REIMAGINING DEMOCRACY

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Imagine that all of us—all of society—have landed on some alien planet and need to form a government: clean slate. We do not have any legacy systems from the United States or any other country. We do not have any special or unique interests to perturb our thinking. How would we govern ourselves? It is unlikely that we would use the systems we have today. Modern representative democracy was the best form of government that eighteenth-century technology could invent. The twenty-first century is very different: scientifically, technically, and philosophically. For example, eighteenth-century democracy was designed under the assumption that travel and communications were both hard.

Indeed, the very idea of representative government was a hack to get around technological limitations. Voting is easier now. Does it still make sense for all of us living in the same place to organize every few years and choose one of us to go to a single big room far away and make laws in our name? Representative districts are organized around geography because that was the only way that made sense two hundred-plus years ago. But we do not need to do it that way anymore. We could organize representation by age: one representative for the thirty-year-olds, another for the forty-year-olds, and so on. We could organize representation randomly: by birthday, perhaps. We can organize in any way we want. American citizens currently elect people to federal posts for terms ranging from two to six years. Would ten years be better for some posts? Would ten days be better for

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others? There are lots of possibilities. Maybe we can make more use of direct democracy by way of plebiscites. Certainly we do not want all of us, individually, to vote on every amendment to every bill, but what is the optimal balance between votes made in our name and ballot initiatives that we all vote on?

For the past three years, I have organized a series of annual two-day workshops to discuss these and other such questions.[1] For each event, I brought together fifty people from around the world: political scientists, economists, law professors, experts in artificial intelligence, activists, government types, historians, science-fiction writers, and more. We did not come up with any answers to our questions—and I would have been surprised if we had—but several themes emerged from the event. Misinformation and propaganda was a theme, of course, and the inability to engage in rational policy discussions when we cannot agree on facts. The deleterious effects of optimizing a political system for economic outcomes was another theme. Given the ability to start over, would anyone design a system of government for the near-term financial interest of the wealthiest few? Another theme was capitalism and how it is or is not intertwined with democracy. While the modern market economy made a lot of sense in the industrial age, it is starting to fray in the information age. What comes after capitalism, and how will it affect the way we govern ourselves?

Many participants examined the effects of technology, especially artificial intelligence (AI). We looked at whether—and when—we might be comfortable ceding power to an AI system. Sometimes deciding is easy. I am happy for an AI system to figure out the optimal timing of traffic lights to ensure the smoothest flow of cars through my city. When will we be able to say the same thing about the setting of interest rates? Or taxation? How would we feel about an AI device in our pocket that voted in our name, thousands of times per day, based on preferences that it inferred from our actions? Or how would we feel if an AI system could determine optimal policy solutions that balanced every voter's preferences: Would it still make sense to have a legislature and representatives? Possibly we should vote directly for ideas and goals instead, and then leave the details to the computers.

These conversations became more pointed in the second and third years of our workshop, after generative AI exploded onto the internet. Large language models are poised to write laws, enforce both laws and regulations, act as lawyers and judges, and plan political strategy. How this capacity will compare to human expertise and capability is still unclear, but the technology is changing quickly and dramatically. We will not have AI legislators anytime soon, but just as today

1. The First International Workshop on Reimagining Democracy (IWORD) was held December 7–8, 2022. The Second IWORD was held December 12–13, 2023. Both took place at the Harvard Kennedy School. The sponsors were the Ford Foundation, the Knight Foundation, and the Ash and Belfer Centers of the Kennedy School. See Schneier, "Recreating Democracy" and Schneier, "Second Interdisciplinary Workshop."

we accept that all political speeches are professionally written by speechwriters, will we accept that future political speeches will all be written by AI devices? Will legislators accept AI-written legislation, especially when that legislation includes a level of detail that human-based legislation generally does not? And if so, how will that change affect the balance of power between the legislature and the administrative state? Most interestingly, what happens when the AI tools we use to both write and enforce laws start to suggest policy options that are beyond human understanding? Will we accept them, because they work? Or will we reject a system of governance where humans are only nominally in charge?

Scale was another theme of the workshops. The size of modern governments reflects the technology at the time of their founding. European countries and the early American states are a particular size because that was a governable size in the eighteenth and nineteenth centuries. Larger governments—those of the United States as a whole and of the European Union—reflect a world where travel and communications are easier. Today, though, the problems we have are either local, at the scale of cities and towns, or global. Do we really have need for a political unit the size of France or Virginia? Or is it a mixture of scales that we really need, one that moves effectively between the local and the global?

As to other forms of democracy, we discussed one from history and another made possible by today's technology. Sortition is a system of choosing political officials randomly. We use it today when we pick juries, but both the ancient Greeks and some cities in Renaissance Italy used it to select major political officials. Today, several countries—largely in Europe—are using the process to decide policy on complex issues. We might randomly choose a few hundred people, representative of the population, to spend a few weeks being briefed by experts, debating the issues, and then deciding on environmental regulations, or a budget, or pretty much anything.

"Liquid democracy" is a way of doing away with elections altogether. The idea is that everyone has a vote and can assign it to anyone they choose. A representative collects the proxies assigned to him or her and can either vote directly on the issues or assign all the proxies to someone else. Perhaps proxies could be divided: this person for economic matters, another for health matters, a third for national defense, and so on. In the purer forms of this system, people might transfer their votes to someone else at any time. There would be no more election days: vote counts might change every day.

And then, there is the question of participation and, more generally, whose interests are taken into account. Early democracies were really not democracies at all; they limited participation by gender, race, and land ownership. These days, to achieve a more comprehensive electorate we could lower the voting age. But, of course, even children too young to vote have rights, and in some cases so do other species. Should future generations be given a "voice," whatever that means?

What about nonhumans, or whole ecosystems? Should everyone have the same volume and type of voice? Right now, in the United States, the very wealthy have much more influence than others do. Should we encode that superiority explicitly? Perhaps younger people should have a more powerful vote than everyone else. Or maybe older people should.

In the workshops, those questions led to others about the limits of democracy. All democracies have boundaries limiting what the majority can decide. We are not allowed to vote *Common Knowledge* out of existence, for example, but can generally regulate speech to some degree. We cannot vote, in an election, to jail someone, but we can craft laws that make a particular action illegal. We all have the right to certain things that cannot be taken away from us. In the community of our future, what should be our rights as individuals? What should be the rights of society, superseding those of individuals?

Personally, I was most interested, at each of the three workshops, in how political systems fail. As a security technologist, I study how complex systems are subverted—*hacked*, in my parlance—for the benefit of a few at the expense of the many. Think of tax loopholes, or tricks to avoid government regulation. These hacks are common today, and AI tools will make them easier to find—and even to design—in the future. I would want any government system to be resistant to trickery. Or, to put it another way: I want the interests of each individual to align with the interests of the group at every level. We have never had a system of government with this property, but—in a time of existential risks such as climate change—it is important that we develop one.

Would this new system of government even be called "democracy"? I truly do not know.

Such speculation is not practical, of course, but still is valuable. Our workshops did not produce final answers and were not intended to do so. Our discourse was filled with suggestions about how to patch our political system where it is fraying. People regularly debate changes to the US Electoral College, or the process of determining voting districts, or the setting of term limits. But those are incremental changes. It is difficult to find people who are thinking more radically: looking beyond the horizon—not at what is possible today but at what may be possible eventually. Thinking incrementally is critically important, but it is also myopic. It represents a hill-climbing strategy of continuous but quite limited improvements. We also need to think about discontinuous changes that we cannot easily get to from here; otherwise, we may be forever stuck at local maxima. And while true innovation in politics is a lot harder than innovation in technology, especially without a violent revolution forcing changes on us, it is something that we as a species are going to have to get good at, one way or another.

Our workshop will reconvene for a fourth meeting in December 2025.

References

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