

## Why Tech Hasn't Been a Wreck During the Recent Crisis

### Speaker Key:

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Time code	Speaker	Text
00:00:06	DP	COVID-19 has wreaked havoc on our lives and disrupted our economies but the fallout could have been worse if not for the technologies that have bridged our ability to work, learn, and socialise over the past few months. On this episode of Insight Perspectives, AGF's CEO and Chief Investment Officer, welcomes AGF Equity Analyst, Auritro Kundu, to discuss tech's role during the pandemic and the innovations that will continue to influence the global economy in its wake. I'm your host David Pett. Let's get into it. Hey guys, thanks for doing this. Auritro, welcome back. How have things been?
00:00:46	AK	Work from home has definitely been a unique experience. On a personal level, I have three young kids under the age of six, so it's been quite touch juggling that. They don't really teach you in business school or engineering school how to multitask with working from home and home schooling. So, it's been interesting times.
00:01:02	DP	We're all working from home these days. What tech or service or activity or distraction has become essential to you over the last few months in terms of getting through this?
	AK	I think, if we just take a step back and think about during typical bear markets innovation gains market share at an accelerated rate. You have technologies that come up that are better, faster, cheaper and more productive, more creative, and they kind of become outsize winners.

00:01:26	For me, I think the product that stands out the most is video conferencing. Historically, it's been around for a while but companies such as Zoom came out with products that just simply work, and you've seen the success of these companies. Zoom, for example, went from ten million users in December of 19 to over 300 [sic] daily active users at the peak in April 2020. So, for me, it's definitely video conferencing solutions.
00:01:49	DP And then, Kevin, from your standpoint, when you think about working from home but also just being at home more, what are some of those essential services or technologies that you've had to rely on over the last couple of months?
KM	I think that Auritro is right. I liken this to... What we went through with COVID is somewhat of an unprecedented, and that's an overused word right now, but time. It certainly will be the most disruptive thing in my investing career, bar none, and I've seen a lot of things.
00:02:14	So, I think what will come out of that, anything that's this disruptive... If you think about wars, wars are incredibly disruptive but the great technological advances that come out that rush to treat, fix, drive forward, the productivity that will come through this, very similar to what Auritro said around the bear market, is going to be a very different thing than we even thought about sitting here two years ago, or a year, or six months ago.
00:02:36	But, for me, yes, I think the video issues. The technology has been there for all of us. It sat on our desktops and none of us knew how to use it really and today, I hate to use the word, but we're starting to use them as verbs. We're zooming people and facetimeing, etc. And on the corporate level I look at it and say if you'd have told me a couple of years ago or six months ago that I would be dealing with a transaction across the Atlantic, in the UK, and do it through and conclude it through this type of medium, signing documents electronically, I would have said no, not possible. Now, we're running board meetings.
00:03:10	So, from a corporate standpoint, yes, we've moved the entire thing that we do. I don't really care what industry you're in, whatever that thing is you do, there is something that has absolutely changed and is disruptive about this that will be, I think, ten years' worth of change that we've experienced in three months, for certain industries.

	DP	We're also seeing technology play a huge role in how we live our lives outside of work, given social distancing. What are some of the technologies and innovations that you're relying more now than ever before?
00:03:38	AK	I think one of the obvious ones is the rise of e-commerce. I think it's changing how consumers behave, how we shop, how we interact and companies were forced to adapt, retail companies, restaurants were forced to figure out how to do curbside pickup, how to do mobile ordering. So, for me, the technology that stands out the most is the one I've been using but probably not using it to its full capacity and that would be buying everything through e-commerce.
00:03:59	KM	Without sports and other things, people really, all of a sudden, look for other avenues for entertainment. So, I think if you look at any of the streaming platforms the numbers have probably been outsized relative to pre-COVID. So, that would definitely be one. I'd say, for me, personally, I have actually found myself being more in the old technology realm. I'm reading more and doing other things with my time, which is kind of interesting because we think about all of this and this change, right, there's some reflection there and other things.
00:04:25		But, day-to-day technology, I'd say Uber Eats and other things where you can order something, I think those platforms have taken hold in a world where you can't go out to dinner and you're tired of cooking it. I think you'll see that in the data, that that too is now a phenomenon that's not going to go away now.
	DP	When we think about this story, about technology and the role that it's playing today, how much of this is about existing technologies finally getting their chance to shine? Auritro, you talked about video conferencing earlier versus nascent technologies capitalising on the new reality we find ourselves in. Is there a dynamic there between existing technologies and newer technologies coming to the forefront?
00:05:00	AK	It's definitely a combination of both and, as Kevin mentioned earlier, video conferencing solutions have been on our desktops for a long time and we just haven't seen that adoption curve hit until now. So, you've seen the nascent technologies take off and you've seen the newer technologies, as well, as Kevin mentioned, connected TV moving away from linear, the e-commerce that we talked about, even remote work.

00:05:22		And you have to think in the future, how are you going to manage all your endpoint securities if work from home becomes more permanent? How are you going to manage all your cloud traffic? So, it's definitely a combination of both. I think what COVID has done is just accelerated trends everywhere.
	DP	And Kevin, any thoughts on that, as well?
	KM	These are things, as Auritro said, we had in a nascent way and I think we've exploded the growth rate of some of these pretty quickly. And then, I think where we go with it. So, just online event platforms, what we know a year ago or today is going to explode in terms of what we'll be able to do. Think about a conference you would normally go to that may have hundreds of people in and you'd go to a breakout room.
00:06:00		There's technologies now that are going to evolve, that are evolving beyond just video platforms, that will allow you to have that experience without getting on a plane, have the breakout sessions, have one-on-ones with people at the conference virtually. It's going to change and I think part of that change is also going to be how do we think about the relationship function going forward. That's not a technology solve but that's something that we're doing to have to deal with in terms of it works well with two people who have an existing relationship, how is all this stuff going to work with people who really haven't met before?
00:06:28		And it's a different interaction, it's a different way to think about the whole sales function for every industry. So, I think a lot of the next generation of this will be even bigger and bolder than what we just knew about, basically, nascent video technology.
	DP	We've talked a lot about the technologies that have emerged and done really well over the last few months. Have there been any tech-enabled services that were gaining traction before COVID, that have now been side-tracked a little bit?
00:06:53	AK	The area that comes to mind, I guess you can say, would be in the sharing economy and you've a lot success the past five to ten years with the Ubers and the Airbnbs and I think those business models were hit very hard due to COVID. But, at the end of the day, it's quite interesting some of the pivots these companies have made and they can actually come out of this stronger.

00:07:11	<p>At the worst, Lyft and Uber volumes were down about 90% in many cities and you're starting to see that rebound, maybe down 60-70% but oddly, for Uber, as Kevin mentioned earlier, Eats was an area of strength and historically, if you look back a year, food delivery business, we had too much capital and too much competition, but all of a sudden that was an area, a bright spot for them. But, Uber is doing some interesting things around the safety of their drivers and passengers. They're ensuring that the drivers where masks. They're ensuring that people use sanitisers. You have to take a picture of your mask on if you're a driver now. So, this is interesting that maybe Uber comes out of this a little bit stronger.</p>	
00:07:44	<p>Same thing with Airbnb. They had to cut 25% of their workforce. They had to raise a billion in debt but out of this they launched new offerings. They launched Online Experiences, support for frontline workers, monthly stays and they've actually seen that in recent weeks from May 17<sup>th</sup> to June 3<sup>rd</sup>, they're actually up year-on-year in terms of bookings. So, it's interesting that these sharing economy stocks are hit pretty hard but they may actually come out of this stronger.</p>	
00:08:04	KM	<p>Yea and for me, David, on that one, I also think that some of this has changed, though, for the permanent side. So, if you think of the shared economy for office space, I'm not sure people are going to want to work on top of each other again in a shared space. That business model may change dramatically and it may go back to a tech-enabled play which maybe we would argue it never was, but that may have changed based on how people want to interact.</p>
00:08:30	<p>But, some of them, like Airbnb, I fully agree. If you're not getting on a plane, you want to take a vacation, you don't feel like checking into a hotel, you don't know who was in the room before but the owner of the house that you're going to rent can certify that it has been sanitised and cleansed, you're probably more apt to do that in this environment than you would have been to go to a hotel. So, some will survive, if they adapt, some will probably change forever.</p>	

00:8:50	DP	And Auritro raises an interesting point when he talked about the shared economy and ride hailing services and the fact that a lot of these companies didn't just stick to one part of a business, and that they did look to expand their offerings and choose different ways to attract customers. That's, obviously, been a huge part in keeping them a going concern at this stage. I just wonder how important that already has been, that idea of adapting your business models so that went you run into a scenario like we're running in today there's still ways for you pivot.
00:9:23	AK	I think one of the more interesting pivots you're going to see actually isn't going to come from a tech company, it's actually going to come from Starbucks. If you saw the news, Starbucks is actually repositioning a ton of their stores and they're actually repositioning 300 to be exact, 3% of their North American locations, to pick-up stores and that is to specialise to-go. And if I'm making a prediction, you can probably guess that maybe they do 1,000 of these stores in three years and maybe 50% of their total stores are to-go in five years. 80% of Starbucks orders are already to go. You get to save money on cost savings from a smaller footprint with a smaller lease and the app is already 20% of sales.
00:09:59		You see one of the best parts of Starbucks is the success of their mobile app and how well it's built and how well it operates. It peaked out, actually, at 80% of revenues in February. Starbucks on to-go is a really good indication of how the world thinks post-COVID.
	KM	Yes, I think every industry is going to have to have to adapt this change. So, think about the little boutique retailer who never thought they needed a website. Now, all of a sudden, you'd probably find every retailer in any small city or small town has now got a website, even though that sounds like, well, gee, I'm sure everyone had one before. Probably not. We've adapted.

00:10:29	<p>Some restaurants in the service side that never thought about having food delivery, high-end restaurants that basically said people come to use because of who we are, even they have now said to survive this and change they had to figure out, maybe I do need to be on delivery sites and apps. And they've all thrived, or not thrived but they've survived through this. And you go through many, many industries, I think all of them are looking at how do I have to change to meet this, real estate being one we just talked about. There's a great debate that's going to be had in society. Do we need more space? Do we need less? The first reaction to it all was we can have everyone work from home because the technology worked and it was really good and it can be improved.</p>	
00:11:02	<p>And then you say to yourself, but maybe not. Maybe not everybody wants to work from home. Maybe there is actually a social interaction that people want. Maybe, be there is stuff that people want a flextime. They want to be in certain days and out certain days. So, the debate about how much real estate is also going to come down to how far do we have to sit and work. How many people can be on a floor at one time? So, maybe you need more space. All of these in industries are going to face incredible change because of what we just saw.</p>	
00:11:25	DP	<p>And then maybe that's a good place for us to just pick up on that a little bit more, Kevin. You talked about real estate but other sectors are obviously going to be impacted here. What sectors of the economy are going to be transformed by technology the most, once the impact of the pandemic is fully recognised? And again, I know we've talked about a few industries already but in your minds, where do you see that really playing a huge role going forward?</p>
00:11:47	KM	<p>So I think online learning was a place that technology was theoretically there. I have been impressed with what I have seen for some of the universities to be able to pull this off in short period, to basically teach kids in a classroom setting, online, with video, online exam. Maybe that business model needs to change too. Maybe not every kid has to have an education, pay full price and go onto a campus. Maybe they can now offer a terrific education in a different format.</p>

00:12:13		<p>I think of some of the other things different societies were faster to adopt such as e-health. Canada has been a terrific leader in e-health but we fast-forwarded there. There are other places like the US which this was not really a big initiative, which it will become in the future. So, anything that I think that this has taught us is that we can think about, not only the disruption in a survive and change way because this had to happen and I had to change if I'm a restaurant, but to some of these other industries which I think can be really growth now because they can now say we can do this. How do we serve a larger population with it?</p>
00:12:45	AK	<p>I would add that the push around remote work is actually a game-changer for the future of tech. It's not about real estate for the tech companies but it's how products are designed, how a team collaborates. It's about finding the best talent globally. I saw the CEO of Okta on Twitter basically says how do I change my search criteria to everywhere. Shopify has come out and said employees can permanently work from home and the CEO has stated that office centricity is over. He has no intention of reopening offices this year. Twitter and Square have let employees work from home indefinitely. So, I think this is going to change the landscape of technology companies. It's going to open them up to finding the best talent and it's going to allow them to create products faster. It's an interesting time for technology companies around the world.</p>
00:13:26	DP	<p>And then, on that front, is it automatic that everything changes after pandemic is over? Kevin, you mentioned that maybe people will want to go back to the way things were before, but are we past that now?</p>
	KM	<p>I think some of this change is permanent. I think a lot of it will be. There is going to be probably 20% of the workforce that's going to say I want to go back to the way it was, I miss that social interaction. There's probably 20% that says I really like the flexibility that this offers me to work at home. I don't have to commute, the time I save, and that's productivity.</p>

00:13:55	<p>And then there's probably that big chunk in the middle for many organisations that say what I've learned over this last 13 weeks or so is I can do this. I've gotten into a routine and it's not that bad and I want some ability to have flexible time where I can be in the office one or two days a week, at home the other days. And I think that that's a seismic shift and most companies, I think, are going to address that in a positive way. Think about what that does to our work. It enables them to have productivity flexibility, etc.</p>
00:14:21	<p>I also think about the fact that it's not just the workforce that we know today. Think about younger people entering the workforce, that this is going to be a permanent shift. Think about the technology that when we finally get to 5G, how this can even be enhanced beyond what we even think of today, in terms of how rich this work from home, if you want to call it that, remote work, can be because of the technology that we're going to get, the speeds of that technology.</p>
AK	<p>It's interesting that you bring up 5G. As you saw in the news today, there's a potential \$1.0 trillion US stimulus package that would include 5G and rural broadband. China has basically gone ahead with their baseband deployments for 2020. They're also on track to launch 180 million 5G smartphones by the end of 2020. US restrictions might even ease up on Huawei as we try to define the standard for 5G rollouts.</p>
00:15:06	<p>So, what I would say is that COVID really has demonstrated the need for better connectivity, especially as the world works from home more. So, it's not just 5G, it's broadband, last mile, fibre-to-the-home. As we know, 5G has some limitations and so we've basically maxed out what we could do in terms of speed today. And so if you think about working from home and you think about the upcoming Wi-Fi 6 need to process data faster, this kind of leads you to the industrial robotics, AI theme, as well, that you need a strong infrastructure layer to advance AI. So, all this infrastructure deployment will tie back to AI and China-US trade relations and trying to be an AI leader. And I think companies levered to this theme are best positioned to grow at a rapid rate in the long run.</p>

00:15:44	KM	Yes, so let me get basic with that. Think about what we've what just learned. If you'd have told me that we would have taken this many people out of what their daily life was going to be, forced them to go home and go online all at the same time and use video, which chews up a lot of bandwidth and everybody, every household across continents and we've basically had very few issues with the network. That, to me, is something I would have said not possible.
00:16:08		So, a lot of the stuff that was put in the ground many, many years ago after the last tech boom is paying off, the ability to have fibre and other things and the ability to have some of the features of work from home. I think 5G, if it comes, when it comes, not really an if statement, is it will enhance some of the speed of processing that we know today because that backbone is there for sure. But, think about it, I never trusted that this backbone could do what we just saw.
00:16:31	AK	Yea I'll add to that. I think you might see a refocus here on some of the themes we talked about in the past with AI, machine learning, parallel processing. I think it's becoming more and more evident to the US, to China, how important it is to be world leaders in this and you're starting to see that rhetoric pick up again. And, as Kevin points out, all the internet traffic you're going to have around the world wanting people to work remotely, you're going to have to secure that, you're going to have to manage that, you're going to have to protect all that internet traffic. So, you're right, there's a whole ecosystem here that, I guess, countries are going to take a second look and rush to build out. So, I would agree with what Kevin is saying.
00:17:04	DP	Then, on that note, I just wonder if you look at a factory floor or a manufacturing floor, whether this spurs on investment into AI and robotics and those types of things that we had been anticipating would happen. But, is this just a further accelerator to those types of technologies and innovations?

	AK	I would say it definitely is and I think you've seen this in the past. Amazon, Shopify, they've made acquisitions to further add intelligent capacities to their fulfilment centres. You've seen the rise of cobots that are probably going to accelerate here. You've seen all the supply chain disruption. So, you're going to want to maybe find some way to automate and reduce the number of people in your factories or manufacturing centres. So, I definitely think companies are going to take a second look at this when we start getting back to work, back to life.
00:17:47	KM	Yea, I fully agree. I think some of the spacing issues are going to be long-term trends. Think about factory floors, if you can use robotics instead of humans, it's going to help you not have to shut down a whole line when someone gets sick in the future if this is, again, a long-term problem. But, there are going to be certain things you're not going to find a technology solution for. I haven't had a haircut in four months. I'd love to have a technology solution for that one right now, but some of these are going to be harder to solve.
00:18:12		But, I do think that when you get through this there are going to be ways that every industry is going to look at what they did before COVID and what they're going to need to do post it to make sure that they can effectively operate in the future, so that will lend itself to things like robotics and further advancements in AI, etc. I don't know how we get to the contact industries like, again, hair salons, etc, but I'm sure it's coming.
00:18:34	DP	Given what we've spoken about, what are the market implications for technology companies for one but broader markets, and perhaps we can start with what we've seen over the last few months in terms of how markets have behaved and rallied off the bottom?
00:18:47	KM	If you think about what we have seen, markets have responded to a couple of things. One is the unprecedented drop from the high was when societies realised that they were going to have to shut, that this was not a China-specific, this was moving around the world fairly rapidly. What's moving the market back up to pretty good levels here and, again, across the 3,000 level is the fact that this was met with unprecedented stimulus by central banks and governments to replace incomes that are being lost as people stay home.

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The second thing was, basically, that you'd flattened the curves of these viruses so that the death tolls and caseloads have started to flatten and go down which allows you the third leg, which is to reopen economies and get economic growth going. That's where we are. Now, we're in a dogfight to how do we get that growth back without having a resurgence in cases. The clear stalwarts and winners throughout this, though, have been those companies in the tech space that have enabled these companies, countries, economies to push forward through this. So, whether they be Netflix as people are home and need something to do, whether it be Microsoft in the cloud, Amazon through e-commerce. I can go through a whole list of them. The ability to do documents online. Think about what that does to the legal industry. For years, real estate closings were things done in person.

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So, we have enabled the economies to power forward because of some of these tech companies. It's no surprise that the stocks have done well, many of them at new highs, despite this fact that the economy, itself, is going to be in the worst, probably, second quarter that history has ever seen because it's banking on the fact that these technologies are going to help for the future.

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AK

Yea, and I'll add at the end of the day COVID has accelerated trends, full stop. And if you look at the history of the stock market, the biggest winners have come out of bear markets because these new companies that are better, faster and cheaper take off. In 2016, it was parallel processing with Nvidia and in 2008 it was Apple when mobile took off. In '98 it was Qualcomm and JDS as you built out your network in fibre optics. In '97 it was Yahoo, with the idea of the internet. PeopleSoft in '94. I can go on and on. So, this is actually one of the most compelling times to be investing in innovative companies.

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00:20:51	KM	And I would say, to add to that, is that this is also, when we come through this, the unfortunate toll. There's a number of jobs that are being temporarily impacted right now. We're seeing unemployment rates that we won't see in our lifetime again, greater than the Great Depression potentially. And, yet, some of those jobs are going to be lost for good because of this disruption but that doesn't mean we can't change. So, what is lost, maybe, are industries or businesses that were becoming more and more irrelevant to begin with. Some of the retail space, for instance. Did we need anchor tenants in some of these malls with the advent of e-commerce, right?
00:21:23		So, how do we take this disruption and create new business that come out of it? And, I think, we will. As Auritro says, in bear markets, in other disruptive times in life, that is typically what's been happening. So, I think the next two to three years could have accelerated not just the things we talked about but new technologies we don't even know about.
	DP	With respect to how well some of these tech companies have done over the last three months, is there a concern that they've done too well, even though we do anticipate being an acceleration in some of these services and innovations going forward?
00:21:54	KM	For me, we've pulled forward, in some cases, some growth from the future. We've accelerated trends that were going to happen into a very short period of time. These companies are going obviously have to... That growth rate that we just saw from some of them is going to flatten, maybe, a little bit but it doesn't mean the trend isn't still positive. But, what we just saw was this acceleration of some of these trends that, as Auritro said, had been there and were starting to move forward and now the question is how much did we borrow from the future on this.
00:22:17		But, I think this is a very different time than the late 90s and the tech cycle then. Those were companies that, we've talked about this on the prior podcast where if you just had dot.com on the back of your name you got massive multiples. These are real companies with real business models today, that we've proven have real needs in the infrastructure for society. And you look at the multiples today, some may be higher than others but it's nowhere near the bubble levels that we saw in tech for the most part in the late 90s.

00:22:45	AK	And I would add, coming out of this, you're going to find out who are the most innovative companies with the best products, the best market fit, the most visionary CEOs. We talked about this on the last podcast where we talked about the cloud and the number of users and how a lot of these companies are going to surpass expectations and grow into their valuations. And I would say that Zoom probably delivered one of the greatest quarters I've seen of any public company with 170% year-over-year growth and doubling of their guidance, which was already at a \$1.0 billion run rate and still only 15-20% of their users are paying. So, there's still a lot runway for growth for a lot of these companies. I think it's early days and you're just discovering who are going to be the outsized winners.
00:23:05	DP	All right. I think that's a wrap. Thanks, Auritro, that was great. And, Kevin, until next time. For a full transcript of today's episode, visit <a href="http://AGF.com/podcast">AGF.com/podcast</a> and don't forget to subscribe to hear more from us at Apple Podcasts, Spotify, Google Play Music, Stitcher, Podcast Addict and Pocket Casts.
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