



QUESTIONS FOR JAMES TAYLOR

- 1. Why did u pick this profession? And why is creativity so important?** It allowed me to do two things I am passionate about; travel and teaching. As a professional speaker you get to travel to lots of fascinating countries and meet interesting people. Meanwhile as a teacher I am about to inspire, educate and entertain audiences ranging from senior executives from global companies to students.
- 2. Do you think schools should be encouraging more creative activities instead of pushing academic subjects?** It should be both. They did a study a number of years ago on Nobel Prize winners. Many of them are what we call 'boundary crossers'. They develop an expertise in one topic but are also curious and are always wanting to learn about other, sometimes unrelated, topics. They can then mix ideas from these disciplines and see connections where no one had thought about them before. A perfect example of this was Leonardo da Vinci who was an artist, engineer, architect, sculptor and inventor. If you love maths then also learn about art, if you love music then also learn about biology. It's about doing a remix of different ideas.
- 3. If AI continues to develop, what sort of jobs and fields will be affected/replaced?** The jobs that will disappear are those which involve doing routine or repetitive work whether that's physical or mental work. The jobs of the future will involve combining different skills and being able to ask questions of different systems. So for example in the world of accounting the job of the bookkeeper will likely disappear because machines can do many of those tasks well if not better. However people will still want accountants who they can get more strategic advice from. Likewise if we think about the role of the nurse, it involves doing lots of different things. A nurse has to lift a patient, to administer medicines, and to sometimes just sit and talk with them, to be empathetic. Machines can do some of these things but not all of them together.
- 4. What do you think will happen in the future if AI becomes more powerful?** As AI is used in more products and services it will be ubiquitous, like water. As we harness this technology it will give us almost superhuman like abilities. Now we can use these superpowers for good or for bad purposes. That's a decision we make as humans. Another way to think about the rise of AI is like when they discovered electricity. Almost overnight lots of different businesses were able to use the power of electricity to do lots of things better, faster or cheaper. Artificial intelligence will be our generations electricity. We'll wonder how we ever survived without it.
- 5. What is your biggest fear for the future when the world is full of AI?** My biggest fears are around the future or work and how AI can be made to be biased against different people. That certain biases we have as humans will get written into the algorithms that underpin artificial intelligence. For example artificial intelligence is only as good as the training data that you feed it. Also lots of jobs will disappear because of technologies like AI, machine learning and robotics. Governments are going to have to decide how people are provided for if they no longer have paid jobs or if their jobs pay less. Some governments may decide to pay everyone a basic income so they don't have to worry about food or rent. Other governments may think it is best to tax the machines or the big companies behind many of the artificial intelligence systems. However the good news is that companies and governments are already thinking about these questions and challenges and coming up with solutions for them.
- 6. Does everything being monitored (lack of privacy) worry you?** Yes. Essentially if you use a service or an app and you aren't paying for it then they are likely selling your data. Also different countries have different perceptions of what privacy means. Some countries like



China think less about privacy of data than say the UK or Germany. It's not necessarily that one side is right and one side is wrong. It's just that different countries have different cultures when it comes to thinking about personal information. I would hope that in the UK we get to a place where it is the individual or citizen that owns their own data. I can then choose to give different companies or governments access to that data for a limited amount of time. The main thing I feel is that it should be the individual, not the state or companies that own the data.

7. Does the 'robot takeover' portrayed in films have the slightest chance of ever happening? **Not** in our lifetimes. I worry more about people losing their jobs than terminator style robots wanting to blow up my house!
8. How will AI/computers improve our lives in the future? They will make many things more efficient and effortless. All of us today live better lives than the wealthiest Egyptian pharaoh's or Roman emperors. We have clean water, 24hr access to electricity, healthcare for everyone. Already with autonomous cars I can tell it where to go and it will drive me there. I can press a button on my phone and 30 minutes later a hot pizza will arrive at my front door. The wealthiest people even 100 years ago couldn't have dreamed of that. The one thing that AI/computers won't really help us with is our happiness. Life will become faster with AI but it won't make us happier. That is up to us our ability to be resilient, to know who we are, and to care and be cared for by others.
9. If machines are programmed by humans, how come they are cleverer? Let's take the game of chess for example. Humans become better at chess by playing other humans and studying the moves of famous chess players. It takes many years for us to become really skilled at chess. However artificial intelligence can use something called reinforcement learning to essentially play millions of games against itself in a very short period of time. A machine is able to process and analyse far more data than we can as humans. So it's not that a machine is necessarily cleverer but it can be faster at processing information. However if I ask that machine to make me a cup of tea it won't be able to do that. So computers can be smart and dumb at the same time. A bit like humans!
10. Do you have any tips for what sort of creative jobs to get when your older? Every job can be creative if you want it to be. In addition to creative musicians and creative architects you can find creative teachers and creative lawyers. Creativity is a way of thinking and an approach to life rather than a job title. If I was starting again I'd probably want to study more science, technology, engineering and maths as well as the music, arts and business topics I was originally interested in. In the future most people will make money with their brains not their brawn. Your mental strength will be as important as your physical strength.
11. Do you think coding and similar jobs will become more and more popular as other jobs such as construction will become less popular as AI ability increase? If we take the construction industry for example you will find more buildings being build using 3-D printing and robotics. However you still need humans to design and code the machines that make the houses. You will also need humans to ask 'how could we make this a really amazing, beautiful, fun house to live in and then translate those ideas into something a machine can build. My grandfather was a Clerk of Works in London. He would inspect the work of people building the roads or apartment blocks. However today machines can spot errors or risks better than humans although there are somethings that still need that human experience. So imagine a superpowered Clerk of Works who is able to augment their abilities with an artificial intelligence. Now that's exciting.



12. What would you say to the people that are against automation due to unemployment reasons? I think as a society we will have to rethink how people are paid for the work they do. For example machines could make a lot of people unemployed even though they will create new, unimagined jobs. So I think citizens should lobby their politicians to create some type of universal basic income so no one has to worry about making enough money each month to buy food or pay their rent.
13. How will AI and creativity help solve world problems such as climate change and pandemics? You are already seeing AI being used to track and trace those infected with viruses. Pandemics are the immediate threat but climate change is a much bigger medium-term threat to our species. Businesses are using AI to become more efficient though. For example Google uses AI to manage data centres more efficiently to use less energy. However ultimately it comes down to our creativity to generate the idea and solutions to solve problems like climate change.
14. Could teachers be replaced by AI? Some of the tasks that teachers currently have to perform could be done by AI. For example the process of manually marking many assessments or taking role call each morning can be done by a machine. I prefer to think of AI as augmenting the role of the teacher. It's another tool they can use. Also in many poorer parts of the world it is difficult to train enough teachers for the population. AI, machine learning and online education can be used to teach a larger number of students.
15. Would AI affect students in any way? Yes. In the same way that music students are more technically proficient than fifty years ago (because they watch lots of YouTube videos of top musicians) I think you will start to see school students being able to do work that was previously only possible by University students. AI can accelerate the velocity of learning.
16. Do you think A.I judges will be approved, as there may be a chance they are programmed to be biased and may sway the side of the case to one or another? You already see Robo-judges in China dealing with some lower level cases and crimes. In the UK you will probably start to see AI being used more for fixed penalty notices at first. It would be useful to see if AI judges deliver less biased and more informed verdicts than human judges wouldn't it?
17. Which piece of technology is your favourite? My Moleskin notepad and pen. I like going back and forth between analogue technology like paper and digital technology like an iPad. I think better on paper but execute those ideas best on computer.
18. Are you worried about society becoming too dependent on machines/AI and AI being vulnerable to hackers? Yes this is a worry. However most hackers use techniques which are very low-tech like phishing scams. Most scams are psychological not technical in nature.
19. If the glasses get into the wrong hands can they be used to steal people's private information? Possibly. It's why it's important for these devices to use voice, iris or fingerprint recognition.
20. What are your super creative tips you can give us? Try and challenge yourself to come up with ten new ideas everyday. It could be as simple for thinking about ten ideas to make a better coffee cup or ten new ideas to give a better presentation. What you'll find is the first three ideas are pretty simple to come up with. The next few are a little harder. And the last couple are much more difficult. However sometimes it's those last, crazy ideas that can revolutionise things.