

Measuring the Measurer

Attributing Success to Your Digital
Analytics Team

// Emma Gordon



Hello! **Emma Gordon** here!

- Irish, Living in Amsterdam
- Lead Product Analytics in SaaS
- 11 Years In Digital Analytics
- 6 Years Leading Digital Data Teams
- 5 Years in Fashion eCommerce



Calvin Klein



So! What are going to be discussing?

- The evolution and growth of the data teams into specialised roles
- Structuring those teams in consideration of **your** business model
- Creating a culture of Digital Analytics as a Craft
- How to bring the Data Teams achievement to the attention of the business, bringing trust, confidence and a strong sense of development

Big Data Analytics Market Revenue size is currently \$70 Billion Dollars

That is forecast to grow to \$103 Billion* by 2027

Compound annual growth rate of 30%

The Data market is growing, and so are the teams that support it.



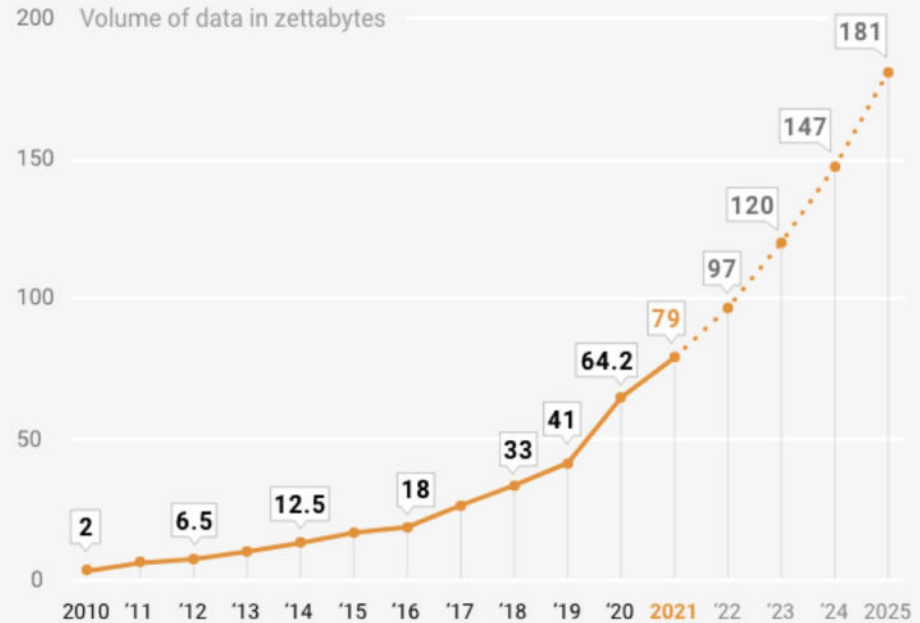
2027

The world is consuming tremendous amounts of data. Most of this data is replicated data.

Approx 2% of data was stored and retained



The volume of data generated, consumed, copied, and stored is projected to exceed 180 zettabytes by 2025



The background is a dark teal color with a complex, abstract pattern of glowing, fiber-like lines that resemble a network or data stream. These lines are scattered across the frame, some forming loops and others extending straight. A faint, light-colored grid pattern is also visible, overlaid on the fiber-like lines. The overall effect is a sense of dynamic, interconnected digital data.

The Evolution of The Digital Data Team

How to Structure a Data Team?

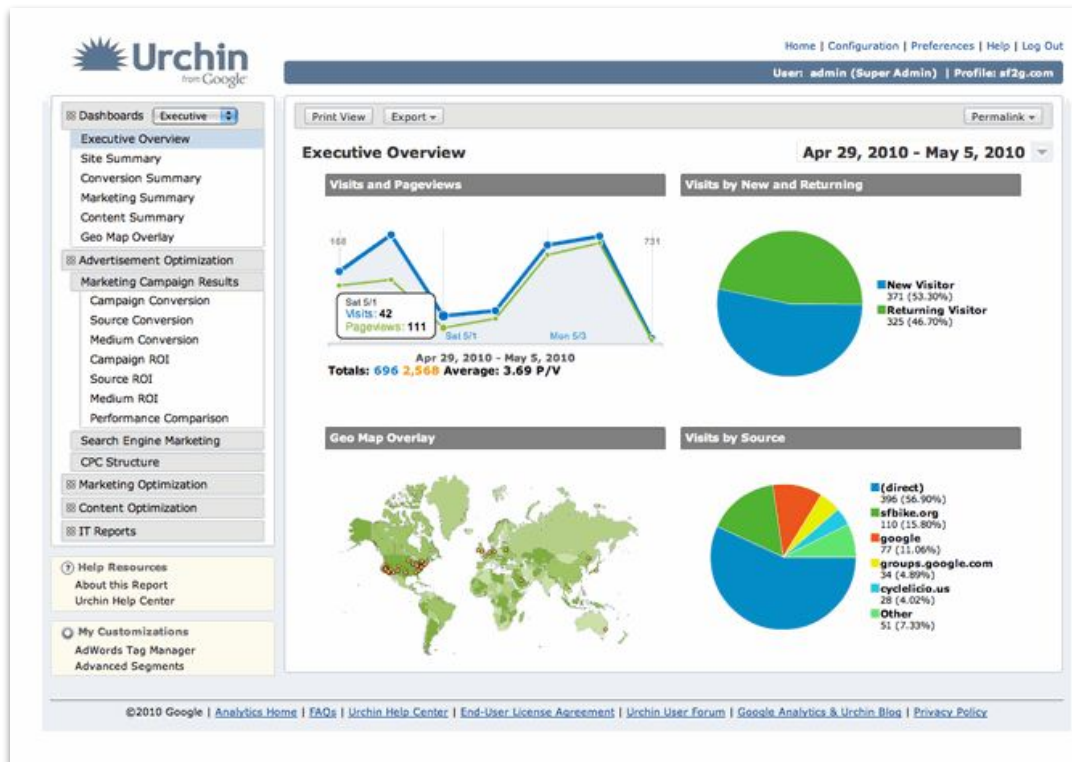
I think the data world is at a tipping point, and that the time to start building towards this world is now...the growth in both the size of data teams and the complexity of data as a discipline has made the lack of [organisational] principles apparent.

Bryan Offutt

How it Started...

- Urchin Software Corp. was acquired by [Google](#) in April 2005, forming [Google Analytics](#).
- In February 2009, Google released Urchin 6.5, integrating [AdWords](#).
- In October 2012 there was an upgrade to Google Analytics : called *Universal Analytics*

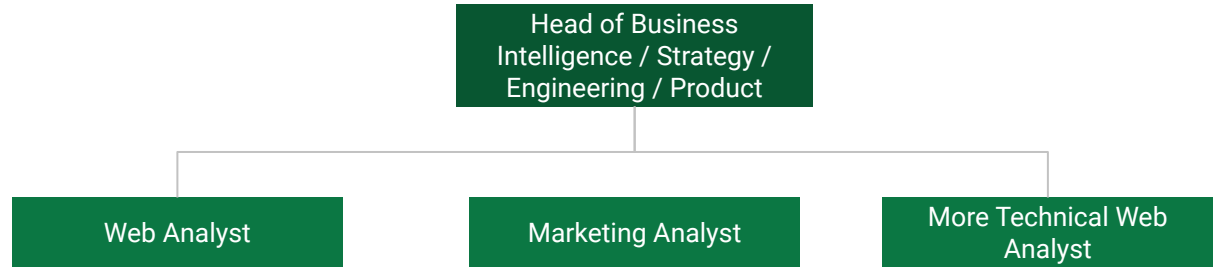
And a little helpful tool called Google Tag Manager



Earlier Digital Data Teams - Medium Companies

Data Teams were structured ad hoc

Getting additional budget was challenging



How it's Going...



And Going...

BIG DATA & AI LANDSCAPE 2018

INFRASTRUCTURE

HADOOP ON-PREMISE
 cloudera Hortonworks
 MAPR Pivotal
 IBM InfoSphere
 bluedata jethro

HADOOP IN THE CLOUD
 aws Microsoft Azure
 Google Cloud IBM InfoSphere
 TREASURE DATA Doble aitscale
 CAZENA CenturyLink

STREAMING / IN-MEMORY
 aws databricks stream
 confluent GridGain ORACLE
 dataArtisan hazelcast
 TERRACOTTA Ix NZ FASTDATA
 WallarooLABS

NoSQL DATABASES
 Google Cloud aws
 ORACLE Microsoft Azure
 mongoDB MarkLogic
 REDSPRIKE DATASTA
 ArangoDB Couchbase
 redislabs SCYLLA

NewSQL DATABASES
 SAP Clustrix Pivotal
 Cockroach LABS
 MEMSQL Influxdata
 YOLDB
 eplusdata splice
 paradigms TIBCO

GRAPH DBs
 neo4j Amazon Neptune
 ORACLE IBM
 GraphDB
 GraphSense
 Objectivity

MPP DBs
 TERADATA VERTICA
 IBM Data Warehouse System
 ORACLE
 Exasol
 dremio

CLOUD EDW
 aws Microsoft Azure
 Google Cloud
 Microsoft Azure
 Pivotal
 snowflake

DATA TRANSFORMATION
 talend onpremise
 alteryx
 Informatica
 IBM
 StreamSets UNIFI

DATA INTEGRATION
 SAP Data Services Informatica
 Tealium
 Segment
 Aloma
 Stitch import.io
 Infoworks ATUNITY

DATA GOVERNANCE
 Informatica
 IBM
 colibra
 Alation
 IBM XDR

MGMT / MONITORING
 AWS New Relic octio
 rubrik APPDYNAMICS
 WAVEFRONT
 splunk SignalFx
 Moogsoft
 PagerDuty Namanfy

STORAGE
 aws Google Cloud
 PURE STORAGE
 EMC
 COHERITY

CLUSTER SVCS
 aws Kubernetes
 Docker
 Mesosphere
 CoreOS

APP DEV
 Amazon AWS
 Keen IO
 Rainforest
 EBSA

CROWD-SOURCING
 Amazon Mechanical Turk
 Upwork
 Figure Eight
 Scale
 HIVE

HARDWARE
 Google TPU ARM
 GRAPHCORE
 MYTHIC
 NVIDIA
 Movidius
 WAVE
 HALO

GPU DBs
 kintico
 BIGREXIM
 BLAZINGDB
 bytelyt PG Storm

CROSS-INFRASTRUCTURE/ANALYTICS

aws Google Cloud Microsoft IBM SAP Hewlett Packard Enterprise SAS 1010DATA vmware TIBCO TERADATA ORACLE NetApp syncsort MAPR cloudera

ANALYTICS

DATA ANALYST PLATFORMS
 Microsoft pentaho alteryx
 Digital Technology guavus AYASDI
 ATTIVO Datameer Quid Incorta
 inter:ana ClearStory Origami
 ENDOR MODE Bortierbase switchboard

DATA SCIENCE PLATFORMS
 IBM KNIME data iku
 DOMINO rapidminer
 CONTINUUM ALGORITHMIA
 DAYWATCH ANDRÉE SAS

BI PLATFORMS
 Microsoft aws
 SAP
 Looker
 Arcadia Data
 MicroStrategy

VISUALIZATION
 +tableau
 Google Cloud
 Olik
 ZEPL
 CHARTIO

MACHINE LEARNING
 aws
 Google Cloud
 DataRobot
 H2O
 gamalan
 ELEMENT
 VISENZE
 bonisai

COMPUTER VISION
 Microsoft Azure
 Amazon Rekognition
 clarifai
 EVER AI
 deepomatic
 twenty9

HORIZONTAL AI
 IBM Watson Cortana
 sentiment
 Affective
 Numenta
 nrologics
 OSARO

SPEECH & NLP
 Google Cloud
 Amazon Alexa
 semantic
 Soundhound Inc.
 BLI
 verba
 snippets
 iRagee

SEARCH
 ORACLE
 elasticsearch
 EXELENDO
 Lucidworks
 swifttype
 alphaspense
 omni:us

LOG ANALYTICS
 splunk
 sumologic
 LOGGLY
 logz.io

SOCIAL ANALYTICS
 Hootsuite
 NETBASE
 synthesio
 simplereach
 hbarra
 SimilarWeb

WEB / MOBILE / COMMERCE ANALYTICS
 Google Analytics
 mixpanel AMPURITE
 sumal
 RESCI
 SIGOPT
 granify custora

APPLICATIONS - ENTERPRISE

SALES
 enable CHORUS
 INSIDESALES.COM
 conversica
 clari aviso tact.ai
 fuse:machines TROOPS

MARKETING - B2B
 RADIUS App Annie
 EVERSTRING
 MENTIGO sense
 tubular DataFox
 ENGAGIO

MARKETING - B2C
 ZETA bloomreach SendGrid
 BlueYonder [PERSADO]
 ACTIONIQ SALTTHRU BLUECORE
 QUANTIFIND
 amperity STEALTH

CUSTOMER SERVICE
 MEDALLIA zendesk
 CLARABRIDGE
 Gainsight NG DATA
 DigitalGenius ahniit
 AUTOMAT frame.ai
 mago INTERCOM CarDesk

HUMAN CAPITAL
 entelo
 hiQ
 GIGSTER
 Wad&Wendy
 Clasp
 mya

LEGAL
 RAVEL
 JUDICATA
 IRONCLAD
 RISS
 CASERTAX

FINANCE
 Anaplan
 ZUORO
 SIFMANA
 TRADESHIFT

ENTERPRISE PRODUCTIVITY
 slack
 ORACLE
 lumato
 clara
 butter.ai

BACK OFFICE AUTOMATION
 UiPath
 blueprism
 AnyLogic
 4AppZen
 Workfusion

SECURITY
 TARKUM
 StackPath
 ANOMALY
 SCYNFY
 ASAT

CYLANCE
 Cylance
 ANOMALY
 Sift Science
 Trustlook
 Securosis
 Securix
 Secunia
 Securix
 Securix

APPLICATIONS - INDUSTRY

ADVERTISING
 AppNexus
 Oracle
 distillery
 Applr

EDUCATION
 K12
 Blackboard
 FutureLearn
 FutureLearn

GOVERNMENT
 OPENGOV
 mark43
 GIDSMART
 Passport
 SmartProcure
 CAPE

REAL ESTATE
 REDFIN
 Opendoor
 VTS
 CREDIT
 economy
 COMSTAK
 CAPE

FINANCE - INVESTING
 KENSHIC
 Quantopian
 ABBRAXAS
 SIFMANA
 SIFMANA
 ASORZ
 FlayerPack
 PFGIA

FINANCE - LENDING
 ondeck
 Affirm
 Kreditech
 AVANT
 Lendix
 Lendix
 Lendix
 Lendix
 Lendix

INSURANCE
 Automate
 Lemonade
 CYNCE
 SPARK

HEALTHCARE
 Flatiron Clover
 MITABIOA
 3DMed
 TEMPUS
 Qventus
 IMA GEN
 Innovacore

LIFE SCIENCES
 color
 BenevolentAI
 WUOLIC
 ZEPHYR
 Clear Labs
 FarmVest
 Citrine
 Amgen
 OXON

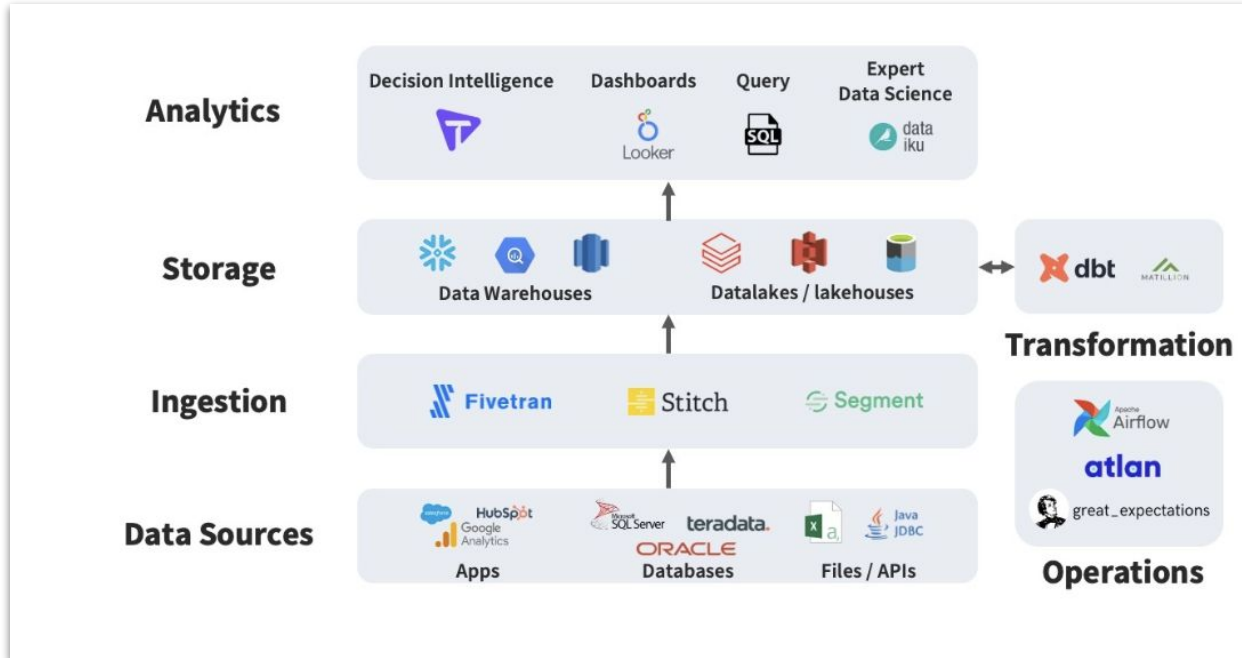
TRANSPORTATION
 UBER TESLA
 CLEARPATH
 drive BI
 nauto
 PILOT AI
 PRTIMUS
 moovit
 INEXOR
 comma.a1
 netrodyne
 CIVI PROG

AGRICULTURE
 FARMERS
 Granular
 JOHN DEERE
 BLUE RIVER
 FarmVest
 FarmLogs
 TARIAN
 CAMAYA
 prospero

COMMERCE
 Instacart
 SWITCH FIX
 Du & Co
 HEBBE
 HEBBE
 HEBBE
 HEBBE
 HEBBE

INDUSTRIAL
 AVAYA
 SIEMENS
 PREDIX
 LIFTAKE
 TACHYS
 HEBBE
 HEBBE
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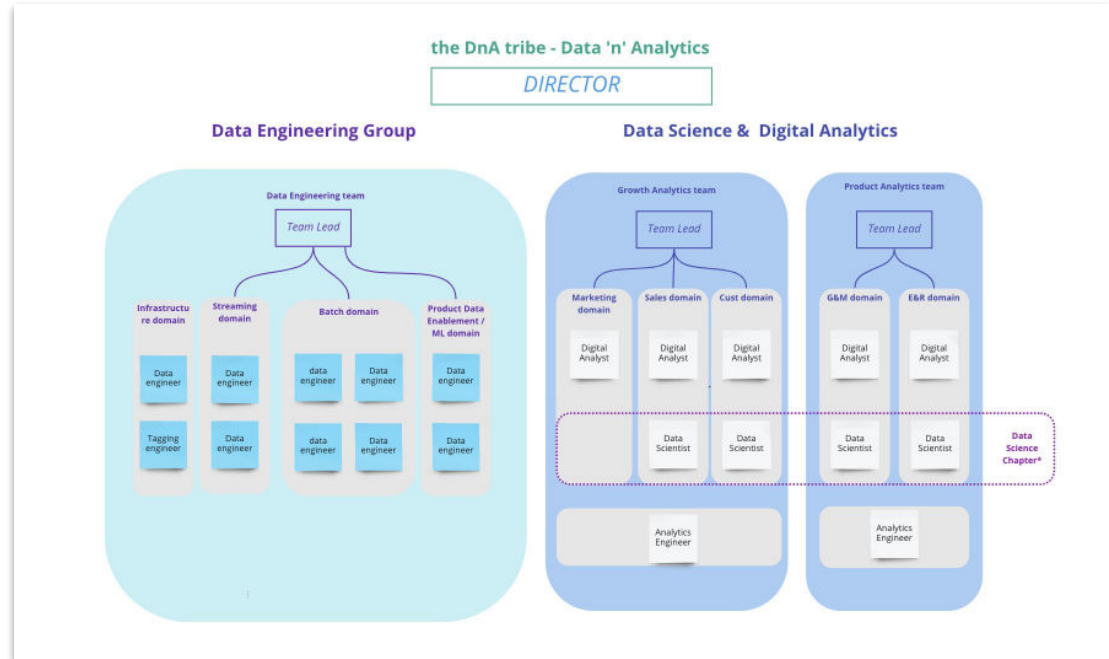
Data Stack Example



Digital Data Teams

Data Teams have now desciminated into more specialised structures

- Growth/Marketing
- Customer
- Product
- Technical...

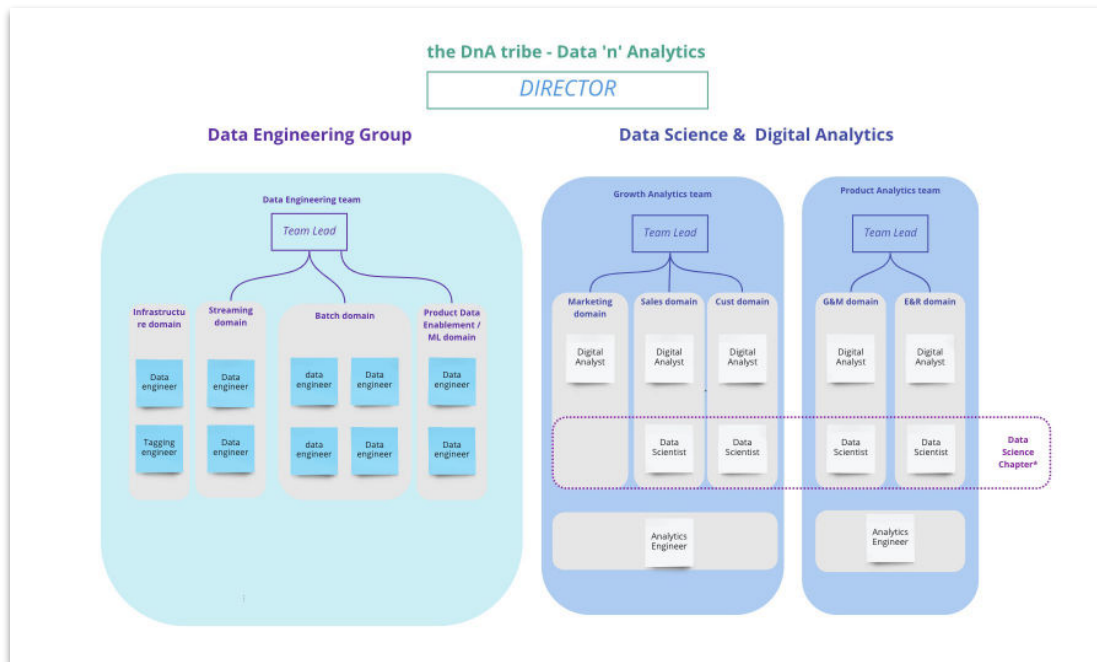


Digital Data Teams - Data as Product

Data Teams are bigger, have more buy-in and are more structured, but which methodology?

We choose centralised with project based embedment

- Centralised
- Embedded
- Hidden Matrix
- Helix



Thinking Of Data As a Product

A hand holding a smartphone against a dark red background. The phone screen is visible but the text on it is blurry. The overall image has a dark, moody aesthetic with a strong red color palette.

We find that when companies instead manage data like a consumer product—be it digital or physical—they can realize near-term value from their data investments *and* pave the way for quickly getting more value tomorrow.

Mckinsey

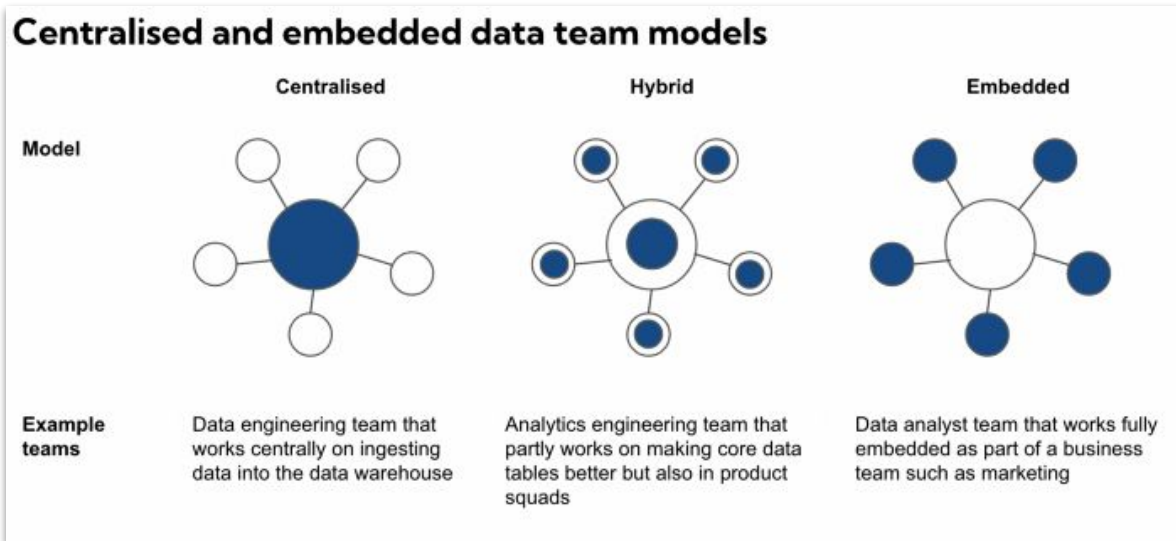
To Embed or not to Embed?

Advantages

- Analysts are closer to the business directive
- Faster response to stakeholder requests

Disadvantages

- Service mentality
- Siloed from central data team
- Disjointed Roadmapping

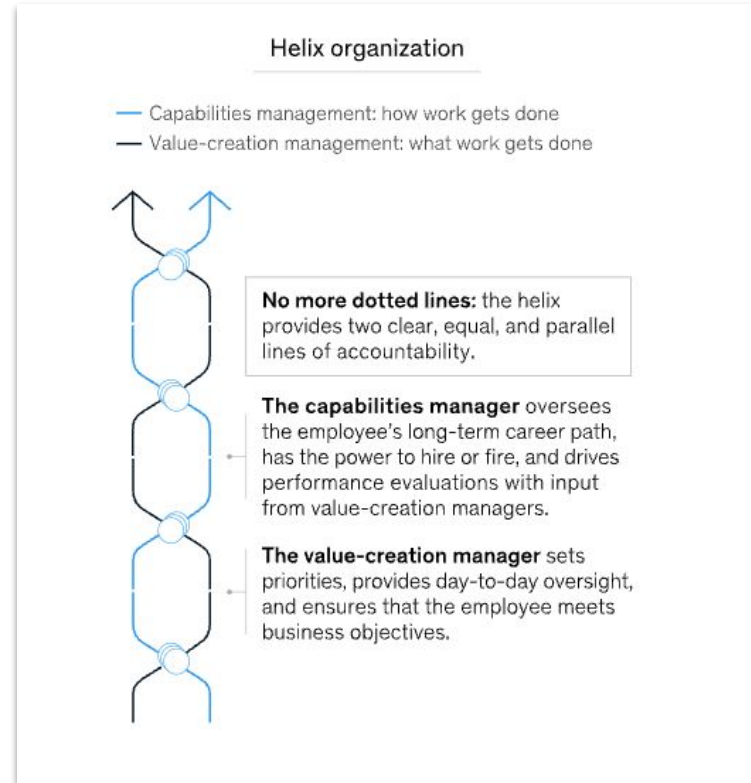


Helix Model

Helix Model has a centralised pool of resources

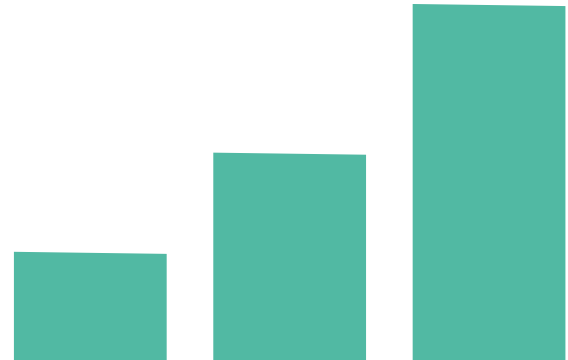
Two key role types to organise and drive

More suited to teams that already have more established agile practices and culture



Which Structuring and delivery methodology is best?

- It **depends** on **your** business
- Is your Team ready?
- Take a step back and analyse your business requirements
Analyse your backlog, align roadmaps of key stakeholders.
Then look realistically at your team needs and wants.
Remember that change takes time
Then build your framework.
- Craft and Tailor the framework
- Remain Agile
- Data As a Product

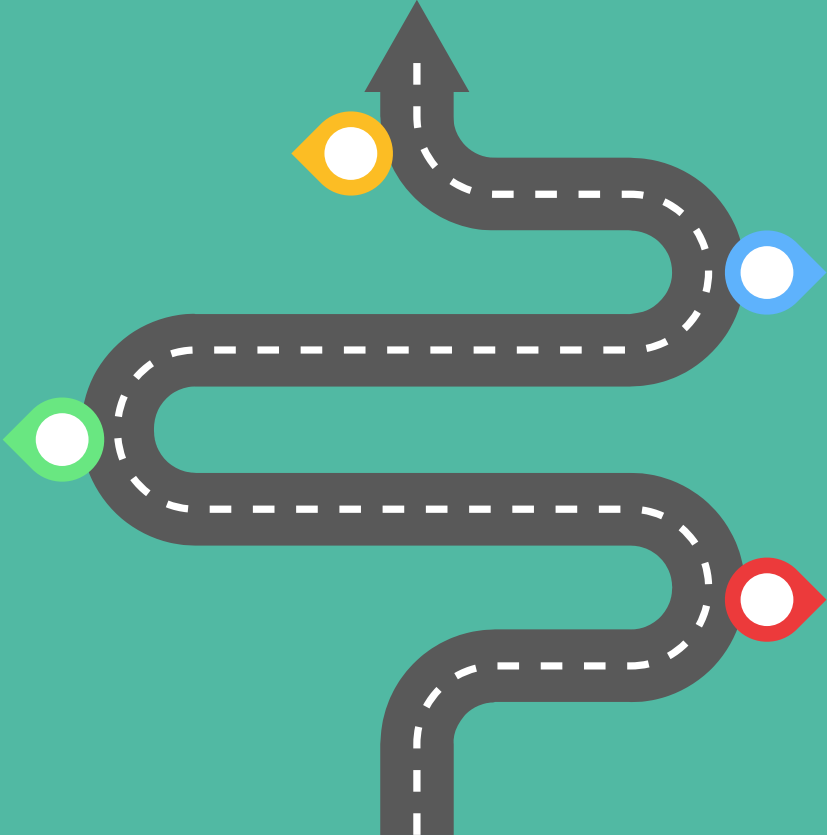


The background is a dark, almost black, space filled with a dense network of thin, glowing teal lines. These lines are irregular and somewhat chaotic, resembling a complex web or a network of fibers. Some lines are straight, while others are curved or looped. The overall effect is that of a digital or biological network, possibly representing data connections or neural pathways. The text is overlaid on this background in a clean, white, sans-serif font.

Data Team

**Craft, Culture and
Measurement**

Direction



Time Breakdown

Ad Hoc (Data Service)

There's always a service element, but don't fall in the trap

Data Maturity

Goals that propel the Maturisation of org data

Craft

Reserve time for empowering Data as a craft



Ad-Hoc

Craft

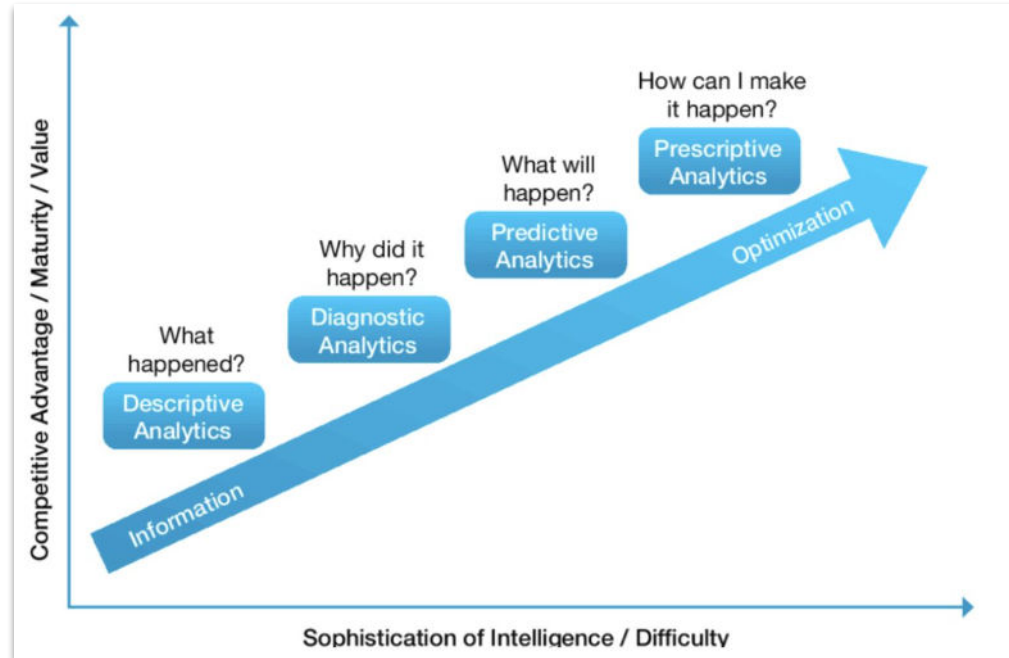
Legacy / Maintenance

Dashboards

Data Product

Discovery / Research

Digital Data - Maturing the Organisations Data



Digital Data - Maturity Model

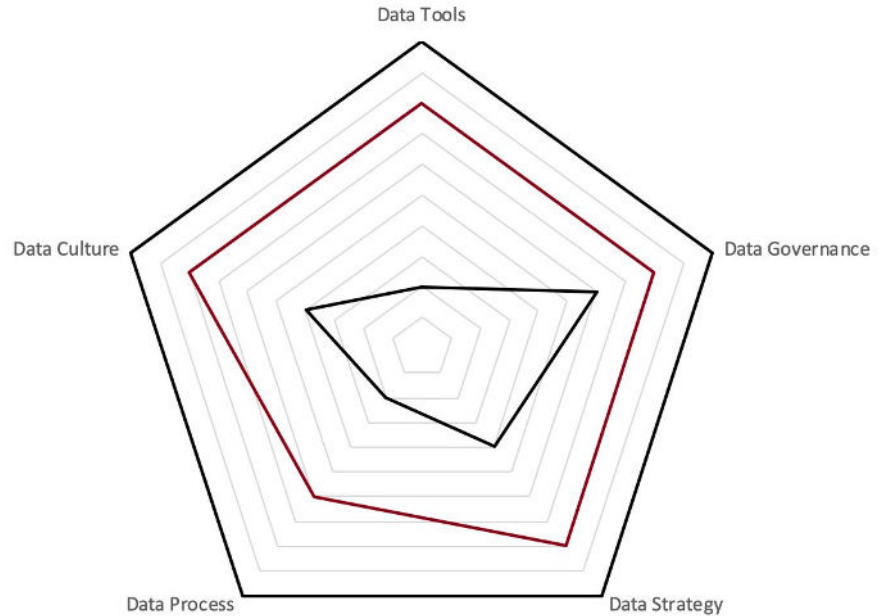
	Stage 1 - Tier 1 Basic Digital Analytics	Stage 1 - Tier 2 Foundational	Stage 1 - Tier 3 Functional	Stage 1 - Tier 4 Operational	Stage 1 - Tier 5 Cultural & Essential
Organisation	Ad hoc teammembers	Small Digital Analytics team with tiered organizational structure	Digital Analytics team, using web, app, technical and advanced analysts	Large PA team, integrated with Data Science	Multiple optimization teams, data scientists, team managers
Data Standards & Quality	Basic data flow, multiple sources of truth. Inconsistent. Questionable quality. No governance.	Emerging data governance team and consistency. Some documentation & processes.	Growing team. Automated checks. Full, managed documentation.	Multi disciplined data governance team with developers and data engineers. Full, trustworthy data pipelines.	Structured team. Stacked and tracked integrated data sources.
Strategy & Roadmap	None	A list of foundational waypoints. Some guidance.	Structured list with prioritization, development and delivery.	Structured Roadmap linked with BD, Strategy and Growth	Roadmap is tier 4 and linked to organisations overall strategy
KPIs	Basic Metrics: Pageviews, CR	Basic Metrics, some offline data, out of the box segmentation	Custom calculated metrics, integrated sources, rough ROI	Advanced data points, real time monitoring, projection targets	Tier 4 + Modelled data, RPV, CLV, Churn, Predictive analytics
Data Usage in Team	None. Data is unimportant to business decisions.	Some data is used but is dismissible	Data valued and integrated in decisions	Essential	Driving the business decisions.
Data Integrations	Basic website data	Product Usage data, some offline	Data pipelines for raw data, SQL analysis	Full stack, data pipelines, full customer journey, custom databases	Secured integrated datasets, advanced database requirements
Segmentation	None – All visits	Basic marketing channels, some audience targeting	Personas and audiences maturing, specific targeting	Key Audiences maturing, specific targeting	Complex audiences, look-a-like tagging
Analysis Output	Basic. Lots of excel sheets.	Regular reports. Some analysis. Some insights.	Regular analytical reports and insight analysis in a process chain. Some PA products.	Cross disciplined, integrated reports with advanced analytics. PA data products regularly developed.	Full process flow, advanced analytics and machine learning integration

Digital Data - Maturity Model

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Digital Data - Maturity Metric

- Incremental Tracking of Data Maturing in the business
- Keeps an eye on something that is somewhat subtle in movement
- Best operated per quarter



Data As a Craft



Craft & Culture

Craft & Culture

Team Culture & Engagement

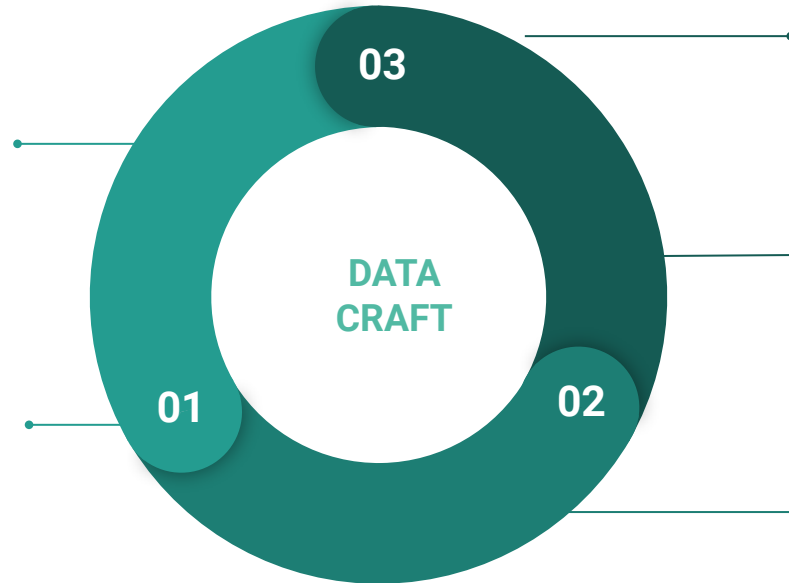
Create active Slack/Team channels to share knowledge and interesting articles, channels for bookclubs, films and other social but related topics

An NPS Score of your Team's Engagement in their work becomes a reportable metrics, a KPI for you as a Team to support

Learning & Development

Performance and continual growth, as well as learning and development on the topic of craft

Active promotion of skill share, meetups and presentations by all team members in newly acquired skills



Cross Boundaries

Quick Analysis and pooling the ability to reach across departmental boundaries to learn

Craft Leads

Hire Craft Leads to specifically drive this involvement across the organisation

Craft LEads should also have a checkin on analyst wellbeing, is there a time budget for meetings?

Management as Service

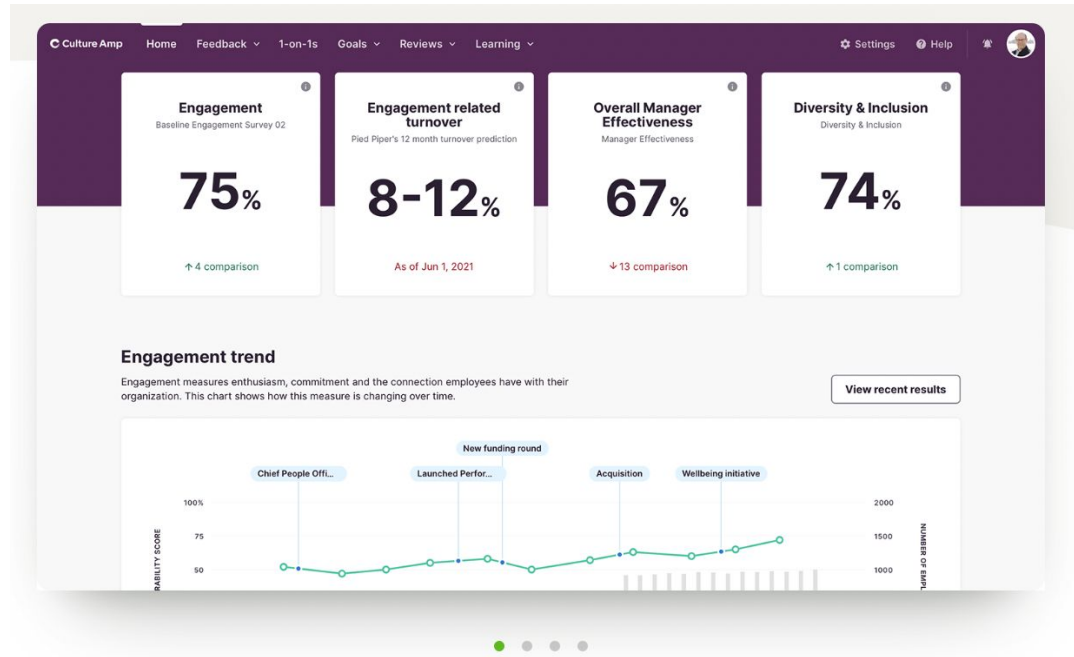
Good Leaders are there to explain problems to the team, handle stakeholders and clear a path for the team to develop solutions with data products.

Self Service

Active involvement by all team members in the education of other business disciplines in supportive data tooling

NPS Scoring for the Team

- The happiness and wellbeing of the team is an important KPI for Data Teams
- Team check-ins weekly, self rating happiness
- Maintained and monitored, reported in the QBR
- Culture Amp, 15 Five...



Setting up your Data Teams PR to the business

- QBRs and ABRs
- Working with Director / VP to monitor the needle
- Representing the Data Team
- Keeping on top of your Team's PR



An example starting ROI report

EXECUTIVE SUMMARY – PRODUCT ANALYTICS TEAM - Q1 2022



ROADMAP

4 Deliveries (+3 on Q4) ✔

Type	Components	Completion
Data Product 1	7	60%
Data Product 2	16	90%
Data Product 3	21	70%
Data Product 4	6	100%



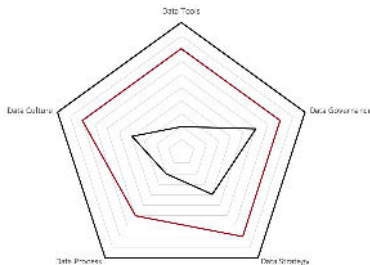
NOTES

- New Team member Sarah Joined 😊
- Team Member leaving on sabbatical 15th November.
- Fantastic new initiatives on Priority 1 & 3
- Some errors in data found, we solved them
- Upcoming Dashboard release postponed



ANALYSIS HIGHLIGHTS

- Remarkable advancement in Adobe workspace saves **57** hours per quartering automation
- MAJOR ADD: Workspace calculated metrics
- Product Feature analysis identifies two key new potential product opportunities



Technical Priorities

Revenue Discovered

\$5.7M

Automation Hours Saved)

57

QA Index

2%

Team Culture & Engagement

Team Happiness Score

78%

Workshops / Seminars Held

5

Thank You!



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Digital Data & Technical Lead

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