The So What from BCG Podcast

AI Coworkers Are Coming. Here's How to Work with Them.

François Candelon

GEORGIE FROST: More than 750 BCG consultants took part in what is the first study ever into the use of GenAI in a professional services setting. They were tested through the kind of creative and analytical tasks that employees really perform every day. The findings could have critical implications across industries. I'm Georgie Frost and this is The So What from BCG.

FRANCOIS CANDELON: At the moment, we are still in the proofs of concepts. To be frank, I would not say that we have many examples of companies that are using generative AI at scale.

GEORGIE FROST: Today I'm talking to François Candelon, global director of the BCG Henderson Institute, Boston Consulting Group's think tank.

FRANCOIS CANDELON: We are at the beginning of an industrial revolution. If we are making an analogy with airplanes or airlines, we are probably in 1905 or 1909 when Louis Bleriot was just crossing the channel.

This is why it's very important to understand what we're doing, to avoid even any delusionment. There was so much hype. Now some people are a little bit underwhelmed, but probably because they don't fully understand what we are doing. And because while ChatGPT is very easy to consume, it is actually quite difficult to create a source of competitive advantage with it.

And this is why we wanted to bring BCG, I would say, ahead of the curve in really understanding what is happening in real life when you bring it at scale so that we would be more ready, maybe, than others to help our clients embark into these transformations and identify the potential roadblocks.

GEORGIE FROST: Can you tell me what the research has found?

FRANCOIS CANDELON: So the research found that there are tasks where human and AI is much better than human, and therefore creating value. And there are other tasks where on the opposite, human plus AI is worse, which means that AI persuades humans with good critical thinking of things that are not right. And I think it has big implications for companies in the way they create their workflows. Where should they use AI? Where should they make them collaborate?

Second thing is that for the task where AI plus human is much better than human, we found three things. The first one is that almost everyone benefited from AI–90% of the participants were better with AI than without. The second thing is that we found that human and AI combined was much better than the best humans–70% of them were then better than the best humans. So it's huge. And the third thing that we found is that the people who were below average were benefiting more than the people above average.

So these combinations have massive impact on your people strategy. It helps you expand the potential pool of talent you're dealing with. It helps you ask questions about how do I recruit people? How many people? How do I upskill, reskill people? So it has massive implications for corporations.

Last but not least, we identified that on what we call the creative task, there was a trade-off between the quality of ideas where human and AI were much better than human, but a trade-off between the quality and the diversity of ideas. It appeared that the group that was not using AI had much more diverse ideas.

One more thing is that we interviewed all the participants and 70% of them told us that they believe it would have an impact on their creativity. And so will it create a creativity muscles atrophy? I think it will be important for companies to identify the capability that are really critical to the source

of their competitive advantage to avoid this potential muscle atrophy.

GEORGIE FROST: If we're so early in this transformation, how much can you really find out? How much did you find out?

FRANCOIS CANDELON: I still believe that it's important to start early because, of course, it will drastically change. I like to paraphrase Leon Trotsky who was saying that we are entering into an era of permanent revolution. And this is what is happening. Because today we have ChatGPT. Tomorrow we'll have Gemini. That might be more powerful, multi-modality. In a few years from now we might have autonomous agents that are not just LLMs we can discuss or interact with, but that can actually do things. They can act.

And so this combination makes them much more powerful because we might be in an era where we will be able to have end-to-end automation. So I think that it's very important to start early because you know it's a continuous function. If you are lagging behind, it's very difficult to leapfrog.

GEORGIE FROST: How are companies doing in that regard? Are they using it successfully? Are they using to their benefit or value creation?

FRANCOIS CANDELON: No. I think that at the moment, we are still in the proofs of concepts. To be frank, I would not say that we have many examples of companies that are using generative AI at scale. But I think there is for that one potential real issue. I try to avoid the word use case, not because I'm against use cases, but because I think that if you are just looking from a bottom-up perspective, "Oh, let's do this, that. OK. We might do," no. This is not the way to drive it.

If you want to get value out of it, what you need to do is either to consider it as what I call a GenAI powered reengineering. We've been doing reengineering for the last 30 years. But now we can revisit it with the power of GenAI and therefore by saying, "Okay, maybe I can lower my cost base using GenAI.

Alternatively, what you can do, and this is part of the potential of GenAI, you can have what I would call GenAI unicorns. For instance, when you use GenAI well in R&D, you can increase the quality of the products that you are developing. In the case in drug design, I'm currently working in material sciences to try to find a new material where with inverse design, we say, "Okay, these are the characteristics of the product that I would like. GenAI, can you please provide some candidates?"

So I think that if we want to get value, we clearly need to start from the business opportunity. And then we see how GenAI can support us. But nevertheless, one of the real questions we will face is this question of the human and AI collaboration or this question of human adoption.

GEORGIE FROST: Let's talk about the human collaboration then. Where do humans fit in all this?

FRANCOIS CANDELON: So we have several questions. First of all, as we said, there are tasks where AI does not bring value to humans. And so for this task and in the case of our research, we use what we call a business problem solving question, mixing data from P&Ls and interviews. And basically, as I said, human plus AI was worse than humans because it was too persuasive. So it's clear that at the moment, and I'm saying at the moment, humans are really bringing a lot of value there.

GEORGIE FROST: You mentioned that about the persuasion. You actually said it can persuade people something that is actually wrong. How does GenAI do that? How would it persuade me that something is wrong? How do I identify that it's persuading me that something's wrong?

FRANCOIS CANDELON: You are saying two things that are a little bit different. The first one is how does it do it? Yes. It does it because you know GenAI doesn't think. The architecture of it is just predicting what is the word that is the most likely to follow the previous ones. So it is not something that is truly reliable.

What you need to try to avoid that and identify is two things. The first one is that you need to make sure that your critical thinking is working. The second thing is that in all the workflow that we will create, supervision, quality supervision, testing is becoming more important than ever.

And for instance, we use quite a lot of GenAI for code development. Even some people were not great at coding can now code. But what we find is that the code might be more vulnerable than it used to. But then what you do, you test. You multiply by ten, the need to test it. And you can even have AI testing AI.

But I think that we should not try to get all the productivity benefits that we could. We need to make sure that we increase the supervision and the quality checks. This is a way to try to fight against these hallucinations or these vulnerabilities.

GEORGIE FROST: I feel like we're jumping ahead and actually I want to take you back. So we've been talking about how do you stop being persuaded by GenAI when it's implemented in your company, in your business model. But let's get to the before we've even got to that stage. Let's talk about looking at implementing it and how it will work alongside people and getting the most out of it and identifying where you can get the most out of it. What should a company be using AI for? How should they be approaching this issue?

FRANCOIS CANDELON: So I think first two things. The first one is a bit more top-down in having a business perspective and an objective perspective. The second thing is that we absolutely need to keep experimenting. At the moment, it's moving so fast that if you don't experiment, you will be behind. So it's really important for a company to make sure that you have a team that continuously experiments. And the ability to experiment, to use a department for this task, for that task, this capacity, capability of experimenting becomes extremely important.

I would say to a certain extent that the rate of learning of a company, the capability of adopting these new technologies, becomes maybe the main source of your competitive advantage. So you need to make sure that you comply with it, that you keep that in mind and that all the time you try to see how to adopt it.

You know the clock speed of the evolution of these technologies versus the clock speed of the potential adoption by companies are really different. We all know that ChatGPT in November will celebrate its first birthday. Happy Birthday ChatGPT. But at the same time, it's clear that not that many companies have been able to implement this new capability at scale.

So as I told you, with Gemini, multi-modality, autonomous agents that are just on a relatively short-term time horizon, we're talking about a few years. What will happen? Therefore, the question of adoption becomes critical.

You know Michael Porter when he was talking about the competitiveness of nations, but we could consider it works for the competitiveness of a company, said that it depends on the capacity of its industry to innovate and upgrade. I think that at the moment each company needs to be in a position to upgrade.

GEORGIE FROST: Let's drill down to experimentation because you said that's absolutely fundamental. How do you encourage an environment of experimentation? How do you do that? How do you have the confidence?

FRANCOIS CANDELON: No, I think that there are two things, again. There is this capability of experimenting. And we've been seeing many companies experimenting. I believe companies can get equipped to do it. What I'm telling them is, "Don't just consider that you're done with it. You will have to keep this experimentation capability." Your ability to experiment, to industrialize, to a certain extent, your experiment capability is important. This is point one.

The second point that is more about bringing it at scale, which is, in my opinion a little bit different. What you will need is to redesign, and of course you will use your experiment and the results of your experiment, is to redesign your workflows. And here, to clarify what AI does on one side, what human does, and it will be a question for the next decade. We're at the beginning, as I said, of a revolution so this is a question that will be running for the next decade or maybe two.

GEORGIE FROST: You asked a little bit earlier you know how do we train our people? Do we just train our people? Do we need new personnel?

FRANCOIS CANDELON: I think that for me...and I don't have all the answers to that. I would love

to. But what we found, for instance, in the experiment is that not all trainings will be successful because some of them...we realized that for the task where AI was destroying value in its collaboration with humans, we found that the people that were trained, their results were even worse.

And why that? Because it creates some potential overconfidence. And this is why it is important for training to take into account, let's say, behavioral science. It's not just about downloading knowledge. It's about really understanding in depth how people will deal with it.

There is this question about professional identity and you have some academic frameworks, self-determination framework, for instance. There are some others saying, "Yes, but AI can impact your sense of your competence, your sense of autonomy, your sense of belonging."

And so it is important when you design the workflows, when you design the trainings, that you take this into account. So the white collar, let's say, knowledge workers believe what they feel. It becomes more important at the moment as it is one of the key reasons why AI will get adopted or not and if it is not well adopted, the results will be underwhelming.

GEORGIE FROST: You mentioned there about the opening up access to different talent pools because AI can actually make those workers that are not doing so well better. Explain to me a bit more about how that could benefit a company.

FRANCOIS CANDELON: You know, very often people consider that access to talent resources at the moment one of the main roadblocks for success. If we were able to expand the talent pool we are trying to fish in, I believe that it could actually make this less of a limit for the development of companies.

Of course, we will need to check. We are, at the moment, in one of a new experience. We are trying to stretch these capabilities because, in our research, the research focused on BCG consultants, meaning that this is a relatively, capability-wise, homogeneous team. And this is why we want to see whether we can stretch and get access to expand the pool we are working with.

GEORGIE FROST: There's not a one size fits all because every company is going to be different. But are there some steps that you can take? A sort of blueprint, I suppose, as to how to get started? Because listening to you it seems it's relatively easy, I imagine, to implement AI. But to actually generate competitive advantage from it is the difficult part.

FRANCOIS CANDELON: Yeah. So I would say that I would start with two streams. The first stream, as I mentioned, is more about experimenting, getting your hands dirty, to really understand how it is working.

The second work stream you start with is really to try to say, "Okay but what is the potential? What can I get out of it?" Which is either because I can reduce my cost base or because I can improve my time to market or because I can improve the quality of the product and the innovation in my product.

What you need then to do is to make sure that you improve, in a sense what I would call, your platform. In terms of data, which type of provider you're working with. Of course you cannot create your own large language model. So how do you do that? How do you cooperate? What are the implications in terms of data leakage risk? And so on. So this is really something very...it's engineering of your infrastructure.

The third thing, then, that you need to do is, of course, once you have identified your potential, is really, how do you make it work with the human and AI collaboration? How do you, on one side, revisit and redesign your workflows to make sure that it works well? And how do you revisit your people strategy? Which people are you hiring? How many? How are you reskilling, upskilling your current employees? How does it fit?

But what you need to make sure that when you design your transformation plan that you make it robust to the, let's say, the technology that are in your horizon in the next few years.

GEORGIE FROST: Finally, indulge me, Francois. Always interesting when we quote from Trotsky on

this podcast, but "a permanent revolution." If we were to sit down... I can't even say five years time, now. If we were to sit down this time next year, what do you think we would be saying to each other? What would you be telling me?

FRANCOIS CANDELON: So I will take my crystal ball. And what I will tell you is that we see more and more discrepancy between companies that are taking generative AI and analytical AI in the right way. Following what I said, what is the potential success that you can have in business implications, business potential? So all of this.

You will have these ones versus the ones that try just to do some experiment. We say, "Oh, you know. It's not creating any value." And I think that what we'll realize in a year from now is that it creates real discrepancies between the winners and the laggards. So I think that this is what we will see next year. Plus maybe, in the meantime, we will have new technologies emerging with new capabilities. But that, I would say, it's too early to tell.

GEORGIE FROST: And what advice would you be giving the winners?

FRANCOIS CANDELON: Keep going.

GEORGIE FROST: Very good advice, as always. François, thank you so much. And to you for listening. If you want to check out the research that François was referring to, there's a link in the show notes of this podcast episode. We'd also love to know your thoughts. To get in contact, leave us a message at thesowhat@bcg.com. And if you like this podcast why not hit subscribe and leave a rating wherever you found us? It helps other people find us, too.