The Model Impact Disaster

Less than 1% of models deployed truly deliver impact. When 87% of data science projects fail, the impact of your data science investments is lost. But the problem is even deeper. Just because a model is in production doesn’t mean it doesn’t lead to less models being built, less buy-in of decision-makers, and less value from AI.

The 5 Stages of the Epidemic

Stage 1: Creating Models

We frequently see models fail to deliver the desired results, or deliver bad experiences, even if the model is in production. Only 10% of models ever make it to production. And fewer than 1% of models deliver impact. Just because the model is in production doesn’t mean it will have impact.

Stage 2: Choosing Models

Models created without domain expertise are often selected for production. Models chosen for production may not meet the expectations of the use case.

Stage 3: Deploying Models

Models deployed with impact are the exception rather than the rule. It’s not uncommon for models to deliver bad experiences or results.

Stage 4: Delivering Ongoing Impact

The problems increase from here. It may be necessary to change the actual model if alarming performance, business impact and potential drift issues are detected. But the workflow that's being enhanced requires a diverse set of skills from data scientists, developers, or your IT team. It's a difficult situation for IT infrastructure, and you may need separate analysis to understand how models perform.

Stage 5: Impact and Value

The whole purpose of model impact is to deliver ongoing value. But the problems multiply here as well. Change requests mean you need to continue the perpetual convincing of IT infrastructure and decision-makers. Explaining models is hard and not everyone will believe that models can trump intuition. Some decision-makers refuse to believe that models can improve business outcomes. It may be necessary to change the actual model if alarming performance, business impact and potential drift issues are detected. But the workflow that’s being enhanced requires a diverse set of skills from data scientists, developers, or your IT team. It’s a difficult situation for IT infrastructure, and you may need separate analysis to understand how models perform.

The Spiral of Disillusionment

The risks increase from deployment to monitoring and management. Explaining models is hard and not everyone will believe that models can improve business outcomes. Some decision-makers refuse to believe that models can improve business outcomes. It may be necessary to change the actual model if alarming performance, business impact and potential drift issues are detected. But the workflow that’s being enhanced requires a diverse set of skills from data scientists, developers, or your IT team. It’s a difficult situation for IT infrastructure, and you may need separate analysis to understand how models perform.

How RapidMiner Protects You from Disaster

The 5 Stages of the Epidemic

RapidMiner is the world’s most widely used platform for Model Impact Management. It helps companies realize the potential impact of AI and build the necessary skills to improve business outcomes. RapidMiner’s goal is to stop the disaster from spiraling out of control so that more models can make it into production.

RapidMiner provides a complete solution to deliver the desired business outcomes.

Extra, extra, read all about it! This troubling story is spreading like wildfire.

Venture Beat, Why do 87% of data science projects never make it into production? 19 July 2019.

IDC, IDC Forecasts Companies to Increase Spend on AI Solutions by 19.6% in 2022, 15 Feb 2022.

MIT, Winning with AI, Sam Ransbotham, Shervin Khodabandeh, Ronny Fehling, Burt LaFountain, and David Kiron, 15 Oct 2019.