



ACCELERATING YOUR

# DATA-DRIVEN TRANSFORMATION

THE 'HOW-TO' GUIDE FOR ENHANCING YOUR DIGITAL MATURITY



ALL ABOUT  
THE DATA

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In the first part of this paper, [\*"Think Differently about Data-Driven Transformation"\*](#), we Introduced a new 5 stage model that we've developed with our clients to describe the key stages of the data-driven transformation journey, the value it generates, plus how to recognise where your organisation is on the journey.

Here in the second paper we dive a bit deeper into some of the use cases that organisations are able to deploy at each stage of the journey, how these generate value, plus the capabilities required to undertake the journey. Think of this as the 'how to guide' for accelerating your data-driven transformation.

## An outcomes-focused approach

In part 1 of this paper, [\*“Think Differently about Data-Driven Transformation”\*](#) we explained the 5 stages of data-driven transformation journeys we help organisations undertake through the provision of high quality, digital interaction data.

There is unremitting pressure on organisations to become ever more data-driven. The Covid-19 pandemic has intensified this and seen customers compelled to do more of their interactions and transactions with you on your digital channels. That is why it has never been more critical to have an effective strategy for leveraging all your customers’ data in real time and at scale. The 5 stage model introduced in [\*“Think Differently about Data-Driven Transformation”\*](#) explained how the high quality digital interaction data provided by Celebrus underpins successful transformation journeys, from the earliest use cases deployed, right the way through to enabling the most challenging AI powered, digital business models that are often the end goal or ‘North Star’ for data savvy organisations.

The 5 stage model is intended to help you to gauge where your organisation is in terms of its data maturity. It will give you fresh ideas on how to implement an outcomes-based approach which can help simplify and reduce the time to value. Planning for and becoming a data-driven organisation is a business imperative and being able to respond to your customers’ needs in a highly personalised, relevant way is the route to building sustainable, competitive advantage and memorable customer experiences.



The 5 stage data-driven transformation journey is summarised as follows:






	 <b>Channel Centric</b>	 <b>Customer Centric</b>	 <b>Real Time</b>	 <b>Enterprise</b>	 <b>North Star</b>
<b>Business Focus</b>	<b>Marketing focus</b> on customer acquisition & sales. <b>Digital focus</b> on channel performance (clicks, page conversions)	<b>Cross sales and loyalty</b> focus. Delivering a consistent omni-channel experience across all touchpoints.	<b>Customer value and advocacy</b> by optimising customer journeys. Digital & Customer marketing merge.	<b>Data as a strategic asset:</b> Now utilised across Marketing, Risk, Fraud, Product, Pricing, Staff productivity and more	<b>Digital business model</b> with virtual agents augmenting complex advice processes and decisions.
<b>Achieved by</b>	<b>Outbound marketing &amp; paid advertising.</b> Vanilla web/mobile experience. Analytics focus on volumes and sales conversion.	<b>Customer centric marketing.</b> Automated event triggers, personalization & multi-channel orchestration. marketing optimisation.	<b>Hyper-personalization</b> of content and decisions using contextual real time data plus blend of AI and rules. Fully automated operation	<b>Data captured once and connected to all</b> analytic & decisioning platforms, to support widest range of analytics & decisioning use case	<b>Data driven AI</b> including deep learning and knowledge based decisions powered by real-time data and intelligent bots
<b>Outcomes</b> (\$ estimates for organisations with 10m customers)	<b>Low Marketing ROI</b> due to poor response & conversion rates plus labour intensive processes. \$10-\$20m	<b>Medium Marketing ROI</b> as automation drives efficiency and events improve response & conversion \$100m+	<b>Highest Marketing ROI</b> as hyper-personalization delivers 10-50x uplift in sales conversion rates, better CX, and lowest operating costs. \$250m+	<b>Maximise Business Outcomes</b> across all lines of business, channels and analytic functions (Risk, Fraud, etc.). \$500m+	<b>Market leading efficiency</b> across all customer facing business functions. data driven sustainable competitive advantage. \$bns

FIG 1: Overview of the 5 Stages of Data-Driven Transformation

In this paper, we explain:

- ❑ The most common use cases deployed at each stage of the data-driven transformation journey
- ❑ The value these use cases generate
- ❑ What it takes to take each step of the journey, and unlock this value

This is your ‘how to guide’ to making it happen.

## What it takes to kick start your Data-Driven Transformation

Our recommendation is, that whilst a data-driven transformation journey is potentially a large programme for any organisation, it should be tackled in small steps. This approach delivers outcomes far more quickly, minimises disruption to your organisation, and leads to more value being generated over a long period of time.

At each step of the journey organisations do better when they:

- ❑ **Make each step quick and simple** by deploying a single capability
- ❑ Tackle simple to execute use cases enabled by each capability to **deliver significant return on investment (ROI)**. Each step of the journey self-funds, drives bottom line growth and delivers an improved customer experience (CX)
- ❑ **Deploy capabilities which will be re-usable long into the future**. Avoid deploying 'good enough' capabilities at each step which only support the immediate wave of use cases, and which later need replacing when the organisation's requirements become more challenging. The programme maximises the pace of change and minimises the cost of the whole transformation by taking a longer-term view.

Experience shows that successful organisations don't try 'to boil the ocean' with their data-driven transformation. They take each step in a considered way, focus on making positive change quickly, and keep the end vision clearly in sight. It is the steps on the journey that are most important, and when executed well, provide the momentum and internal justification to keep going.

### *So where to start?*

The simple answer is to start with the use cases you want to deliver, then work backwards into the capabilities that will enable these. Each use case should make a noticeable difference to your customers and the sales or service experience you provide them. Execute each use case well and customers will reward your organisation by doing more business with you, or better, advocating your brand to others.

**It is the steps on the journey that are most important, and when executed well, provide the momentum and internal justification to keep going.**







## USE CASES AND VALUE

### The use cases and value delivered by Data-Driven Transformation

Working with many of the world's leading and most innovative brands, we've identified the use cases available to those prepared to innovate with data. In total we've captured and documented close to 250 different use cases that deliver solid business outcomes. There are 3 things we would like to highlight about them:

- ▣ Many use cases are proven to be repeatable across multiple organisations and industries
- ▣ They are typically delivered quickly, in less than 3 months via the deployment of a single new capability
- ▣ The single capability required to activate each use case, typically activates multiple use cases, generating value over a long period of time

The good news is that many of the use cases are simple to execute, but only when underpinned by a high quality stream of data that provides deep insight into customer behaviours and supported by a data-driven culture. The data needs to be in the right format to drive analytics and decisioning using the tools that your organisation has already deployed.

STAGE 1 CHANNEL CENTRIC	STAGE 2 CUSTOMER CENTRIC	STAGE 3 REAL TIME	STAGE 4 ENTERPRISE	STAGE 5 NORTH STAR
Audience Targeting	Multi-Channel Customer Retargeting	Real Time Decisioning	Real Time Risk & Fraud Analytics	Experience Automation
Visitor Retargeting	Customer Personalisation	Real Time Personalisation	Demand Forecasting	Agent Visualisation
Abandoned Site Retargeting	Multi-Channel Marketing Attribution	Real Time Channel Orchestration	Insider Threat Analytics	AI Driven Decisions
Click Fraud Analytics	Predictive Analytics	Location based Messaging	Individual Pricing	Single Brain Interaction Hub
Channel Experience Analytics	Cross Channel Sales and Experience Analytics	Real Time Customer Support	Sales Compliance	Inter Departmental Data-Driven Transformation



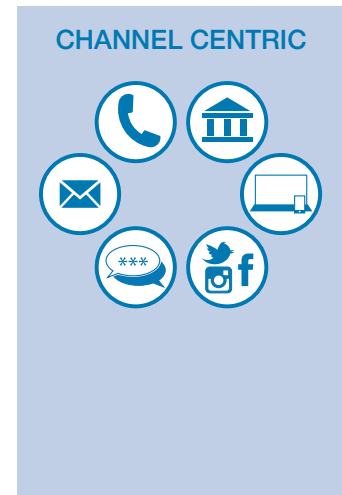




## STAGE 1 CHANNEL CENTRIC

In paper 1 we explained that the vast majority of our clients are already at stage 1, and as a minimum ask us to help get them to stage 2. However, there are several use cases that stage 1 organisations can deploy by capturing digital behavioural data from their websites and mobile applications that provide an immediate boost to their existing channel centric marketing.

The low hanging fruit provides an immediate payback, justifying the investment in digital behavioural data linked individual customers. They are simple to execute and the rapid return on investment they provide gives organisations the confidence that stage 2 is within reach.



### *Stage 1 Use Cases*

The most common use cases are:

#### **Audience Targeting: Paid Media**

A retail bank identified visitors and customers browsing and buying specific products online and used this information to seed audiences in Facebook and Google. This led to a 3-5x uplift in paid advertising effectiveness across various products via those platforms. The bank was also able to create suppression audiences for customers that already held key products, reducing wasted spend on paid media.

**3 to 5  
times**  
uplift in  
advertising  
effectiveness

#### **Visitor Retargeting: Owned Media**

An insurer used digital behavioural data to identify where visitors were in their buying journey. They could see whether they were generally browsing the site, interested in a particular product range, looking at the features and benefits of a specific product, or running quotes. The insights they gained enabled them retarget visitors when they returned to the website with offers relevant to the buying journey they were on, and where in that journey they were.

**15%**  
**increase**  
in direct sales

### Abandoned Sales Retargeting: Direct Marketing

A retail bank replicated this exact approach and quickly generated revenues of \$15m in the first year across a few product journeys.

Revenues of  
**\$15m**  
in year 1

### Click Fraud Analytics

A retailer used digital behavioural analysis to identify fraudulent PPC referrals, then block the offending adverts. They removed \$2m of paid media spend for no loss of sales.

An insurer replicated the analysis and found that c.6% of their PPC traffic was fraudulent, and was able to remove spend on these for no loss of sales.

Removed  
**\$2m**  
of media  
spend

### Channel Experience Analytics

A retail bank identified issues in the digital sales process that reduced sales conversion by 25%. They were able to recontact thousands of affected customers to capture the lost sales, plus, repair the process to avoid this happening in the future.

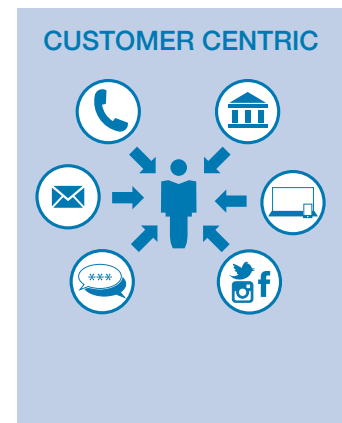
A retail bank identified a single issue impacting 80% of customers, who then fell out of a service registration process, then fixed it.

Identified  
an issue  
impacting  
**80%**  
of customers

All these use cases and more were deployed by stage 1 organisations within a few months of Celebrus providing digital behavioural data to them. They were able to quickly accelerate their data-driven transformations. The retailer is now stage 4, and one of the Retail Banks is at stage 3 and heading to stage 4. Their initial investment in the capabilities we provide has carried them through the whole journey to date.

## STAGE 2 CUSTOMER CENTRIC

Stage 2 use cases remain primarily marketing focused, as it is marketing that first sees the value in bringing together digital and customer data into one place, and building a customer centric capability. Marketing use cases are focused around growing sales through better targeted and highly personalised communications, that leverage digital insights to better engage each customer. There are also a clear set of use cases built around leveraging digital and customer data to understand and optimise digital sales and service experiences, which reduce the likelihood of customers abandoning them.



The key difference between Stage 1 and Stage 2 use cases is that they are typically multi-channel (customer centric rather than channel centric). We also see digital behavioural data fully integrated with existing customer data to drive customer analytics use cases. Finally, marketing automation is much more prevalent. Digital data are used in a greater range of event-triggered campaigns, plus, used to personalise the communications sent.

Stage 2 organisations start to build a deeper understanding of customer experience (in channel and omni- channel) and look to start re-engineering processes to reduce failures and make them simpler to navigate.

### *Stage 2 Use Cases*

The most common use cases are:

#### Multi-Channel Customer Retargeting

A retail bank identified individuals that had browsed different products on their website, plus their level of engagement with these products, then sent targeted messages to each individual to encourage them to take the next step in the buying journey: For one product area, one retargeting campaign generated more than \$10m incremental profit in the first year.

Multiple insurance companies are now utilising individual level digital data to re-contact customers/prospects who abandon their insurance quotes before taking a policy. If re-contacting these customers within an hour, they are able to convert 30% of them into taking new policy. There's more about this later, because those that can act faster see even better results.

Generated  
more than  
**\$10m**  
in profit

Convert  
**30%**  
of previously  
abandoned  
quotes



### Customer personalisation

A fashion retailer used online browsing behaviour to fully personalise their emails. Customers received offers relating to the products they had recently viewed, or tried to purchase, and the revenue per email increased 8-32x over the standard product focused communications.

Revenues per email up  
**8 to 32**  
times

### Marketing Attribution

An insurance company identified digital adverts/offers presented to individuals across the whole buying journey, then combined this with their direct marketing contact history to improve their marketing performance measurement. This resulted in a 10% reduction in media spend for no loss of sales.

The same use case has been repeated by multiple clients across different industries and has consistently generated similar or better results.

**10%**  
reduction  
in media  
spend with  
no loss  
of sales

### Predictive Analytics

A retail bank incorporated individual level web browsing data into their modelling data sets to improve the predictive models used for targeting their outbound communications. Model performance was improved by > 30% (Area Under Curve measure - ACU) and this generated >\$3m uplift in profitability from a single marketing campaign.

Greater than  
**\$3m**  
uplift  
in profitability

### Customer Experience and Sales Journey Analytics

























A retail bank identified issues in the digital sales process that reduced sales conversion by 25%. They were able to recontact thousands of affected customers to capture the lost sales, plus they repair the process to avoid this happening in the future.

Another retail bank identified missing/broken functionality on the website which was driving tens of thousands of calls into their call centres on a weekly basis. Using this information, they could flag these customers to the call centre in the short term, plus fix the missing functionality in the medium term to stop these unnecessary calls completely.

Recontact  
**1000s**  
of customers  
to capture  
lost sales

### Key Capabilities Required for Stage 2

The key capability required to get to stage 2 is capturing all digital interaction data from each individual customer across the channels they interact with, i.e. websites and mobile applications, then integrating this with existing customer data (typically held in a data warehouse or CRM database). The digital data enables a deep understanding of which customers are interacting with digital channels, including **why they visit, what they see, how they interact and the outcomes achieved during each visit**.

Who is interacting?	Why are they here?	What			When did it happen?	Where did it happen?	How did it end?
		they see?	they experience?	they do?			
 Customer	 Order	 Page	 Chat	 Mouseover & click	 First visit	 Location	 Happy
 Hot prospect	 Browse	 Content	 Personalisation	 Form entry	 Second visit	 Agent location	 Sad
 Lapsed	 Solution	 Promotion	 Errors, Page response	 Search	 Pre / post channel	 Device / App	 Frustrated

In all the above stage 2 use cases, digital interaction data is typically collected and connected to existing analytics and decisioning tools to augment marketing efforts. This minimises the disruption to existing business processes whilst delivering very strong results. In every stage 2 deployment we experience, organisations choose one or two simple use cases as proof points. Then, with the first use cases delivered, the organisation starts to confidently deploy new ones. Business results are typically delivered in weeks or a few months, and financial payback on the whole investment is achieved in less than a year.

## STAGE 3

### REAL TIME

A common opportunity we see with organisations at Stage 2 is that many have implemented a real time decisioning tool, but feed it with day old data, which makes very little sense. Whilst the real time decisioning tool is able to determine the best offer to present to a customer as they interact with the call centre, website or mobile app, the day-old data means the best offer is often out of date. Even where data latency is reduced to say 10-30 minutes (which happens very rarely) it's still too late to react in real time to a customer's in-session behaviour.



#### *For example:*

- ❑ If a customer arrives at your website and starts to browse home insurance products or run lending calculator scenarios, whatever data you had about them yesterday is suddenly out of date. You need the ability to listen to and react to what the customer is now telling you, but if your decisioning tool can't see that, it will fail to do so. Even if these new insights are available after a few minutes, it could be too late as the customer may have moved on to buy elsewhere.
- ❑ In multiple industries the problem is the same, if a customer arrives and starts to browse a specific pair of shoes, a flight to a particular location, or a new mobile handset, the organisation needs to be able to respond to that instantly or risk the customer abandoning and buying elsewhere.

Organisations that successfully make the step to Stage 3, **activate contextual real time decisioning**, starting with a few high impact use cases to demonstrate the value to the business, gain additional sponsorship and then expand the use cases from there. Across the organisations we have worked with, here are some examples of the most impactful use cases facilitated by real time decisioning capabilities:

### Stage 3 Use Cases

#### Real Time Web and Mobile Personalisation

A retail bank is personalising their internet banking experience to present targeted and individually personalised messages in real time and at scale (i.e. millions of messages per day). This is based on identifying significant in-session behaviours captured before and after login to personalise the content presented in internet banking websites and apps, within milliseconds. They have seen real time personalisation **improve click-through rates by up to 50x**, in one case **delivering over \$50m of incremental revenue** in the first year alone, from one channel. Benefits **increased to >\$100m in subsequent years**.

Improved  
click-through

**>50  
times**

Greater than

**\$100m**  
in revenue

#### Real Time Omni Channel Personalisation

Insights collected from digital channels are also used to trigger outbound communications. Sending an email in real time when a customer abandons a particular journey (as opposed to waiting 24 hours) can generate a 15x uplift in open rates, plus a corresponding uplift in sales conversion.

An insurance company has found that following up abandoned quotes in real time generates a sales conversion rate of >60%, 6x higher than waiting until the next day, and 2x higher than waiting just an hour. Even delaying the call by an hour leads to a large decline in conversion rates because customers have already had time to shop around and buy elsewhere. The ability to act in real time is critical when dealing with products that can be bought quickly online.

Generate a

**15x  
uplift**

Sales  
conversions of

**>60%**

#### Real Time Experience Management

Another insurer is able to signpost individual customers to solutions they are looking for but struggling to find.

Another insurer is making offers to individual customers based on their specific location and spending activity.



### *Capabilities Required for Stage 3*

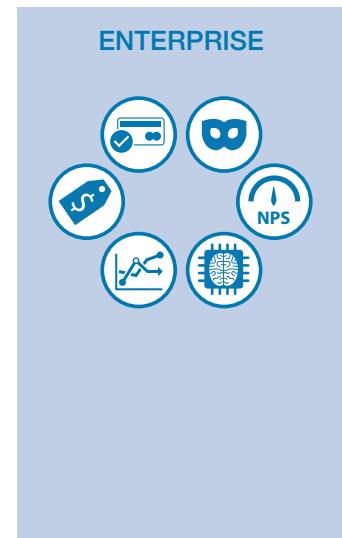
These use cases are achievable simply by connecting a real time stream of digital data (collected for Stage 2 use cases) to an existing or new real time decisioning capability. But the following are critical to making stage 3 work:

- ❑ Streaming the digital data into the decisioning engine in milliseconds so that the right offer can be selected as soon as the customer displays a buying signal. After 30 seconds or minutes, it's too late.
- ❑ Carrying the messages generated by the decisioning engine back to the channel and content management system in milliseconds, so personalised messages and content are displayed immediately. If the customer ends the session, sending the same message to an outbound channel such as email.
- ❑ The ability to quickly define new behaviours (signals) that are of interest to decisioning. Should the business want to put a new message out for customers that try to login then fail 2 or more times, or run a loan calculator scenario 3 times, then this should be simple to do, without the need to write new tags, re-engineer the data layer in your tag management system, or recompile your mobile app.
- ❑ Finally, you need to be able to control the flow of signals to the decisioning engine. It's OK to collect huge amounts of data from your digital channels for analytics, but you only want to stream the key insights to your real time decisioning tool, or it will not be able to scale.

## STAGE 4 ENTERPRISE

Up to stage 3, most if not all of the transformation journey is focussed on marketing and customer experience (CX). Capturing digital interactions and payment transactions, doing so in real time, and connecting these with real time decisioning has proven to deliver \$100's million in value to individual organisations.

**If digital data (and payments) can be collected, modelled and distributed to all the right places across the enterprise, stage 4 is enabled.** From the work we've done with a number of clients and the research undertaken to support this paper, about 10% of organisations identify themselves as being at stage 4, and the 90% that report that they are not yet there are being held back by a lack of data.



A stage 4 organisation has moved beyond utilising digital data to supercharge their marketing and customer experience efforts, to leveraging digital data across the whole enterprise. **They use behavioural data to improve risk, fraud, pricing, supply chain, product design and other decisions.** The value of data-driven transformation then increases exponentially. For these use cases we won't always quote figures for the benefits, but they are a fair reflection what successful stage 4 organisations have deployed thus far:

### *Stage 4 Use Cases*

#### Real Time Credit Risk Analytics

A retail finance organisation has established a clear link between the way a customer browses and selects products online to their level of risk. They are using this insight to improve their risk decisions in two ways:

- ❑ Rejecting or referring applicants that display risky behaviours.
- ❑ Accepting or proactively offering additional credit to customers displaying low risk behaviours.

## Real Time Fraud Analytics

A retail bank has identified multiple digital behavioural patterns to identify fraud, account takeover, authorise push payments and other types of financial fraud patterns which, if identified in real time can be mitigated.

An insurance company has identified new types of quote and claims fraud, plus a number of different forms of 'click fraud' (fake hits on digital adverts) which they have been able to mitigate, saving them \$m's.

A retailer has been able to spot suspicious transactions in real time, enabling them to stop goods being sent out until the purchases have been validated with the account holder.

Insights into customer identity can be gained from their biometric data - how they interact with devices, keyboards, mouse/trackpads and more.

## Operational Risk

### Sales Compliance

- ❑ Identification and elimination of non-compliant sales practices, reducing potential for fines and reputational damage and target sales advisor coaching around best practice.
- ❑ An global insurance company identified 3rd party sales agents manipulating quotes to support mis-selling, and were able to stop them.

### Insider Threat

- ❑ Better identification and mitigation of system access and intellectual property theft threats.
- ❑ Real time controls and alerts to improve system protection.

### Product Management

One Retail Bank has designed products specifically targeted at digitally engaged buyers and seen up to 200% in sales conversion rates via web and mobile channels

A Credit Card Provider used insights into digitally engaged customers design new card products that deliver a 40% uplift in card activation rates and a corresponding increase in spend per card, both KPI's are critical to credit card profitability.

Up to  
**200%**  
sales conversion

**40%**  
uplift in card  
activation

### Customer Support

A Retailer surfaces digital browsing data to their call centre agents to help them identify problems customers have experienced online, then quickly solve them. This improves call handling time and the customer experience

#### *Capabilities Required for Stage 4*

These use cases are only achievable when digital interaction data is connected, in the right format, and at the right time, to all the analytics and decisioning tools used by the different analytic teams around the business. The tools used in different areas of even one organisation can vary widely, but all need to be fed with consistent, high quality data.

For the whole enterprise to get the full value out of digital interaction data, it needs to be captured once, with all the necessary consents attached, and streamed as is appropriate to every point of the organisation where it is needed, in the format that it is required.



## STAGE 5

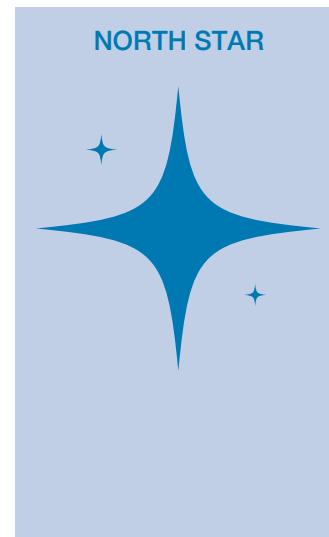
### NORTH STAR

Stage 5 organisations remain motivated by delivering a hyper personalised experience, meeting and exceeding customer needs, driving business growth then reducing risk and costs. What changes at Stage 5 is the ability to deliver these outcomes far more efficiently. The step to Stage 5 requires automation across the widest range of processes and experiences that currently require human intervention, and artificial intelligence (AI) and virtual agents will enable this.

TechTarget defines virtual agents as ‘most commonly used by organizations in their customer service functions to answer routine customer queries, fulfil standard requests and/or handle simple problems. For example, virtual agents are often used for initial customer interactions with call centres or click-to-chat features on websites.’ They also say that virtual agents are typically used by organisations to assist customers or employees, and that they might include a visual representation such as a hologram. However, TechTarget acknowledges that today, despite the advances in AI ‘most companies still use virtual agents to handle highly repeatable (simple) tasks. For complicated tasks ‘live’ customer service agents (humans) are required’.

This acknowledgement is reflected in the organisations we work with. They are experimenting at Stage 5 and the results are promising, but experimentation covers a limited number of relatively simple use cases. We are yet to see any organisation fully move to Stage 5, but we expect this to accelerate over the next 5 years, underpinned by data and advances in AI and natural language processing (NLP).

Whilst Stage 5 is still aspirational for many organisations, it is a level that organisations aspire to, hence we’ve labelled this stage ‘North Star’. The North Star is a data-driven organisation that is fully exploiting AI, virtual agents, and automation to handle complex customer and employee facing tasks and experiences. The ultimate conclusion would be to replace live agents (humans) with virtual agents, and the use cases where this would have the biggest impact are as follows:



## Stage 5 Use Cases

### Service Experience Automation

Deploying virtual agents to handling complex customer queries and complaints

#### Improve NPS and customer satisfaction

- ▣ Reduce call waiting times to zero as call centre capacity is no longer headcount cost constrained.
- ▣ Faster resolution of queries through intelligent automation.
- ▣ Consistent delivery of service.
- ▣ Continuous improvement via closed loop, AI enabled learning.

#### Reduce costs through automation

- ▣ Human agents would only be required to handle exceptions, and these will reduce over time.

## Service Experience Automation

Deploying virtual agents to deliver complex advice for regulated and non-regulated sales

### Sales and Revenue Growth

- ❑ Deliver more sales by making advice available at a lower cost point to all that need it.
- ❑ Improved advisor quality through closed loop AI enabled learning.

### Improve NPS and customer satisfaction

- ❑ Agents able to provide better quality advice, based on complete picture of each customer's needs, their behaviours, available product options and market conditions.
- ❑ Agents available to advise the customer when it is more convenient for them. There are no location or time restrictions with a virtual agent on a mobile device or tablet.

### Sales compliance (regulated industry)

- ❑ Sales compliance and virtual agents are programmed for 100% compliance.
- ❑ No need for staff incentives that sometimes drive the wrong behaviours.

### Reduce costs through automation

- ❑ Only train one (virtual) advisor, who has unlimited capacity.
- ❑ Gradual replacement of human agents.
- ❑ Staff incentives no longer required.

In the above, the end state would be to completely replace live agents (humans) with virtual ones. However, we are still years away from being ready to do this for all but the simplest processes, it will be an evolutionary process to get there, and the end might not be achieved completely. However, data will fuel this transition towards the North Star, with level 3 and 4 organisations already using data, analytics and decisioning to provide agents with insights to guide them and make them more productive. Stage 5 organisations will pivot from AI augmenting live agents, to live agents augmenting the AI (handling exceptions) and from there the path to full automation is clearer.

Decisions about how far this move towards virtual agents will be made by organisations is as much ethical and social as it is technical and commercial, and striking the balance here is critical. However, that debate is not within the scope of this paper.

There are other areas where stage 5 organisations will benefit:

### AI Driven Decisioning

As the cost of compute power and data falls, more AI capabilities come within reach. AI that yesterday could only be economically scaled to train models on an ad-hoc basis, can now be deployed into operational decision-making processes. Stage 5 organisations will operationally deploy a range of AI capabilities such as machine learning algorithms, natural language processing (NLP) and decisioning capabilities to power their organisation. There are literally 100's of use cases for AI available to Stage 5 organisations, but here are some examples (not already mentioned) relevant to business to consumer (B2C) organisations, where we see applications emerging today:

- ▣ Healthcare diagnoses and treatment recommendations.
- ▣ Fraud and cyber-crime detection.
- ▣ User experience optimisation (search optimisation, self-healing processes).
- ▣ Business performance management optimisation (target setting, management by exception).
- ▣ Personal advice (eg, style advice in fashion retail).

### Single Brain Interaction Hub

Data analytics and decisioning will evolve in Stage 5 organisations to drive decisions across all aspects of the customer relationship. There will become a point where it is far more efficient and effective to orchestrate all decisions (Marketing, Customer Experience, Fraud, Risk and Commercial teams) in one place, to maximise the use of every piece of data, and deliver a completely joined up customer experience. The single interaction hub is the optimal way of making customer decisions across the enterprise. Humans have one brain for intelligent decisioning, the Stage 5 organisation will have the same.

### Capabilities Required for Stage 5

For stage 5 organisations the capabilities needed for stage 1-4 still apply, specifically the ability to:

Capture individual level digital interactions to improve digital channel effectiveness.	Stage 1
Create a stream of signals from digital channels to fuel customer centricity.	Stage 2
Connect these signals in milliseconds to decisioning systems, then move to real time.	Stage 3
Control the distribution across enterprise analytics and decisioning systems for fraud, risk & more.	Stage 4

After stage 4, the data-driven step to Stage 5 will be delivered by open capabilities that:

Add context to interactions via insights from universal data sources: think location, weather, financial markets, black-lists, supply chain systems and more.
Connect to real time scoring engines where AI models can be deployed to support interactions in real time.
Additional channels sources and customer/employee touchpoints such as chat bots, virtual agents, customer feedback, payment systems, kiosks, ATMs and computer operating systems.

Two key learnings are:

- 1 Organisations making the right data investments at stage 1, will see benefits at every stage of the journey thereafter.
- 2 Organisations making the wrong decisions at stage 1, will have to invest again to get to stage 3, and potentially again at stage 4, and again at stage 5.

## NEXT STEPS

There is huge value in embarking on a data-driven transformation journey, and this can be realised very quickly if you establish a vision, take one step at a time, and focus on the outcomes you want to achieve. You almost certainly have many of the capabilities required to take the next step, so you need only focus on what's holding you back, which in our experience is high quality data, captured and connected to all the points in your organisation where analytics are undertaken and decisions are made.

**If you want to find out more about how D4t4 Solutions can help you in your Data-Driven Transformation, come and talk to us.**



### Think Differently About Data-Driven Transformation

Large organisations everywhere are on a journey of digital transformation. This paper sets out a new 5-Stage Transformation Model.



### About Celebris

Power your enterprise with the most granular Customer Data Platform in the marketplace today.



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