# Productivity, AI and the Future of Work with Chad Syverson (S6E5) – Transcript

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*Sometimes people worry about the employment effects of AI or whatever. The evidence so far is AI is not replacing people, it's replacing tasks. So it's not like an entire job is being done with AI that workers are using AI to help them with specific things they're already doing well.*

**Chris Congdon:** There's no doubt AI will change the way we all work. But how exactly remains to be seen. My guest today is Chad Syverson, renowned productivity expert and professor of economics at the University of Chicago Booth School of Business. Chad has dedicated his career to understanding the intricacies of organizational productivity and how it impacts our lives and businesses. And he says AI has the power to turbocharge our global productivity.

Organizational productivity is defined by Websters as the efficiency of an organization to convert its inputs into outputs. Or in other words, how effectively an organization uses its resources to achieve its goals. And that matters because greater productivity means better business outcomes like improved financial results, reduced waste and environmental sustainability and even happier, more satisfied employees. After all, as Chad says, no one wants to work for an unproductive organization.

Chad helped me understand the implications of our global productivity, why AI will be a key driver of productivity in the next few years and how our physical spaces can help. Here's my conversation with Chad.

**CC:** Chad, welcome to Work Better.

**Chad Syverson:** Thank you, Chris. It's good to be here.

**CC:** I have to confess that sometimes when we get into conversations at work about productivity, I can get a little uncomfortable sometimes and maybe some of our listeners feel those same ways. So I'm grateful for you coming to talk about it with us a little bit more. And I want to start just by saying it feels like productivity has been an issue we've been wrestling with for decades, really. And I'm curious why do you feel it's important now or what do you think has changed about productivity that we should be thinking about?

**CS:** First of all, just at a business level, productivity is associated with so many desirable things. Profitability, higher pay for workers, lower quality, adjusted prices for customers, faster growth for the business, survival for the business. So if you want to run a highly productive business and you want to work for a highly productive organization, that's kind of always been true. But with the rate of technological progress that we might be coming to see in the next few years, I think productivity is just going to become all the more important as a thing to be thinking about and considering and just dealing with in terms of where it's going to move the business landscape.

**CC:** Great. Yeah. So I want to double click on what you said about it being as an employee, you want to work for highly productive organizations because sometimes I think productivity could be perceived as, Hey, my leaders are just trying to ask me to do more with less, or they're trying to squeeze more out of me. So we might perceive it as being something that's negative, but you'd say that's not the case.

**CS:** I think you're right, both in terms of my conclusion, but also I understand that folks out there sometimes have the perception you raised, but I could tell you what the data say. And that is, so first of all, the idea that you can raise productivity just by beating your employees harder and making them miserable for that might work for a month, might work for a couple of

**CC:** Months, temporarily.

**CS:** But that's not going to work forever. And we know that the productivity that really affects business outcomes is a persistent thing. It lasts years on end. And so the only way you get that is by having a well-functioning organization. And I bet a lot of your listeners, just through life experience, have worked for well-functioning organizations and maybe less well-functioning organizations.

**CC:** Not so much.

**CS:** I would pause to say that they enjoyed working more at well-functioning organizations, and those are the ones that tend to be productive. And that's why I say if you're a worker and want to be at a highly productive place, you're going to enjoy your job much more. Because, again, places that are productive over the long run aren't doing it by making their workers miserable. They're doing it by conducting the symphony of business. If I could be a little elaborate with the metaphor in a way that makes it a symphony rather than a cacophony.

**CC:** Chad, can we just double click on what makes for a well-functioning organization versus a non-functioning organization?

**CS:** That's a great question. Here's what the research literature says, and we actually know quite a bit about this, but there's been a lot of work done. A lot has to do with management, management practices. So it's definitely about what the manager is doing and or some combination of elements of their personality and the way they interact with their workers.

There are many specific things folks have looked at, but I think you could summarize a few of the big ones as being you've got, management has a feedback loop in place that it is tracking metrics tied to the production process, and it's when those metrics are lagging, it's trying to figure out why. And then it's taking steps to ameliorate the problems created because of those issues, and then hoping to have fixed the problem, continues to track the metrics and see if they've gotten back on track. And if not, you do it again and again. And you do that for every single process and you pay more attention to more important processes.

But you're basically through the entire organization, you've got this feedback loop of what are we trying to accomplish here? What are the numbers saying about that? If we don't think we're accomplishing what we ought to, where are the problems coming from and how can I work either through adjusting the process or helping my employees or some combination thereof, try to bring this process back on track and get the metrics back to where we'd like them to be. And then you do that over and over again. You never stop. And then you're always also trying to continuously improve them. So it's like, well, we can do this well when we're functioning at a hundred percent these days, but it'd be great by next year if we could be 2% better. Is there a way I can rearrange things so to speak, to get that extra 2% without making my employees more miserable? So how can I coordinate the actions of the organization, work with them to try to get that extra 2% out or whatever over the next couple of years? And you do that through the feedback loop as well. So that seems to be a big part of what good managers do.

**CC:** So, if I'm in a leadership role and I'm not really interested in getting feedback, it may be a challenge for us to function as well as we could, right?

**CS:** Yeah, good managers are not the ones who come up with dictates, throw 'em over the transom and just expect things to happen by themselves. There's definitely an interactive component both with the process and the workers too. A good manager is very good at evaluating their workers and trying to assign workers to where they're the most effective in the organization.

**CC:** Yeah, it's a point well made that we all actually feel good when we're working on something and we feel a sense of accomplishment and we feel like we're actually getting things done. I think people get a lot of value, personal value from feeling that.

So looking at productivity trends, like backing out a little bit, there's been a lot that's been in the news about what's happening with productivity and you say, we've been going through a period where productivity has been declining or maybe not growing as fast as it might have at different time periods. I was wondering if you could break that down a little bit; what do you think on a macro level is happening with productivity from a lot of different organizations together?

**CS:** Just to give some background. So if you look at average productivity growth in the US economy since World War II, so 1945, there's basically been four periods. One was late 1940s to early seventies. Those 25 ish 30 years were high productivity growth periods, lots of technical change, lots of increases in productivity at a bunch of businesses across the board.

**CC:** That was kind of the post World War II.

**CS:** So that was the post boom. Exactly. And then in 73, 74, and it is pretty sharp, right? One of those two years productivity growth slowed down a lot. It kept growing. It wasn't that productivity level fell, but it stopped growing as quickly. And it grew slowly for 20 years after that into the mid nineties. And then it reac accelerated 1995 to around 2005, that's the third periods. And then since then it slowed down again. And the issue now is if you squint the last, it was really slow, oh five to the mid two thousands very slowly started rising.

And then since in the past two years or so, it's been reasonably fast. Not quite the late nineties boom fast, but it seems to accelerate it. And so the question is, I think on a lot of economists minds, are we out of that fourth period, that second slowdown and into a new re-acceleration or not? I mean in time will tell and there's reasons why you might think we're going to exit from that low productivity growth period. But again, it's not quite clear yet.

**CC:** Are those periods where it's going up? I mean, is that associated with something like a new emerging technology or some other force that's kind of happening that's causing us to be more productive than maybe we were at another time?

**CS:** So often historically, you do see these decade plus long productivity accelerations being associated with an identifiable technology. An economist would say general purpose technology. This is not just something applicable for a particular line of business, but that something can be applied, a bunch of whole bunch of stuff. And so I think the evidence is pretty clear. For example, that 95 to oh five boom was basically the IT revolution hitting. Now it's interesting, we had computers before 1995, and in fact there were people saying, well, why aren't the computers moving? We were in this productivity slowdown since the early seventies. We've got all these computers. Why are we seeing the productivity benefits? There's often a gap between when you can sort of identify the technology and when you see its productivity effects hit

**CC:** When it actually begins to change the ways that we're working and…

**CS:** What we're doing. Exactly. Because these things take longer to diffuse than I think a lot of their proponents. And I think kind of where this is leading is what's going to go on with ai? Is AI the next general purpose technology? Are we going to see a productivity boom from that? And that's kind of the open question right now.

**CC:** Well, you anticipated my next question. So let's talk about that because I think, of course, everybody's thinking about ai, it's being adopted more quickly by some organizations than others. We see a lot that's suggesting that employees are adopting AI even faster than what their organizations have kind of figured out their AI strategy. So can you just talk about that a little bit about how you think AI might begin to change our productivity levels?

**CS:** Sure. So the first question, is ai a general purpose technology? Is it something that's very line of business specific or can we imagine it being used across a whole bunch of different business functions? And I think that latter argument's pretty easy to make. Basically AI are a giant prediction machine and prediction. The obligations of prediction are numerous and broad. So you can see this thing potentially having use all over. So I think it checks that box.

The next question is can that prediction ability be harnessed in a way that's useful for doing work? I think we have some evidence that that's true right now for writing maybe the more rote end of things. That seems to be pretty good at, that seems to be good at writing code, especially if you already know how to code a little bit, you can use it to help you write more codes. So we're starting to see specific applications.

The full extent of its application, though I think it still remains to be seen. Again, I think the potential is there. People could tell stories, but we're just really on the leading edge now, I think, of actual application in work environments. And so it's kind of a question of one, how far are those going to go? And then two, a thing we've seen historically with other general purpose technologies is one of their productivity benefits comes just from they replace something that they're better than before. So a classic example, the electric motor, it was better than a steam engine, better than a water wheel at running a manufacturing plant.

So you get some productivity benefit of just getting rid of that water wheel, putting in electric motor. But the biggest productivity benefits of, in that example electrification and manufacturing, was you didn't need to design a factory the way you used to. They used to have to stack up a factory next to the river and you had to have all the machines run off that water wheel. Once you have electric motors, you can put a little motor on every single machine and now you can flatten the factory. You can completely reconfigure the physical layout of how stuff is made, how workers work and interact with one another. And so it's really that second wave of things you couldn't have imagined even doing with the old tech. You're not just replacing the old technology, doing the same thing, you're doing things the old technology wouldn't have even allowed.

That's a big part of productivity growth that lasts for a decade or more from a general purpose technology. I mean, it is just too early to really know what those completely different things are for AI. People have some ideas, but we're not actually seeing, I think yet examples of them. We may well be in the next few years we're going to start seeing that, but I think that's still a very open issue in terms of how big the eventual productivity effects of AI are going to be.

**CC:** Yeah, to your point, it's changing so rapidly. I mean, before chatbots even got introduced, it just feels like in that brief period of time where it became mainstream conversation in living rooms around the world that we're all talking about how we're using it, it has already changed so dramatically. And of course it feels like when we're talking about ai, we're all kind of really zoomed in on chatbots as kind of a function or maybe creating an agent. But to your point, I think there's just so many different uses that we haven't even begun to understand.

So when you think in that way that there's things that are going to happen that we can't even imagine at this point, do you have advice for leaders in organizations and businesses to say, how might I have to think differently to take advantage of what you're calling a general purpose technology? How do we embrace that?

**CS:** I think one big thing is just be a good listener. Listen to your colleagues, listen to your workers. How is what they are doing being currently affected by AI? I mean, one thing, sometimes people worry about the employment effects of AI or whatever. The evidence so far is AI is not replacing people, it's replacing tasks.

So it's not like an entire job is being done with AI that workers are using AI to help them with specific things they're already doing well. It's kind of a manager's job to stay on top of like, okay, where are they getting the usefulness out of this tool with how can I enhance that? How can I expand the set of things that they're able to do better because of ai? And so that's listening to them, that's listening to your colleagues in other divisions, maybe at other companies, how they're dealing with this new technology. A little creativity, a little experimentation is never a bad thing with a new technology. Maybe you get some idea or some idea bubbles up from your organization, Hey, why don't we try doing this with this new thing? We hadn't thought of that before, but now that we're using 'em, maybe we could give it a shot.

Not everything is going to work out after the fact, but you learn from those failures as well. And so I think it's just do you have to know the inner technical workings of how large language models work to know how to harness them? No, probably not. But you do kind of have to understand how the particular production process, where you're working, whether you're making a product a good or a service or whatever, how that interacts with the way AI can be used to be doing all the steps that go into making your product.

So just being cognizant of the interactions between the process and what AI can do and what people are learning AI can do.

**CC:** Another area I wanted to ask you about in terms of productivity is one that I'm thinking about a lot is kind of huge demographic shifts that are starting to go on in terms of the world's population is aging pretty rapidly if you look at the number of people who are over 60, that's going to be like doubling in the next couple years around the world. And I'm curious about how that might play a role in terms of productivity as organizations are having right now, more multi-generational workforces. You don't have people of just one age demographic that are working. It feels like that's really extending and it could be a boost to productivity maybe or not. What do you think?

**CS:** It's a great question. Let me tell you what the research shows about some of that stuff. So one is there's a little bit of a, it's hard to teach an old dog new tricks kind of thing. So you do see adoption of technologies can be slower with workers who are more used to working with legacy technologies. That's again, a function of a manager to try to smooth out that process. But that's an issue.

You do tend to see in terms of the direct relationships between the aid demographics and productivity growth. You actually see a little more business formation when the bulk of the population is not really young, but the 30 to 45 age groups, they tend to create a lot of new businesses and do a lot new, try a lot of new things. So that we sort of know is correlated with productivity growth at least on a big picture average level. But in terms of inside an organization when you're dealing with folks from different generations who are used to doing things different way, I mean, one thing to keep in mind is I'm 52, so 30 is young to me now

**CC:** I'm not saying my age, but keep going…

**CS:** Yeah. Sorry, I wasn't implying you should, but I'll say I'm 52, so I think if 30 is young, but 30 year olds have been using AI their whole lives, either the young people, it's new to them too. So there's a bunch of, we're far from the place where there's a generation out there who grew up with AI or something like that, that everyone's going to be trying to deal with AI together as a new thing for the next decade. I think that's fair to say.

So I think from a management perspective, it's just like people have built up human capital. They have experience, they've learned stuff through working. Some of what they've learned is tied to a particular technology, and if that technology gets replaced or augmented by something, they have to be able to deal with that. And again, I would just say from a management standpoint, you want to be there to help facilitate that learning process.

**CC:** For sure, because there are obviously different kinds of intelligences, if you will, that we have at different life stages. So there might be a lot of experience and intuitive knowledge that you're going to have to figure out how that new technology incorporates with that.

**CS:** Precisely.

**CC:** I would say one of the things that I've discovered is AI as a research assistant, which I hadn't envisioned a couple of years ago, but I'm like, Hey, I can make this thing go out and search for all these scholarly articles and skim them for me and can save a whole bunch of time, which I'm finding a great value to my productivity.

**CS:** Great example.

**CC:** Yeah. So I want to shift before I let you go, Chad, and just talk about something that we always want to ask our guests, their thoughts on this one, because when we think about working better, we always think about our environments from a spatial perspective. Are there things that we can be doing to think about how we can help people to be more productive or just to work better in general? And I'm curious if you have thoughts about that from your perspective.

**CS:** So actually, there's some work, and I wish knew it better, but I know this research literature exists about the actual spatial configuration of people in a workplace and how that affects how they learn and how productive they are. I'll just say it from my own personal experience. So I'm at the University of Chicago, so of course as a professor, I teach, but the University of Chicago is a research university. So actually most of my job is to do research. And that means I got to come up with ideas and where I get a lot of my ideas from talking with my colleagues and talking with my colleagues in the hallways. And our building was literally designed to make us accidentally run into each other when we're moving around because people recognize that the idea generation process is often the serendipitous outcome of a couple professors running into each other saying, Hey, did you see such and such a paper?

Oh yeah, I was thinking this and that. What do you, and boom, okay, let's go back to my office and work it out on the whiteboard. So I know from personal experience how much the literal physical configuration matters, and that's why for us anyway, we like to be in the office a lot because that's where a lot of our ideas come from. Just, Hey, and our doors are open, and we interact a lot that way.

Different people have different ways of doing things, and different processes have different needs too. So it doesn't mean everyone's got to be bumping into each other all the time, but we do know just as a straightforward implication, what you were saying is that spatial configurations do matter. In a lot of cases, people other than I have done very careful work on the person next to you matters the most. The person beyond them matters X percent as much as the person next to you and so on and so forth.

**CC:** Yeah. It's so interesting how our thinking is evolved. It used to be more like offices were designed more like a factory kind of model where it was this belief that work literally progressed from point A to point B, like an assembly line of knowledge workers. And now we've learned so much more about, as you say, about the advantages of those interactions, those chance interactions, but also that need to be able to step into your own office and do some of your own thinking when you need to ebb back and forth between the two.

**CS:** Right. It's tasks specific. Some things are better with a lot of interaction, and sometimes you need some time to yourself to finish something off or whatever.

**CC:** Yeah. Well, Chad, I have to say it's been pleasant talking to you today. I am not as fearful about talking about productivity as I might've been when we kicked things off. So I really appreciate you sharing some of your research and the things that you're learning, particularly how AI might play a role going forward. So thank you for being here today.

**CS:** You're welcome. That's kind of you to say, and I've really enjoyed it.

**Chris:** Thanks for listening today. Organizational productivity is a heady topic, but if AI can make us and our organizations work better, that leads to more profitable companies and ultimately happier, more satisfied employees.

If you like today's episode, check out season 5, episode 6: Onboarding your AI coworker with Sean Gallagher. Sean helps us understand how leaders can use AI now, even if all the kinks haven't been worked out.

Next week we're talking about our love/hate relationship with meetings. Author Steven Rogelberg joins me to talk about why so many of our meetings are still so bad. Steven will share insights and practical tips on overcoming common meeting annoyances, and the importance of a well designed space in a hybrid meeting. If you've ever asked "could this meeting be an email?" you won't want to miss this episode.

Finally, would you share today's episode with a friend or colleague? Don't forget to follow us wherever you listen to podcasts and visit us as steelcase.com/research to sign up for weekly updates on workplace research, insights and design ideas delivered right to your inbox.

Thanks again for being here and we hope your day at work tomorrow is just a little bit better.