

Transforming the present for a fair, decentralized and cooperative tomorrow



Glen Weyl

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Abstract: The main topics covered in this lecture concern the use of social technologies and how they can be used to create a new decentralized social system. The panelist, Glen Weyl, also covers ways to develop a future that is more just, collaborative and decentralized. He also explores the possibilities for organizing markets and societies to increase prosperity and cooperation. Finally, Weyl shares some insights from his latest books: “Radical Markets: Uprooting Capitalism” and “Democracy for a Just Society.”

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JULIANA: Good afternoon, everyone! How can the use of technologies create a new social system from decentralization? Ultimately, how do we create a more just, decentralized and cooperative future? In Glen Weyl's lecture, we will explore the possibilities of market and society organization, in order to increase prosperity and cooperation.

Glen Weyl is the founder of the RadicalXChange Foundation. He is the specialist in political economy and social technologies of the technology board of Microsoft. His work is oriented towards imagining, building and communicating a plural future of social technologies, which is more faithful to our lives and more committed to diversity. Besides that, he also focuses on pointing out possible paths for these profound changes from social technologies and market mechanisms, aiming to develop a richer and more egalitarian society. Therefore, Glen will share with us insights from his last books, among them, the most recent: "Radical Markets Uprooting Capitalism" and "Democracy for a Just Society."



GLEN: It is an honor to be here with you all. And it has been an honor to cooperate with you over the last years, trying to imagine a better future together. Thus, that is what I want to talk about today. One of my favorite quotes is from Albert Einstein in 1932, just ahead of the great disarmament conference of that year.

He wrote that: “What the inventive genius of mankind bestowed upon us in the last hundred years could have made human life carefree and happy if the development of the organizing power of man had been able to keep pace with his technical advances. As it is, the hardly bought achievements of the machine age in the hands of our generation are as dangerous as a razor in the hands of a 3 year-old child.”

Therefore, I think that what Einstein inspires us to consider is that our technologies, for example, our communication technologies have come so far. Accordingly, we used to write on the walls of caves. After that, we had printing presses. Then, we were able to hear each other’s voices over long distances with the telephone. And nowadays, we can see each other with a television in both ways with video conferencing. However, the basic tools that we use to organize ourselves, namely, the dynamics of representative democracy, voting money, et cetera, really have not changed much over time. Despite that, I think we have the potential to transform those fundamentally, in ways that are as much true to the texture of how we interact in small groups as we have done with our ways of communicating at scale. In other words, we have gone from very primitive ways, just the most basic communication of information in text, to these rich forms of communication.

For instance, we are doing it right now, over this video conference that lets me reach you from halfway around the world in Seattle, Washington. Furthermore, let me explain what I am saying in a broader way. Capitalism is optimized for a particular set of circumstances, which are called decreasing returns. These are contexts in which the more people are involved in something, the more they crowd each other out, the more they fill up a space, so, the less each additional person is able to add.

Let me give one example of this. These circumstances make sense in a factory when you have got a fixed space and you put more and more people in and it crowds it up.

But capitalism is not optimized for a context of increasing returns or what you might call exponential technology. Since these are things where the more people are involved, the larger the scale, the more powerful the system is. Cities are a classic example of this. The reason why São Paulo has about 30 million people is that everyone is able to benefit from those interactions. You are able to provide more services to more people at lower costs by having people together. Hence, the fundamental problem is that, in a context of decreasing returns, you can pay out wages to all the workers for their incremental contribution, for what they are adding and still have something left over for profit. However, when you have increasing returns, if you try to pay everyone their marginal contribution, the amount that they are adding, you would go bankrupt, you would run a loss. You cannot do that in a capitalist system.

In this sense, you cannot have the idea that capitalism is meant to promote the notion of economic efficiency and also have the power of exponential technologies. You have to support and optimize those using different types of systems. Moreover, another problem is that everything that creates modernity, both the benefits and the problems with it, come from these exponential technologies, these self-reinforcing increasing returns processes.

Whether it be the initial power of mass production which inspired Adam Smith's wealth of nation, or the modern possibilities of network technologies. And of course, the dark sides of both of those. For instance, the ways in which the power of production is running out of control and destroying the planet. Or even, the ways in which our networks are running out of control, creating misinformation and undermining our ability to govern ourselves.

Having this in mind, consequently, we need to come up with new approaches, which are different from standard capitalist organizations. Instead, they are optimized to manage these exponential technologies, these increasing returns processes. And I want to give you a couple of examples of things that do that. Namely, this is joint work with Vitalik and the founder of Ethereum, Zoe Hitzing, who is a poet, philosopher and economist at Harvard, it is called Quadratic Finance.

The idea is, rather than funding new ventures, as you would normally do by just putting in funds - then, the amount which the venture gets is the sum of the funds contributed. Instead, there is some pool provided by a philanthropist, by a platform or by a government that matches those individual contributions. Therefore, the total amount received by the venture is not the sum of the contributions, but the sum square of the sum of the square roots.

It means that we match small contributions more than large ones, contributions to causes with many individual contributors more than to those with few individual contributors. Hence, this basic principle is actually pretty familiar. For example, in the city of New York, you get a match on any contribution you make to a political candidate, six for one up to \$100, as long as there are another 999 people making contributions.

Of course, those numbers are arbitrary. In fact, the right version of this can be derived from this formula, using some basic economic logic, based on the principle of free-writing. For instance, if you are a small part of a big public good, you are not going to take into account the full value. Thus, you are going to contribute much less than would be ideal.

Therefore, what this formula does is: we are going to match you inversely proportional to what a share of the total value you are. This means that, if you are a very small fraction, a very small contributor, you will get a very large match. On the other hand, if you are a bigger contributor, you will get a much smaller match. In this sense, nowadays, this procedure is being used around the world to fund everything, from media campaigns, supporting small businesses and open-source software, within the Ethereum ecosystem, as well. Moreover, it offers a really powerful way to re-imagine how something like crowdfunding or capitalism, as a whole can operate.

However, this raises a natural question. Namely, how do you fund those matching funds without undermining the dynamism of the economy? Thus, we know that taxes can undermine economic growth, but we need those taxes to support these public goods. Furthermore, this is the seed of another idea called Self-Assessed Licenses Sold at Auction or SALSA, which was first proposed by the University of Chicago economist, Arnold Harberger, who is famous for being the original Chicago boy.

However, before he did any of the sort of free market policies, usually associated with the Chilean experiment, he came up with this quite brilliant idea building on the work of Henry George and of the Chinese revolutionary Sun Yat-sen. Hence, he said:

“If you have to make a base for taxes, adopt criteria that determine the true economic value. The solution that the economist offers is simple and direct: allow the owner to declare the value himself, make values public, and oblige the owner to sell his property to any person willing to pay that declared value.”

Therefore, this system is simple and creates incentives, even beyond those in existing markets, for assets to be employed in their most productive economic gifts, since it basically creates a system where we actually use taxes not to slow down the market, but to accelerate it. In other words, everything is made subject to the possibility of buyout and, in the process, taxes are raised.

So that they can support the development of cooperative public good enterprises. Effectively, what I think this is doing is to create a far more dynamic version of democracy, where we are constantly creating these new organizations, using Quadratic Funding.

Besides that, by using these taxes, they also sort of decay away. Accordingly, they are up for some continuous form of election all the time and also, being accountable to the public.

Although these ideas may sound radical or transformative, in fact, they are already starting to change our world. For instance, they have played a fundamental role in Taiwan, the most successful digital democracy in the world. Since, they have allowed people to participate in self-government and solutions to key problems. Thereby, these ideas have made Taiwan the most successful country in the world in dealing with everything, from COVID to misinformation.

Moreover, they have been used to allocate the budget of the state of Colorado, and also to allocate millions of dollars of funds for open-source software in the Ethereum ecosystem. Furthermore, we now have hundreds of groups around the world that are working on trying to implement these, including the extremely dynamic group in Brazil, led by Juliana (the lecture presenter). And yet, this was really just an example of one problem, and only the start of the process of developing transformative social technologies.

There are so many other problems that we know our existing institutions get wrong from the structure of social identity to the very institution of money. Once, they are thin and forget many of the important elements with which social systems should be built on. Besides that, our representation is rigid and based on predefined geographical boundaries. Furthermore, the way in which we do not account for the effects of our communication and other social signals on people, and how they impair the creation of social value.

Additionally, I think the fundamental reason we have antitheses has to do with the attitude that we have taken. Everybody knows that technology can advance hugely towards unimaginable limits. For instance, we went from machine intelligence systems just doing calculations to playing chess, to being able to identify images.

On top of that, we have this aspiration of technology eventually matching some of the flexibility of the human mind. Besides that, communication has gone from the most primitive ways of us representing things across distance and time, to us maybe being able to have even richer connections to each other using technology than we have in person.

Accordingly, I think we need to have a similar ambition for our social institutions. Everybody knows that in small groups, when we are interacting with each other, we have much richer connections, much richer ways of interacting than we do just using money or votes in some elections. That is the reason why people have this ideal of local democracy.

Despite that, I believe that we can get to a point where, just as we have done increasingly with our communication technologies, we can have as rich interaction with people very far apart, as we have in a local town hall democracy. Hence, in order to make that happen, we have to create a culture of radical social technology, which requires fundamental science. Thus, it demands that we take social science to be the foundation for justice transformative technology, as we take natural science to be. Moreover, it requires entrepreneurship and experiments like what is going on in the Ethereum ecosystem, to build tools which people can use to do this at scale. It also requires culture and imagination and ways that we can feel and live these things.

In this sense, one of my favorite examples is the latest iteration of civilization, the best-selling strategy game of all time, which incorporates Quadratic Voting, a cousin of Quadratic Funding, as the foundation for their diplomatic voting mechanics. Hence, millions of people every day are exposed to some of these tools just by playing games. It requires activism. In other words, it requires people to make these tools part of how they imagine the future of their government and also, what are they fighting for politically, beyond just the tired debates of the 20th century.

Accordingly, these tools should actually transform how we live democratically together, in order to get to a place of economic, social health, and political success, that a country like Taiwan has achieved. Furthermore, to make that happen, we need everyone involved. Since all of the talents you bring, whether you are someone who imagines, creates, whether you are someone who builds, whether you are someone who is politically engaged. Likewise, all of you have a role to play in helping us bring about the social technologies that we need for a successful 21st century.



JULIANA: Thank you, Glen! I really enjoy interacting with Glen. On several occasions, I had the opportunity to discuss his book. We had even started a group in São Paulo University, to debate his ideas, which allowed us to spread them considerably, including the concept of Quadratic Vote.

Now, we have the opportunity to interact with the audience. Before that, although I do not like to monopolize the speech, I think the timing is perfect to share with everyone how the chapters of the book were spread around the world, within the RadicalXChange movement. For instance, we had seen some work being done in Asia and Europe, as well. Thus, maybe Glen would like to also share with us, in this last year, with the Coronavirus, how these ideas were somehow discussed and applied.



GLEN: As I mentioned, Taiwan is the single most exciting and successful and comprehensive case. I think that is because they have faced some really difficult challenges. Namely, they are right next to China, feeling every day the threat of authoritarianism. Hence, they wanted to show an alternative.

Moreover, they had faced the onslaught of the pandemic before anyone else did. Therefore, in face of these threats, they have responded and adopted these new technologies. I think it is not as close to any problem for many people in the west. On the other hand, in the West, things have been slower, but we have had some great successes here as well. For instance, Danielle Allen, who is on the board of RadicalXchange, is running for governor of Massachusetts.

Besides that, right now, the state of Colorado has become a very successful laboratory for innovation, both in the private and the public sector using these ideas. Therefore, it is playing out everywhere from Finland to Brazil, from China to Columbia. So, we are very excited about the way in which these experiments are traveling. But, the most successful and the most complete success has been the experiments in Taiwan.



JULIANA: Glen, we have some questions here, which have been voted on. Hence, the first one is the most voted and it is very simple: “How to decentralize and be fair at the same time?”



GLEN: That is great! So, I think that the essence of this, to me, is to realize that robust decentralization always relies on moving beyond our simplest notions of decentralization. Thus, what do I mean by that? For instance, when the founders of the American Republic, the framers of the constitution, set up the country, they could have just said: “Oh, we want democracy”.

Meaning, one person, one vote, et cetera. However, that is not what they did. The problem was, there were lots of divisions within the country, lots of different groups that needed to be protected, and also, there were minorities. Although they did not do things perfectly, since they oppressed African-Americans, for instance.

But they took into account the complexity of the different groups and how they had to relate to each other. In this sense, I think that, in order to maintain decentralization, and also to be fair, we need to take the sort of social network structure, the diversity and the different social groups which exist within our world.

Hence, we need to build that into the structure of how we do decentralization. And that is exactly what things like Quadratic Funding, does. In other words, they allow for the emergence of these social groups, so they can govern, collectively, and not just allow individuals to prosper. Thereby, they allow us to simultaneously have a very decentralized system, where everything comes from the bottom up, and yet, at the same time, we set rules that enable this kind of collective governance to create fairness and equality.



JULIANA: Perfect! We have several questions being forwarded. The next one was also extremely well voted. Here it follows: “What would be other forms of political representation, radically transformative, that would not be based on the distribution of people on the physical, political and administrative territory?”



GLEN: Well, I think right now, the electoral districts are usually set up on a geographical basis. Thus, within a particular region, you elect a representative. Sometimes there is a nation that has proportional representation. I actually forget which system Brazil has. But the problem is that it only makes sense when all the ways in which people relate to each other is about physical proximity.

Even if that was the case, it would be a little bit weird. Because often the divides of a district can be strangely aligned to actual geographic or linguistic aspects, or whatever are the things that make people feel close to each other. However, today there are so many other ways in which we relate to each other. Whether it be sexual minorities, racial groups, people interested in a particular topic, people who were part of a particular cryptocurrency community, et cetera.

Therefore, what we need, increasingly, is a way to use that full set of information, which comes out of our social networks, and not just our physical locality, to form effectively representative districts.

Thus, things like Quadratic Funding, and tools beyond them, will give us the power to recognize the real clusters of affinity, rather than just having representatives of some sort of relatively arbitrary historical or physical jurisdiction. To sum up, we can have representatives for all those different ways in which we are socially connected to each other and dig each other deeper and deeper into balkanized, small groups.



JULIANA: Perfect! There is another question for you. I believe I have never asked you this one. So, I am curious as well. We are living a very delicate moment, not just in Brazil, but all over the world. Hence, the question is the following. “Many democracies, nowadays, suffer from a lack of engagement of their population, who stop voting. This is something that also happens in Brazil. Then, how can the social technologies, which you mentioned, can help change this scenario?”



GLEN: Well, I think one thing we find is that people are very engaged with their social media. We, people, spend a huge amount of time on them. They spend a lot of time discussing politics. So, there is a lot of energy, devotion and engagement. However, it is directed in ways that do not actually have the right incentive structure, since they dig people deeper and deeper into whatever engages or focuses their attention most, rather than what serves the ability of the system to function, reach reasonable compromises, and to deliberate, and so forth.

Therefore, if we can just channel that energy, which already exists, towards purposes that actually serve the system, rather than just serving the ability of getting people addicted and focused on their phones; then we will make a huge amount of progress towards actually improving our political system. And that is precisely what they have done in Taiwan.

Accordingly, people are not spending more time engaging digitally in Taiwan. They are spending a similar amount of time. Nevertheless, they are spending it in these venues that actually lead them to solve problems rather than just to fight each other and dig each other deeper and deeper into balkanized, small groups.



JULIANA: Great, Glen! There are other questions coming up, and they are too many. So maybe, we are not going to be able to make all of them. Hence, there is an interesting question: “Platform Cooperativism can be an innovative alternative to a solidarity economy capitalism, in this future of innovations?”



GLEN: Absolutely! I think it is a very important step. I think we need to have a much broader understanding of what a cooperative is than we had in the past. In the past we thought of cooperatives as just being controlled by workers. But of course, consumers are crucial to the market. And increasingly, it is not just consumers, there are people in the supply chain. There are people who are just making comments on the platforms. There are much more complex sets of relationships. Thus, we need to learn how to allow for the self-governance of these systems, by the people who participate in them. In a way that is not as rigid as “the workers should own the factory” or something like that.

In this sense, that is exactly what is being enabled by some of these new tools. Therefore, I view the Platform Cooperative movement as very closely connected to what we are all working for in RadicalXChange. I do not think that new platforms should be created as cooperatives, although I think that this could be a great possibility. I actually think we can use antitrust as a lever to force existing firms with market power to operate more like cooperatives.

For instance, I know Juliana (the presenter of the lecture) and I have talked a lot about this. But I think we can use it as a remedy for market power in antitrust cases, by transforming the accountability structure. So that consumers, workers and those who firms have power over (that we found in investigations) get the capacity to participate. Accordingly, these tools are making that much more possible with much greater scale than was ever conceivable before.



JULIANA: Indeed, I am very familiar with the subjects concerning the use of antitrust law instruments and competition law. Since then, I have been researching the field and the possibilities we have today to fight the market power of large technology companies, obviously without killing innovation. On the contrary, what we want is to encourage an innovative environment. I would even quote what Glen said before, we should find the right remedy, in order to not kill the patient.

Once the promotion of innovation actually generates several positive externalities, for the consumers, the society and the economic development. Hence, the idea is precisely to work in the right measure to promote innovation. Moving forward to the next question. Therefore, we have questions here, which I would say, are legal-philosophical. In other words, one of the questions is: “What can be done to reverse the aggressive situation in our society?”. Since here in Brazil, we have today a very big polarization. Even though I know that this is not something particular to our country. Thus, how would you answer this question?



GLEN: Well, I think that the key to it is creating the right incentives, the right environment that encourages this type of cooperation. The problem is that at present, if you think of the social media environment, everything is focused on serving people, content that is likely to focus their attention most. Hence, they are in a narrow group, or in a personalistic way, which they are likely to enjoy, rather than to present content that enables them to form coalitions and cooperation with other people. For instance, in Taiwan, they have a great system for deliberation (in English it is called Polis, they have a different name for it in Taiwan), where people can propose solutions to difficult problems.

Then, they use natural language processing and artificial intelligence type of tools, to summarize all this information into a few comments that people can read. Although that might sound complicated, if you think about what Wikipedia is doing: in Wikipedia thousands of people participate, yet they synthesize it into an article that anyone can read. In other words, you have a bunch of positions that represent different groups within the population.

Thus, individuals can come back and say: “Well, here is what I think is a potential resolution of this disagreement”. Then, you get scored, not on just how many people like it, but on how many people from the different groups connect and have surprising consensus on that statement. So that creates a very strong incentive for people, as part of a conversation, to try to bring them together, rather than to drive them further apart. Therefore, those are the types of technologies that offer us the possibility to leverage the power of the environment, which we have right now, for cooperation and consensus, rather than for hatred and division. And at the same time, it recognizes the differences in perspective. It is not that we just wash away those differences or we are reasonable or whatever. But instead, we recognize our differences. And then, based on those differences, we find ways to cooperate.



JULIANA: Glen, we have here an important aspect, which I think it would be very useful to recapture. Although Glen is always very precise in his presentations, being able to communicate several ideas, we had just assumed that everyone in the audience would know Glen's book well. Furthermore, a big event was held in Detroit, about Glen's book, which I had the opportunity to participate in. In this event, many examples were given about tests related to the ideas in the book, which I recommend to everyone here.

Hence, there is someone in the audience who is asking about examples of Quadratic Vote, clear examples of when Quadratic Vote could be used. I have seen many examples, but I would like you to share them with our audience. Because I believe it is a very interesting subject, which we could even test here in Brazil, in different situations.



GLEN: Great! So, let me give you some of my favorite examples. Thus, in Colorado, in order to allocate the budget, they used Quadratic Voting among the legislators, in the Democratic Caucus, in the state legislature of Colorado. Therefore, the things that got the most Quadratic Votes received the most funding, or were included in the budget.

Another example is, Quadratic Funding can be used to support local media. We know that, on the one hand, if you just leave it to the market, we do not invest nearly enough in media that gives high quality journalism. But, on the other hand, we do not want the government to control the media either. Hence, Quadratic Funding provides a way to give public support to media that people want to support, that the public wants to support. Though, at the same time, it does not give the government the ability to dictate where those funds go.

One more application of Quadratic Voting, in practice, is this game which I had mentioned, Civilization. Thus, in that game, there are multiple civilizations and they are somehow competing. They are making diplomatic decisions about things that should go on in the world. So, each country earns what is called “Diplomatic Favor.”

Then, they can use these to vote on the different decisions that the world’s community makes, using Quadratic Voting. Accordingly, those were a few very different examples. Another example like that last one is in participatory art projects. This is being used in the UK to decide on which works of public art get created and what they look like, using Quadratic Voting, in a very famous gallery called, Further Fields.



JULIANA: Excellent! I think that those were great examples, very diverse ones. We have another question: “What are your affinities and disagreements with the Web Three Crowd?”



GLEN: That is a great question! I am a huge fan of the notion of the internet. Even though the internet does not have the capabilities that it needs right now, in order to allow for decentralization. Hence, we need a new set of capacities to make that possible. In this sense, I am in total agreement with the Web Three Crowd. However, I do not actually think that blockchains, as a technology, is a very powerful tool for achieving that goal. The problem is that blockchains are based on the notion of a sort of global open public ledger rather than on an intersecting network, like the original internet was based on, of different communities. The original whole notion of a network is that you have a bunch of communities connected to each other, then those connect to each other, and so forth.

But blockchain instead is based on a single global public fully available state. Therefore, that does not actually allow for a lot of the things we want to happen, to happen very well. For instance, in blockchain, everyone has some pseudonymous key, which they use to make monetary transactions or whatever. But, if you think of something like, an NFT.

What gives an NFT value is that it is a limited edition and some person, who you actually know, is making a commitment about. Moreover, in order to make this commitment, you have to post something on a press release or on Twitter or whatever, which is linked to the blockchain. The blockchain itself does not actually carry the value. Because the scarcity is created by that person making some statement about the value, or some institution making a statement of the value.

Accordingly, the best version of Web Three would be one in which that identity information was actually connected into the technology itself. So, it did not have to happen outside. Similarly, the current Web Three architecture does not actually allow things to, simultaneously, be cheap and decentralized. Either you go on a side chain or one of these inner services like Coinbase, if you want it to make a cheap transaction, or you do it on the public chain, where the transactions are really, really expensive. In other words, it does not actually allow for both decentralization and the sort of scale, which we need for these things to really work effectively.

That is why I believe Web Three is a great direction to think in, since it is really pushing things. But, ultimately, just like the internet, it will require public investment, cooperation between the university and the private sector and also governments all over the world, in order to build the architecture that we want. In this sense, that is how the Web came about. The decentralization of the original Web was not something that just came from a hacker, throwing something out there. But rather from a concerted set of investments by the US government and universities and a number of companies. Thus, I think we are going to need the same thing to make, to really realize, the vision of Web Three.



JULIANA: Great! We have other questions here. I will have to select one. Hence, “Do you see greater alignment with the crypto rationalist community?”



GLEN: The way I think about it is that there are the 20th century sort of ideologies, namely fascism, communism, that were sort of left behind. Furthermore, there is a new emerging spectrum that I see. Thus, we are actually hoping to organize a debate around this. Maybe, including some of the people that we have talked about. And I think one pawn in this debate is the sort of AI singularity people. The people who think that we are going to have some sort of artificial general intelligence, that will somehow plan the world, create a lot of wealth, give everyone a universal, basic income, etcetera. Therefore, Sam Altman is a good example of this type of a viewpoint. Then, there is a set of people who think that these technologies are going to lead to sort of a radical decentralization, where it is every individual for themselves. For instance, there is a book called “The Sovereign Individual” which biology often talks about that expresses this view.

Furthermore, I think the third view, which is the position I hold, is what I would call Digital Democracy or Digital Pluralism. This is a view in which the future we want is one that is neither a centrally planned AI thing, nor a fragmented, every individual for themselves vision. But instead, we have more and more diverse democratic intersecting communities. Accordingly, those communities have the capacity to both govern themselves and cooperate with other communities, in order to solve broader problems. For me, that is the vision of a true network. When Balaji talks about the network state, he does not usually have in mind a network. Once a network is made up of communities and those communities intersect in individuals, they intersect with each other to create greater structures. Thus, I believe that is the vision we want: a true network governance, a democratic network self-governance. Not a sort of individual, polarized, each on their own, nor a global structure from top down, like a lot of AI folks suggest.



JULIANA: Glen, you are going to end up answering some questions concerning transaction costs, as well. Thus, maybe, you could also give some good examples of how innovation and technology can help reduce transaction costs.



GLEN: “Transaction costs” is a quite vague term. Many times, what we mean by transaction costs is actually the information that we lack. Therefore, information technology is obviously one of the most powerful ways to transform what information is available and to whom. Besides that, transaction costs often mean the different ways in which ownership and property works, and the incentives that give us to lie or distort systems. Again, social technologies give us the capacity to transform those. Hence, if you bring together those two elements: changes to the information structure and changes to the kind of ownership and governance rights structure, in other words, our ability to participate in richer forms of collective governance; then I think that information technology is a tremendous foundation for transforming both of those things and allowing a new system of governance.



JULIANA: Glen, from the moment when there were changes in the US government, a new discussion has arisen. For instance, in front of the FTC. Moreover, some of the thoughts of your book, *Radical Market*, even communicate with those ideas, which have been attentively discussed nowadays in the academic field.

As if there is a denial of the past being tested in the present. Thus, taking this opportunity to have you here, I would like to ask you to comment on how this has been seen in the United States, since there is a great concern around those ideas, including the impacts they could generate in the creative process of innovation and technology development.



GLEN: I think it is indeed really remarkable how far we have come, in terms of antitrust thinking in just a few years, Juliana. Even when I talked to you, the ideas in the book, the ideas we were promoting seemed quite radical. However, they now actually seem, in some ways, quite mainstream, or even conservative within the antitrust thinking in the United States. Therefore, the notion that we would stop mergers to prevent new competitors. And that was very bold when the book was proposing it. But now, everyone seems to agree about this. For instance, horizontal shareholdings, it is very mainstream now.

Dealing with labor markets using antitrust tools, it is very mainstream now. Hence, I think we need to keep moving at this pace. I do not think we just have found the solutions. We need to keep innovating. Moreover, I think that the idea of getting past the division between antitrust that wants to block and break up and, on the other hand, the need to have scale, is absolutely critical. Furthermore, that is what some of these ideas about economic democracy and antitrust are capable of doing. Although they might still sound a little bold.

Now, I would predict, in a couple of years, they will be conventional wisdom. So, I hope that places like Brazil, which are creative and can be on the leading edge, will help push forward the frontiers and think about these.



JULIANA: Excellent! For those who do not know, I had the pleasure to win a prize here in Brazil, with Glen's ideas, related to the Labor Market, applied to Brazilian reality. Therefore, I would really like to hear from you, Glen. Because, indeed, two years ago, some of these ideas seemed much more radical than today. However, we have here a more general question, concerning artificial intelligence. If we regulate artificial intelligence, it would be necessary to reduce the influence of economic power over democracies and environmental sustainability.



GLEN: So, I think that AI is really not quite the right conception of the future of technology. AI drives us towards this notion of autonomous systems, which are trying to sort of imitate human capabilities. Hence, as I wrote recently in wired with Daron Acemoglu and Michael Jordan, a prominent economist and computer scientist. I think that, instead, what we should really focus on as the goal of our technologies is to enable people to cooperate in new ways and to enhance people's capabilities rather than to imitate or replace human capacities. Additionally, if we build technologies in that direction, we will have much greater chances not just of dealing with social or environmental issues, but whatever issues arise from those technologies operate.



JULIANA: Glen, I do not want to take much more of your precious time, but in order to close this amazing lecture, could you please comment on some of the effects of the relationship between economy and politics? In other words, how do you imagine the future of economic power in relation to political power? In addition to that, we could compare these aspects with the ideas of the book, *Radical Markets*.



GLEN: I think that right now, we are in a very delicate moment. People feel they are losing agency over their lives. They are also very worried about the concentration of power in technology companies and the way that this relates to the power of governments. So, they are trying to find a way past it. Besides that, we have the anti-vaccine, anti-lockdown protests, protests to the “Black Lives Matter”, to the crypto movement. All of them are sort of reactions to these concentrations of power. Hence, those could lead to violence, could lead to social fragmentation, to chaos. Or, instead, they could lead us to come together. And for the people in positions of power to realize that this is not sustainable, therefore, they will have to reform. Accordingly, which of these choices gets made is in the hands of people in those positions of power.

Thus, I have the honor at Microsoft to speak to some of them. And, perhaps, you have the honor to speak to some of them in Brazil. Finally, I hope all of us can take this message, about the potential of future democracy, back to all the people we have the chance to offer options to.



JULIANA: Thank you very much! It was a great pleasure to be here with the founder of RadicalXChange who has also been doing wonderful work by spreading these ideas, which are deeply aligned to technological development. I hope we can meet soon, to keep discussing these topics and have the opportunity to participate in other Innovation Week events. Congratulations once more for your academic and professional work, and also for your commitment to these ideas. Thank you again for being here!



GLEN: Thank you very much!

