PERILS OF PREDICTION

A PODCAST TRANSCRIPT

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Featuring Ben Page, Rob Gear & Aynsley Taylor

IPSOS VIEWS

GAME CHANGERS



"In the year 2000 I think I will probably be in a spaceship to the moon, dictating robots to robots, or else I may be in charge of a robot court, judging some robots, or I may be at a funeral of a computer. Or if something has gone wrong with their nuclear bombs, I may be coming back from hunting in a cave"

"I think people will be regarded more as statistics rather than as actual people"

so you know that the past is littered with crises, financial and economic, pandemics, wars etc... and they almost always seem to take us by surprise. We tend to be very nostalgic for pasts - both real and imagined - while at the same time we're bombarded with negativity in the news, meaning that we have a rose tinted view of history and can be very gloomy about the present and the future. Why do you think we are so bad at this?

accuracy. So Ben - you have a degree in history,

In 1966, BBC's Tomorrow's World asked a number of British schoolchildren how they expected the world to look in the year 2000. Some of their responses are shown through this transcript in sections like those above.

Aynsley Taylor Today we are talking about "The Perils of Prediction" and why we may be better served by building resilience, rather than relying on our ability to accurately forecast the future. So thanks for joining us again on the podcast. This is another particularly special episode as we are honoured to welcome, for the third time, the global CEO of Ipsos, Mr Ben Page, so thanks for taking the time to speak with us again Ben, it is great to have you with us.

Ben Page My pleasure.

Aynsley Taylor For those of you listening that didn't see this coming, today Ben is going to be talking to us about the future, and why it is so difficult for we humans to predict with any real

Most long term forecasts... turn out to be wrong.

Ben Page Well I think one of the tendencies is to take the present or current trends and then simply extrapolate them and assume that we will go on getting richer, freer, wealthier, living longer etc, etc, whatever particular domain you want to look at. And of course the last 50 years is littered with technological forecasts which turned out not to be true. One of my favourites is from my childhood in the 1970s: Space1999, because by 1999 of course we would all be living on the moon... and 2001: A Space Odyssey where we would be traveling off into space, mining on the moon and all that sort of thing. So, most long term forecasts of course turn out to be wrong. And even when you get to expert people, like the head of IBM in the 1940s who thought that humanity might need four or five computers... we are just not very good at long term forecasts. I think partly because we just look at what we

know about the present and extrapolate from that, which is entirely human. The difficulty is that, as the last few years have shown, history doesn't move in a linear direction sadly.

Aynsley Taylor And it is easy to find examples of where extremely clever people have got predictions wrong - we will take a look at a few of those in the next few minutes! Our first example being here in the UK... the Bank of England has consistently underestimated the size and the duration of the current inflationary spike and they are certainly not alone amongst central bankers in that regard. So what would your advice be to organisations like that, who are looking to improve their ability to forecast?

Ben Page With great respect to the banks, the central banks (who are of course amongst our clients!), predicting the future is hard and you can rationalise decisions that you make... and I have seen this in decisions about... even very short term decisions about what is going to happen in elections, based on a series of assumptions. But this is one of the things that I wanted to talk about: that one of the challenges is really trying to test your own predictions and forecasts. If you looked back at your forecasts in 2006, 2007 and then at what actually happened in 2008, for example, you might when you are making your forecasts in 2021 about inflation, be a little bit more circumspect perhaps about how likely they are to be accurate. Secondly, I think there is a really interesting point about getting people who are not intimately involved with your organisation necessarily to help reflect on the data, the evidence, because what is clear is that having

a broader group of people looking at evidence can lead you to better judgements about the future. But you know, I am glad I am not a central banker.

"Computers are taking over now, computers and automation and in the year 2000 there won't be enough jobs to go around and the only jobs there will be, will be for people with high IQ who can work on computers and such things, and other people are just not going to have jobs. There just aren't going to be jobs for them to have."

Aynsley Taylor Back to the Future 2 was set in 2015 - 25 years after the film was made, so that is looking forward a quarter of a century into the future. And the Director of that film said it wasn't a serious attempt at predicting the future... have you seen that film?

Ben Page I am afraid that is not my favourite movie.

Aynsley Taylor Perhaps not the best example, but the point I am trying to make here is that this was not supposed to be a serious attempt to predicting the future. Yet although we might scoff at some of the stuff that is in it, like flying cars and hoverboards and the like, it was actually quite successful in anticipating a lot of things which did come about in 2015, such as wearables, drones, cameras being everywhere, wall mounted flat screen TVs with hundreds of channels, video chat, tablet computers and loads of that sort of stuff. This was a crowd sourced

view of the future, rather than one pointy-headed expert, such as the infamous Paul Krugman quote who said that, just a few years after he made it in 1998: "it will become clear that the internet's impact on the economy has been no greater than the fax machines". And he went on to win a Nobel prize of course.

Ben Page As you know Philip Tetlock's books have shown that experts are actually only about 5% more accurate than random chance. So he is in good company!

Aynsley Taylor I do apologise for singling out the Bank of England and Krugman. I don't know if he is a client of ours as well and I apologise if I have dropped us in it there. This is good evidence is it not, for Tetlock's claim that the best forecasters are more likely to be generalists than experts?

Ben Page We go back here to the Isaiah Berlin essay from the early 1950s where he talked about the fox versus the hedgehog. The hedgehog knowing one big thing, and the fox knowing lots of things. You can come at this in different ways and there are lots of brilliant people in history who you can define - and indeed Isaiah Berlin did define - as either hedgehog or foxes. But most of the evidence at the moment, certainly when we are looking at trying to predict the future or what might happen (given that predicting the future is pretty much impossible) suggests that a more foxy like approach, trying to use a range of evidence, but also challenge your own assumptions and be pretty flexible, so the generalist that you refer to... We need deep

experts on particular subjects, the world is driven by specialisation, but at the same time when it comes to thinking about the future, which has infinite possibilities, a little bit more diversity of ideas and thought is probably helpful.

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Aynsley Taylor Tetlock also talks about the wisdom of crowds, which you alluded to earlier. Do you think there are risks there too? Because we always seem to be fighting the last war... surveys in the early days of the pandemic show that the median person thought that things would be back to normal in around 8 to 12 weeks. And a year later we are asking the same question, when we were probably 8 to 12 weeks from normality returning, at least some form of normality returning, but respondents were now more likely to say it would be about a year before that actually happened! So, I guess we need to be careful about that as well.

Ben Page Crowds can easily be wrong. But I think the point is that in terms of trying to look at future possibilities, having a group of people with diverse backgrounds and diverse experiences in diverse fields of expertise is likely to be more accurate than, for example, just a group of central bankers; and I think that is really important.

We have seen this in our own work, when we are doing studies where we are trying to look at a wide range of aspects affecting humanity. I won't name the innocent people at Ipsos concerned, but it was very interesting to see that we had done something and we had people on the team from Latin America and lots of people from London who were very diverse and people from all over Europe. But when I looked at what we had decided to ask about, which did cover literally every aspect of human life, one thing we hadn't really decided to look at was racism. And when I looked back at who was on the team, there was a very glaring reason why. So I think having a diverse set of inputs does really help.

You have referred to Philip Tetlock's work, but I think if I remember correctly on the Good Judgement Project that he has written up, he found that the teams that were best (and here is a stress on the word teams, rather than individual), he found that teams of forecasters were better than individuals. All of the ones who were better were ones who re-examined their forecast as they went along. So they iterated rather than just going in a linear way. But they were often people not directly concerned with something, you know... not necessarily in Washington, New York, London, Paris or wherever... but instead were people perhaps who

were retired professionals, just reflecting, using publicly available data... and they turned out often to be more accurate than perhaps a group of people in a company headquarters somewhere. So I think that is really interesting.

But having said that, there are ways in which you can structure an approach to thinking about the future, that we know work. So one is that there are different levels of probability towards different events happening. Demographic change is not absolutely inexorable, but if you look at my good friend Darrell Bricker's book "The Empty Planet", you can see that generally educating women and people becoming wealthier tends to lead to fewer babies - and that is a pattern in most developed countries. You can therefore extrapolate from that... at some point, there will be Italians who will level out their declining birth rate... they are on course to be the oldest country on earth, they probably won't become extinct. I think at current trends it will be some point in the next 200 years at the moment they become extinct... that probably won't happen bar some massive catastrophe! But nevertheless we can see that, we can see climate change, if you believe the science, it is probably happening, it seems pretty certain when you look at all of the data.

Whereas there are other things like, what Mr Putin is going to do next that are rather more unpredictable. So one needs to look at those macro trends, then the shifts in human societies that we can see, and then the sort of froth that we often talk about, like "Gen Z love doing sport more than anybody else", which is actually not a trend at all.

"There will be more cures for the diseases and not so many people will get sick"

"Black people won't be separate, they will be mixed in with White people and the poor people and rich people will become the same. There will be poor and rich, but they won't look down on each other"

Aynsley Taylor Whilst we are talking about humanity in the round... you're a cat person and cats have a historic connection with witchcraft. In some quarters there is still, I believe, a lingering belief that they can foretell the future in ways that maybe human beings can't.

Ben Page This is a new one on me Aynsley!

Aynsley Taylor You have never heard of that before?

Ben Page Not about the prediction thing. So that is interesting. I have got two large cats so I shall go and ask them after this discussion.

Aynsley Taylor I don't subscribe to that belief myself, but it seems that it is actually because some of their sensory skills are probably more finely attuned than ours, so they have better, faster data to play with than we do. And they don't have particularly fully developed frontal lobes, so they can't project into the future in the same way that we can... and they can't plan ahead. So they are just reacting more quickly to

things.

What do we think this tells us about the limitations of relying on data alone for successfully anticipating the future?

Ben Page Obviously most data is by definition from the past, you have a natural problem. I think the key point is around triangulation essentially. So, aggregation... no one data series is likely to tell you exactly what is going to happen. If all the data series points in the same direction and you have challenged your own confirmation bias... you have thought about that, you aren't suffering from too much confirmation bias... if all the indicators point in the same direction then you are probably going to have a recession for example. But if it doesn't then maybe you need to be a little bit more careful in thinking about this.

And the bottom line of all of this is the need for humility. We should accept that we aren't able to predict the future, that we can instead look at different levels of probability and we can keep refining those predictions when we are looking at particular issues, particular problems, particular questions. But we should accept that we are never going to be perfect. There are degrees of course... if you are talking about who is going to win an election on Thursday, and today is a Tuesday, you should be able to get fairly close. Talking about who is going to win an election in two years' time? Quite a different matter.

"I don't think I will still be on the Earth; I think I will be under the sea. The population has gone up so much that I think everyone will be living

in big domes in the Sahara or they will be under the sea"

Aynsley Taylor Do you think we live in a more volatile and unpredictable world than previous generations did?

Ben Page I am not sure. I think we like to think that, but to be quite honest I suspect that if we were having this discussion 100 years ago after we just lived through World War 1 and the Spanish 'flu epidemic and you know, we had the invention of radio... TV was sort of coming onstream... all sorts of things. We would have all said "oh gosh the world is much more volatile and fragmented than in the 19th century". And of course in 1822 we would have been told we have had this massive war in Europe, but somewhere up North they had invented steam engines and people are starting to build factories etc etc, the world is never going to be the same. So I think you know, as you pointed out at the beginning of our discussion people have (particularly the British but I think it is common all over the world) these sort of rose tinted spectacles about the past. In many countries, although not everywhere interestingly... like China is fairly realistic about its past. Most people in China don't want to go

back to how things were 50 years ago. Whereas interestingly in many other western countries they think that might be rather attractive. But we do have this tendency to gloss over the past.

Aynsley Taylor That is an interesting point to come back to, the relationship between the past and the future. Forgive me... I am going to do another one of those slightly awkward attempts to speak a foreign language. Indigenous Hawaiians sometimes say that (I don't know how this is supposed to be pronounced)... "I ka wa mamua, i ka wa mahope". Apologies to any Hawaiians listening! Prosaically translated that means that "the future is in the past". But more poetically translated it is taken to mean "the past is in front of us, because we can see it and the future is behind us because we can't". So we learn from the past.

Ben Page That is an interesting way of looking at it. I mean I think we are now getting off into the realms of quantum physics that time doesn't exist and everything is present at all times. Or even more prosaically Mr Gibson's "the future is already here, but it is not evenly distributed". You can certainly learn something from history, which is one of the reasons why I still read history

Identify the things that have greater levels of certainty, be clear about the things that don't. Challenge your own assumptions. Work with a team of diverse people. Aggregate different data sources. Be aware of your own prejudices.

40 years after finishing university... or starting university rather. But I do think that we need to help people be more structured in how they think about the future. So - identify the things that have greater levels of certainty, be clear about the things that don't. Challenge your own assumptions. Work with a team of diverse people. Aggregate different data sources. Be aware of your own prejudices.

I am very happy to admit that I was upset at the Brexit vote as a global CEO or a senior person in a large global company, because I believed it would be bad for Britain, it would be bad for the economy etc and I couldn't believe that ultimately people would vote not in their economic interest. Of course I was stupid for all sorts of reasons, but I had lots of reasons to explain why I thought that probably narrowly Remain was likely to win, even though my own data on the day before the referendum had 51% for leave. But that was a big lesson to us, just in terms of very short term prediction, about trying to put your own views, your own biases and even the evidence that you are using to assert your views (and I had plenty of evidence about why I thought 51% was going to be too high in terms of the Leave vote) and challenge those assumptions. I think that is some of the learning. It's certainly what Phil Tetlock's work has shown and so humility is really important.

Having a broader group of people looking at evidence can lead you to better judgements about the future.

In our own predictions on elections we have since 2016 have become much more accurate, touch wood. In the last European election of 2019 and indeed in the [UK] General Election of 2019 we were very accurate, 0.3 percent average error for the parties in December. But that was because we decided instead of trying to second guess the electorate or look at our own assumptions, we just simply took the very best data we could create and then did as little to it as possible. We are only talking about 1% or 2% here but in recent events in Britain 1% or 2% can make a big difference. So some humility, some aggregation, collective judgement rather than individual, all really important.

Aynsley Taylor As we alluded to earlier, you are in very good company in making mistakes. I've made enough to fill a whole series of podcasts, so I won't dwell on them here. Sir Isaac Newton who had - in addition to single-handedly creating a whole new understanding of the physical universe - been a prudent and skilled investor, nearly ruined himself in the South Sea Bubble when it burst in 1720. And he is reputed to have said that he "could calculate the motions of the heavenly bodies, but not the madness of the people". So, a useful reminder that as well as a dash of humility that science, data and technology will never be enough by itself?

Ben Page I think it is highly likely. I mean nobody has shown me the model that showed that Putin was going to invade Ukraine or showed me the model that inflation was going to hit the levels that it is at at the moment and the energy prices, and indeed some commodity prices, would have hit the levels that they have hit during 2022.

Nobody made those predictions.

Although we should be sceptical about the world being infinitely more complex than ever etc etc, it is true to say that clearly it is bigger in terms of the number of human beings on the planet. There is more data. There is more stuff. There is more interconnectivity between countries. The systems that we live in are far more inter-connected but of course they are also far more complex. Just the chain to create the devices that we are talking on today, and all the different people, in all the different places, all the technology, all the materials being gathered from all over the world, to create those. That is completely different than in the 1820s or even to a certain extent the 1920s.

So I think it is understanding how complex systems interact. It may be that some form of AI and some way into the future eventually (here we go making another prediction again! But I did say may...) would allow us to help to understand that. But I think the level of complexity of our system, which sort of delivers everything until it doesn't... which of course the pandemic showed us... and now of course the knock on effects of the war in Ukraine are showing us.

"All the sputniks and everything that are going up, interferes with the weather, and I think the sea may rise, will cover some of England. There will be just islands left, only the Highlands in Scotland and some of the big hills in England and Wales. I don't think all England will be wiped out because some of it will be too high. I think the sea will rise to about 300 to 600 feet"

Aynsley Taylor I am not a futurologist, like you Ben I am a historian and if we are to believe the Hawaiians that gives me a clear sense of what is in front of us. And I can say for sure then that the end is nigh, the end of this podcast anyway. But I can't let you go without putting you on the spot one more time. What is your personal view on whether we will find transformative, socially useful applications for blockchain beyond ruinous financial speculation? And do you also, do you think that our children will all be necking blue pills and living in the metaverse by the time they are our age?

Ben Page I somehow think that the metaverse, however exciting, will still not quite replace real life. I think that blockchain, in terms of its... having the digital ledger that is distributed, but unforgeable is a useful technology... but cryptocurrency, that is a Ponzi scheme would be my personal view on that one, but let's see, who knows.

Aynsley Taylor Ben Page, I look forward to finding out, thank you very much.

"I think it will be very dull and people will all be squashed together so much, there won't be any fun or anything. And people will be rationed with the amount of things they can have, because if they have too many things it would just squash their houses and there just wouldn't be room for them"

Aynsley Taylor With me now I have Rob Gear, who is the Engagement Manager in our Trends and Foresight team. And Ipsos's resident futurist.

Rob Gear Hello, hi.

Aynsley Taylor It is great to have you with us. I just wonder if you could describe, as succinctly as you can, what is the lpsos philosophy on "Foresight"?

Rob Gear I think at the heart of our Foresight practice is making Foresight actionable and practical for our clients. We want this stuff to be useful and not just a theoretical and intellectual exercise about thinking about the future. Or indeed about making predictions, which is one of the misconceptions around Foresight and future work, is that there is a lot of predicting involved and I would dispute that. If I had to choose a "P" word to describe Foresight I would go for "provocation", because what we are trying to do here is to broaden people's thinking about the future, to get them from thinking very narrowly and assuming continuity and basing their view of the future around a fairly fixed and static set of assumptions. What we want to do is to take that view and really broaden it out to entertain a wider range of possibilities.

In fact we talk a lot about the "cone of possibility", which is essentially a cone that broadens, looking out into the future. Imagine it is a cone on its' side and if you were standing at one end it would broaden out into the future. And as it opens up, as that cone becomes wider, that is essentially uncertainty growing and the further that you move into the future from the present the more uncertainty there is. And that is what makes prediction difficult really, because there are a number of different ways, almost an infinite number of different ways that things could go. The future is shaped by the outcome and tensions between lots of different trends and forces that are all interacting, some of them pulling in one direction and some of them pulling in a different direction.

But what we are trying to do with all of this is to get people to think about all of those different possibilities, rather than just fixating on a single path out into the future. And by thinking about it and entertaining a much broader spread of possibilities what you are actually doing is helping people to weigh up the different options to assess the future that they would like to see happen, versus those that they would have liked to avoid.

Coming back to that really, really important first point about making it actionable, it is all about pulling us back into the present, because the future is constantly being created by the actions that people take today, now and every day, and what we want to do is to help people to make better decisions. So it is about provocation and if you want another "P" word, it is about "preparedness" for an uncertain future as well. So that is really at the heart of what we are trying to do.

"I don't think there is going to be atomic warfare, but I think that there is going to be automation, people are going to be out of work and a great population. I think something has to be done about it. If I wasn't a biologist that is what I would like to do, to do something about the population problem, try and sort of temper it somehow. I don't know how"

Aynsley Taylor Are there any particular rules that you would recommend or you apply to yourself and your work that make for being a good futurist?

Rob Gear You have to have a very open mind to do this kind of work. You have to leave your assumptions at the door and constantly be trying to put yourself into the shoes of other people, because people's ideas of the future are pretty much grounded in their own experiences. In fact if you put people inside a MRI scanner, there has been some scientific work done that establishes that when people think about the future it is the same bits of the brain that light up, that are responsible for encoding memory. So your lived experience informs your view of the future.

Obviously we work with clients across a whole range of different sectors, in different countries, markets, in different circumstances, and those futures are not all going to look and feel the same. So you have to start by leaving your own assumptions at the door and really working with clients to broaden that cone for them. As they can start thinking more expansively (and some people are more naturally amenable to that than others), we have lots of tools and techniques that we can use to facilitate those discussions. It is really fantastic when you can bring together a very diverse team from across an organisation to think about the future together, because that is a luxury that many organisations don't often have, to get in a room and have a very open and honest discussion about all of the different ways in which the future might unfold, all the things that they are uncertain about and even to expose and challenge some assumptions they might have held for many years.

Because it is only really by challenging your assumptions that you can avoid disruption. We have got loads of examples of businesses that have failed to avoid the change that is coming towards them and have ended up being disrupted.

We need to be conscious that we are taking into account fringe views as well as mainstream views. We want to look around and explore at the edges of things rather than just take what might be the consensus, because at the end of the day what we are trying to do is to shake people's out of consensus thinking here and to entertain a broader spread of possibilities.

"I don't think it's going to be so nice, it will be all machines everywhere, everyone doing everything for you. You will get all bored. I don't think it will be so nice"

Aynsley Taylor If someone came to you Rob and said "OK Mr Gear, please tell me what the future has in store", how would you respond to that question?

Rob Gear I would say well, it sounds a little bit of a cop-out but the answer is "it depends". The way that we work we tend to talk about futures plural rather than a future, but in order to understand the future you actually have to build up a knowledge base in that to really get under the skin of the domain. The way that we typically do that is with a framework called PESTEL, which stands for Political Economic Social Technological Environmental and Legislative. They are big themes that you can explore to look at the different trends and drives of change that are occurring within each of those categories. Some people know that framework as "STEEP", you can rearrange the letters in an order of your choice.

So we often start off any piece of futures work with some in-depth desk research, to understand what are the forces of change that are operating in this space. And often we tend to look out across different horizons of change. We tend to look at, there is a near term, the midterm and the long term future, because often you look at things that are happening in the present and you see some things that are in the decline, often when things are declining there is a period of transition and innovation and experimentation and eventually some new paradigm technology,

social movement, you know, whatever it is that you happen to be looking for will emerge at the end and will come in to replace that. So you are constantly sort of exploring across all of these different cycles of change. Going out and doing that groundwork to build up a research base is absolutely essential.

The way that we work we tend to talk about futures plural rather than a future, but in order to understand the future you actually have to build up a knowledge base in that to really get under the skin of the domain \$\frac{1}{2}\$

We often find that when we are doing work for clients we want to supplement that by engaging with some experts who really know their stuff in whatever domain it is that we are looking into the future of. Sometimes we will go out and gather some views of people, about how they think that the future might unfold as well... and put all of this stuff together and sculpt it and play with it. Sometimes we might produce outputs that are built around producing a set of trends that are going to shape a particular market or domain.

Looking out in the future, if you are looking further ahead as that cone expands, that I was talking about earlier, then you get into the domain of scenario planning. So we start to unpack how these different forces and drivers of change can come together in different combinations that

would give you a variety of different remarkably distinct future outcomes, which are possible and plausible. We want to focus primarily on possible and plausible futures rather than things that are utterly absurd, but notwithstanding that often the future will look utterly absurd from the standpoint of the present. So we need to be conscious that we are taking into account fringe views as well as mainstream views. We want to look around and explore at the edges of things rather than just take what might be the consensus, because at the end of the day what we are trying to do is to shake people's out of consensus thinking here and to entertain a broader spread of possibilities.

"I am not looking forward to living in that year, in about 50 years' time. I mean the world seems in such a terrible state now let alone in 50 years' time"

Aynsley Taylor Thank you very much Rob, it has been an education.

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