Stanford eCorner

The Golden Age of AI

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26-01-2022

URL: https://ecorner.stanford.edu/clips/the-golden-age-of-ai/

Scale AI founder and CEO Alexandr Wang observes that AI systems were once most useful in the context of autonomous vehicles, but have more recently proliferated across new industries, from financial services to shipping. He predicts that over the next decade, AI will have a massive impact on three fields in particular: scientific research, the metaverse, and national security.

Transcript

- I truly think, 00:00:06,010 we're in the golden age of AI so to speak where the proliferation of use cases is gonna be absolutely massive.. Even at scale, we started in autonomous vehicles and the first few years of the company, machine learning felt kind of, I don't know if the word is lonely, but it was like autonomous vehicles were the big use case.. Everything else almost felt like a side project or something much smaller.. And then fast forward to, now we see all really exciting use cases in every single industry.. So with financial services customers, like Prex or PayPal or Square, we see interesting use cases around trying to understand build systems that move money more effectively, or identify or understand transaction flows a lot better, or identify fraud much better.. Or we see use cases with Flexport, which is a global trade platform.. And enable just an incredible amount of efficiency in the process of global trade, which is very important.. It's really important that we're able to get goods delivered from everywhere in the world and it's an incredibly manual process state.. And by using machine learning, you can automate a huge number of those workflows and enable the overall economy to just get a lot more efficient, or whether it's with a large scale or automotive company and a car company and building not only full SAC autonomous vehicles, but also driver assistance systems or systems to make drivers more safe, et cetera.. So I think that we're in this phase where this massive proliferation of machine learning systems..

And I think that one way I would think about it, is the software eats the world mindset, is that you take.... Think about any industry or any problem in the world today.. And just imagine, okay, if you had software, how could you transform that? And I think that we've just seen, this has been this very long term slow transformation, because it turns out humans are infinitely creative and you'll take any system and we'll be able to identify, oh, you can use software in this way, or oh, you can use software in this way.. Sometimes you even replace existing software with new software.. There's old enterprise systems they're replaced by like new style, but more consumer internet platforms.. And so, I think there's going to be this continual process where we're gonna look at something, we're gonna look at a problem.. Let's say in insurance, the process by which claims get processed.. We're gonna look at a problem.. And we're gonna think, okay, if you use machine learning in the right way and not just AI in some magical sense, but actual, the core fundamentals of machine learning, then you can design this process to be 10X more efficient.. And we're just gonna keep identifying all those problems..

And I think you go fast forward to 2032, it's gonna be everywhere.. And the opportunity won't have stopped.. We're still

gonna have plenty of opportunity to apply AI to these systems.. I think maybe more to name a few specific examples, 'cause I think these are maybe some of the ones that are cooler or more exciting right now.. I think that there's a few that I think are really important.. And for those of you with core, thinking about what ideas are exciting, I think these are maybe some areas to think about.. I think first one is science.. Science is.... There's actually these papers about how scientific progress has been slowing actually a little bit over the past few decades.. And one part of that is that new thing about science, let's say a century ago, or two centuries ago, you could do so many experiments..

And your ability to validate your ideas, was really, really exciting.. And now we're at a point where a lot of the cheap experiments so to speak, have been explored.. And now we have ridiculous expensive experiments.. Particle accelerators are extremely, extremely expensive, or large-scale clinical trials are very, very expensive, et cetera.. And one of the really exciting use cases of AI is using AI to simulate, basically simulate experiments significantly more effectively than you could in the past, or they could use in classical methods.. And there's already a lot of examples of this in whether that's something like an alpha fold out of deep mind, or using AI applied to fusion experiments or fusion simulations.. But I think there's gonna be a huge boon in physics, chemistry, biology, pharmaceuticals.. And it's gonna transform a lot of.... It's gonna be this base technology that empowers a lot of future innovation.. So, I think that one's really critical..

Metaverse is something that a lot of people are talking about these days.. I think it means a lot of different things to different people.. But I think, if you think about AR, or augmented reality, which is probably one of the form factors that probably feels most intuitive to a lot of us, which is that, hey, we're just gonna have this digital overlay over just our natural lives.. If you think about that problem, it is an incredibly complex machine learning problem and incredibly complex AI problem because fundamentally, you need to understand the world and how these different objects relate to one another and how I as a person can relate to those objects.. And if people are walking past each other and they make a look, you need to be able to understand that kind of stuff.. And so you need to have this very fine great understanding of what is going on in the world around you.. And that's a very, very challenging AI problem, but I think that it's one that is going to enable these very Sci-fi consumer experiences of the future that I think we're all fundamentally really excited about.. And the last one that I'll mention, just 'cause I think this one is really important, and it's somewhat controversial, but I think it's an important one to talk about, is I think AI is applied to the government's problems, in particular applied to National Security, Defense Intelligence, et cetera.. And I think that we're in a very interesting period in the world where the warfare's shifting from a previous paradigm, to a significant more digital paradigm.. And now, a significant number of the skirmishes of the future are going to happen entirely digitally in cyberspace or via AI systems or via purely digital systems..

And I think it's really, really important that if you believe in democracy and you believe in the values that the United States represents, that the United States and other democratic countries, are able to utilize best-in-class technologies to not be vulnerable as a long-term platform shift is occurring.. I think it is really important that we have some of the best and most brilliant technical minds thinking about how do we build the best in class systems for the future of the United States, to enable the United States to be as effective from a defense and intelligence perspective as it has been for the past, call it 50 years, which has really enabled the modern era of peace.. So, I think those are some of the areas that excite me the most/I think our most important...