



## **Asia Matters episode 2.13**

### **China Tackles its Tech Titans**

**Guests:** Rui Ma, TechBuzz China  
Graham Webster, editor-in-chief DigiChina project, Stanford University

**Andrew People:** Hello and welcome to Asia Matters, the podcast where we aim to discuss some of the biggest issues facing the world's most dynamic region.

I'm Andrew People.

Few sectors have been more dynamic or grown as fast in recent years as China's tech industry. With the likes of e-commerce giant Alibaba and video games maker Tencent rising to become among the world's most valuable companies.

Until recently that is. Over the past year, China's government has taken a series of steps that together have come to be seen as a crackdown on the tech sector, from restricting big companies' plans to float on the stock market to limiting the time Chinese kids can play video games.

So what's behind Xi Jinping's government taking on one of Chinese business's biggest success stories, and why is this happening now? And moreover, what could be the broader global implications?

Joining us to discuss these questions and more we have two excellent guests today.

Rui Ma is a longtime investor and advisor on the tech sector in both China and the U.S., and the founder of TechBuzz China, which provides insights and research on Chinese tech companies across different platforms, including its own podcast. Hello to you, Rui.

**Rui Ma:** Hi, thanks for having me.

**Andrew People:** And we're also joined today by Graham Webster. Graham is editor-in-chief of the DigiChina project at Stanford University's cyber policy centre, where he leads a network of specialists who produce analysis on China's digital policy developments. Hello to you, Graham.

**Graham Webster:** Hi, thanks for having me.

**Andrew Peaple:** Welcome to both of you. And thank you so much for joining us again. Let's start with some background, Rui Ma. I guess a lot of people would date this crackdown on the tech sector in China to about a year ago, when the government suddenly blocked the initial public offering of Ant Financial. Ant is this huge company owned by Alibaba, which offers a range of online financial services and products in China. Are we right to date the crackdown from then? Or do you think this goes back further? And if you could, could you explain why the pulling of the Ant IPO was so important in this story anyway?

**Rui Ma:** Honestly, for practical intents and purposes, that is a pretty good marker to mark the beginning of so-called crackdown. But if we want to be actually accurate, first of all, antitrust roles had been contemplated for years before they were finally rolled out. But even after that, in the year before the crackdown, you see provincial governments and some municipal governments were taking their own stabs at some of these digital platforms, and what they perceive to be anti-competitive behaviours. There were small fines that were being levied all across the nation against Alibaba, Meituan, JD, etc. And that was happening with maybe not a markedly increasing frequency.

But it is important to understand that it wasn't just the central government that had problems with these digital platforms. Nonetheless, like I said, for practical purposes, the Ant IPO is probably a good place to put a beginning.

The reason why it was so important is because it was slated to be the largest IPO out of China, or tech, and it was supposed to be this great coming out party for China internet companies. And it was pulled at the very last minute, just a few days before it was about to go public — and actually after Jack Ma had announced at this very high profile conference that they had been cleared to go IPO. So it was like the last possible minute.

For the IPO to be pulled, it was just a big shock to the entire financial system that no matter how you see it — and I'm on the side that this IPO probably should have been pulled — there was still a great failure, I think on the part of the regulators that it was pulled so last minute. And that really set the stage for all the regulations that came next. Because if this could happen, then anything could happen was the impression that markets got

**Andrew Peaple:** Graham, would you say it's fair to say that until relatively recently, China's tech companies, these big companies like Alibaba and Tencent and many others, they've been able to grow in a relatively free way. I mean, some people have even described China's tech scene as a kind of Wild West. Do you think that's fair?

**Graham Webster:** I think yes and no. I think if you zoom out a little bit, these companies are thriving in a context that is heavily controlled, and that's part of what led to their early success. You mentioned Alibaba and Tencent: If you look back a little earlier to the rise of Baidu as an online search alternative to Google, when Google was still in the market, it's relevant that market barriers in essence went up against the international giant earlier on.

So some people have claimed that this really set up these companies to really grow and to innovate and to do something completely different from the West without any type of regulation.

But it's just not quite so unrestricted. These companies do need to comply with the regulations that the Chinese Communist Party and the government in China have imposed. That includes very serious, and really kind of world-leading onerous censorship obligations, then periodically being subjected to various regulatory fines and actions.

And the one thing I'll also say is, it's coming to a head right now. But for years, the Chinese government has been developing a regime of laws and regulations to regulate the digital economy that really began to hit the road in 2017, with the implementation of the cybersecurity law, which set up a broad framework that is still being filled out. And this year, we saw the conclusion of very long processes to build up a Personal Information Protection Law, essentially a largely private sector-focused data privacy law; as well as the data security law, which is more national security-focused data regulation. And in many cases, people have seen that development as part of a present crackdown. But I really argue that these are evidence of a longer term emergence of, frankly, pretty complicated and sometimes burdensome regulations.

So it's a mixture of both, these companies did have a lot of free space to move, but the government has been working for at least a decade to figure out how to seriously take on control in governance in the sector.

**Andrew Peuple:** So this has been building for some time. Nevertheless, it does seem to have intensified over the last year. And it seems to have become focused somewhat on big companies like Alibaba like Didi Chuxing, the ride hailing taxi service that China has. Why do you think it has come to a head over the past year? What's really changed? Or do you see it more as a thing building to a crescendo over many years?

**Graham Webster:** I think it's important to look at the sector and at individual companies in a somewhat separate analysis. There's something that Ant Financial and Didi have in common: They both, in one way or another, showed the middle finger to the regulators. There was the famous Jack Ma speech in which he questioned the center's direction in terms of financial regulation.

And in Didi's case, they were reportedly advised to hold off and wait to continue some discussions with the government before their IPO. And they went forward with it; not only did they go forward with it, they went forward with it the day before the centennial of the Communist Party, the biggest PR show, at least domestically, that the government in the party was going to have, at least until the Olympics next year — and that's sort of a screw you to the government. When you do that to a government like the Chinese one, you might expect a response. Those companies really have earned special treatment here that integrates with the important antitrust competition regulations, etc. that have been welling up that we were discussing a moment ago.

**Andrew Peuple:** So that's interesting. Rui Ma, obviously, in the West as well, there's plenty of concern about the size and power of tech firms like Facebook and Google. Do you think there had then been a growing sense in China that some of these tech companies had become too big for their boots and had too much market power? Is that the sense that you get?

**Rui Ma:** I think that it's accurate to say that they had become too big in some senses. So to give you an example: Amazon, being the largest e-commerce player in the United States has, depending on which report you read, something like a 40% market share. And that's post pandemic, when e-commerce really went up a lot. Alibaba, on the other hand, has always had more. In fact, today, even after so much competition has come in, it still has over 50% of market share. For a lot of the last decade, they actually had somewhere between 60 to 80% market share. If you're a player of that size, and you're engaging in anti-competitive behaviours, and they can really distort the market....

We VCs like to joke that in China, there's no such thing as really direct-to-consumer brands, or so-called DTC brands like Warby Parker here in the U.S.. In China, people actually call them Taobao brands. Because Alibaba just owns e-commerce so much that if you really want to create a new brand, you have to make it big on Alibaba. There's no space outside of Alibaba as marketplaces for you to build a new brand.

That's what I would say, when we're saying Alibaba and Tencent have become too big with too much market power. For at least the business community, there definitely was a sense that well, first of all, you have such a big market share for the sector. And again, if you weren't playing fair, then you can really distort the market and make it impossible for new entrants to enter.

And I would say, a lot of people bring up the argument that even in the last five years you still had, like a big company like Pinduoduo, for example, come in and really chip away at Alibaba's lead. But if you look at it pretty closely, a lot of that could have been just because Alibaba decided to forego the rural markets as they were trying to clean up their intellectual property. And you could argue that if they didn't do that, maybe no third platform like Pinduoduo could have emerged. So there definitely was this worry, at least on behalf of entrepreneurs and VCs, dating back 15 years ago, all the way up until now, where people are constantly fretting: Does this really encourage innovation when there is not enough competition?

**Andrew People:** What about the broader political trends in China, though? How did these moves against the tech sector fit in with Chinese leader Xi Jinping's broader campaign, which has gone under the rubric of common prosperity, where he seems to be more concerned about issues in China such as wealth inequality, and the working conditions for people, especially those who work in some of these tech giants, in delivery services and so on? Should we see this all as part of that broader movement? Or is it more to do with just the Communist Party's long term preoccupation with having control? I'd like to put that to both of you, but Rui Ma, do you want to go first.

**Rui Ma:** I think there's obviously what I would call unique rules, or Chinese idiosyncratic regulations, which are about control primarily in the media space. I personally used to work in media, and it is a very tightly controlled industry. You can't wipe away that aspect. But that aspect has always been there. There are strict rules by which internet companies, especially ones that are operating in public spaces, directing the public discourse, they must abide by these rules, which are largely around content, moderation, etc.

I think a lot of the other regulations that went in, such as the ones affecting Ant Financial, where it was limiting the amount of leverage [and] the routes of financing that the company could get, those are very much about economic ends and not about control. Because if you look at the regulations themselves very closely, it is addressing in large part what the government believes, rightly or wrongly — and there are economists who argue maybe this is more paranoia — but at least from the perspective of the Chinese government, if you talk to economists and academics who work for the government or who are closely aligned with the government's objectives, they do believe that it was creating a systemic financial risk, and that it was, in fact exacerbating economic inequality. And the economic inequality end result is that this results in a less resilient system that takes longer and longer to recover from economic shocks.

And as the world becomes more globalised, and as all of us have to meet changes, like climate change, or things like the pandemic, a lot of things are outside of our control, and the Chinese government is absolutely expecting more and more economic shocks. A lot of the policies are intended, of course, no single one is going to resolve it. But a lot of the policies, directionally, are intended to make it more resilient and make it faster for the economy to recover when these shocks do inevitably appear.

**Andrew Peaple:** Graham, how far do you think this fits with the broader common prosperity drive? We've seen some of these big tech companies making some pretty big donations to social concerns in China in recent weeks, partly in response, it seems, to Xi's call. What are your thoughts on this?

**Graham Webster:** I think Rui Ma is right to identify a couple of different motivations, some being what many people around the world would recognise as market health type of regulations, as well as some efforts at control. And the way that I would tie that together is just to say that over the long period — really since the beginning of the internet's introduction in China in the late 90s, and really growing in numbers in the early 2000s — the project has been to develop technology and to foster the development of technology, in a way facilitated and sometimes led by the government, but really allowing these creative forces to flow so long as, and specifically so that the technology can be in alignment with the priorities of the government and of the Chinese people.

So there's a broad preoccupation with alignment of the tech fields with social and political goals. And among those now are common prosperity. But I think that that's a campaign right now, really, it's a big, absorbing public slogan that may or may not actually amount to much. That's what we're gonna have to wait a little while, to see if this accomplishes something significant or if it really is a piece of a kind of PR effort by the government.

And we have to remember that the art of shaping public opinion, of propaganda or of political communications as we would call it in the U.S., is crucial. This is a really stressful time for the Chinese government and for the Communist party. I mean, the pressure on the economy and the society because of the pandemic, the pressure the government was under from outside, specifically in tech involving the United States. The Olympics are coming up next year. Also late next year, Xi Jinping would typically have been about time to step down, but he's had his term limits removed, so most people assume he will be up for another five years as the top leader at the 20th Party Congress, late 2022. So they have to keep the message

under control. And I don't think that that sort of propaganda and campaign logic should be missed here.

**Andrew Peaple:** One person we've already mentioned is Jack Ma, he's the founder of Alibaba and probably the most famous figure in China's tech sector outside of China. If you've heard of anyone in China's tech industry, you've probably heard of Jack Ma. He's obviously an exceptionally wealthy man these days, but he does seem to be particularly in the government's crosshairs right now. What do you think about the position that Jack Ma has found himself in? And why do you think the government's become so preoccupied with him just at the moment?

**Rui Ma:** I would argue the government's no longer really preoccupied with him individually. I think, as Graham alluded to, his very incendiary speech last year, last October, at the Bund Summit — which is a very high level meeting consisting of all the top regulators in China in finance — where he basically said, 'Hey, the system sucks, I have a better system,' — that was very offensive. And I think that probably accelerated some of the actions that were taken against Ant including the IPO pull. Although as I was saying earlier, I think there are also good reasons for that to have happened.

I don't think he's in the public discourse very much anymore. One, because he retired a couple years ago, and he's been primarily focusing on his philanthropy. Even at the Bund summit, his title was UN advisor, that was not about Alibaba.

If you look at what's happened to Alibaba, the company, since then, aside from the Ant Financial IPO being pulled and the very heavy, almost \$3 billion, antitrust fine that was levied against the company, actually Ant has been invited to all the major politically important tech conferences — including the one that just happened in Wuzhen, which is like the world internet conference, the most important one in China. Alibaba was giving plenty of space to talk about their business.

And they actually think they're very well positioned, because a lot of what they do — unlike competitor Tencent, which is more focused on digital entertainment — a lot of what Alibaba does fits very naturally into the government's goals, which are about spreading out the development more so that rural areas, incomes are also rising and that they're not left behind. And Alibaba's business not only naturally accommodates that; they have been actually very actively involved, since 2014 or so, on a more philanthropic basis. So I guess I wouldn't characterise him or his company Alibaba as being in the crosshairs.

**Andrew Peaple:** He has kind of gone to ground, though, hasn't he? I mean, from somebody who was quite a public figure, he's been pretty quiet.

**Rui Ma:** He has been pretty quiet. I think it's important to note that it's not just the government. Maybe part of it is the government's clear dislike of his comments. But the public also is not a fan. There are wide swathes of citizens in China who are no longer fans of Jack Ma. You saw this happen before his Ant speech, because he said a couple of things over the years. I think 2019 was really the straw that broke the camel's back for a lot of people, and turned them from fans into critics, when he said that people should consider it a blessing to work '9-9-6', which is the term for overworking in China, in light of slowing

economic development and much slower rising incomes. People were just very offended that this billionaire is telling them that they should be slaving away for not much incremental benefit in their lives, and mostly to enrich people like him.

**Andrew Peale:** That's interesting. I want to come back to the public response to what's been going on. But what's been the attitude and the reaction from the investor community both inside and outside of China? We've seen some pretty sharp share price falls for some of these big tech companies like Tencent, like Alibaba. And we've seen problems for some of these companies that have tried to come to market or they've come to market like Didi and then had problems almost immediately afterwards. Some people have gone as far to describe the China tech sector as becoming uninvestable. But I suppose there's also the argument that as long as the rules are clear, and everyone knows the rules, that just makes it a better environment for everyone concerned. What are your thoughts on that?

**Rui Ma:** I think it's really mixed. I would divide it by the type of investor, whether they're public market or private market, whether they're in China or out, and also how long their experience has been investing in China. I would say it is largely accurate, because I do deal with a lot of international investors outside of China, especially in the public markets, that many of them, and maybe it is a substantial majority. But it certainly feels like a substantial number of investors are very concerned, not necessarily by the regulations that are coming out in China, but their inability to anticipate what's coming in terms of these regulations, and the uncertainty around how it exactly impacts their portfolio holdings.

So a lot of them have decided to stop investing further funds in China. I think a lesser minority are thinking maybe they just stop investing in China altogether. That usually applies to people who are a little bit newer to China. People who've been investing, let's say, for two decades in China, are much more unfazed by the developments and think that they can figure it out. And that's what's happening outside.

Inside of China, I think is a very different story. Again, with the public markets, there's a lot of fluctuations, because the regulations didn't just hit big tech. I think that's an idea that people have because most of the tech companies are listed abroad. So international investors, that's what they primarily see. But it's actually hit a bunch of other industries as well, including things like liquor and alcohol. And so some of the largest market cap companies in China are in that space. And so domestic public investors have also been hurt.

However, if you narrow it down to tech, venture capital, I would say that the overall sentiment is actually pretty positive. It is undeniable that people's portfolios, especially if they're investing in something like education, have been marked down. But for the most part, actually, since five years ago, a lot of Chinese private capital has been investing in the so-called deeper tech pockets: enterprise software, advanced manufacturing healthcare being the three most popular sectors of the last five years. It's really overtaken consumer internet investing by dollar amount. So I would say the impact on private tech investment has not been as great because people have pivoted away from these sectors that have borne the brunt of the regulations. They are in fact, well set out for sectors that are probably going to be benefiting from future regulations and experiencing regulatory tailwinds instead of headwinds.

**Andrew Peaple:** That's interesting. There's always a new opportunity out there. Graham, we tend to always personalise this. When we look at China, it's always 'Xi Jinping is doing this, Xi Jinping is doing that'. But of course, there's a huge bureaucracy. There's a huge government machine behind him. I'm interested in your experience of the Chinese government and the people who work within it. How tech savvy do you find that the Chinese state itself is? How much do they understand what's going on in the tech sector? How sophisticated is the regulation that's coming in?

**Graham Webster:** It's a pretty mixed bag. Like any government I've run into, there are a lot of people in government who have no idea what's going on, really don't understand how computers work, and how the Internet functions and how a platform or a database might work. I say this with some modesty, I've only taken a couple of course type things to try to understand the coding side myself. And so even as a full time tech policy commentator and analyst, I'm only so deep on the technology myself.

The other thing you asked is how sophisticated are the regulations that are coming in. And here you see the product of specialisation in the bureaucracy. There's some strange and ill-fitting regulations that come out from time to time. But there's also a fairly serious and I would say, certainly world class...because they really are connected with the world community of scholars and policy thinkers who are trying to get things right from their perspective when it comes to data regulation, or especially around data [and] the related issues of algorithmic regulation, and just looking at cybersecurity standards, methods to come up with classifications of different types of systems and how they should be understood to be distinct and the risks they pose. This is really a community that's connected to some of the leading thinkers around the world and doing comparative work with the United States in Europe and elsewhere.

So, it's a really mixed bag, just as I think you'd see in the U.S.. But the act of comparison for me is perhaps Europe, with the way that privacy personal privacy regulation has developed. You have in Europe, as you do in China, a very focused group of people working on what in Europe became the GDPR, the general data protection regulation, and what in China became first a standard and now a law on personal information protection. And there's sort of parallel communities and the European effort has inspired in large part, the Chinese effort. But some of these people who really focus on it have colleagues who don't have the same level of engagement. So it's got to be a mixed bag with experts, and some people sort of blindly walking through the field.

**Andrew Peaple:** Staying with those data privacy laws that have come in in China, how do they compare with the EU standards that were introduced a few years ago. One of the things I've come across is that these data privacy laws in China are pretty sophisticated. And they're quite comparable in a way with those from the EU, but they don't seem to cover areas such as state control over data privacy. Talk us through these new data privacy laws in China, how they compare to international standards.

**Graham Webster:** The Personal Information Protection Law, which will go into effect next month in China, has been an effort of more than 15 years. There was a draft that emerged in the early 2000s and never became complete. And the new draft was redone in an era where



the GDPR existed It closely follows the structure, the notice and consent structure that is represented in the European regime.

But the law has nothing to say about citizens' privacy from surveillance by the government, or it has very little to say about law enforcement's access to data. So if you have a law enforcement or public security entity, or if you have, certainly at the national level, national security and intelligence entities, they're basically not addressed by this law. Some of the procedural protections that you might see in a European regime are backed up, of course, by European courts, and by the general structure of governance in European or EU countries, whereas the general governance structure in China is considerably less respectful towards human rights, to say the least. So it's important to keep that analytical distinction of citizen or user privacy via a vis a private company, versus privacy against intrusions by the state.

And if you're concerned about how your data might be abused by companies, you'd probably be better off in the next few months living in China, as this law comes into force, along with many other laws and regulations, then you would be living in the United States where there is no privacy law, the regulatory regime is under development — there might be things coming down the pipe [in the U.S.], but there actually is a pretty compelling framework that the Chinese government is offering. And if it's enforced with any vigour, it will be pretty interesting to see.

So yeah, the comparison is absolutely nothing, nowhere on human rights. But in actual kind of regulating, protecting your data from cyber criminals, or abuses by market actors, or illegal selling...the new law even has a ban on price discrimination based on automated decision making. So if they're using your data to figure out that you will pay a little more than somebody else, that's now going to be illegal in China starting next month. And I said it before, I'll say it again, it really does depend on what they put their enforcement efforts into. But it looks promising from that perspective.

**Andrew Peple:** Rui Ma, how popular do you think some of these moves are in China? It's pretty difficult, obviously, to gauge Chinese public opinion at the best of times. But in general, do you think that these moves to enhance protection of data privacy, for example, or even the moves on limiting the time that kids can play video games, do you think they have broad popular support in China?

I think it varies depending on who you're talking to, of course, it also varies depending on the specific regulation. But overall, I was personally surprised by in general, how much popular support there is, including for some of the more draconian measures such as the one that limits minors' video gaming to three hours a week. I did a twitter poll, where presumably most of my followers are not in China: around 1,000 people voted, and it was resoundingly in favour of this policy, because I asked 'would you want to see this in your own country?' I don't know, what are the demographics of the people who are replying, but it was resoundingly in favour of the policy, so maybe it's not just a Chinese thing...

**Andrew Peple:** I should imagine if they are parents it's probably in favour...

**Rui Ma:** That is what I think too. Again, that's what the Chinese government says, 'we polled parents, and this is what they wanted. So we're just giving to you what you want.'

Again, it does vary depending on the policy. But I would say in terms of the privacy laws, I don't find that most people — and I think this is true of U.S. citizens as well as Chinese ones — generally truly understand, and I would include myself in it, even though I look at this probably much more deeply than the average citizen. I don't think I truly understand a lot of what's going on in terms of how my data is being protected or sold. But I can say that in China data protection has been very, very low in the past decade. And it's become such a nuisance actually, and a danger, as cyber criminals become more rampant, that it has started to trigger more alarm in the minds of citizens about how their data is being sold illegally, mostly, and how it's being misused, and for nefarious purposes.

So I do think there's more awareness on that than I expect. But I think if you do talk and ask people specifically about their opinions on specific statutes, I don't think they're going to be able to give you a very good answer. Other than that, of course, everyone wants to protect their privacy in general, especially in China, where the feeling for the average citizens is that the corporations are much more likely to abuse your data than the state. So there's much more scepticism on 'what are the companies doing with my data? And how do I protect myself against Alibaba or Tencent versus the government.'

**Andrew People:** And that's in spite of things like the social credit system that China has, where people have a score based on their personal behaviour: Again, is that something that's accepted, do you think in China, that kind of intrusion into people's lives?

**Rui Ma:** Actually, the social credit score, I think, is much exaggerated, it's really much more similar to a credit score, actually. And it's more of a controlling for bad behaviour, mostly around not honouring contracts and not paying back your debts and stuff like that. Not around your individual behaviour. It's not like the Black Mirror episode where if I don't tip the barista, or whatever, they score me and I become persona non grata. It's not like that.

So I think, overall, the situation in China right now hopefully will improve with all these regulations. In general, the problems of your data being misused is on the private side, because most Chinese citizens know that the government already has my data, already has the database. And you don't have to use my real name ID for everything I do on the internet. For it to be abused, probably it's the corporate actors that are probably behind it.

**Graham Webster:** I just thought it was worth underlining what Rui was saying about the social credit system, and the way it's discussed in a lot of Western media and scholarship. There's really a widespread meme that there is a social credit score, a number that each person has in the country that is generated by some system: There's simply no such score, there is no national social credit score. There is a social credit system that is in various parts coming together, that as Ray was saying, and based on really excellent research by people like [unclear], we can see a system coming together where regulators who have either basically derogatory information, some penalty about an individual or about a company, are developing a series of deals to share with each other. These sorts of lists of people who are subjected to certain penalties. So what you're seeing is a banding together of disparate

enforcement agencies, in different parts of government in different regions, to exert their penalties more universally.

Now, not to say that these things are being done with due process, that all of the penalties are legitimate and all of the laws are things that I would agree with. But it's just simply not true that there's some sort of surveillance system that checks out whether you're saying things in the wrong tone about the wrong government official, and then you get a minus five points. There's no score. There's no system like that. And there isn't really a plan for one.

And it's always important to say, because there's a lot of accusations that this argument that I'm making this summary that I'm making is an apology for Chinese authoritarianism. There are plenty of ways for years that the Chinese government can surveil the people that they target. They have access to your cell phone location data, they've been watching SMS messages since the beginning of mobile phones, and WeChat, which everyone uses for everything, is heavily surveilled by local and national authorities. So I'm not making an argument at all that there's a lack of intrusive government surveillance, that's absolutely a huge problem. But this sort of Black Mirror spectre, the score, the blackbox AI system, that thing doesn't exist. It's worthwhile to come in and mention that it's a widespread meme that's been reported by otherwise very reputable sources over and over again.

**Andrew Peuple:** That's a really helpful clarification, Graham, thanks. Just sticking with you. I've seen that the government has also recently announced plans in China to regulate the kind of algorithms that tech firms use to do things like target advertising to different consumers. It's even warned, I think, against algorithms that threaten national security. What could be the implications of those sorts of measures for tech firms? Is that something that can be done in practice, do you think?

**Graham Webster:** Well, the implications are unknown, because the scope of what this might become is unknown. There have been a series of different regulatory moves, I mentioned the provision in the Personal Information Protection Law, which comes into effect next month, that bans the practice that had become widespread and very controversial, people were very angry about this practice, by which sales platforms would try to figure out using the data that they have on their users who would pay more or who would pay less for a given product and simply charge the people who would pay more, they predicted higher prices. It was a big controversy, and this is now going to be banned.

Similarly, in August, I think, there was a draft released on a different issue, the question of regulating algorithmic recommendation systems. So things like what shows up in your feed on a social media platform or on a commercial platform. These are all issues that regulators around the world are confronting, algorithmic regulation is a very tough problem. And how it shapes out is going to be interesting in China.

But I should say one of the biggest questions that emerged when this last flurry of regulations and draft regulations came out is that people who work with large datasets and with machine learning models commented 'Great, this all sounds great in principle, but how are you going to get into the models, some of them actually are blackbox, in the way that the mathematics is structured'. And so despite various advances in the explainability of machine learning, it will be tough to comply with some rules.

And then there's this human resources question, these regulators — we're talking about the Cyberspace Administration of China, in many cases, this is a place with hundreds of 1000s of employees, not 10s of 1000s. And how many sort of PhD level computer scientists are you going to have, who can evaluate how an algorithm is structured and how it performs and how many algorithms are running, I think the numbers are very large. And so enforcement is going to either have to be extremely well resourced, or it will be done by example, taking on companies every now and then who have engaged in extreme misconduct, or it will simply be ineffective. So we just don't know how serious this will be.

**Andrew Peuple:** Rui, what are your thoughts on that? And if I could also get a closing thought from you on generally, how Western governments and Western observers are looking at China now. Are they looking at what they're doing with the tech sector as something that can be learned from or is it something that broadly, we should be avoiding in terms of what it means for personal privacy and what it means for the tech sector in China?

**Rui Ma:** For the algorithms, it's actually a little too early to say, I would say some parts of the algorithm policy that's come out, that's in draft and asking for comments right now, already kind of exist. For e-commerce, for example, it was, I think, two years ago, already, platforms had already had to make their algorithm more transparent. So if I go on Taobao, I would be able to go to my settings and see which tags the platform has tagged me with based on my consumption behaviour. And then I would be able to individually remove the ones I don't want to be tagged with, or I can also just delete all of them. And then, I think, then they disappear for six months, and then you have to check back in six months, because, based on your behaviour, you're going to be tagged again.

That kind of flexibility doesn't exist, for example, on other e-commerce platforms in other parts of the world. So you could argue that some of the platforms are already complying with some parts of the policy.

I share Graham's scepticism on the way it's written up so far. It does seem quite extensive. One thing that's been attracting a lot of conversation is that there has been a separate document that has — across I think it was nine different agencies, and the Chinese government — where they're talking about having a three year plan to come up with a more complete governance of AI algorithms. And one of the clauses in there, again, this is all still up for discussions, is putting out the direction of the intent of governance and not necessarily putting the exact details on paper yet. But one of the clauses was that people might have to get their algorithms approved before, much like an application process for a business or something, that you have to get it approved before you can use it. In which case, everyone's looking at that one sentence and wondering, 'Well, how could I do that?'. First of all, algorithms are maybe changing constantly. So do I need to reapply every time I have some shift to my algorithm? And then also, what does that even really mean to get pre-approval for an algorithm? And does that really help the ecosystem and achieve the results we want, which is protecting the population from negative effects? Or does that slow down innovation and create a lot of nonsensical paperwork? You're starting to have a lot of discussion around this.

I think for one, it's much too early to say how it's going to be resolved. Though China has made it very clear that they do want to take the lead in this and they do want to have much more of a handle on emerging technologies like algorithms, and basically start trying to regulate, or at least think about regulations a lot faster than what we're seeing.

**Andrew Peaple:** And Graham, to that question of how this is being viewed overall outside China, do you think people are looking on at how China is now regulating its tech sector and thinking this could be a model for the way we do things going forward, or are they looking on and saying this could actually stifle and industry that's created a lot of wealth and prosperity over the last few years?

**Graham Webster:** I think the views on China's overall digital economy and tech regulation project are really very diverse and in many ways they are based on what a person thinks overall about China and the direction of the world's relations with China.

We've been talking about regulating the digital economy domestically; many people in Washington would be focusing more on the [Chinese] government's efforts to develop a more independent technological ecosystem - Chinese designed and manufactured semiconductors or maybe a Chinese alternative to U.S. connected operating system all the way up and down the technological stack from consumer stuff to military.

So that's a huge focus for some people. And I do think there's some countries who look to China as an example for regulation. You can't reasonably argue that Chinese regulators, the people doing the intellectual and legal work of constructing this regime, you can't argue that they're not among the leading teams in the world, even if the regimes that they're developing...and the way this works in many cases is that the draft comes out and it has deficiencies and everybody discusses it a lot. And it will get restructured in certain ways. This iterative process is out there for everyone to see. It's a big enough market obviously that many investors and regulatory thinkers are watching, along with what happens in Europe and what may or may not happen in the United States. Influence is there but they're not necessarily out there on their own island either. It's a global discussion.

And then there are people who will completely dismiss any of this and claim that it's all about authoritarian control and that nothing is a legitimate or regulatory governance goal for the well being of the Chinese people. You can tell by my tone of voice that I think the absolutist negative argument would be just about as silly as the absolutist positive argument. If somebody were to claim that all this privacy regulation will be perfectly enforced and the Chinese government is going to create some sort of digital Utopia...

As for containing an industry I think it's just a mixed bag and we're going to have to see. I've argued over the years that there are going to be demands by various governments around the world - hopefully including the U.S. because I live here and I'd like to see it — but certainly in Europe and China and elsewhere, for serious data protection practices. And the regulatory burden will be tough. And to some extent, if companies can develop a leading ability to adapt to those regimes and to do a good job jumping through the right hoops, that will guarantee their ability to adapt to different markets going forward.

That's an argument I've made, it isn't a technologist's or an investor's argument but it's one, I just see these burdens coming down and the companies in China are going to have to adapt. It may cost them money and resources in the short to medium term, but there's also a huge amount of government and social investment in developing the companies. I think some industries are going to flourish and some will not, and their chances of going abroad will be very diverse depending on what happens geopolitically, depending on where in the supply chain or what type of services they supply. Naturally I think so, but there's a lot of interesting things to watch going forward.