

SDS PODCAST

EPISODE 766

FIVE-MINUTE

FRIDAY:

VONNEGUT'S PLAYER

PIANO



(00:05):

This is Five-Minute Friday on Kurt Vonnegut's Player Piano.

(00:27):

Welcome back to The Super Data Science Podcast. I'm your host, Jon Krohn. As we've been doing recently on Fridays, let's start off with a couple of reviews of the show. Our first one is from Dr. Erin LeDell, she is the Chief Machine Learning Scientist at H2O.ai, and Dr. LeDell said that this is "one of my favorite tech podcasts". She says "You have very thoughtful (and well researched) discussions with a diverse group of very high quality guests! 10/10"

(01:03):

It's surreal to have such a senior and respected individual as Dr. LeDell providing feedback like that, but on the point of the quality of our research, it's our researcher Serg Masis who deserves the bulk of the credit there, so big hat tip to him. He puts a ton of effort into every episode, far beyond what's called for. I've actually suggested to him that he could slack off a bit some episodes if he wants to, but he refuses. So that's our first review.

(01:31):

So our second and final review this week comes from another exceptional individual, this is Prof. Thomas Gardos, who — after several decades at Intel in roles such as software architecture and computer-vision engineering roles — is now an Associate Professor at Boston University, where he serves as the inaugural director of the MS in Data Science program. How cool is that? Well, Prof. Gardos wrote to say that he loves the podcast and that the breadth of topics that we cover on the show has been helpful during his transition from industry back into academia. Thank you Dr. LeDell and Prof. Gardos for the feedback.



(02:10):

And thanks for all the recent five-star ratings on Apple Podcasts, Spotify and all the other podcasting platforms out there, likes and comments on our YouTube videos and so on. Apple Podcast reviews are especially helpful to us and I keep a close eye on those so, if you leave one, I'll be sure to read it on air like I did in this episode.

(02:27):

All right, let's get into the meat of today's episode now. If you've been listening to the show for a long time, you may already know that Kurt Vonnegut is far and away my favorite fiction author. I'd read all of his most popular novels and a few other random ones here and there, but I recently decided to make my way through all of his works sequentially, in the order they were published.

(02:49):

Well, boy oh boy was I in for a trippy surprise when I read Vonnegut's first work, a novel called Player Piano that was published in 1952. Despite being written seven decades ago, it could not be more relevant to the AI revolution that's accelerated dramatically in the past year. More specifically, the book explores themes that are becoming increasingly relevant in the context of today's advancements in machine learning. The novel is set in a dystopian future where machines have replaced most human labor, completely replacing the need for humans to do manual tasks.

(03:26):

The story unfolds in an America where automation, controlled by a vast and impersonal corporate and governmental machine, has created a sharply divided society: on one side, there are the scientists, engineers and managers who keep the machines running, and on the other, the vast majority who have been rendered obsolete by these machines. As a listener



to this podcast, you're likely to identify as a scientist, an engineer or a manager, making you a member of the elite minority that runs the machines and so reaps disproportionate rewards. In the book, the protagonist is named Dr. Paul Proteus; he's an engineer who begins to question the ethics and consequences of this stark division between the elite few and everyone else, leading to a broader critique of a society that values efficiency and productivity over human connection and meaningful work. Does this sound familiar? Does this sound like the time that we are in right now?

(04:37):

For me personally, the most striking moment in the book – this isn't really a spoiler, don't worry, because it happens relatively early on — is the introduction of a backgammon machine. Unlike the machines that are already prevalent in the book for automating manual labor, this backgammon machine, which appears to be able to crush Dr. Proteus, who's a backgammon expert himself, can crush him at backgammon, heralding the encroachment of machines into realms of cognitive, strategic thinking previously believed to be the exclusive domain of humans.

(05:11):

Is this starting to sound eerily relevant to our situation today too? In the real world, we've had AI systems that could compete against world champion backgammon players since 1998, but thanks to deep learning and, more recently, transformer architectures, the cognitive capabilities of machines have accelerated wildly in recent years, for example across Go, complex negotiation-based board games like Diplomacy, and now the likes of Sora for stunning video generation that requires a sophisticated internal model of the world to be so effective. When you use ChatGPT's built-in code interpreter with its GPT-4 model, it is not strapped of the imagination, to imagine that most or all of the coding we do as data scientists and software engineers might be replaceable by machines in the near future. While



historically all automation has led to better opportunities for human labor — things like less repetition, more comfort, and more interesting work — the present AI revolution will at least be different from those historical automation events because this time it's mostly cognitive work, not manual labor, that is being overtaken by machines.

(06:24):

So I hope that gets you interested about this novel, all I can say to conclude is that there isn't a novel that I could more highly recommend to the particular audience of this podcast at this particular point in human history. For machine learning professionals and other people interested in AI, *Player Piano* by Kurt Vonnegut serves as a cautionary tale, prompting reflections on the broader societal implications of our work. It raises pertinent questions about the future of employment, the value placed on different types of work, and the potential for AI to exacerbate existing inequalities. The novel invites us to consider not just the technical challenges of creating intelligent systems, but also the ethical responsibility to guide our development in ways that enhance rather than diminish society. As such, Vonnegut's book, *Player Piano*, resonates deeply with ongoing debates in the AI community about the need for ethical frameworks, equitable access to technology, and the preservation of human dignity in an increasingly automated world.

(07:29):

All right, so there you go. Check *Player Piano* out. And if you enjoyed today's episode or know someone who might, consider sharing this episode with them, leave a review of the show on your favorite podcasting platform, tag me in a LinkedIn or Twitter post with your thoughts, I'll respond to those, and if you aren't already, be sure to subscribe to the show. Most importantly, however, we hope you'll just keep on listening... not least to keep an eye on those pesky machines putting us out of work. Until next



time, keep on rockin' it out there and I'm looking forward to enjoying another round of the Super Data Science podcast with you very soon.