

Empowering Change: Building and Sustaining a Data Culture from the Ground Up

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github.com/cj2001/ddt_2025



Agenda

- Some statistics on the “success” of data solutions
- “A Data Fable”
- The “Upside Down” approach to data culture
- Real, practical solutions to what to do if you find yourself upside down (for non-C-suite folks!)
- History repeating?

Some stats

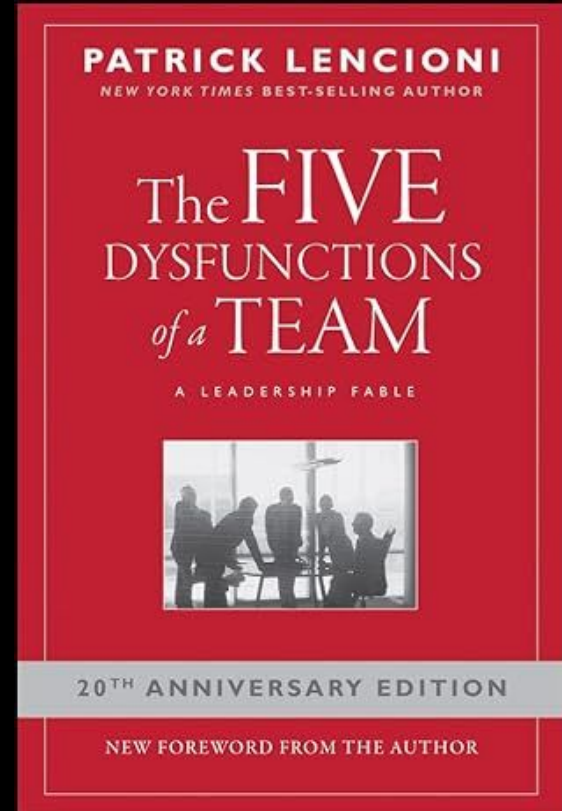
- 82.6% of respondent companies had a CDO but only 40.5% say the role was well understood in their organizations
- 87.8% reported increase in spending in data initiatives
 - 40.7% identified data modernization as their highest-priority expenditure
- 23.9% of respondents identified their organizations as being data driven
- 20.6% identified that they have developed a data culture
- 79.8% cited cultural issues as greatest obstacle for delivering business value from data investments
 - 1.6% identified creating data literacy as top investment need

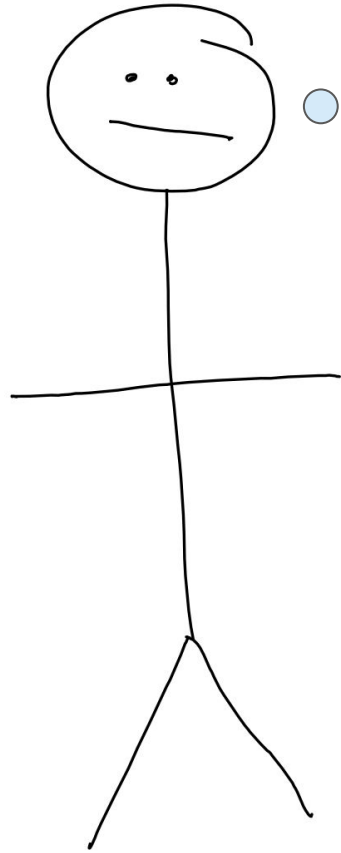
More stats

- Less than half of an organization's structured data is used in making decisions
 - Less than 1% of unstructured data is analyzed or used at all
- More than 70% of employees have access to data they shouldn't have
- 80% of analyst's time is spent simply discovering and preparing data
- "Data breaches are common, rogue data sets propagate in silos, and companies' data technology often isn't up to the demands put on it."

87% of data science
projects never
make it to
production

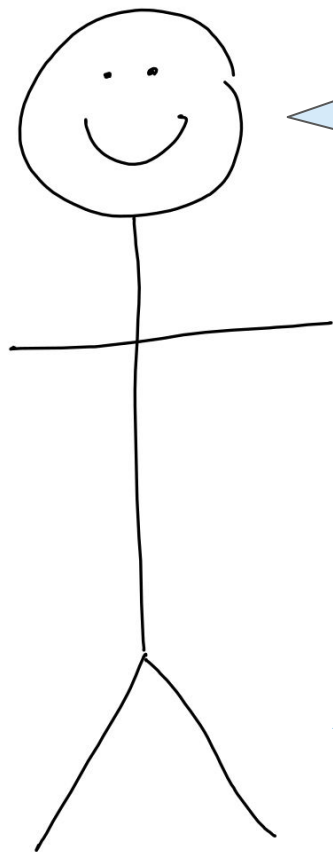
A Data Fable





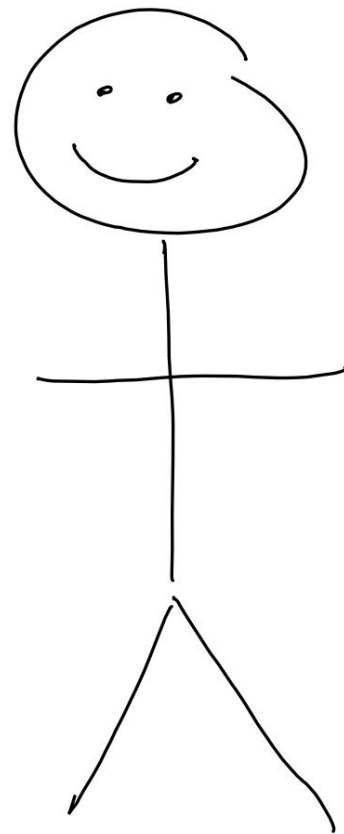
CEO:

Hmm. I am in trouble. All of my competitors are getting data scientists. If I am going to remain competitive, I need to hire some too!

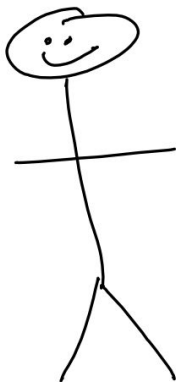
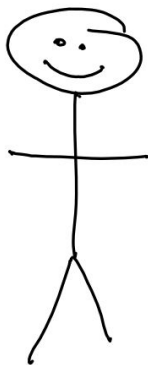
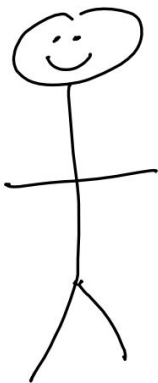


CEO:
Hey, HR! Please
hire me some
data scientists!

HR:
Sure thing, boss! But
being that we
haven't had them
before, what is a data
scientist?



*A conversation then occurs about
how these data scientists must all
have PhDs, be experts in NLP, and
have 10+ years of experience with
PyTorch...*



Team of Data Scientists:

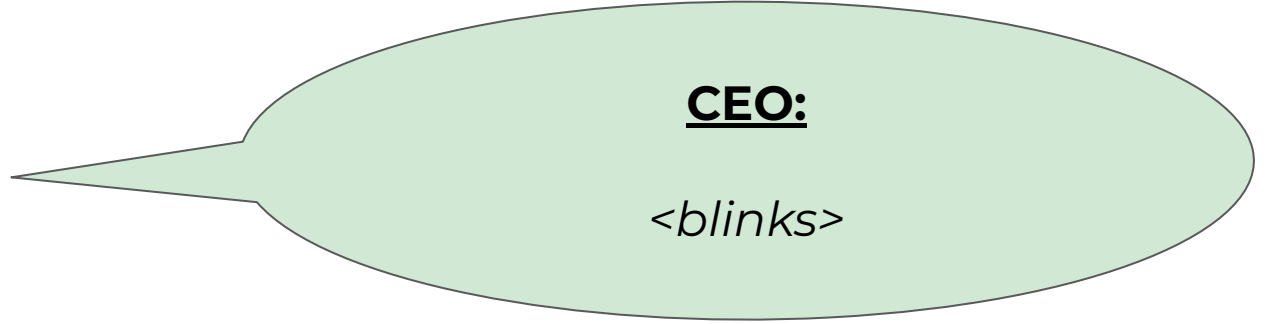
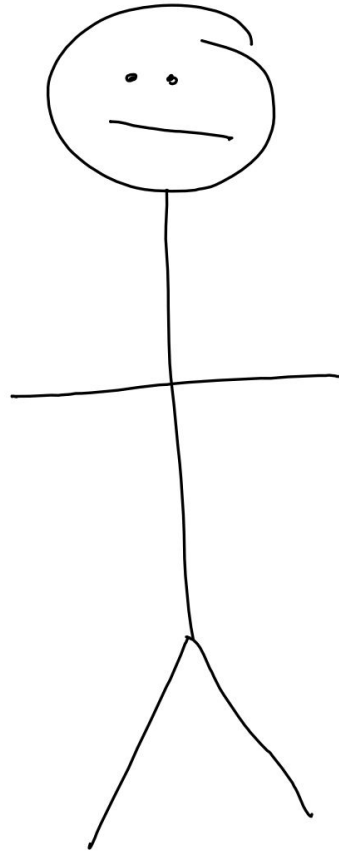
We're here and ready to get started!

Who is our manager? I expect mentoring!

What projects are we being assigned to?

Who is our PM?

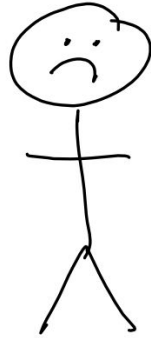
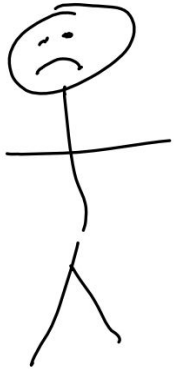
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CEO:

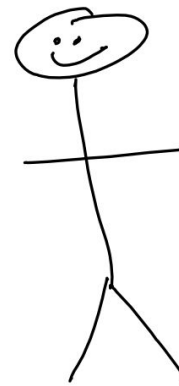
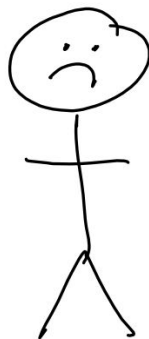
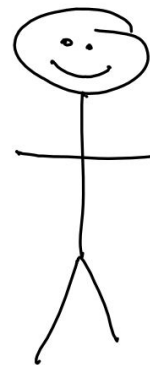
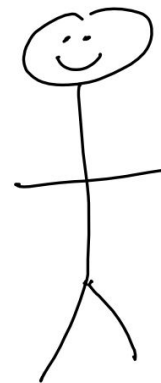
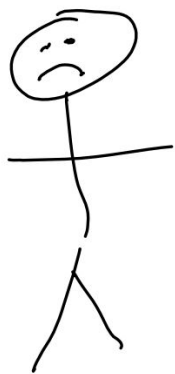
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*The data scientists huddle and
come up with some ideas of things
they could work on...*



Team of Data Scientists:

Where is the data???

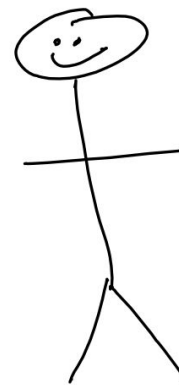
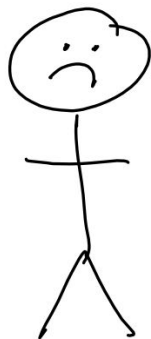
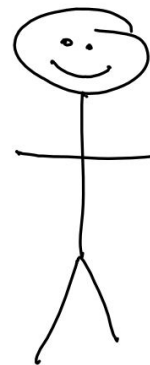
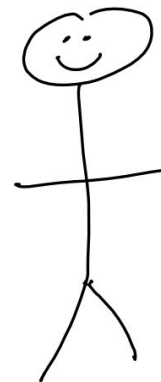
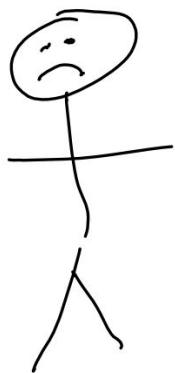


Team of IT:

But you can't have
access to that data. We
can't give it to you
without a business
need!

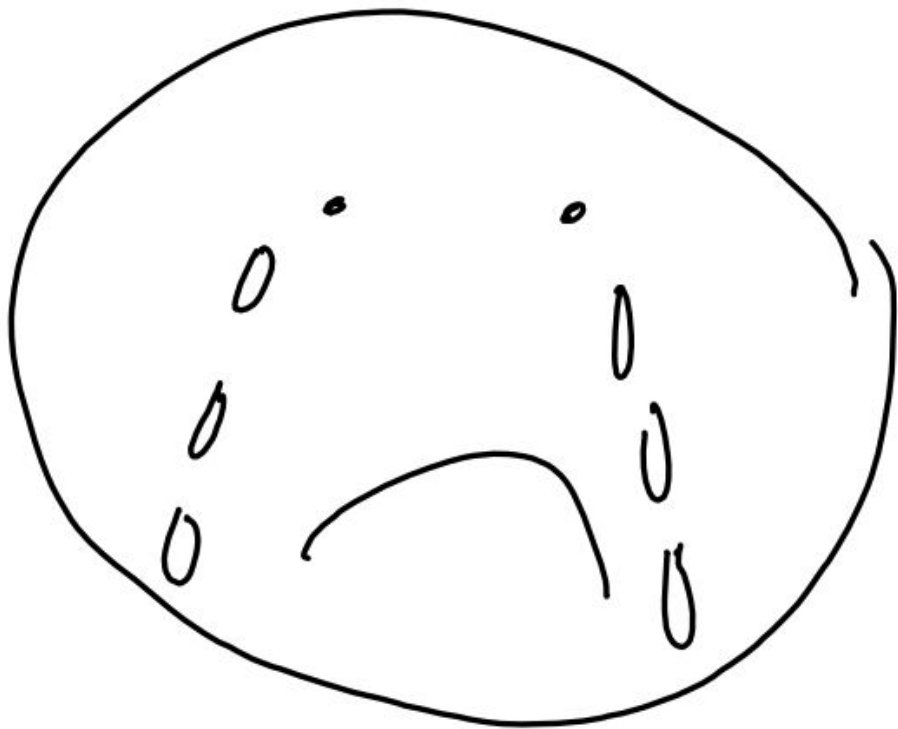


Data scientist tears

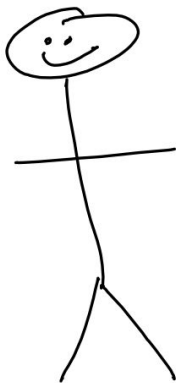
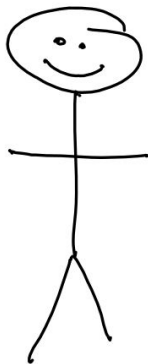
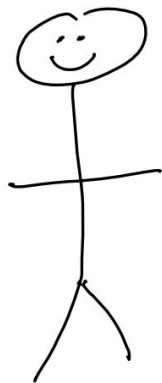


Team of IT:

Here is an Excel
spreadsheet you can
use that has some data.



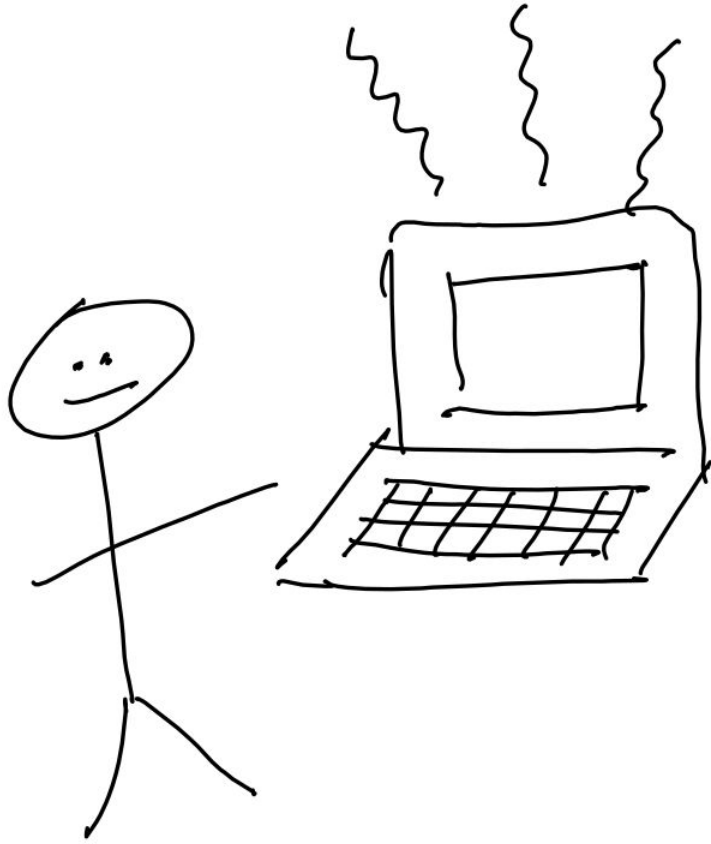
More data scientist tears



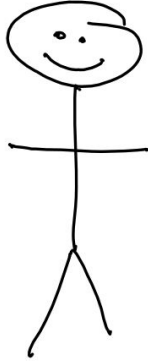
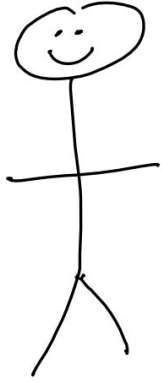
Team of Data Scientists:

Wait, I have an idea! If we can just collect this type of data by creating this pipeline...

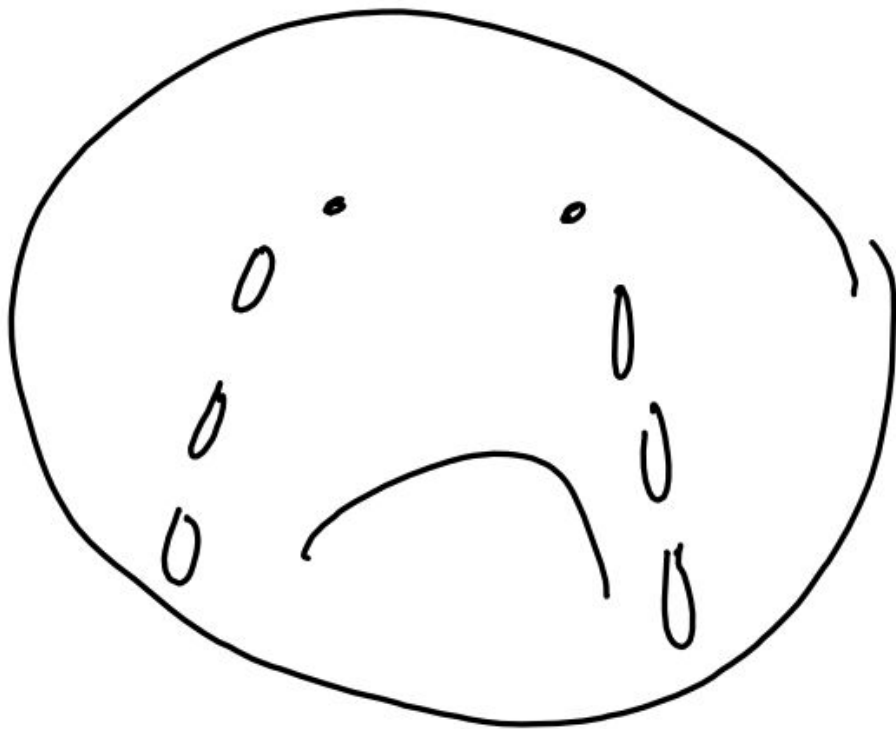
The data scientists jump through millions of hoops and seek billions of different permissions to create a pipeline to collect the data. Not being data engineers, this takes them a while, but they eventually get some usable data.



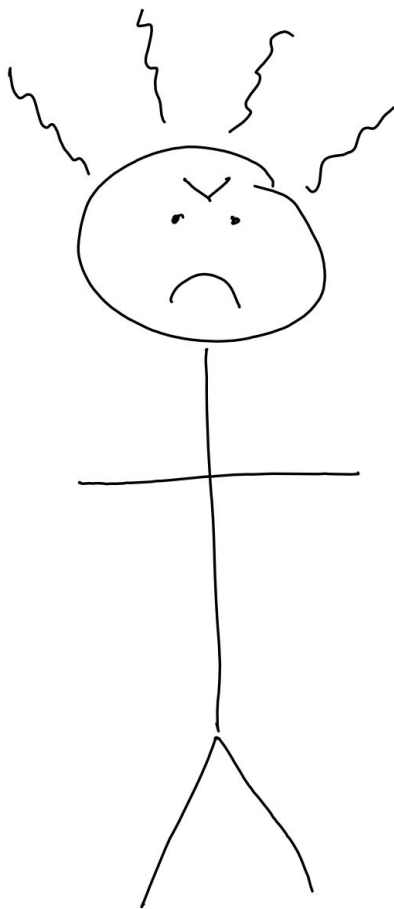
Now that they have the data, the team of data scientists works furiously to create a model, finally getting to do what they have been hired to do and are good at...



FINALLY, the team has results and they are anxious to show them. However, without a champion they spend a lot of time getting on the calendars of a lot of people who are not able to do anything with their results.

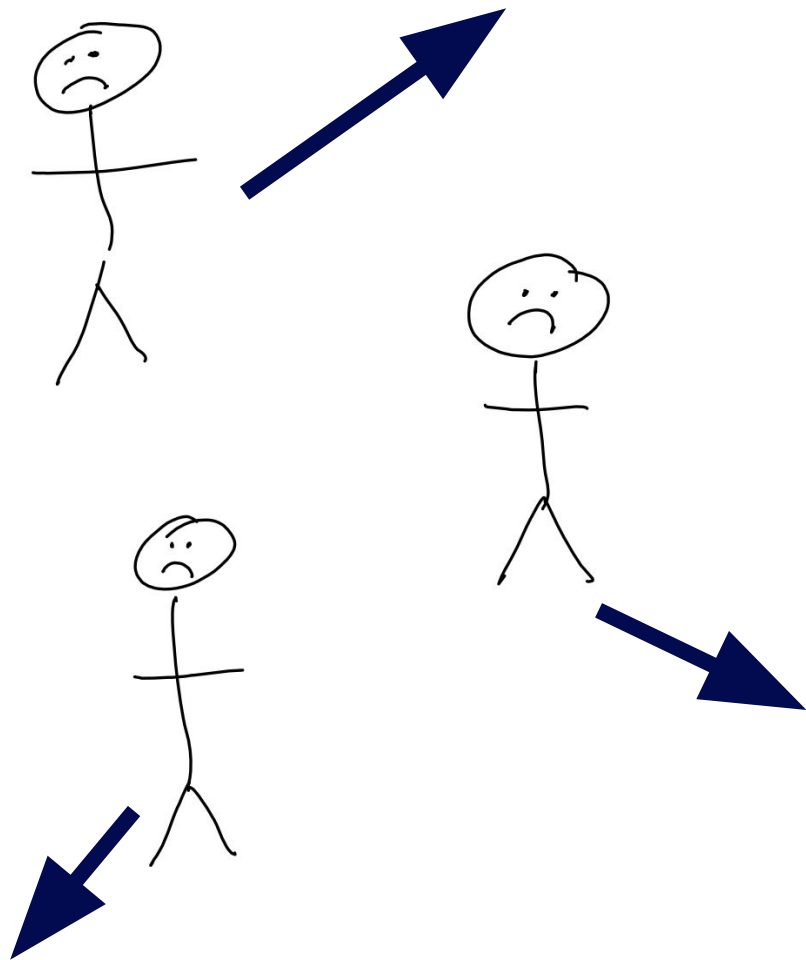


More data scientist tears

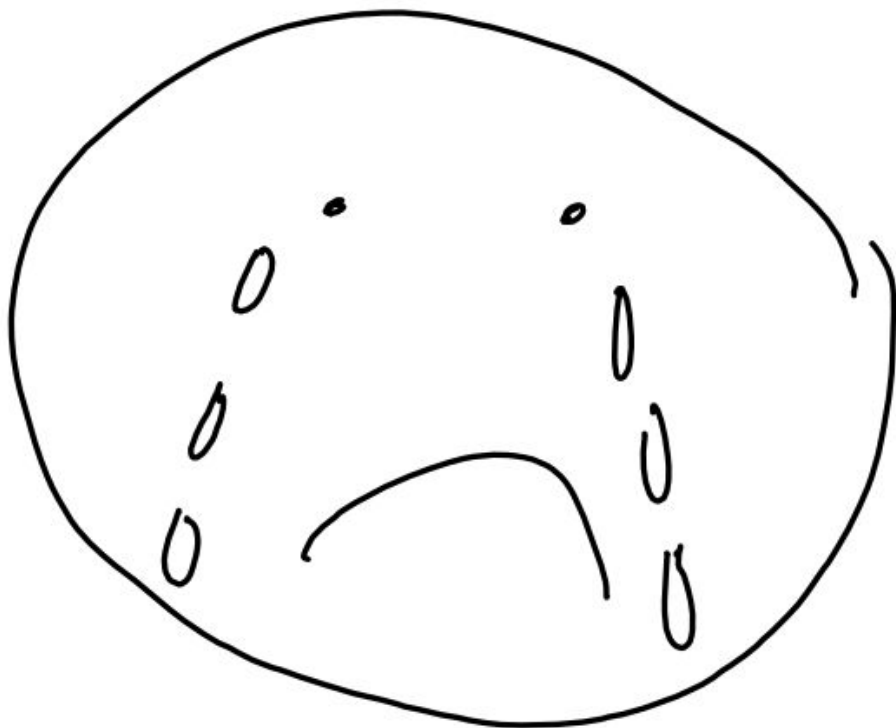


CEO:

Why did I spend all of this money on this team? They haven't created anything of value! Where is my ROI?!?

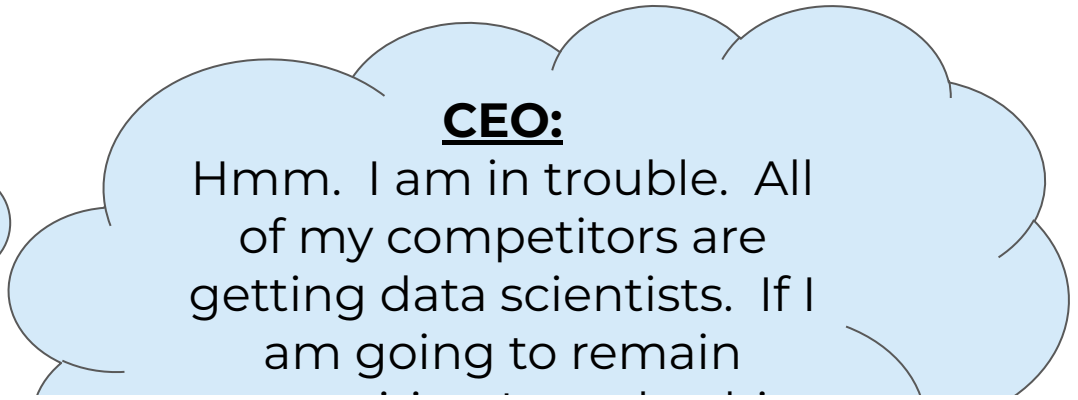
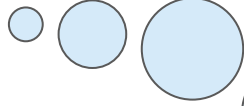
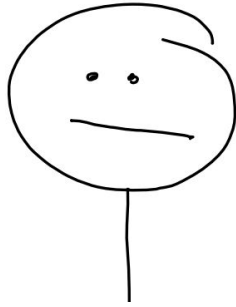


The data scientists all start leaving the company, either voluntarily or involuntarily, because there is nothing for them to do, no job impact or satisfaction, no growth, and no long-term prospects at the company.



CEO tears

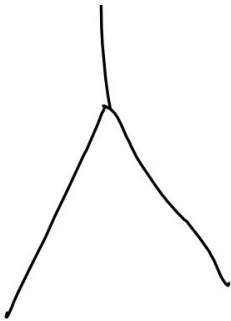
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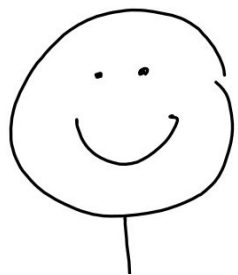


CEO:

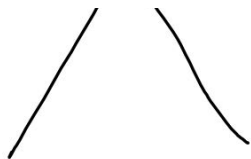
Hmm. I am in trouble. All of my competitors are getting data scientists. If I am going to remain

No business problem was identified that could only be solved with data

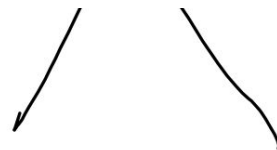


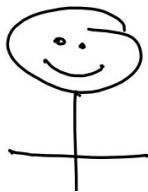
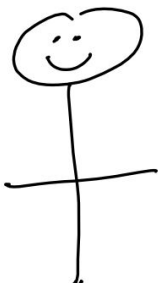


Without an identified business problem there is no way to provide requirements on the skill sets for the data scientists



A conversation then occurs about how these data scientists must all have PhDs, be experts in NLP, and have 10+ years of experience with PyTorch...





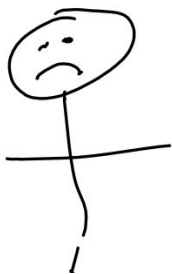
Team of Data Scientists:

We're here and ready to get started!

/ **In addition to the lack of a problem for the team to work on, the hiring was not done in an effective sequence**



...



*The data scientists huddle and
come up with some ideas of things
they could work on...*



**The next key problem: it doesn't
make sense to hire a team when
there is no data to solve the business
problem**



The “Upside Down Approach”

The exact wrong way to create a data team and culture (yet oh so common!)

01

People

People are your strength, but only if you hire the right ones.

02

Data

The value of data is not in volume but in the problems it can solve.

03

Problem

Data for the sake of data is a great way to waste money. What is it doing for the business?

04

Culture

Understands how to identify business problems solved by data, KPIs, ROI, and data silos.

The “Right Side Up Approach”

Great for when you are starting from scratch!

01

Culture

Starting at the top, sets up the organization for success. Avoids using intuition for decisions.

02

Problem

Not all problems need sophisticated data approaches to solve them. Find the ones that do.

03

Data

The organization creates strategies around collection, control, and usage; breaks silos.

04

People

Strategic, sequential hiring with an eye to hit the ground running once everything is in place.

I am already “upside
down.” What can I do?

Working with your management *

- Help the C-suite define what “data driven” means
 - Deprioritize intuition
- Learn to speak the language of the business, NOT jargon
 - Focus on the *why*, NOT the *how*
 - Learn the vision and mission of the business
 - Everyone on the data teams needs to use this common lexicon when working with management
- Aid management in learning data literacy
 - Visualization
 - Dashboarding
 - “Teach a person to fish”: self serve (AKA empowerment) is very important!
- Understand how to calculate *measurable* ROI for data problems
 - Propose work on the projects with the highest measurable ROI, not just nice-to-have projects

* *Assuming you are not in the C-suite*

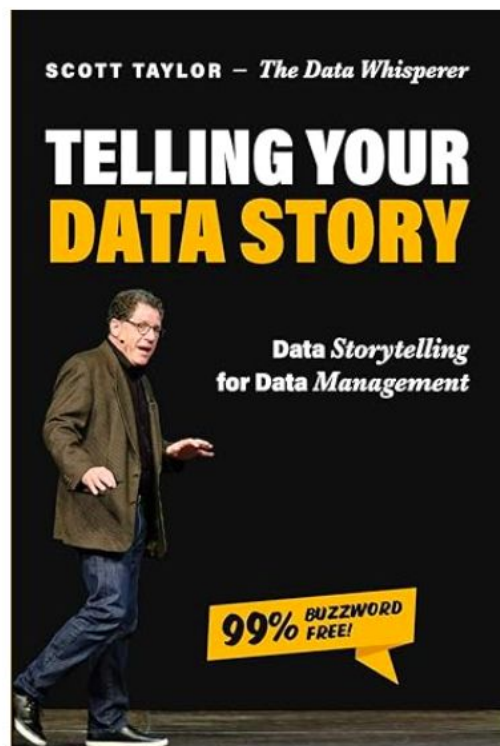
Working with your data teams

- Everything the data teams do needs to point back to **measurable ROI** on how it enables the strategic vision of the business
- Help the business calculate the ROI of solving different problems
- Hire based on what is need to solve those problems
- Establish data standards and a common lexicon for the business
- Identify what data is needed at what quality level to support business goals and decision-making before collecting it

“Good decisions made on bad data, are just bad decisions you don’t know about yet”

- Scott Taylor, The Data Whisperer

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Read sample

Telling Your Data Story: Data Storytelling for Data Management

by [Scott Taylor](#) (Author)

4.3 ★★★★★ (88)

3.9 on Goodreads 44 ratings

[See all formats and editions](#)

The Data Whisperer's practical guide to explaining and understanding the strategic value of data management. The need for data management is everywhere across your company. The value of every digitally transformative customer-facing initiative, every data science and analytics-based project, every as-a-service offering, every foray into e-commerce, and every enterprise software implementation is inextricably linked to the successful output of data management efforts. Although it is a simple function of *garbage in garbage out*, that slogan rarely drives any sustainable executive action. **We need to tell a better data story.**

Data Storytelling is probably the hottest non-technical trend in the technology-related space. But it does not directly support data management because it is focused on analytics or telling stories *with* data. So, it is time to expand the realm of Data Storytelling to recognize the role of data management by telling stories *about* data.

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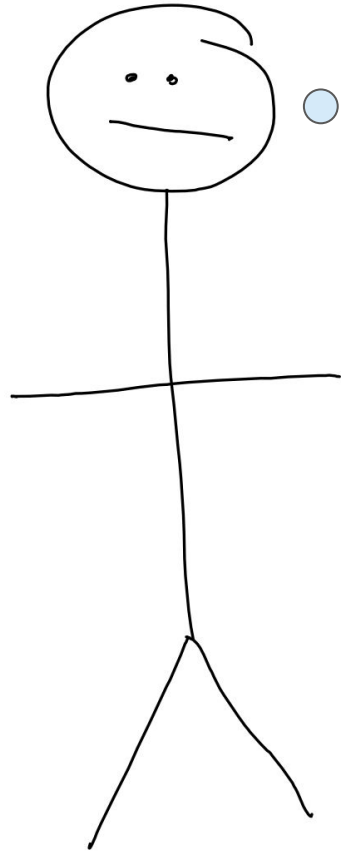
On the importance of data quality

- “Truth before meaning”
 - Data must be true before you can do anything with it
 - GIGO: What you put into data management is what you will get out in BI
- The 1 : 10 : 100 rule about data quality
 - The cost of preventing poor data quality at the source is \$1 per record.
 - The cost of remediation after data quality issues are identified is \$10 per record.
 - The cost of failure (i.e., doing nothing) is \$100 per record.

Calculating ROI

- What problem are you trying to solve?
 - More revenue, lower cost, better efficiency, enhanced security, etc.
- What are the units this will be measured in?
 - If not \$, how do they translate into \$?
- What are the benefits in those units?
- Identify the direct and indirect costs
 - Infrastructure, personnel, training, implementation, maintenance

$$ROI(\%) = \frac{(\text{Total Benefits} - \text{Total Costs})}{\text{Total Costs}} \times 100\%$$



CEO:

Hmm. I am in trouble. All
of my competitors are
getting **GenAI**. If I
am going to remain
competitive, I need to hire
some too!

“...Becoming data-driven requires an organizational focus on cultural change...91.9% of executives cite cultural obstacles as the greatest barrier to becoming data driven. As noted, this is not a technology issue. It is a people challenge.”

<https://hbr.org/2022/02/why-becoming-a-data-driven-organization-is-so-hard>

github.com/cj2001/ddt_2025



Thank you!

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