

Keynote speech of Senator Mark Warner, D-V.A., at “Right to Compete: Are Monopolies Crushing Entrepreneurship?” cohosted by the Open Markets Institute and Village Capital on October 11, 2018

Thank you, Ross. My understanding is that Ross has been up here filibustering [laughter]. My apologies for being late. I was out at an unnamed intelligence facility in Northern Virginia. And I gotta tell you, as a former governor, someone needs to do something about that damn traffic. It’s pretty bad.

I’m grateful to be here. I see some friendly faces in the crowd and I’m anxious to share with you some ideas. For those of you that don’t know me and my background, I still can claim I’ve spent longer in business than I have in politics. I was a venture capitalist. I was a co-founder of Nextel. I’m very proud of my firm, Columbia Capital, which is still a major leader in the Mid-Atlantic, mostly in telecom and IT, as well as some of the subjects that we’ll be talking about this morning and you’ve been focused on already, in my pre-complete immersion into politics.

I went out and formed a series of regional venture capital funds around Virginia because I think one of the challenges we have in the technology world, going back now to the 1990s for those of us, a few, who are old enough to remember, when there was that whole question: Who’s more important: Bill Clinton or Bill Gates? That was a great mid- to late 90s debate because while both offered a vision of where our country and where the world was headed, part of the challenge, and part of the opportunity, in our interconnected world was that you could build it anywhere. You don’t need to be in a few select locations. We’ve shown in our world economy that you can build it in Shanghai and Mumbai. We’ve not done as well as showing that you can build in Danville, Virginia or Akron, Ohio or pick any community around the country that is not one of the three states where unfortunately still close to 80, 85 percent of all venture capital still goes: California, New York, and Massachusetts. Something that if we’re going to really realize the opportunity that it can be built anywhere in America – what Village Capital is doing, what EIG is doing, what Rise of the Rust is doing – is really more important than ever.

I also want to acknowledge: I know EIG’s been involved in this, and I know Open Markets’ been involved. I don’t know if someone’s here from the Kauffman Foundation [looks, points], but I want to commend you guys over the years for the great work you’ve done on the really good data about entrepreneurship and how important it is as something that really affects policymakers.

In the Senate, I’ve tried to be, whether it was partnering with my friend, Jerry Moran, in startup legislation 1, 2, and 3, and trying to continue the work on entrepreneurship visas, crowd funding issues, and a host of areas on how we spur entrepreneurship around the country.

In the Senate, I think because of my background, I’ve been referred to oftentimes as the “Tech Guy.” Now, in the Senate, there’s a fairly low bar, so I’m not sure that makes me current with everybody in the room. I used to like to say that I was very current on tech,

tech policy, tech development up to about the year 2001 when I got elected as governor. But being tech-savvy with a 2001 due date still puts me a decade ahead of most of my Senate colleagues, so I'll take some pleasure in that. I want to go through four or five items here. I had a much more structured speech but because I'm late I want to just get right into it.

I want to talk a little bit about social media and some of the challenges we've seen in that space. I think for a long time, rightfully so perhaps, we have been enamored with social media. I think that if we think about some of the great 21st-century American success stories, if we go down Google, and Facebook, and Twitter, and a series of smaller entities, they are wonderfully successful. They have changed the way we communicate, they've changed the way we think about community. And for a long time, and for frankly most of the 21st century, politicians of every stripe have celebrated these companies and their wonderful success.

The challenge is as we think about these digital technology companies and all of the ramifications, they are clearly transforming our society. But I also think, particularly in the last couple of years, starting not necessarily starting with the Russian intervention in the 2016 campaign but that was kind of an accelerator to it, we've also started to see that there was a dark underbelly in these new communities that had been created. One of my concerns had been that while many of the founders of these enterprises I think started with extremely broad-minded, global implications of all the good they were going to do, the truth is that as we started to see some of the underbelly in some of the dark underside, I think for the most part many of these companies were extraordinarily slow in recognizing that there are hugely potentially negative implications of some of that transformation.

The truth is we're just coming to start to understand that and in many ways the honeymoon that was started in both the Bush Administration continuing in the Obama Administration came to a screeching halt in 2016. Because even in the aftermath of 2016, I can recall pointing out some of these problems - potential misuse as early as November and December of 2016. Certain extraordinarily prominent CEOs, who I won't call out directly right now, I still remember famously made comments like "Oh my gosh, if any politicians think that Facebook could be misused, they just don't get it!" [laughter]

This shows that even some of the brightest, most forward-leaning of our tech entrepreneurs may not get exactly the entities they've created. Yes, they can be used enormously for courses of good but they can also be used to exacerbate divisions in ways that I don't think any of us ever predicted.

Obviously, this has been a topic that I've taken on as the Vice Chair of the Senate Intelligence Committee with our investigation into Russian interference meddling. We're a year and a half into that process. We've got literally multiple dozens of witnesses that still need to be talked to and, in many ways, we're still sorting through what happened.

What we do know is that Russia and its agents used social media platforms in ways that nobody ever envisioned. Where we initially thought that this was going to be driven by

paid advertising in terms of the misuse and disinformation campaign was really only the very tiniest tip of the iceberg. Much more has been the tools, the use of bots, the use of automated accounts, the ability to create hugely fake personas that would gather in followers, whether it might be followers of Alabama football or followers of different types of cooking or followers of vegetarian lifestyles, and would lure in not always suspecting Americans. And as they gained literally tens, if not hundreds, of thousands of followers on individual sites, these tools were used and turned into manipulative political activities.

Truth is this was an amazingly cheap and amazingly effective tool. Trolls, fake accounts, bots, misuse of information, and the real fake news in many ways have thrown our political system into a cycle of back and forth that we still haven't really sorted out. And this is not over.

One of the things that the German Marshall Fund has shown - they've been doing a fairly good job of monitoring this activity and I'm trying to get a full Intelligence Committee report in the next few days - is that I think we will discover that a large amount of the most vile vitriol on either end of the political spectrum that took place last week during the Kavanaugh hearings - and clearly Americans felt very strongly on both sides of the issue - but the real heinous, over-the-top vitriol was not generated by actual American discontent, but was generated by a foreign bot activity. Matter of fact, John Kelly, one of the experts in this field who we've had testify and meet in private with us in early August, indicated - and this gave me a little bit of sense in that it made me feel a little bit better - that the political content on the web on the far left and far right is actually 25 to 30 to 1 either foreign-based or bot activity versus actually American citizens. And that's a stunning statistic. Even if we cut that figure in half, it is a stunning statistic. In a certain sense, it should make us feel a little bit better because it would let us say that there's maybe not as many whackos in the American political system as otherwise seems to be.

We've also seen, and one of the things that Russia did, is that this is not just an American phenomenon. I've recently collected a series of parliamentarians because every one of the 29 NATO nations has seen Russian activity in terms of misuse of social media within their respective countries. One of the most surreal moments I've had in the last year and a half is we got together parliamentarians from about 29 different nations, including Canada and the UK, including Italy. The French were supposed to come, but it was the night after the World Cup so the parliamentarian didn't make the plane. Every one of those nations had indicated that there had been Russia activity.

We happened to meet ironically enough - and this was through the Atlantic Foundation, and Marco Rubio was part of the meeting as well - on the day where Mr. Trump was meeting with Mr. Putin. So it was interesting having all of our European colleagues talking about Russian interference while we were having an American president kowtow to a Russian president and accept his explanation of "Hey, nothing going on here," which was a great irony. But one of the things that we had been able to do was to add up the amount of resources that were spent by the Russians interfering in our elections, interfering in the French elections - where actually Facebook was a lot more proactive on

taking down fake accounts – and on the Brexit vote – where the British were late to the game but they now have their own parliamentary commission set up to looking into those activities. If you add up the Russian activity in American, France, and Britain and combine it together, and you have total amount of cost is less than the cost of one UF-35 airplane.

If we think about this even from just a national security standpoint, the United States of America just appropriated \$713 billion dollars in our Defense budget, largest Defense budget ever. Russia has a defense budget of about \$70 billion. I sometimes worry that we may be buying the world's best 20th-century military. Increasingly in the world where most of the conflict, I believe in the 21st century, will take place within the domain of cyberspace, misinformation, and disinformation, our near-peer adversaries like Russia and China, for a lot less investment, are *already* our peers. And, I would argue in the realm of misinformation and disinformation, Russia in particular frankly does a better job than we do.

In the fields of electioneering, we've seen – and candidly I think we need a lot more public exposure of this kind of activity – we've seen misuse of the Internet, misuse of social media, in terms of financial fraud in the area of stock pumping, enormous amount of abuse in click fraud in digital advertising, the use of social media to promote counterfeit drugs in ways that have enormous health care consequences, and we've seen the ability of social media to be misused in terms of spreading of malicious apps. As a matter of fact, as recently as the last six or nine months, we've even seen in the case of Myanmar, an effective state-sponsored account urging genocide against fellow citizens simply because they happen to be Rohingya. I will give Sheryl Sandberg credit that in her recent testimony she acknowledged that not only did Facebook have a moral responsibility to take those accounts down, but a legal responsibility as well. We hoped to hold Facebook to those kind of standards as we go forward, and I think both by necessity and driven by the enormous amount of attention, we're seeing these organizations start to make some progress.

But that progress has been incremental, and quite honestly as somebody who's been very involved in some of the policy ideas here, getting them to go from saying, "Yes, we want to work with you" to actually saying "Here's an area where we can agree upon policy changes," the talk has been a lot better than the actions to date. That means that we've still got a long ways to go.

I say this as somebody who has been a long-term supporter of Google, but I have been extraordinarily disappointed with Google: their failure to send a senior executive to testify before the Committee and their willingness to come in and only talk to people from one party. The truth is as increasingly we see while the volume of posts and tweets may have been on Facebook and Twitter, the real ability to manipulate, and spread particularly extreme ideology on either the left or right is much for prevalent on YouTube than it is on short tweets. Google, at its own ultimate harm, needs to come to the table and maybe they don't want to talk about building a censor-driven search engine for China

only, but this kind of activity is not going to be allowed on a long-term basis in terms of policy going forward.

I don't want to again just focus on Google, but to me, one of the many areas where we need some new policy is when we've seen Google recently take with a massive breach of user's privacy. Five hundred thousand—

When we've seen Google discover this abuse of their system and then hold it confidential for literally months on end. To my mind, as we think of where there needs to be policy reform, and I'm not just talking about Google, I'm talking about an Equifax as well - we need new securities and exchange regulations around materiality. If there are cyber breaches, if there are abuses of the system - particularly if you are a public company - we need to find a way to recognize those material facts that we need to go forward.

Let me just assure you, some of you have heard this line from me before, as the cofounder of Nextel, I don't mind if you leave your cell phones on when I'm speaking. You might be embarrassed, I hear “Ca-ching ca-ching” when it goes off.

So where do we go from here? We need increased transparency, we need increased competition and competition is I know one of the subjects of this matter. I come to this again as somebody who was a VC who believes strongly in increased competition and an increased competitive landscape for a market.

The truth is though, we don't have that. Again, let me say this for social media for a moment. If you look at an app store, eight of the top ten apps and all of the top five apps are all owned by two companies: Google and Facebook. The truth is even if you have that killer new app that's coming out - your exit, as a former VC, really is not to take that idea to market and fully get it to a fully competitive standpoint where you can go public as well - here your exit is either to sell to one of these large enterprises. Or if you don't sell, you have your intellectual property stolen and a clone competitor created by one of these large tech firms. And in a world where data is the new oil where we're gonna move into machine learning and artificial intelligence this problem is only going to get exponentially worse.

We've seen that unfortunately in the number of deals that go to market in the app space, in the fact that seed deals and angel deals have dropped about 40 percent since 2015. And the truth is this is a problem that's only going to get worse unless we we put some parameters on it. The role of government has obviously been to encourage and incent startups. I want to particularly recognize EIG one of the only good things that took place in the so-called tax reform which was basically a \$2 trillion tax cut with borrowed money at the end of an economic cycle, not necessarily the right time to do that. But the notion of the creations these new enterprise zones, where startups will get much more favorable tax treatment, is I think a great step in the right direction.

Government's role is to encourage startups. Government's role is also, and it's traditionally been, and historically been, to continue to foster competition. And I think we

really need, and i think it's the subject of this conference to really think how do we go about fostering that kind of competition.

I'm old enough to remember that the only reason I'm standing up here making my cell phone jokes was that back in the 1980s and 1990s, wireless technology, if there hadn't been an active government role, would have been completely dominated in this country by simply AT&T or, even after the breakup of AT&T, by six or seven lumbering RBOCs, as they were called at that point.

It was only because of proactive government policy around the competition space – in terms of the breaking up of AT&T – and then active intervention at the FCC – to make sure the spectrum allocation that came about with wireless was divided on a competitive basis where the incumbents had one set of frequencies and the new insurgents had the other set of frequencies – that allowed the kind of dynamic wireless competition that we have in this country right now.

And the truth is now, as we go into this next realm, if spectrum was the gold in the 80s and 90s – and although spectrum as we go into 5g is continuing to be gold. One of the things this is not the subject of this conversation but would love to visit with folks on this subject if you've got some views. In past wireless iterations, it was usually one western company or one western technology against another and so who won was of importance to the government but not critical. But right now in a world where there are no western equipment providers at the top, it is a fragmented West against a very organized China with Huawei, ZTE, and China Telecom as the largest systems providers. This has both national security as well as both competition requirements.

So what are we to do? The truth is, as we've said, data is the new oil, and we have a notion that says, "How are we really gonna have a competitive market landscape if you start with virtually no data and the incumbents have masses beyond belief?" I would argue that this kind of business proposition is virtually different than anything we've seen in the past. No matter how good your product was in terms of software with Microsoft or hardware with Apple, those are different business models where a better newer mouse trap can still compete.

In the world where there's social media, as we move into machine learning and AI, the aggregate amount of data that you already have may make it virtually impossible for any new competitor to actually ever get to scale. And that kind of business model - the ability to think about how we can dislodge incumbents on a competitive landscape - is an area where I don't think there's been anything like this in the past.

How do we think this through? Let me be clear, one of the reasons – I've got some folks on my staff who want me to come out even more stridently on some of these issues. But I am concerned that if we were to simply dismember some of the largest American tech enterprises, I don't want them to be replaced at least within our system. You don't have Google or Facebook actively sharing all that data with you as government. I am concerned that in a world where all of this is now global, where you've got a Chinese

government that in its own, in terms of facial recognitions, collects huge, massive amounts of technology and quite honestly where companies like Alibaba, Baidu, and Tencent at the end of the day are not responsible to their shareholders or their board, but ultimately can always have intervention at the governmental level, that that intervention will mean sharing that data that they've collected at mass numbers with the government that already has a larger amount of end-based data than any enterprise in the world.

So I've tried to think about this from a policy standpoint. I've recently put out a white paper that had 20 ideas, not all good, not all bad. I thought it was interesting some of the reaction to that paper. Some folks said "Attaboy, Warner, you're thinking up some interesting ideas and maybe a way to elevate the debate a little bit." I also got accused in certain periodicals as "out to destroy the internet."

Let me unequivocally say that was *not* my goal going forward. But what I think we need to point out – and let me give you a couple examples and I will try to wrap this up fairly quickly. There is a kind of rule of thumb from business that – sometimes I think almost too reflexively – that all government regulation *per se* is bad. And that regulation in and of itself always creates a cost. And at some level that is true. Let me acknowledge that and there are ways to do smart regulation and there's ways to do dumb regulation.

But I would also make the argument, and one of the things that I would hope would be a takeaway here, that government inaction particularly, from an American standpoint, can also be a cost to a competitive market landscape.

I don't think that point has been fully understood by many of the men and women that I work with. Let me give you two examples. We've seen the EU move forward on privacy with GDPR. Now, I think there's some good things there, I think there's some things that may be a little too broad-based and not surgical enough. But the fact that we, in America, did not take the lead on privacy means that the Europeans, in terms of GDPR, are now being used as the model for privacy protections in countries like Brazil, India, Kenya. In a realm where there's always been American leadership, American failure to provide leadership in this space has allowed the kind of locus and focus of not only the regulation, but all of the enterprises that will be created around that regulation, to be moved offshore.

Another one that 's kind of like the lowest hanging fruit around, and one that just makes me crazy, is we all know that we're going to move into a world where every device is connected to the Internet. I heard the number recently that surprised the heck out of me because I didn't think we'd hit this number so quickly. This is a US government number saying that we're going to be approaching, within this year, 42 billion devices just in the US connected to the Internet. I think that it is absolutely insane as we build out all these devices and all of the connectivity that's going to come about from that, that we have no *de minimis* security requirements. So we put together the lightest touch possible, bipartisan legislation that would say on IoT devices – and this would not be a pure government mandate, it would simply use the purchasing power of the government to say – "If the US government, if we're using your tax dollars, to buy an IoT connected device,

it ought to be patchable. It ought to not have an embedded passcode. It ought to make sure that if there are known vulnerabilities, those vulnerabilities are shared.”

Yet the fact that we haven't been able to move that – I do think the government will start to act on that administratively, because it's lunacy that we haven't been able to legislate it and it's frankly driven by the lowest common denominator, cheapest device makers who don't want to have that extra 50 cents of cost. We're going to again lose an area of leadership and we're seeing now the EU and Japan start to create their IoT security device standards where once again American will lose its lead.

This same kind of debate is even exponentially larger and more potentially troublesome in the whole 5G world. So we do have to figure out how we think about a regulatory and standard structure that is not static and ham-handed the way the 20th century was. How it can be more 21st century based? How it can be more flexible? There are models out there that ought to be at least examined. I think the securities world is one that is fairly complicated. There are industry-run, kind of regulators, like FINRA, that you know sets the first set of regulations and then if an enterprise screws up you go back to the SEC and others behind it. There might be that model that we could look at.

In the paper that I laid out there were a series of ideas and and I want to run through these - I know my staff keeps giving me the hook here - that I think we ought to talk about. And not all these, this is a technology audience, some of these are more on the simplistic side, but at least some of these ought to generate debate.

One, shouldn't we have a right to know, when we are contacted, whether it's in a post or an email, or a tweet, whether that entity that is posting or tweeting or communicating is a natural human being or a bot? Now there's nothing wrong with a bot, there's nothing inherently wrong with a computer-generated communication, but shouldn't we at least have the right to know as we start to make determinations about authenticity and how much we want to believe in that? Isn't there a public interest perhaps in at least having anonymized data and APIs made available to, not necessarily government, but to outside researchers to look at things around bias or other areas where there's some kind of good housekeeping seal of approval. Doesn't need to be the government. Could be academics, could be others, but that's something we ought to sort through.

Shouldn't we have an open discussion again back to social media why are in the heck are social media terms of use so damn hard to understand? And you know we all know what we do: we simply click “I agree.” Is there a way to think through these in a way that should be plain English and are there certain things that you should not be able to give away no matter how extensive the description is?

Again, as a former telecom guy, shouldn't we think about data portability? Shouldn't we make it a heck of a lot easier if I want to move all my Facebook information, including my cat videos, to another enterprise that it be done in an easy and user-friendly way?

Now those of us who are old in the room can remember when it was really hard to switch from one telecom to another. That was all made easier because there was government legislation that talked about number portability. Shouldn't we have data portability combined with interoperability standards that would at least again think about competitive ways to break this market?

There's the top-down regulatory approach. I'd much rather start with competition models.

Should we think about some of the parts of GDPR that only allow third party consent of use of your data? At least have a full-fledged debate.

One of the areas that I would like the most – and we've got some indication at least from Facebook and Twitter that they are open to it now, we'll have to see whether reality hits the road when we think about real policy – shouldn't we have the right to know in a user-friendly way how much data any of these companies have about us? With a level of specificity? And if we have the ability to know with some transparency what data the platform companies have on each of us, that will be important.

But what will really be the key to unlocking at least increased competition would be can we not only know what that data is, but can we then know, to the enterprise, to the platform company, how much that data is worth? Too many Americans say, "Oh my gosh, isn't this great? Facebook, Google, Twitter – it's all free stuff." It's not free! We are giving up extraordinarily valuable pieces of information about each of us. And my view, at least, is if we had not only that data transparency, but also pricing transparency, there might be a whole new business model where entities can come in and end up being the intermediary between the user and the platform that might provide the kind of choices we want on what level of data protection, that wouldn't necessarily then have to be mandated by government. Wouldn't it be better to have a competition model rather than a straight regulatory model?

There are a host of other notions that I think we need. What I would like from you guys is this issue is only gonna get bigger. This question both about size and power of these enterprises is only going to grow larger. And I say for those of you who may be representing these enterprises, you know, you need to come to the table because something will happen, I would argue, within the next 18-24 months that will be so draconian that will then cause Congress and the politicians to overreact.

I think it will be a combination and we've kind of thought about a national security and policy standpoint; we've separated cyber-security and misinformation/disinformation and social media into two buckets. Our adversaries, as far back as 1998 and 1999, combined these two enterprises. They are completely seamless. So in the not-too-distant future I could very easily envision an Equifax-level hack that would provide personalized information on each and every one of us and that information would then be used to contact us and we would then open that communication and you would end up with a deep fake video of an individual whether it's a politician or a business leader or the Fed

Chair, and the ramifications of that kind of misuse and that kind of misinformation will rock our markets or rock our personal lives or rock our political system in a way that we can't retreat back from.

So you know I'm not here as a Luddite. I'm not here as someone who doesn't believe American technology ought to be, or continue to be, the world leader, but we need your help, your ideas, and your suggestions. This is an area that is ripe for policy. It is also one of the few areas where I work on a daily basis where none of this breaks down Democratic/Republican. None of this is conservative/liberal. This is the future/past. And you all in this room, by the very virtue of you being in this room, need to be part of that future policy decisions we need to make. And I want to again thank Ross and everyone else because to make that happen you've got to also have the early-stage capital to continue to drive these policies.

I know they're trying to give me the hook but can I take a question or should i... Ross what do you think should I take the question...I'll take one question.

*Unintelligible question*

You mean the Zuckerberg hearings didn't demonstrate extraordinary knowledge of my colleagues? *Laughter*

One, thank you for the comment. Usually when it get one question it's that ultimate zinger so I'm going to take the question and get off the stage. One, 100 percent I agree with you, and two, I would immodestly say that the Intelligence Committee that I'm on, we have moved people up the learning curve. And when we had, and I would say the contrast was as stark as anything.

We had Jack Dorsey and Sheryl Sandberg recently, and Google and an empty chair. The level of questioning was relatively sophisticated. That same afternoon they went over to the House and people were shrieking about, you know, ideological preferences when folks didn't even understand the algorithms were going to drive you to whichever side of the agenda you lean towards because it's a money-making venture.

So I do think there is hope for moving policymakers. The other caveat I'd put, and I will say this to maybe some of you guys, but the social media companies themselves, as well as the best technical people in the US government - at NSA and elsewhere - were completely caught flat-footed by what happened in 2016. So I would argue that we all need to up our game. The government needs to up its game. The tech companies need to get out of this phase of "We're just good guys and good gals and we bear no responsibility." On that notion, thank you all very much.