

SDS PODCAST
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FIVE MINUTE
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MODEL DRIVEN
VS.
DATA DRIVEN



This is FiveMinuteFriday, Model Driven Vs. Data Driven.

Welcome back to the SuperDataScience Podcast, ladies and gentlemen. Super excited to have you on the show today. And today's gonna be about an article which recently read, it's called Models Will Run the World. It's available on Wall Street Journal, I have a link to it in the show notes. And so, what is this all about and why did I find it interesting?

We all that we've moved into a digital age where every company is trying to become data driven and software ... every company is a software company. Even the pizza stores like Domino's are actually now software companies, because you can download their app, you can order pizza online. They are very heavily invested into software, into the digital side of things, to benefit from the data that they have. And while all companies are jumping into that, there's a new trend that is crystallizing and that is companies that are model driven.

And so the difference between data driven and model driven is described in the article as follows. A model driven business is something beyond a data driven business. A data driven business collects and analyzes data to help humans to make better business decisions, whereas a model driven business creates a system built around continuously improving models that define the business. In the data driven business, the data helps the business. In a model driven business, the models are the business.

And so what we are seeing now, according to this article is that we, back in the past decade or so, a lot of industries moved from physical to software and that was through ... in order to become a data driven product. So they either moved away from physical and became software, like in cases of Uber and Airbnb. Uber and Airbnb don't own any taxis, they don't own any real estate. It's all owned by the user, it's the software that allowed them to take on competitors like the taxi industry or the hotel chain, the massive hotel chains that actually own physical products. So through software and becoming data driven, they were able to compete.



And also, software is what allowed Netflix ... And this is an example in the article as well. Software is what allowed Netflix to destroy Blockbuster. Blockbuster was still handing out DVDs and CDs for people to watch movies, blue ray, whereas Netflix took that to the next level with software. And that's an example of business disrupting an industry though data, becoming data driven. Well, now what we're seeing is actually businesses moving to model driven. And what is that? Well that's when you don't just have the data in your business to inform your decisions and better decisions. There's a model that is actually making those decisions for you.

So if you think about it, some of the biggest companies in the world are model driven. For instance, Google is a model driven company because they have a model in the background, they have an algorithm in the background that is constantly collecting data for ... SO you put in whatever search you want, it spits out the search results and they're constantly adding changes to the algorithm, constantly improving it.

Another example of a powerful model driven business is Amazon. So on Amazon what they have is a huge model or algorithm that is predicting what you will want next and recommending you the next purchase that you want to make. And again, the whole business is built around that.

In those types of model driven businesses, there's a really interesting term, the interesting concept of a closed loop that the data in those businesses is actually closed loop. What does that mean? Well, it means that for each [inaudible 00:04:27] a model makes, the data in there is falling a closed loop. And what that means is when you type in something into Google, you get some results from the model, but also it will see what you will click on, and it will make adjustments to itself based on your choices on what you click on. So the model will become better. So every time you use it, you help it become better, so that next time you use it it is better, and then again, you will wanna use it more. That will help it become better.



Same on Amazon. Every time the model predicts something, it doesn't leave it there, it actually accesses on what did you actually click, and that will better help inform them on how to adjust the model so that next time, their prediction's even better, so you will want to continue using it. Same as with Netflix, you wanna continue using it because the predictions are so good. And that helps in turn, power the prediction. So it's a self fulfilling prophecy in it's own right. And that is the power. That is the main ... one of the core differences between data driven and model driven businesses. Data driven, they just have the data and use data scientists to better inform the decisions that the business makes. Model driven is the next step where the business actually has a model that self corrects, self learns, where the data is following a closed loop system and it's constantly growing. As you can imagine, because of that perpetuating cycle, that virtuous circle model driven businesses, very rapidly can overtake data driven businesses.

For instance, great quote from the article that Netflix beat Blockbuster with software, but it is winning against the cable companies and content providers with it's models. That's the whole emphasis of how Netflix and Amazon and Google and all these large companies, like even Facebook in terms of their ads, where the revenues come from. How they show ads to people, that also model riding in the background of Facebook. And that's something that they're developing, something that's growing there.

And I wanted to finish off this FiveMinuteFriday with a very cool quote from the article. And it says that ... This is because there was an article before in Wall Street Journal in 2011, which was called Why Software Is Eating The World and there they predicted that Netflix, Amazon, Spotify will eat out their industries. While the quote in this article is now, if software ate the world, models will run it. I thought it was a powerful quote. If software ate the world, models will run it.

So there we go, that's the difference between data driven and model driven businesses. Something to think about on the weekend. Hope you enjoyed



today's FiveMinuteFriday episode. And I look forward to seeing you back here next time. Until then, happy analyzing.