

Will AI ever reach human-level intelligence? The median predicted date for AGI on Metaculus, a well-regarded forecasting platform, is 2032. We also learn critical reasoning and emotional regulation throughout childhood, and develop a sense of our "emotions" as we interact with and experience the world around us. Importantly, it can take many years for the human brain to develop such intelligence. AI hasn't acquired these capabilities yet. But if humans can learn these traits, AI probably can too – and maybe at an even faster rate. We are still discovering how AI models should be built, trained, and interacted with in order to develop such traits in them. Really, the big question is not if AI will achieve human-level intelligence, but when – and how. I believe AI will surpass human intelligence. Why? The past offers insights we can't ignore. A lot of people believed tasks such as playing computer games, image recognition and content creation (among others) could only be done by humans – but technological advancement proved otherwise. Today the rapid advancement and adoption of AI algorithms, in conjunction with an abundance of data and computational resources, has led to a level of intelligence and automation previously unimaginable. If we follow the same trajectory, having more generalised AI is no longer a possibility, but a certainty of the future. It is just a matter of time. AI has advanced significantly, but not yet in tasks requiring intuition, empathy and creativity, for example. But breakthroughs in algorithms will allow this. Moreover, once AI systems achieve such human-like cognitive abilities, there will be a snowball effect and AI systems will be able to improve themselves with minimal to no human involvement. This kind of "automation of intelligence" will profoundly change the world. There's no doubt AI systems appear to be "intelligent" to some extent. But could they ever be as intelligent as humans? There's a term for this: artificial general intelligence (AGI). Although it's a broad concept, for simplicity you can think of AGI as the point at which AI acquires human-like generalised cognitive capabilities. In other words, it's the point where AI can tackle any intellectual task a human can. AGI isn't here yet; current AI models are held back by a lack of certain human traits such as true creativity and emotional awareness. We asked five experts if they think AI will ever reach AGI, and five out of five said yes. But there are subtle differences in how they approach the question. From their responses, more questions emerge. When might we achieve AGI? Will it go on to surpass humans? And what constitutes "intelligence", anyway? Still, some may worry that – despite AI achievements so far – AI will not really be "intelligent" because it doesn't (or can't) understand what it's doing, since it isn't conscious. However, the rise of AI suggests we can have intelligence without consciousness, because intelligence can be understood in functional terms. An intelligent entity can do intelligent things such as learn, reason, write essays, or use tools. The AIs we create may never have consciousness, but they are increasingly able to do intelligent things. In some cases, they already do them at a level beyond us, which is a trend that will likely continue. AI will achieve human-level intelligence, but perhaps not anytime soon. Human-level intelligence allows us to reason, solve problems and make decisions. It requires many cognitive abilities including adaptability, social intelligence and learning from experience. AI already ticks many of these boxes. What's left is for AI models to learn inherent human traits such as critical reasoning, and understanding what emotion is and which events might prompt it. As humans, we learn and experience these traits from the moment we're born. Our first experience of "happiness" is too early for us to even remember. The emergence of quantum computing will transform AI's capabilities.