constraints

that you mentioned, because I think in a lot of the work that I do and the regions that I operate in, things work really well in lab conditions. But when you actually put them into the real world, the constraints that people don't necessarily imagine in Silicon valley, but which exist in Asia, in the global south, those become manifest in ways that actually might change those mental models, or turn up things that you couldn't quite imagine when you created that model. So, I think the role of constraints is really useful. And I think when you're working in poorer conditions in the developing world, those constraints are sometimes fetishized or romanticized as sort of being part of this project of modernity, as being somewhere along that trajectory of development. But I think it raises all these questions of information asymmetries, of power differentials. And I think Viktor's book brings up a lot of work that Chimamanda Adichie has. I mean, there are quotes from her in the book, but I think there's one beautiful quote from her piece on the "The Danger of a Single Story", where she talks about how power is the ability not to just to tell the story of another person, but to make it the definitive story of that person. And I think in the global south, in developing economies, when we look at frames, we're always questioning whether it's an indigenous frame, whether it's something that resonates for local populations, for local people, texts and cultures, or whether it's a frame that's imposed by someone else. It maybe the settler colonialism alone, it could be other, it could be the world bank, it could be other kinds of three letter agencies, or different sort of harmonized ideas of what development means, which might have very very profound implications on the ground in local contexts. So I think Viktor's work in this book on how frames need to be adaptive and resilient, and how you need to reframe things, rather than be stuck with a very rigid frame that might not work and yet you still keep insisting on that. I think there's a lot of power in this ability to reframe, to work with counterfactuals. I mean, I found that counterfactual chapter really interesting. So, I think using art to test these boundaries, but also using different contexts, different socioeconomic imperatives to test models, I think that's really, really important. I think the other thing that really resonated for me in the book was they have no rules. They say pluralistic approaches to framing is wonderful, but they have one exception in the book, which is that any particular frame is to be denied. And I think that's incredibly powerful. That's something that's Sabelo and I have been working on and this idea of manifesto, saying there isn't a single manifesto, it's a manifesto, it's many stories, many narratives, many different models. And I think the fact that this book says you need to respect all models, except the one that says this is the only one, this is the truth, this is objective reality, this is the only thing that matters, this is the only frame that works. I think that sort of imperialist idea, is something that they discount in the book. And I think that's powerful. And I think I'll just end these opening remarks with, since you mentioned art, reading this book made me go back to one of my favorite books which was a selection of essays on photography by John Berger, it's called "Understanding a Photograph". This is a collection edited by Jeff Dyer. And in one of John Berger essays from 1968, where he talks about how you interpret a photograph, or how you look at it, he sort of underlines this really important point, which is that in the act of recording something, a photograph is almost always a memento of the absent. It's a relationship between what's present and what's absent. And in the way that they talk about in the book, it's his decision to focus. It's this decision about what you include in the frame, but it's also a conversation about what is left out, whether it's cognitive overload, whether it's efficiency in decision-making, whether it's the use of constraints, but I think the

role of what is included and what is excluded, whether it's in framing something to achieve a particular composition for the photograph, I think this is this relationship between the present and the absent, is something we always need to bear in mind when we're thinking about mental models and framing. Because I think the fact of isolating and preserving a particular moment, along a continuum, is what's powerful about frames, but recognizing that it is a longer continuum, and it's one of many frames, and it's a particular... In the words of another famous photographer, Henri Cartier-Bresson, it's this idea of the decisive moment, which is what makes a powerful image. But I think it's also what makes it particularly powerful framing, what works in a particular era, for a particular historical political moment, for a particular context for particular people. I think that bracketing of that decisive moment is useful and instrumental and efficient, but that there are other things that are absent from that frame is also something we need to keep in mind.

- Thank you, Malavika, such a wonderful set of observations. Viktor, of course, there's so much to follow up on. If I may just offer a possible structure, building up on these insightful comments, that we would in a first round, zoom in a bit more on the central notion of the pluralism of frames and plurality of frames. And I think that the first part of the question that I identify out of this conversation, is really about some sort of the conceptual understanding of this pluralism. And also in the book, I got the bit the sense you're putting some sort of front and center sort of marketplace of frames that borrows a little bit from the marketplace of ideas. And I could imagine that this may be it's also misreading what you're crafting and may invite also some pushback. So, I would love to hear you yourself arguing in the question of your own framing of this pluralism, which is inspired by a Hannah Arendt in the opening story as well. So, that could be kind of the conceptual. Second, as both Sabelo and Malavika highlighted, there are of course different ways, and the points you also make in the book, different ways to get better at revising frames, at reframing and so forth. And I'm just curious whether you could expand a bit more. In the book, you talk quite a bit about individual ability and the agility of mind. And Sabelo and Malavika also made a few examples, or suggest a few examples of that can be. It can be through arts, it can be through education, it can be through exploration and and thinking exercise, and the likes. Yet, I'm also wondering what's happening on the policy and institutional side. You are of course, one of the foremost experts on policy and governance in technology. And so, I felt that was less prominent as a theme. And so, I'm particularly curious to hear your thoughts on how can we set the best framework conditions to allow the sorts of individual explorations. And of course you touch upon that in the book too, so it's more kind of maybe adding one or two sentences to that. And lastly, if I may just add that, because it came up briefly in the comments as well, and that's this notion of friction, if we embrace, as Sabelo put it, this diversity of frames, and then engage in these negotiations and in the sort of coexistence that you sketch a submission in the book, there will be frictions. And you make this point quite clearly also in the book. And I'm wondering how well equipped are we as societies, as communities, as organizations to productively deal with these frictions and not break apart. And isn't that one additional big challenge as we create a roadmap for the future, where we have a pluralism of frames to become better at managing friction? So, over to you, Viktor. I hope this offers at least a sketch of a conversation, but you're totally free of course to respond.

- Thank you very much Urs, and thank you very much Malavika and Sabelo for your very kind words. Much appreciated. I try to be brief. You give me three charges Urs. So, the first one is to talk about a little bit about that pluralism idea. Now, that pluralism idea is chosen very deliberately, in a way the two towering figures in this chapter are two female political philosophers. When we talk about political philosophy, talking about the framers of the U.S constitution, it's usually white, old males. Here, smack at the center, are two female political philosophers that have a tremendous amount to say about this, much smarter than their male counterparts. Hannah Arendt and Judith Shklar, Judith Shklar of course from Harvard, Hannah Arendt originally from Germany, and then having immigrated to the United States in the 1930s. and what Hannah Arendt put forward was not liberalism at all, because the danger of liberalism is that, it is an implicit single frame of truth. Not as radical as a totalitarian regime, or an authoritarian regime, but still this kind of universal single frame of truth. When Hannah Arendt juxtaposed that to her view of a pluralism of view points, Standpoints as she called it, it's much more decentralized. It's much more, if you want Republican with a small r, rather than with a big R in the American sense. And for Hannah Arendt, it was very important to say that there is a danger not just for totalitarian regimes, for emotionalists, but there a danger for the most well-intentioned liberal to walk down that pathway of a single frame of truth as well. And we need to be vigilant against ourselves every single day, because it is so convenient to fall into the trap of sort of the conventional frame, and stick to the conventional frame, which by the way, harks back to the friction issue that there we'll pick up in a moment. And Judith Shklar at the end, really picks this up again. And even though Shklar and Arendt had some differences, Shklar said, we don't need just rights, we need more than our rights to exercise and to live this pluralism of frames. We need to be empowered to do it. We need to be, for example, be free of fear. It doesn't matter to have the right. And in my work, I'm often reminded of that. I have been doing data privacy issues for many, many years, and Europe has given data protection and privacy rights through GDPR to its individuals and saying, wow, now we are powering you, but that is of course not empowering. Because it is like Marie Antoinette telling the citizens if they can't eat bread, why shouldn't they have cake instead? It is assuming that an individual can take on Facebook or a Google. There is no empowering in an individual right, if it doesn't come with the right conditions to give that person an opportunity to be free of fear and to exercise for her power. And we must not forget that. So, that kind of leads me to the second question that you asked, what about the societal and institutional context? And as I get older and older, I become less and less convinced that the individual will take care of the problem. But it also, I become convinced that we need to have the right condition in our society to do that. And that has a lot of elements in it. We talk about them in the book. We talk about the viewpoints, beautiful works, or very highly interesting works in the U.S also from race sociologists, talking about the danger of being color blind, because it is assumes that there is no color, that there is no difference when in fact there is. You just need to look at the street. You need to look at how, through microaggressions African-American, people are treated. And so, what we need to understand and realize is that we need to see not the world without color, but with very different kinds of colors, it needs to be color full rather than color less, or a color blind. And we need to appreciate this colorfulness. And so we point at education, we point at institutional organizational elements of it. We talk about Organizational Casandras. A person inside the organization who can tell the truth without being fired. It seems that after the past

administration in the United States, there was a huge desire to have only yes people around the president. It's hugely important to contrast that to what JFK did in the Cuban missile crisis. When all of the military brass said, let's nuke Cuba, let's nuke Cuba. And JFK said, let's hear another frame. Let's have other voices around the table. And even very junior advisors were permitted to speak. And they came up with a different viewpoint. And fortunately, nuclear meltdown or nuclear war was avoided. But it was avoided because people could see a different future rather than the one that was obvious and conventional. And that was being actively permitted by the organization, permitted by the institution, permitted by society. That's what we need, which leads me to the third point that you mentioned, the friction point. Is this frictionless? No, not at all. In fact, when we need to see each other's perspective, it takes time. It takes effort. It's not frictionless at all. And so, if we are going for efficiency, and if nothing changes in reality, then we may not want that friction. But the truth is, as humanity, and as our society faces existential challenges from social inequalities, to environmental degradation, and global warming, we need to think very differently about the world and about the solutions that we have available, than what we thought in the past. And for that we need to perhaps reframe, perhaps come up with a better frame. That will require, by necessity, to listen to viewpoints that we haven't entertained yet, to other viewpoints, and to bring them in. That will require energy that will lead to friction, but it's absolutely worth it. It's the investment that we make now as a species into our longterm existence. It's as simple as that. I don't think that humanity will survive, quite simply put, without us being willing to engage in seeing each other's viewpoint and engaging in this friction. But society is not well-equipped to do that. And if I were to look at what needs to be done first, I would try to look at the enabling factors, that enable these frictions and this sort of exchanges to take place. And I feel that this is oftentimes misunderstood, particularly in democracies, where you wanna paper over dissent and disagreement. I wanna embrace disagreement. Disagreement is the seed for a better solution, because we can see better different frames. And that is what we need to look for. I see that Sabelo had his hand up, so I'll stop here. I've talked way too long. Thank you very much.

- Thank you Viktor. Sabelo, I think you, you have a comment or reflection.

- Thank Urs, thank you Viktor. it's really interesting this question of power. And maybe this might be a complication or maybe just a question, but what if the frames are there, but powerful interests, maybe like those three letter, acronyms that was pointed, what if they prevent the choosing of the right frame? So, how do individuals, and maybe even societies, especially when there's a power asymmetries, end up sort of overcoming the power difference, so that the right framing and maybe the right set of frames are chosen to move society forward?

- Can I quickly respond to that Urs? I need to be... I think this is a wonderful question. Very, very important. That's precisely what we need to look at, this sort of create this enabling factors. And we give a number of examples in there from the liberation day and [Unclear] deliberation, to Roberto Unger's work at the Harvard law school on a permanent revolution in a democratic sense. And yet there will be resistance. There will be resistance to this, because it takes effort. It questions some of the status quo, the conventional view. And so, we have to be persuasive,

and we have to be persistent in what we aim to do. The biggest danger though that I see Sabelo, is that we that there are too many people that read Yuval Harari's work "Sapians", and think that the future of humanity is all about better coordination. Sort of making the machinery work as swiftly and efficiently and well-oiled as possible. While we argue the best way forward is to throw sand into the machine at times, and to create friction in the real sense of the world, because out of friction, we can then learn to approach a problem from a very different viewpoint. The future isn't the well-oiled machinery of humanity, but the beautiful rainbow colored diversity that society and humanity bring forward.

- Thank you, Viktor. Malavika, I'm wondering whether I could invite your thoughts on this question of how could we work towards a more equitable environment, where the costs of friction are more fairly distributed. Because there is a risk that not only rights are some sort of a biased towards those who are able to exercise it, but also that the frictions that we are confronted with, as we described it, the cost barriers maybe may look very differently. And so I'm wondering what your thoughts are on this question of friction, and how can we become better to go through phases of friction, but also to make sure that we don't disadvantage the already disadvantaged?

- I think to two very quick responses, Urs. I think one is the amount of work that can be done at the level of a platform or a product, whether it's privacy by design, or fairness by design, or other kinds of systemic structural reform. I think that helps for the cognitive or other kinds of load, not to be borne by the weakest in the chain, but by the most powerful. I think that's a very easy way to tackle asymmetry of power, and information, and agency, and autonomy. So, I think to the extent that the changes can be embedded by design into the structure of a system of a governance framework, or of a product or service, and the less that we're expecting end users or the most vulnerable and marginalized in that ecosystem to bear, whether it's fact checking, whether it's exercising rights, whether it's changing privacy settings individually. I think that's one way to tackle that. I think the other way is to actually work with the friction and to see it as a feature, not a bug. I mean, one example that I really love is in India. A friend of mine coined this idea of the cycle gap, which is the exact width that it takes a bicycle to make it through a traffic jam when everywhere else there is gridlock. And it's kind of this very opportunistic, sort of lean innovation kind of thing. I think when it's a traffic jam, it's a cycle gap, when it goes to business school and comes out as a Harvard case study, then it's lean innovation. But I think that's a very basic idea of how something that is friction, which is the traffic jam can actually lead to particular lean ways of overcoming, working around, finding a way to hack their way out of a system, rather than expecting that system to change. So, I think finding little cracks and gaps. I mean, if we wanna get back to Leonard Cohen, it's sort of like looking for the cracks, because that's where the light comes in. I think some of these points of friction are, either very revealing of where the tension points are, and therefore where the solutions might also lie. So, I think friction is actually a really useful lubricant for ideas, and it also brings very different stakeholders and players to the game, it's not the usual suspects. I think friction forces people to self-govern or to come up with their own solutions, especially when there's a legal vacuum, an infrastructure vacuum, or governance gap. So, I think the ways in which people respond to friction is also very revealing. And I think what's interesting in the

book is they offer all these, it's kind of like a little toolkit for how you use frames and models just in life in policy-making. But I think creating these kinds of critical skills in the education space, I know you and Sandra and others that I've worked with have done a lot of really great work at Berkman with youth and media. And I'm constantly asked by students about what skills will survive, and what they need in a world where everything is dynamic and in flux. And I think the ability to reframe, to mentally shapeshift, and to lean into friction, and to actually see it as a superpower, and to be adaptive. And I think all of workers on interoperability. I think while Viktor was talking earlier, I was thinking if you have all these pluralistic models, what becomes really important is how you interoperate and find bridges and connections between different models. And I think to me, those are all critical thinking and critical skills we need in the education space. So, I'd be really interested in how this work on framing can actually bleed into academic curricular or other kinds of capacity building initiatives. I hope that helps just a few thoughts.

- Yeah, very helpful Malavika. And of course, an amazing example of reframing. The way you turned a friction from the way I was introducing it as a negative into something that's much more productive. So, it's a fantastic example of reframing in a most helpful way. You also build the bridge to where they hope we can talk about for the final five minutes. And that's the role of technology, or some sort of the AI piece versus the human piece. And the book in some, in many ways is indeed, as you just mentioned, Malavika as well, is an homage to humans and their unique abilities and skills, and the ability to frame. And so, Viktor, if I may throw the popcorn over to you for a few last thoughts on this theme. Maybe if time permits, to cover two different dimensions, almost like input and output. One is, of course, the distinct feature that you argue in the book is deeply human, and won't be taken over by AI any time soon, which is this ability to frame through the different mechanisms you outlined that mentioned today. But then there are also moments of course, where technology can be an enabler and help us, particularly in one part of the book, you talk about how technology can shape the way we play with constraints. And so, I was just curious, also, we had the question in the chat about how does the theory of frames and framing apply to the current AI discussion? And maybe these are two pieces to the puzzle. So, over to Viktor.

- Well, thank you very much. I wanna hack back right to what Malavika said in far better than we do in the book. She pointed at the example of photography. We also talk about photography in the book, because photography now is mostly done on smartphones. And these smartphones are actually a sort of AI or big database machines. And they take a photo, a raw photo, and make it "nicer", "better". But by doing that, of course they not only apply huge processing power but they also apply a mental model of what people think is a better photograph. Now, sometimes that's true, but sometimes it's not. As Malavika pointed out, it's sometimes what is not there. Sometimes the space that's missing, the emptiness, the thing that we don't see, or that is not perfect that trips us up and lets us think. And so, in that sense, even computational photography, which is the term being used for that, and AI more generally is not the end product, is not what what we need to do. It is just a tool to take a particular mental model and apply it to particular dataset. But it is incumbent on us to choose the right tool, just as you said, and to pick the right frame, so to speak, not just in terms of filters, but in terms of

so many kinds of inputs and perspectives when it comes to photography. And that of course applies to AI more generally and to technology more generally. And then when we talk about technology, we, in the book, suggest that its role isn't as a substitute for mental models. We are the ones that are good with mental models. We are the ones that are good with frames, but we are not as good in calculating numbers. We are not as good as doing huge amounts of data analysis, and technology can become an enabler by showing us what a particular model, a particular frame would do, could do. So, for example, as you alluded to, there is a surgeon in Boston who does brain surgery, and they use a computerized model, and then an actual model, technology in other words, to let them do "what if" surgeries. What if I do this? What if this happens? What if that happens? So, sort of go through and plan it out, and create a kind of imagined reality and play with it. Then technology enables us to frame and to become better at it. And then it is empowering. Then it is enabling us to go beyond constraints and fears that we have in our mind. If, on the other hand, technology takes a mental model and imposes a mental model on us, it is terribly limiting. And so, we need to understand this is a huge and important division of labor that's going on between technology and humanity.

- Thank you, Viktor. Obviously the conversation just gets started in some ways, but we are unfortunately at time. And I just want to end by expressing my deep appreciation Sabelo, Malavika, Viktor for having this conversation, and everyone in the audience for joining us. Special thanks also to Reuben and Lance for organizing the session. And I'd like to end with the last sentence of the book. "We thrive through cooperation, but we can only survive as framers". So, here's to better, more and more diverse framings. Thank you everyone. Thank you. Be well.

- Thank you.

- Thank you. Bye.

- Thank you, thank you, thank you. Bye-bye.