M MAGAZINE // THE ACTION ISSUE

Why we're not talking about data

Rip apart the chat and start doing more

THE ED-ITORIAL

A CULTURE OF SUSTAINABLE CHANGE

"*May you live in interesting times.*" Whether you interpret the apocryphal saying as blessing or curse, there can be little argument that it describes the climate of today. We have Big Trust issues with Big Tech. We're not sure what governments and economies will do next. We still haven't quite recovered our confidence in the global financial system and many public companies still continue to let us down with their seeming inability to do the right thing.

And yet, seventy percent[1] of the world want to work for an organisation with a powerful social conscience; eighty eight percent of millennials want to work for a company with values that mirror their own. Surely, the case for purpose-led business is not only stronger than ever but also more necessary than ever.

At Mudano, we've bet the future on it. Well, that and data!

We started this business five years ago to change an industry using data, but, looking back, where we actually began was with our values. Personal and professional values. A code we could build a culture on. Somewhere along the way, it all began to overlap and merge into something new. Purpose, data, values, customer work, technology innovation, design, talented people, all combining to give us a hold on that amorphous thing called culture. Something we could tend and cultivate and grow. Something we could share with our customers and help them build their own data cultures too.

What we found is a way of bringing new life to old organisations through data and scientific techniques; a way of giving new business purpose to teams through defining measurable value outcomes and a way to build a real sense of belonging through data design, visualisation and experience. In short, how to build a culture of sustainable change.

We will share some of our proven techniques with you in this magazine. The TL;DR version is that if we start to treat data innovation as an experience, focus on developing new talents and apply modern data/tech approaches to valuable business problems then something magical starts to happen.

We believe organisations should build their own data strategy, develop their own data skills and run their own experiments in data innovation. Sometimes they might need a leg-up to get to the next level, but our advice is always this: hold on to your data, never let go but learn how to get value from it. A supplier can be a catalyst and help force the pace but should never be a proxy for your own team – if they're trying to take over, rather than upskill and enable, then they're the wrong partner.

Events, like DataFest19, provide great inspiration and a creativity that can be translated into a co-ordinated set of actions when you return to the office. We encourage you to hold on to those feelings, take the time to reflect on what might just work in your organisation and choose one thing that might spark that change when you get back to the office. Find that one spark that stops you talking about the purpose-led data business you want to be and moves you to doing it.

We started with a quote, so let's end with one too, "*Human beings have an innate inner drive to be autonomous, self-determined, and connected to one another. And when that drive is liberated, people achieve more and live richer lives.*"[2]

Enjoy our magazine, engage in the debate with us, find your thing!

[1]PwC, Workforce of the Future: The Views of 10,000 Workers. [2]Daniel H Pink, Drive: The Surprising Truth About What Motivated Us.

ED BROUSSARD
CEO & Co-founder
Mudano

MUDANO
WASTE LESS. DO MORE.

MUDANO DOES

Mudano is a data and machine learning company with practical expertise in all data disciplines, predominantly in Financial Services.

Our core belief is that organisations should own their own data - understand it, make it work for their business. We designed our products and services accordingly.

We help our customers to transform the way they use their data. These are some of our core propositions.

Data Strategy

Action without strategy is just the noise before defeat. Before you define the data blueprint for your business, you'd better know what the long-term plan is. We have patterns and innovative approaches for how you develop, test and prototype enterprise data strategy.

"We help our customers to transform the way they use their data"

Data Analytics

Advanced data analytics are no longer a nice-to-have option; they're your main competitive advantage. Our analytics reference architectures and data technology mapping supports the rapid creation of an analytics capability, built on your existing tech. Our data models and visualisation patterns reveal the value in your data asset.

Data Innovation and Applied Machine Learning

We provide you with the breakthroughs needed to move from traditional MI to predictive and prescriptive analytics. Our data lab provides everything you need to get started within weeks and to make real returns within months.

Data Transformation

We have decades of experience in data transformation at scale. We can do the once-and-done activities for you (things like data migration) and create the foundational components of data acquisition, engineering and storage that make innovation possible.

Regulatory Compliance

We're trusted by some of the big UK banks to keep them on the right side of the Regulator when it comes to data. More than that, by integrating compliance into your data strategy and governance we help you drive business value from compliance spend.

So, what do we mean by transforming your relationship with data? We believe the difference between good and great lies in building a Data Culture that's right for your business. A culture where everyone is engaged.

We lead our customers through that shift, blending data science with behavioural science to change your relationship with data. Forever.

editorial@mudano.com

ASSERTIVELY INCLUSIVE

Building a great data culture, means attracting and retaining the best talent.

We live in a world where unintended male bias exists all around us. Every day. In everything we see, touch and do. This gender data gap is very real and has been proven to hamper innovation and often impact an organisation's bottom line. How then do we change this? How do we build an exceptional **and** inclusive data culture?

The answer lies in designing an equal workplace, where bias is understood, accepted and turned into something positive, something creative. Something new. This begins with attracting and retaining the finest talent matches for your data culture **and** actively building diversity into those teams. Deliberately open up to differences, mix in people who are not like us at all, mesh together individuals and groups who will challenge each other and develop a fresh heuristic.

You see, bias itself isn't bad, our brains actually facilitate it. The trick is to learn how to see our own bias, our own blind spots. The more people who don't think like us, the easier that becomes and the more our brains learn.

Diverse teams can feel uncomfortable and challenging for some; they can take some getting used to. And yet, the impact of a diverse and empowered team can have a dramatic impact on the success of a business. Each individual brings fresh new ideas, different insights and perspectives. When brought together skilfully, diverse teams facilitate advanced problem solving and build new neural pathways in the organisation. They drive more innovative thinking and the creation of data solutions, technology and products that not only reflect wider society, but break new ground and, maybe, deliver the impossible.

Committing to inclusivity is everybody's responsibility.

Building an inclusive team

There are many ways to approach your investment in spotting and hiring the right, diverse talent for your team. Understanding the conditions required for success in recruitment rather than merely focussing on the numbers game is a great place to start.

You know the exceptional talent is out there, you just need to find it. Here are some data-led initiatives to consider.

- Make the interview pipeline more dynamic; if you've got plenty of strong applicants for a role prioritise under-represented populations for 1st interview

"A high-performance data culture needs unbiased thinking, an open-minded spirit, experimentation (without fear of failure), imagination and curiosity"

"The answer lies in designing an equal workplace, where bias is understood, accepted and turned into something positive, something creative. Something new"

- Find new places to uncover talent; consider returners – those women and men who are ready to come back to work after a career-break
- Make the application process entirely transparent across the whole business – from selection criteria to final hiring reasons including **all** the metrics
- Focus on using gender-neutral language in recruitment materials – there are plenty of NLP data tools out there to support
- Increase diversity in the interviewers you use, stop going to the same, trusted opinions and mix it up

Business leaders must actively encourage teams' freedom to express their opinion.
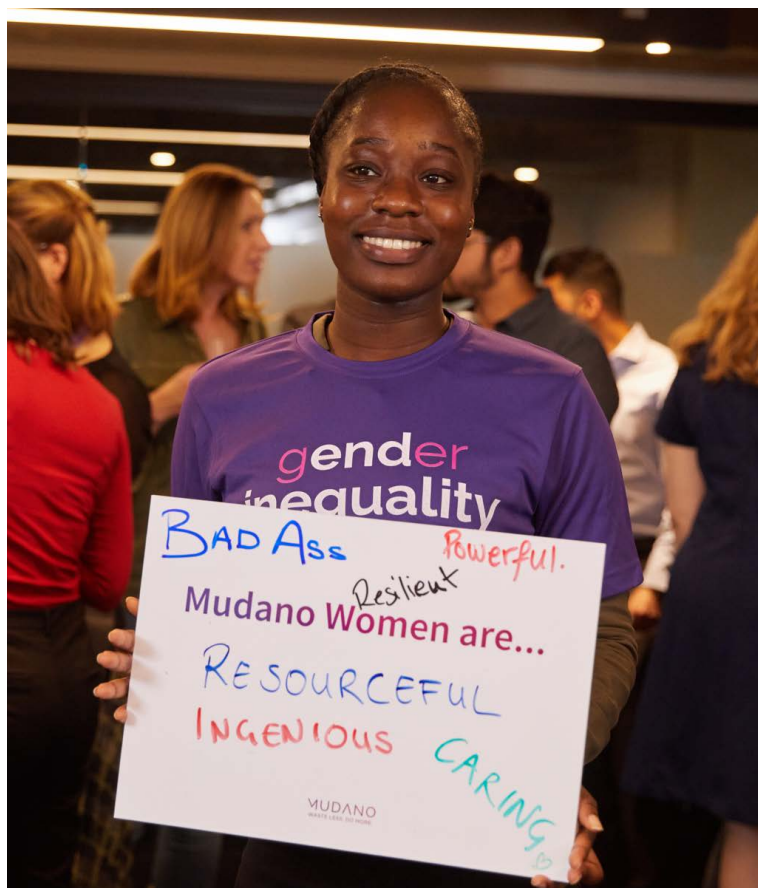
- Make all CVs anonymous at the first stage of screening to eliminate some unconscious bias.

Building out the environment

Attracting the best talent is only half the story. The environment you build to retain that talent and foster a culture of growth and equality is just as important. If not more so.

A level playing field allows truly high-performance teams to thrive.

Assessing team dynamics against social styles and proven behavioural analytics allows new insight into the types of people you have already. Balancing your teams with people who approach things differently - through their background, personality and experience - has a proven increase in business value.

But, perhaps, the single biggest influence on the positivity of the environment comes from the leaders who shape it. The living, breathing culture of the business comes from the top-down.

As leaders in your business you have to make and promote ethical choices, create an authentic, open and inclusive workplace. Individuals, regardless of background should be free to speak and discuss ideas then empowered to effect change.

Leaders should boldly communicate how they live their company values, tell stories at every opportunity and keep repeating them. The imitation of those behaviours across the business will create new habits and encourage the culture you really want: one which supports inclusivity and welcomes diverse thinking. It needs the support of the leading figures in the company, the ones that people want to follow, the ones who people want to be more like.

In order to flourish, a high-performance data culture needs unbiased thinking, an open-minded spirit, experimentation (without fear of failure), imagination and curiosity. Get the team mix right from the outset by being **assertively inclusive** and create an environment where these behaviours will thrive.

TO BOLDLY GO

Five patterns for change.

On the surface, work has changed almost beyond recognition in the last 20 years, but the principles underneath it haven't. Often there is a huge difference between what we say, what we need and what we do. For example, many organisations claim to value empowerment; ensuring that people have ownership over decisions, their learning, their careers. Yet often, in the same organisations, you'll find people can't even book an afternoon off without sign-off in triplicate.

"*Your company has 21st-century technology, mid-20th-century management processes, built atop 19th-century management principles.*" - Gary Hammel

When it comes to changing, you have to be prepared to do the right thing and get it wrong, rather than doing the wrong thing right. Our five patterns for organisational change can really help make culture stick, and make sure that culture drives the performance we need.

Pattern 1 | Look first at the system, not the people

Individual performance is impacted more by the system than by individual motivation or capability. We need to design systems congruent with the behaviours we need, to reduce the amount of disorder which stops people doing the right things. It's a question of perspective. Do we first look at the environment, or go straight to the people in it?

Think about a gardener who plants a seed which sprouts but fails to grow. They don't blame the seed (nor do they remind it of their shared values or send it on an e-Learning course). They think first about the environment in which it was planted. Be a gardener. Help others to think first about the environment in which we want things to grow, not about the seed that failed to meet its outcomes.

"Focus leaders and managers on creating the right environment for people to be at their best and drive the behaviours we need"

Be a Gardener

Focus leaders and managers on creating the right environment for people to be at their best and drive the behaviours we need. If you need innovation, find people who are prepared to make mistakes.

Pattern 2 | Improve relationships between the parts, not just the parts themselves

Organisations are not simply the sum of their parts, they're a product of the interactions and relationships between those parts. In other words, we can't just hire great people and hope that they fit.

There is a need to think like an architect. They don't start with nice fixtures and fittings, they think about the relationships between the spaces inside. Consider the vast amounts of money organisations spend on building high-performing teams, only for those teams to start believing that the enemy is out there, developing a tribal epistemology and unhelpful group-think.

We often improve only the parts, not the relationships between them.

Be an Architect

Don't focus on cascading goals from the top down. Enable the people delivering the goals to design them and have the conversations to understand how they will interact across the organisation.

Pattern 3 | Distribute control

When it comes to change at the pace modernity demands it, we need to distribute control and decision making. Power still sits in too few places. We find ourselves stuck in familiar patterns of micro-management, escalation and diffusion of responsibility, to the point that decision makers become fatigued and non-decision makers learn to be helpless.

If we are going to improve performance and create an adaptive system, we have to push decisions out to the places they should be made. Sometimes we need to be Sherpas, because we cannot possibly see all of the paths, or problems, from the place we're standing.

Be a Sherpa

Co-design where decisions sit and how they're made. Help people to make decisions collaboratively, only when it will make the decisions better, and individually when they have the right perspective to see the right paths.

Pattern 4 | Embrace the 'real' problems

How many times do we solve problems that don't really exist, wondering why nothing much changes. Understanding the actual problem

Change means challenging ourselves to do the right thing without fear of failure.

before laying out a solution, is fundamental to doing the right thing. This is where we need to practice the opposite of déjà vu. We cannot default to re-designing the same things and hoping "this time, it's going to be different". We need to avoid determining the solution before we've articulated the problems.

We should think more like analysts than problem solvers. The problems we face, in relation to organisational performance and culture, can't be solved through the continuous improvement of what exists now. After all, the more right we do the wrong thing, the more wrong we become.

Be an Analyst

Observe the environment; see people doing their work, understand how it gets done and find the bugs. Preserve and amplify what is good and re-design what isn't, remembering that not everything needs transforming.

Pattern 5 | Small changes make a big difference

When it comes to the complexity of improving culture, behaviour and organisational performance, we need to test our ideas by starting small. We do not know the answers and waste a huge amount of resource believing that we do. We should leverage energised groups of people to propose and carry out small experiments, which if successful, could lead to big transformational changes. Small experiments are easier to co-create, less prone to bias, easier to discard.

Organisational change often relies on carefully constructed narratives, telling people what we think they need to know - "what's the messaging here?" Be honest, how many times have you brainstormed "what's in it for me" on behalf of the people you should be involving?

Be a Scientist

When you've identified a problem, work out the minimum viable solution and test it. Instead of sending all of your leaders on a training programme to teach them how to have better conversations, you might just need to change the physical environment in which those conversations take place.

WHAT CAME FIRST, THE DATA OR THE VIZ?

Combining data and visualisation with experience design is essential to break new ground with your customers.

All of us – data experts or not – have exercised our skills with data visualisation: a graph at school, a pie chart, or maybe a complex network visualisation with more than 37,000 nodes. The first experiments with information visualisation can be traced back to 32,000 B.C., with the first tally marks to keep track of lunar cycles or quantities of livestock.

We've come a long way since then. René Descartes gave us the plot graph in the 17th century. William Playfair created the pie chart in the early 19th century. However, compared to other forms of communication, from speech to written words, data visualisation is a relatively early form of expression. Which is **great** news as it means this journey has only just begun.

Information design and visualisation is proving powerful not just to lift complex data to a level of abstraction that everyone can understand but also to support problem resolution and decision making. But that power comes with its own curse: it is incredibly easy for a designer to lose control of the visualisation and make it look good but lose the meaning or – even worse – be misleading.

The key is to work on two fronts concurrently. On one side, we should never stop at the hero image, spoiling legibility and meaning for the sake of a beautiful image (yes, designers, admit, we have all done this). On the other side, it's vitally important that we keep working for a better visual literacy from our data at any level

of the business. It is this tension that is at the heart of great visualisation.

If you don't teach people how to speak your language they will never understand what you are saying. When Playfair came up with bar charts and pie charts, more than 200 years ago, someone surely would have said to him "can't I just have some numbers instead?". Think about this when someone politely asks you something very similar when you create your next design and decide whether you want to influence the future of data visualisation in your own way. Or not!

Encourage story-telling through data

If you pick up any children's book you will see clearly how illustrations are a very important part of it. It is through the images that children learn and understand the world around them. The same can be said of data story-telling in your own organisation.

❶ **Tallies to keep track of the moon phases (35000 BC circa)**
First attempt of data collection and information visualisation.

❷ **Sumeric numerals (2000 BC circa)**
Visual representation of quantities. Possibly, the first anchestor of infographics.

❸ **Complex written language, base ten and decimal numerals (between 3000 and 350 BC circa)**
The origin of complex written information.

Lorem ipsum dolor sit amet

18 17,045
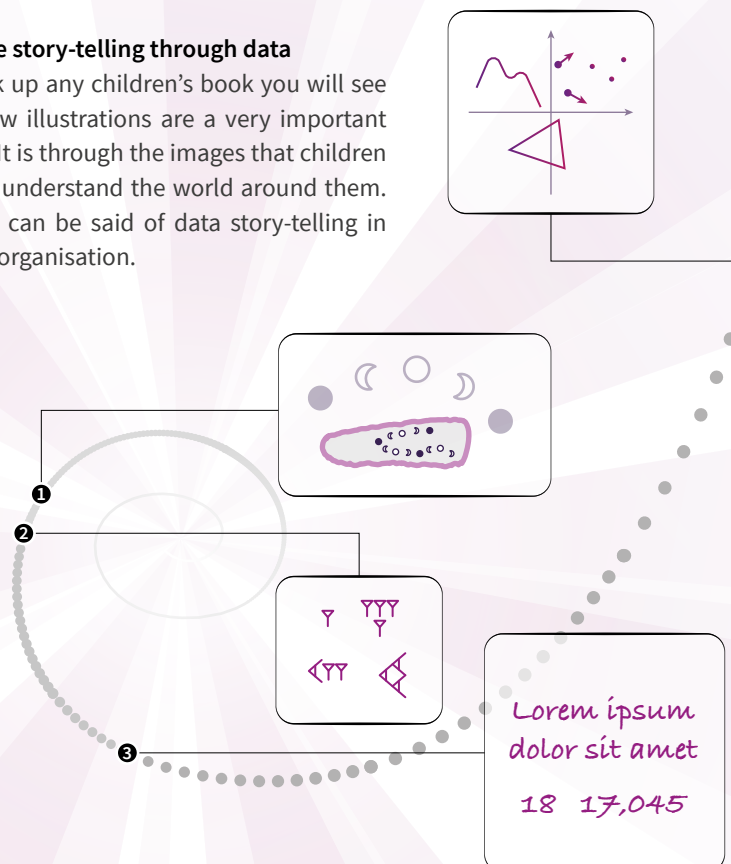
❹ Cartesian chart (1637)
René Descartes set the foundation for modern line charts and plots.

❺❻ Bar charts and pie charts (early 19th Century)
William Playfair published what could potentially the first bar charts and pie charts in history. This could be considered the start of modern data visualisation.

❼ Sankey diagram (1898)
Captain Matthew Henry Phineas Riall Sankey's flow chart is possibly one of the earliest representations of complex information.

❽ Systems of interactive visualisations (early 21st Century)
The rise of the internet and PC's with tools to create digital data visualisation have become a game changer.

❾ Data experiences (today)
Seeing data is not enough. Experiences get the heart of your audience. They are the present and the future.

The advent of information availability has made the world around us complex and simple at the same time. Complex if we do not know how to comprehend it and simple if we deploy the right techniques and technologies to make it understandable. And yet taking your organisation on the journey of understanding the value of story-telling through data still poses a challenge. Try focusing on a valuable business problem that everyone in the organisation identifies with. Take the associated data and tooling, and combine it with good information design to bring the problem to light. Then, develop a set of narratives that supports the analytics and the problem resolution - and bring the story to life. It's not just about slick reports but about the right teams being able to make connections in the data that others might not see.

Information and data visualisation helps your audience to focus, engage and retain information longer. As usage spreads, it becomes easier and quicker to spot patterns, connections or anomalies. Start using data in your business stories and remember to weave in the right pictures that illustrate your point. Just like a child picking up their first book.

Be the future
We live in an age of experiences. Our brain is constantly overloaded with information, especially through our eyes, and we can ignore or easily forget anything that we don't connect with visually. But experiences are more likely to last. Being actively involved, experiencing firsthand, can greatly help the audience to truly connect with information.

Experiences built with data can help your audience understand the past, live the present and see the future. We came across the art of designing experiences as we were trying to find new ways to help organisations deploy innovative techniques for solving their problems.

Amongst these experiences, we have built a scale model of a data lab in a shoe box, created a 3D version of an FS Risk data model and had a negotiation with a Tier 1 bank's security guards regarding escorting a robot into the building for a meeting (we won by the way).

We have gone even further, immersing our audience in a live data room. Specifically, we borrowed Obeya (Big Room) "Learn By Doing" practice from The Toyota Management System and made a physical space that delivers goal visualisation, performance data and problem resolution in a new, interactive medium. It's not innovation theatre, it's real innovation, as the board of this bank will testify.

Imagination sometimes needs a little encouragement - capture that spark through data experience and you'll start a fire.

KNOWLEDGE THROUGH EXPERIMENTATION

Establishing a Data Innovation Lab will have a wide impact across the business and drive growth through new insight.
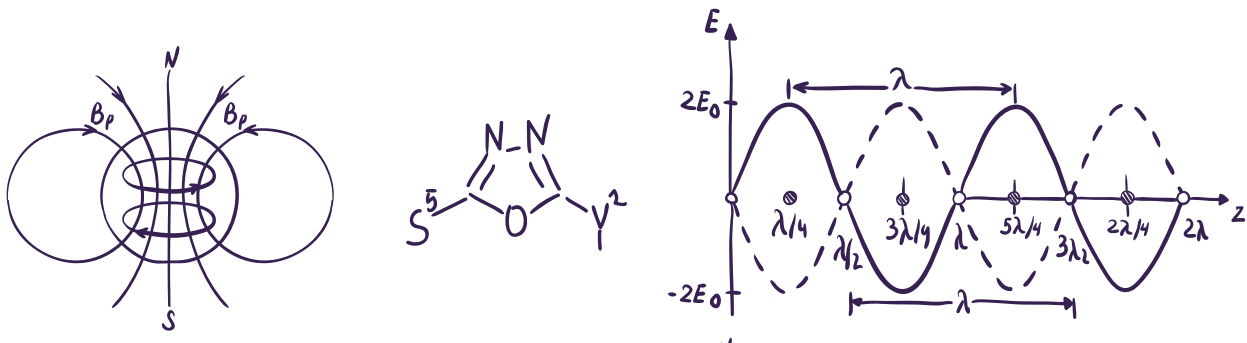
At Mudano, we believe that Data Experience is one of the key building blocks of Data Culture. The work that led us to this field really began with Data Innovation, and in particular, our development of a Data Lab construct to help organisations quickly find answers to challenging problems through experimentation.

If "Learn by Doing" is one of our most-used tenets then rapidly building and testing answers to valuable business problems is our most-used approach to doing this.

In our early Data Labs, we made a clear distinction: innovation is about driving growth, creativity and disruption through experimentation NOT about becoming a better execution-led organisation through optimisation of existing business models. But as we refined the model further, we realised that innovation can equally be applied to efficiency.

It's the spirit that counts. A spirit of enterprise and experimentation can help you meet your goals, even your innovation ones. The best bet at innovation is experimentation. One thing is for sure, you'll never find new paths if you don't go looking for them.

Start with why

The first step is to understand what the business value goal really is. Starting with WHY helps us set the required vision and appropriate goals to realise it. We have tried and tested various techniques including behavioural science concepts to help organisations do their value mapping. While going through the value configuration journey we make sure we support it immersive design and content with the visual identity required to embed the vision in large organisations. Change inertia can be managed through appropriate design and data storytelling.

"It's the spirit that counts. A spirit of enterprise and experimentation can help you meet your goals, even your innovation ones. The best bet at innovation is experimentation. One thing is for sure, you'll never find new paths if you don't go looking for them"

Assimilate leading practices of high-performing innovators

Now that we know what the goal is we need to prepare ourselves to meet it. Exploring new techniques requires new skills and the ability to combine forces to drive creativity and efficiency. We understand what it takes to "power-up" across people, process and technology in order to deliver the capability. How? We watched others do it and had a go ourselves. From our kids to Google Ventures, we began with emulating the practices of experienced learning organisms. Today, we run many initiatives worth tens of millions across our Labs. We won't stop. There is always a better way.

The physical environment you build has a real impact.

Build out the capability without fear of failure

The value of building a data lab is to be able to answer complex questions using data. With the right capabilities and repeatable delivery processes, such as one-week sprints, we can easily do that. Our Assess-Learn-Mature-Scale of designing solutions is a tested and evolving process to get the right answers.

It remains a real truism though: we learn the most when things go wrong. We absolutely should not be afraid of this. In our labs, the models we have in place to leverage the data from experiments really supports this. We build fully functional teams to understand the questions, gather the data needed to answer them, run the experiments to find the best model and then mature the answer. Often, the deadpool of failed initiatives proves to be the most valuable source for scaling-up.

Use Machine Learning to enhance the magic

Many of the data science frameworks we use have been around for many years. You don't necessarily need cutting edge GPU to deliver a step change in the business. A random forest classification model delivered 98.4% accuracy on its second training set for banking transaction classification supporting automated income validation for mortgage applications.

No question, practical machine learning can support the experimentation and knowledge growth in the Data Lab context, but don't get seduced by all the fancy technology of the day. It's not all about bots and artificial intelligence – more often than not, there's already enough human intelligence in the business to make a difference – maybe with a little ML enhancement.
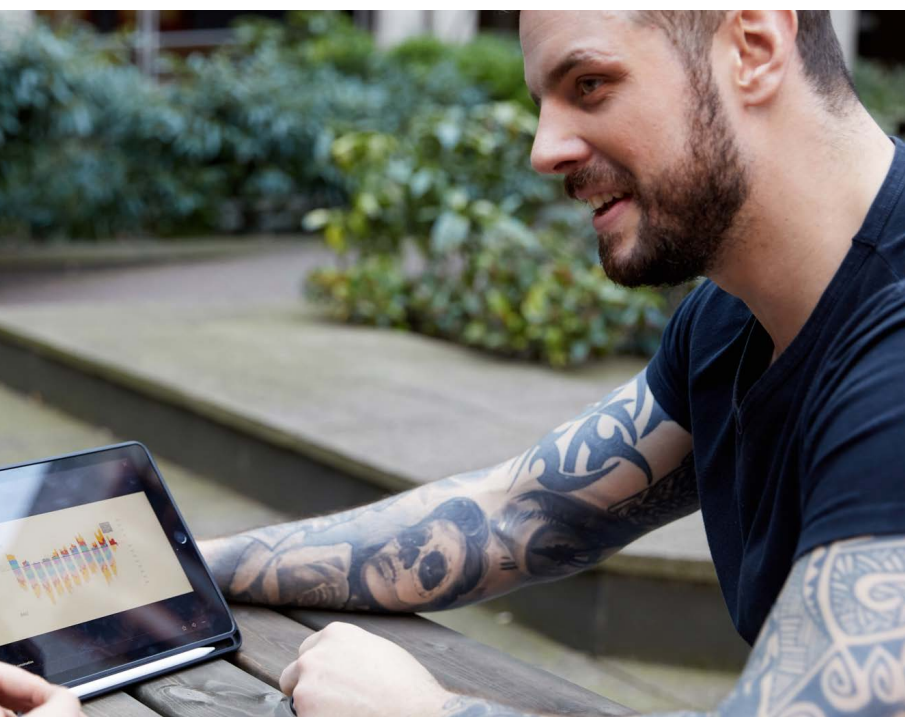
TRENDS IN DATA SCIENCE 2019

We believe that technology plays a key transformational role in today's world.

Here at Mudano, we're always on the lookout for new and exciting opportunities. We believe that technology plays a key transformational role in today's world. Staying on top of the innovation wave is critical to our success and is a key part of how we deliver even greater value to our customers.

That's why we dedicate significant resources to horizon-scanning: looking for the next generation of development in data technology. Based on their extensive research, our Data Science experts have picked out their top 7 trends for machine learning in 2019:

1. This year reinforcement learning is maturing and moving out into real world applications. We've seen the most complex board games played at a superhuman level by a game-agnostic algorithm called AlphaZero, developed by a Google company called DeepMind. The amazing fact is that this algorithm wasn't given any information about the game apart from the basic rules. It plays against itself, slowly learning and improving after each game. After millions of games have been played it can outperform any human, or even any human designed game specific program. Why does this matter? Such reinforcement learning algorithms can now be applied to any problem that has well-defined rules, such as protein folding, which is used to create new drugs that save lives.

2. Autonomous vehicles are moving out of the lab and transforming the world around

us. This application was enabled by advances in reinforcement learning, imaging technology and the amount of computing power available. The barrier to entry isn't technological anymore - autonomous cars are already an order of magnitude safer than human drivers on some roads. The introduction of autonomous cars will have a large impact on the economy. What happens to millions of truck and taxi drivers? What about businesses next to the highway that rely on truck drivers? What happens to the car insurance industry when there'll be virtually no accidents, and what happens to responsibility? These are just some of the questions that will need to be addressed before the technology becomes embedded in the mainstream.

3. Methodology and tools are being rapidly developed so machine learning practitioners can open the "black box" of their model

CRISPR gene editing technology enabled precise editing of genetic sequence in live patients.
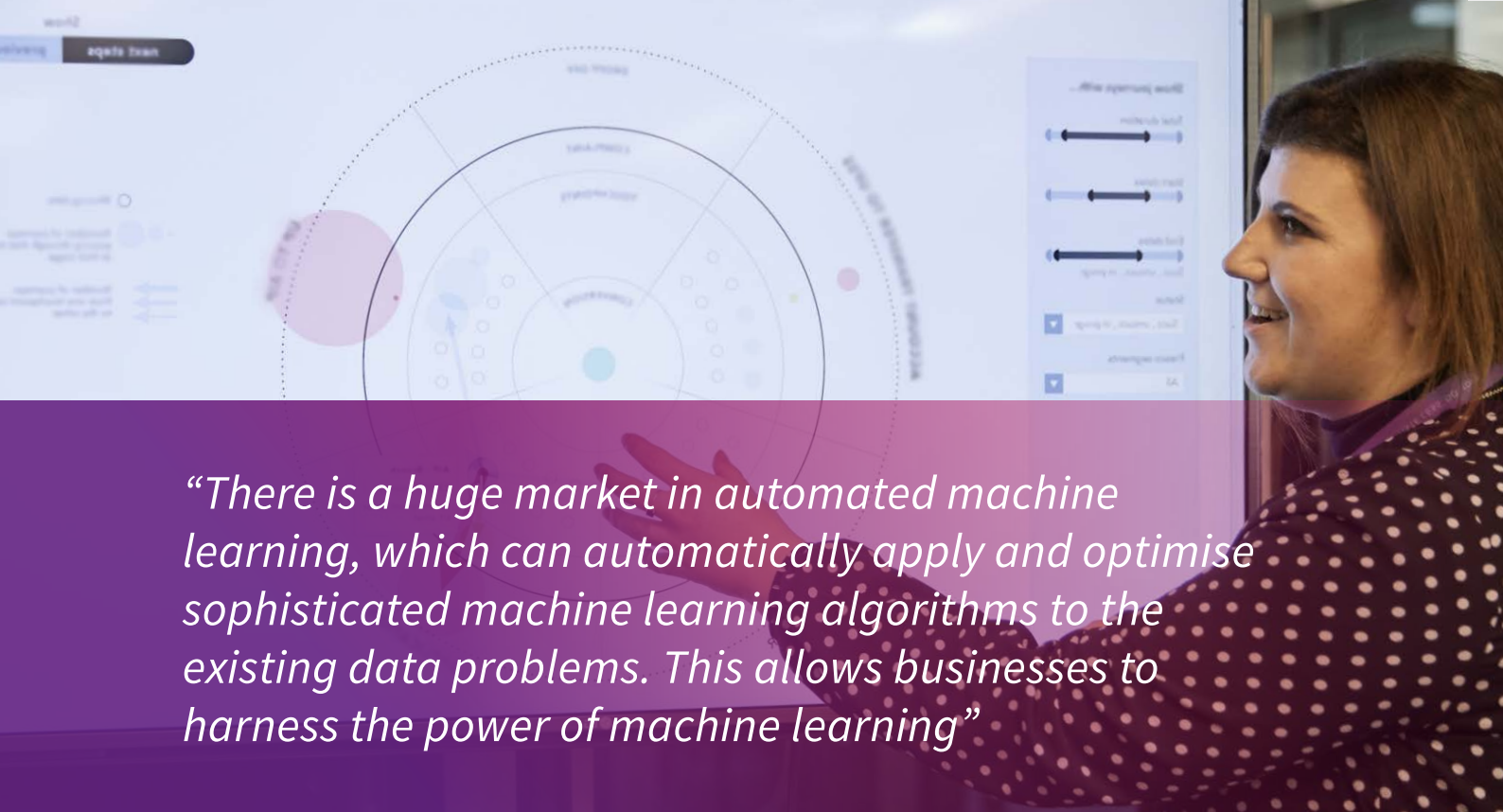
> *"There is a huge market in automated machine learning, which can automatically apply and optimise sophisticated machine learning algorithms to the existing data problems. This allows businesses to harness the power of machine learning"*

to explain what it's doing underneath. Big financial services companies are investing millions into developing explainable AI. Making your model explainable can increase confidence in your model, customer trust and reduce time to adoption. New accessible tools are constantly being developed and made freely available.

4. AI fairness, privacy and compliance. How do you modify your ML models to be fully compliant with GDPR? The benefits of GDPR are well documented from an individual's perspective - but present legal and ethical challenges that must be resolved before Machine Learning models can be applied.

5. There is a huge market in automated machine learning (AutoML), which can automatically apply and optimise sophisticated machine learning algorithms to the existing data problems. This allows businesses to harness the power of machine learning without needing to hire very scarce (and expensive) ML professionals, and to focus on their business specific problems.

6. Machine learning for health. CRISPR gene editing technology enabled precise editing of genetic sequence in live patients. Designing a molecule in such a way that it edits the correct part of the genetic sequence is

a complex and expensive procedure, however recently machine learning has entered this domain and shown promising results of being able to reduce costs drastically. This technique is already being used to find cures for some types of cancer, such as leukemia.

7. Language applications are on the rise. There are a couple of reasons for this: advancements in transfer learning and the availability of free tools. Transfer learning is the process of reusing a model trained in one area in another context. For example, you might train a Machine Learning model to predict the number of removed words from sentences using data drawn from all the Wikipedia entries, then use the learnt model to solve your language problems. This technique has been used to train an automated Debater, that competed against a debating champion in front of the live audience! The technology is also used to solve a more common problem of improving customer service by using chatbots to automate simpler customer-facing tasks.

Whatever your interest in Data Science is, we think 2019 is going to be a massive year in the application of data technology to real-world business problems. We will keep you regularly updated on the trends and their realisation.

Experiment with the power of data science in some of your core business processes.

PROTOTYPE! DON'T POWERPOINT!

Strategy without action is the slowest possible route to a win. Yet how often in business do we confine strategy to the pages of a Microsoft Office document?

We also know that you never get it right first time either; strategy evolves with time and circumstance. First and foremost, strategy is a process. Therefore, it can (and should) be layered up over time, allowing for course correction as you progress.

Prototyping is a tool for progressively increasing the certainty of outcome for a particular course of action – reducing the final cost and refining the overall end quality. In a product-led world, an organisation would produce a succession of prototypes to test the idea, gain insights and then improve the next version until the concept's value becomes a clearer reality or it is discarded.

We know that the same principles behind prototyping can, and should, be applied to strategy definition and application. Often, strategy re-mains theoretical and never moves into action. Or moves into action too quickly and wastes millions of pounds pursuing the wrong thing.

Data strategy lends itself very well to the principles of prototyping
Provided you have clear alignment on the direction of the overarching business strategy, a vision and value proposition for where you want your data capability to be in the future are good enough for the data teams to get started.

The core components of good data strategy will cover processes, models, tooling, skills, org structures and more. Each of these components is likely to be well-defined within their teams but the key to realising the value proposition lies in the cross-team engagement and in the dependency management between activity.

It is very easy for data teams to become focussed on increasing maturity of vertical, functional competencies, often driven from some form of data maturity assessment. Just as easy is to be seduced by the latest data technologies, often these are seen as fast-acting antidotes to the problems of the day. The reality, as we all know, is more complicated. These two tendencies repeatedly ignore the horizontal integrations, resulting in incomplete solutions or broken process dependencies down the line. Defining measurable business value supports strategy prototyping.

Drawing of Wright brothers' first prototype of an airplane.
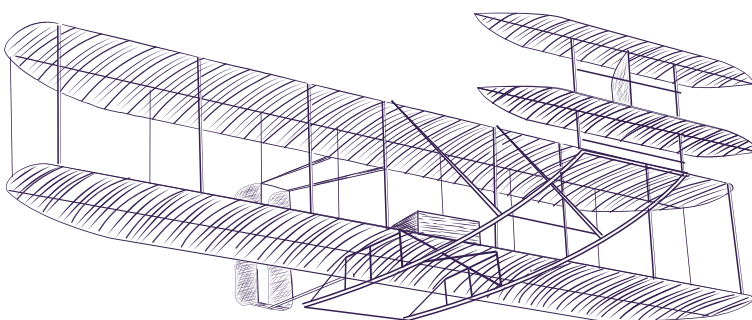
"Treating the implementation of data-defined business value goals as iterative prototypes will help turn concepts into reality very quickly"

Planning Poker is a great tool for getting alignment on the complexity of a task.

By starting with a definition of the business value the data teams are targeting we can begin to break these tendencies apart. Taking the business value realisation cases down to the next level into a series of goals with data points to measure goal progress against value achieved, you can dramatically improve horizontal integration.

This happens because you are dealing with what matters to the organisation as a whole, not as a discrete set of functional issues. Data projects can then be prioritised by highest business impact and value delivery. It also enables an assessment of the data organisation's ability to deliver the business value rather than a maturity assessment against an arbitrary set of industry competencies.

Treating the implementation of data-defined business value goals as iterative prototypes will help turn concepts into reality very quickly. If something isn't working then fail fast and move on to the next area. If you need to rapidly test and develop an uncertain piece of metadata software and business process, then do it on a small scale before committing to the full project.

These principles have already benefited our customers many times over and are particularly relevant to the Chief Data Office function. Remember, strategy is a process and can be tested through prototyping. A few early models or initiatives will help you quickly learn if you're going in the right direction or if you need to consider alternative courses. A static, two-hundred-page long document won't!

Besides, we're not very good at PowerPoint round here…