Daron Acemoglu: why ICT succeeds (or doesn't)

Author of the best-selling book *Why Nations Fail* and one of the world's most renowned economists, **Daron Acemoglu** represents an influential voice in contemporary debates on the interplay between growth, politics and technology. In this exclusive interview, he explains what **makes institutions key actors in determining the impact of ICT** – and urgently calls for technology companies to reassert their commitment to positive social transformation, rather than repression.

"The impact of ICT will be quite heterogeneous, depending on whether or not a society is institutionally ready to accommodate it"

Professor Acemoglu, what does your research say about the role of economic and political institutions in determining a country's prosperity?

For a long time, economists viewed growth as a process that could be understood by focusing on direct inputs such as physical capital, human capital and technology. But while such things are supremely important, one also has to wonder why there are such major differences between countries in terms of access to these inputs. Over the past 15 years or so, many researchers including myself have put forward the view that the best way of explaining this situation is by looking at economic institutions.

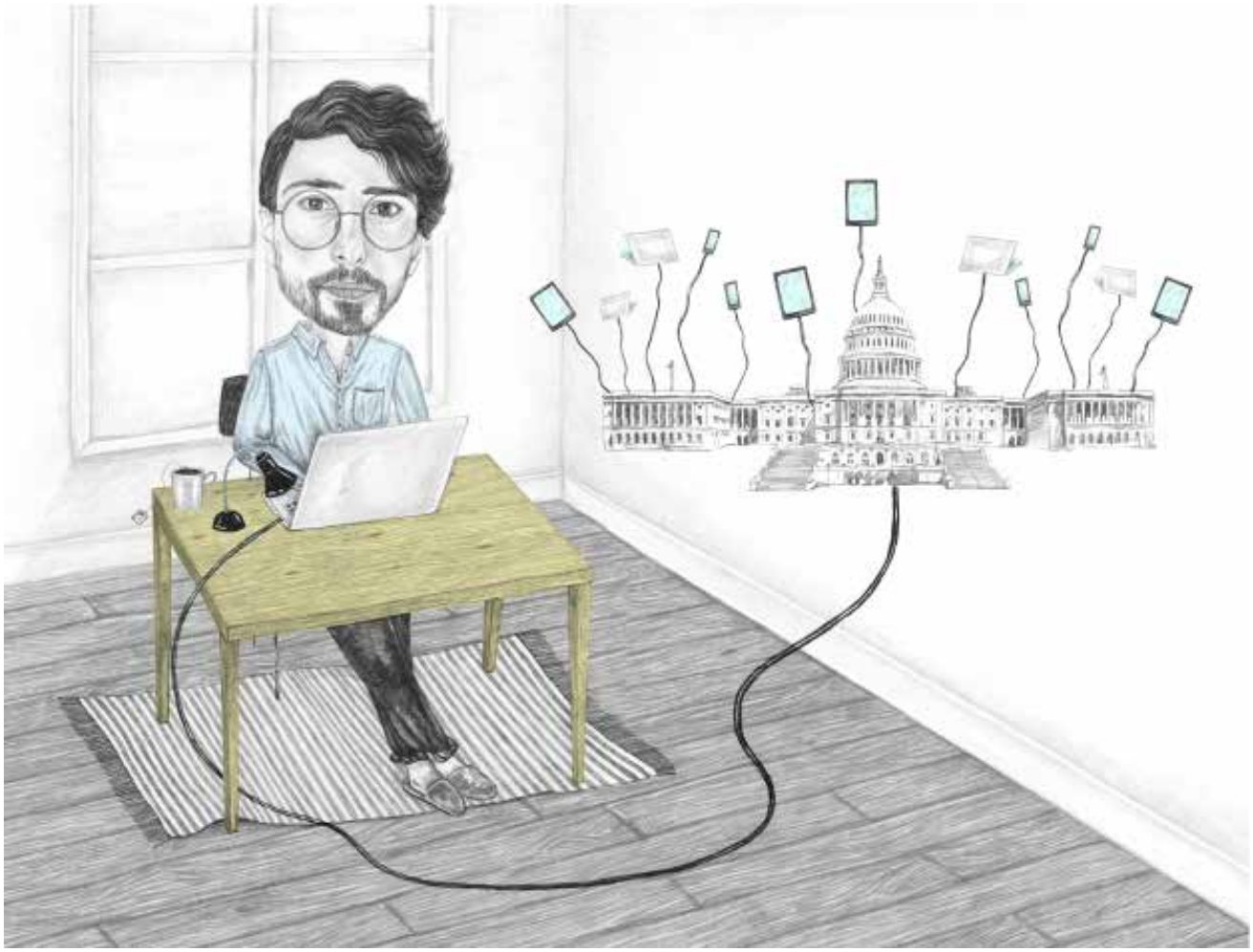
By this I mean things like the regulations that guide our economic interactions, the legal system that upholds these rules, and the framework that determines who has access to primary, secondary and tertiary education. However, it's not sufficient to stop there. Once you start peeling this particular onion you also see that economic institutions never exist in a vacuum, and are instead shaped and undergirded by a particular set of political arrangements that vary from country to country.

Can you give some examples of how differences in institutions lead to differences in economic development?

Let's take a country like Denmark on one hand, and Egypt under Hosni Mubarak on the other. There are, of course, clear differences in economic outcome between the two countries, as well as the levels of innovation and overall participation in economic activity among both men and women. But this state of affairs is supported by specific institutions and political structures. For example, it's generally easy for people for people in Denmark to start a business. They may face high tax rates, but there are no barriers protecting incumbent monopolies. At the same time, the education system ensures that a large proportion of the population is included in the economic activities of the country.

Compare that with Mubarak's Egypt, where the majority of the population was excluded from economic activities by a variety of structures. Markets were monopolized and high-quality education was available only to a privileged few, to give just two examples. In the parlance of *Why Nations Fail*, which is the book in which James A. Robinson and I elaborate some of these ideas, we could say that Denmark has inclusive economic institutions and Egypt had extractive economic institutions.

But as I have already noted, economic institutions are not independent of political institutions. And in my opinion, what makes Denmark's inclusive economic institutions stick is



ANNELIE CARLSTRÖM / AGENT BAUER

not that their politicians are necessarily more selfless than anyone else, but that there is a political system that keeps them in check. They represent the people and are closely monitored by civil society and media, which makes it harder to step out of line. Unfortunately, the reverse was often true in Egypt during the rule of Mubarak.

These are just two examples, but you can come up with dozens more that illustrate how sharp differences in economic institutions imply very different patterns for human capital, physical capital and technology, and how these institutions in turn have their roots in specific political arrangements.

ICT is often identified as having the potential to enable transformative change in countries' economies and societies. How do you see the role of institutions in this process?

I think institutions have an absolutely vital role to play – although with some caveats. Speaking generally, I am totally sold on the view that ICT represents a transformative force, just like the steam engine or electricity before it. However, ICT has a very specific set of complementarities, to an even greater extent than these earlier technologies – for example, it works much better when combined with skilled workers who are good at numerical problem-solving and abstract reasoning.

This means that the impact of ICT will be quite heterogeneous, depending on whether or not a society is institutionally ready to accommodate it. We are already seeing that when ICT comes to a labor market in which relevant skills are not abundant, the benefits are often limited, and existing inequalities can even be exacerbated. And given that institutions are the principal determinant of a country's human capital development, this logically makes them key actors in maximizing the potential of ICT.

What advice would you give to policy makers looking to maximize the potential benefits of ICT?

This is where the caveats I mentioned start to come in, because it really depends on policy makers' objectives. Since politicians in democratic countries are ultimately accountable for their decisions, they have a natural incentive to manage ICT transformation in a way that is broadly beneficial for the population at large. And my advice here is to develop infrastructure that makes ICT as accessible as possible, and to ensure institutional provision of the skills that

"It's vital that new institutions have the possibility to emerge through experimentation and to compete with each other"

will enable people and businesses to participate in new ICT-based opportunities.

However, the situation remains very different in other countries, where the main objective for some policy makers is to use ICT to deliver social repression, rather than social benefits. Through government control of infrastructure and information, ICT can quite easily be used to stifle debate and prevent a population from engaging in political activity outside a very narrow sphere. I think it has become abundantly clear that the idea of technology as an empowering tool for populations living under authoritarian regimes is rather naïve. Although there's a constant tension between centralized government control of ICT on the one hand, and decentralized individual usage on the other, the balance is invariably skewed towards governments, since they have much greater resources available.

So my advice in this scenario is directed to technology companies rather than policy makers. Every government relies on a certain level of cooperation from hardware, software and web businesses, and the attitude of these companies towards questions of democracy and free expression is a really decisive factor. I believe they have a great responsibility to avoid becoming willing or unwilling accomplices of repression, and this means refusing to play ball when governments want to abuse digital technologies.

The stereotypical depiction of most economic and political institutions today is that they are centralized silos that work from the top down. How do you see these institutions performing when surrounded by digitized markets and economies?

Viewing institutions as centralized, monolithic structures imposed on society was a bad idea even at the best of times. Institutions are always bottom-up to some degree, which can lead to major variations across the same country. There is a big difference in the relative prosperity of the north and south of Italy, and this is due to the fact that the institutions surrounding the lives of people in, say, Naples are hugely dissimilar to those in Milan, despite the fact that they ultimately share the same national government. And these institutional differences on the ground often become self-perpetuating.

That being said, the role of decentralized, almost spontaneous institutions is becoming much more pronounced as digital markets emerge. The new institutions remain subject to national and international law; but aside from these constraints, everything is really quite experimental, and they are developing through a process of trial and error. Platforms such as Twitter and Facebook are the most obvious examples, but there are many others. I'm certainly not claiming that these institutions are going to supplant nation-state politics in any meaningful sense, or even that they necessarily represent an improvement over what was available before, but they can be a good complement to more established institutions and sometimes an effective check on them.

Most major digital platforms today are for-profit businesses. What does this mean for the new institutional dynamic you describe?

That's a very good question. My feeling is that their interests lie in allowing this spontaneous

"The attitude of technology companies towards democracy and free expression is a really decisive factor. This means refusing to play ball when governments want to abuse digital technologies"

Background Check

DARON ACEMOGLU is Elizabeth and James Killian Professor of Economics in the Department of Economics at the Massachusetts Institute of Technology. He received a BA in economics at the University of York in 1989, an MSc in mathematical economics and econometrics at the London School of Economics in 1990, and a PhD in economics at the London School of Economics in 1992.

He is an elected fellow of the National Academy of Sciences (US), the Science Academy (Turkey), the American Academy of Arts and Sciences, the Econometric Society, the European Economic Association, and the Society of Labor Economists. He has received numerous awards and fellowships, including the inaugural T. W. Shultz Prize from the University of Chicago in 2004.

He was the recipient of the John Bates Clark Medal in 2005, awarded every two years to the best economist in the US under the age of 40 by the American Economic Association, and the Erwin Plein Nemmers prize awarded every two years for work of lasting significance in economics. He holds Honorary Doctorates from the University of Utrecht, Bosphorus University and the University of Athens.

Daron Acemoglu's areas of research include political economy, economic development and growth, human capital theory, growth theory, innovation, search theory, network economics and learning. His recent research focuses on the political, economic and social causes of differences in economic development across societies; the factors affecting the institutional and political evolution of nations; and how technology impacts growth and distribution of resources and is itself determined by economic and social incentives.

In addition to scholarly articles, Daron Acemoglu has published four books: *Economic Origins of Dictatorship and Democracy* (with James A. Robinson), which was awarded the Woodrow Wilson and the William Riker prizes; *Introduction to Modern Economic Growth; Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (with James A. Robinson), which was a New York Times bestseller in 2012; and *Principles of Economics* (with David Laibson and John List).

order to develop, within the boundaries I mentioned, because they want to increase market share and the usage of their platforms. As a result, many of these platforms have an unusually permissive attitude when it comes to the development of self-regulating rules on the ground. Considered from this point of view, I don't see any major conflict between the for-profit nature of today's digital platforms and their burgeoning role as institutions – if anything, it is precisely this characteristic that enables them to thrive.

Considering the capacity of today's largest digital players to effectively circumvent other institutions, can we say that the corporation is now the only really effective institution?

I don't think we can say that. As I suggested, every new institution, no matter how decentralized or ground-up, is still subject to the power of national institutions at the end of the day, and for good or bad, many of these national institutions are probably as powerful as they have ever been. They continue to control access to markets and to set the rules of the game. So while it is perhaps reasonable to talk about corporations as institutions, their spheres of activity and influence are nevertheless circumscribed by other, even more effective institutions.

What are the key institutional checks and balances that can be effective in a new digital landscape?

I would like to break this question into two parts. First of all, I believe that the checks and balances that can be effective in a new digital landscape are exactly the same as those that were effective in a non-digital landscape – open information flows, unbiased media, free association in both civil society and political organizations, and citizens using ballot boxes and protest movements to shape the political and social agenda. Effective governance is only possible when people can check and hold accountable the politicians and bureaucrats who wield power, and that is as true now as it was at the time of the French Revolution.

However, the means through which those checks can be exercised are constantly changing. Over the last couple of hundred years we have moved from pamphlets and newspapers to TV and now the internet and social media, and we need to work out how to facilitate the right kind of transparency and activism in this context while keeping some elements of order and predictability. That comes back to the themes we've discussed, because I think we will have to rely, to a very significant extent, on a new set of institutions that are going to develop from the ground up. Since we don't yet know exactly what these institutions will be or how they will work, it's vital that they have the possibility to emerge through experimentation and to compete with each other, and that national governments give enough breathing room to this process. And in the background, it's even more important for the companies whose technology enables ICT transformation to take their responsibilities seriously and commit to supporting positive, progressive change – not censorship. ●

INTERVIEW BY NICHOLAS SMITH

"We need to facilitate the right kind of transparency and activism while keeping some elements of order and predictability"

284 24-0041 | Uen