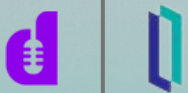# DATA LEADERS WHO'S WHO

DRIVING INNOVATION WITH DATA

Featured in this week's interview

Ram Kumar
Chief Data & Analytics Officer
Cigna

TECHNOLOGY

Editors note

Data has become the core of how we operate as a society, and is central to business success. Data-driven businesses are finding new ways to compete by letting their data uncover unique points of differentiation. The value of data can't be overstated; it has been referred to as the new currency. We are proud to bring you the latest Data Leader's Who's Who and support the increasingly critical role that these emerging and established data leaders play both now and into the future.

The insights these leaders provide will be pivotal in strengthening the position of data in the business community and we thank them for sharing their valuable experiences.

Andrew Aho, Regional Director Data Platforms, InterSystems   I   Felipe Flores, Founder, Data Futurology

DRIVING BUSINESS VALUE THROUGH DATA AT CIGNA

Ram Kumar

Chief Data & Analytics Officer

Cigna

In this article Ram draws on his 33+ years industry experience of which includes 28 years' experience in the field of IT, 24+ years in the field of data and 20+ years in the field of AI to share the key traits of a solid data strategy, key attributes of a data leader and his insights into becoming a data-driven, intelligent organisation.

He has successfully operated in different and dynamic market conditions in various industry verticals and government organisations in over 40 countries including Australia, New Zealand, Europe, Asia, Pacific, Latin America and North America regions. Ram has successfully established businesses through international M&As and, JVs and managed its IT and data functions.

STRATEGY & LEADERSHIP

How do you devise a data strategy? What sets apart the good from the bad?

Whether the larger goal of an organisation is to achieve "digital transformation," "compete on analytics," or to become "AI first;" embracing and successfully governing and managing data and using it in all its forms through a well-designed and implementable data strategy is an essential prerequisite.

A data strategy is a plan of data driven and data management initiatives that supports and enables your organisation's business strategic goals. An effective data strategy focuses on improvements or changes to the organisation's structure, processes, and policies to drive value creation through data, with the support of technology.

As a data leader, it is important to design a holistic data strategy for the organisation that is implementable in an incremental manner and that would enable data-driven business value creation. The key traits of a solid data strategy include:

- It should be designed with business outcomes in mind by tightly coupling it with business strategies and priorities. Crucially, each component of the data strategy should be linked to business value creation, otherwise it should not be in the strategy.
- It should not be a technology led data strategy. Meaning, it should be a business led data strategy and is designed independent of technologies and tools and technology strategy is overlayed on top of the data strategy to enable it.
- It should cover end-to-end data lifecycle management and its supporting components and foundations such as data quality, meta data, data lineage, data catalog, master and reference data, data governance, data risk management and importantly, with clearly defined accountabilities/ownership/stewardship/custodianship.
- It should be concrete, actionable and specific to help facilitate business outcomes/value creation by enabling data for easy access and consumption.

- It should include metrics for business value creation success from the outset that are agreed upon with the business stakeholders.
- It should have a well-defined set of guiding principles that clearly defines the operating boundaries to stay focused.
- It should have a well-defined roadmap comprising of short, medium, and long-term deliverables that are linked to business value creation.
- It should coordinate business use cases, governance of use cases and delivered solutions.
- It should implement mandatory foundational components and technologies that enable use case execution and ensure linkage to business value creation.
- It should coordinate and bring people, process, policy, technology and culture together.
- It should have a clearly defined data literacy initiative to build data driven culture in the organisation.
- It should have a well-defined way of working operating model that brings business, technology, analytics and other partners together in driving business value creation.

- It should have a solid framework for acceptable use of data covering data privacy, legal and regulatory compliance, ethical and social obligations/responsibilities on the use of data by tying into the core values of an organisation.

A data strategy should not be implemented with a big bang approach, but in an incremental manner by prioritising the initiatives according to value creation. The data strategy and its execution roadmap should be reviewed on a regular basis to ensure full alignment with business strategies and priorities. To design and execute the data strategy, accountability from the top with right level of investment is fundamental to make it happen.

What are the essential qualities of a data leader?

I have thought through this a lot in my 24+ years career in the field of data and in fact have recently published an article titled, "10 habits of highly effective Chief Data (and Analytics) Officer." Below are some of my views:

- **Passion:** Data leaders should be passionate about data as data is a hard and often seen as a dry subject requiring the right mindset (e.g., data management). It therefore requires a lot of energy and commitment to drive change or move the needle. Passion will provide the required energy and commitment.
- **Persistence/Perseverance:** Data leaders should continue to educate and work closely with the business stakeholders and senior leaders to help them understand the value data would bring to the business and the organisation, as well as the role they need to play. Data leaders will also need to deal with uncertainties and complexities while pushing for investment.

"A DATA STRATEGY SHOULD NOT BE IMPLEMENTED WITH A BIG BANG APPROACH, BUT IN AN INCREMENTAL MANNER BY PRIORITISING THE INITIATIVES ACCORDING TO VALUE CREATION."

- **Patience:** To be in the field of data, the data leader should have the patience for things to happen in time. For business understanding and the appreciation of data for value creation, data democratisation, the establishment of data processing infrastructure, proof of data driven value creation, data management, and a data culture driven transformation, etc. these areas just don't happen overnight. It's a long game.
- **Pragmatic:** This is a key skill required of the data leader. They must be practical about focusing on what really matters to the business, what is implementable and what will demonstrate value creation. This requires an incremental approach to building data lifecycle management capabilities and value creation rather than a big bang approach focusing on quick wins and the size of the prize.

- **Prioritise:** Focus first on what really matters. One of the most important key success criteria for a data leader is to prioritise business value-creating use cases whether it is foundational or analytical, with the support of the business stakeholder and agreeing on the value (tangible or non-tangible) it would generate.

- **Performance:** Defining, agreeing, monitoring and measuring value creation to the business from data is critical to drive data strategy and culture in the organisation and the data leader must lead from the front to make it happen. This effort will determine the performance of the data and analytics function in the eyes of the business stakeholders and senior executives.

- **Preach:** Educating the employees at all levels in the organisation about data lifecycle management and how data drives/enables value creation is

critical to create a data driven culture in an organisation. The data leader should develop data literacy programs covering the end-to-end lifecycle of data assets as part of learning and development programs and ensure that employees at all levels in the organisation who consume data go through the initiative. Data story telling initiatives should be part of the program.

- **Partnership:** Data is the strategic and competitive asset and, lifeblood of an organisation. It requires everyone in the organisation to work together in an integrated manner to drive data management and value creation from data. This requires the data leader to build trustworthy partnerships with the business and executive leaders, IT, operations, legal, risk and compliance, and HR functions.

- **Practice:** Data leaders practice what they preach by leading by example. They practice applying a continuous improvement mindset through learning and findings by applying data driven insights. It may involve repeated optimisation of core processes.

- **Prowess:** A data leader is expected to have relevant industry/commercial expertise and experience in the field and think outside of the box. They can keep things simple with clarity and importantly, they can take the business through the data driven cultural transformation journey leveraging their influence and relationships.

How have you found success in raising data literacy in your organisation? How do you get involved in educating peers and execs?

There are many definitions of Data literacy. I like the definition from Wikipedia which is, "Data literacy is the ability to read, understand, create, and communicate data as information. Much like literacy as a general concept, data literacy focuses on the competencies involved in working with data. It is, however, not similar to the ability to read text since it requires certain skills involving reading and understanding data". To me, if an organisation truly believes that data is a strategic and competitive asset then data literacy should focus on raising the awareness across the end-to-end lifecycle of data and not just on how to create business value out of data through analytics or AI. Data lifecycle covers data collection, data organisation, data storage, data use, data retention and destruction, data quality, data security, meta, master and reference data, data lineage, data catalogue, data architecture, data governance, acceptable use of data namely, privacy, legal and regulatory compliance and ethical use, data monetisation and data risk management.

I have implemented a data literacy program as part of an organisation's learning and development program like data security, code of ethics, and it is mandatory for every employee in the organisation at all levels to go through this training program and get certified on an annual basis. This program is fundamental to drive a data culture in an organisation. Where organisations are not ready to implement such a program, I have implemented a data literacy program through data governance initiatives by focussing on what really matters to the business and starting from there. This is a smarter way to drive data culture in an incremental manner and this approach has found appreciable success.

My prediction is that it will be mandatory that CXOs of organisations must be data savvy/literate in the future.

What work are you most proud of?

My all-time favourite application of data and analytics is for a "social good" cause that changes the way of living for families and their generation. In my previous role with Quantium, the No1. Data Science and AI company in Australia, I had a team of data professionals along with technology professionals in India dedicated to an NGO called My Choices Foundation, which fights against crimes associated with sex trafficking and domestic abuse of young girls and women in India. We worked closely with the NGO in identifying villages and families with young girls and women among 600,000+ plus villages who could be a potential target for sex trafficking, using data and analytics supported by technology tools that we built. The NGO then conducts training sessions for the families in villages to protect themselves from potential crime.I consider myself one of the luckiest people on earth to have been involved in this initiative that

"WE WORKED CLOSELY WITH THE NGO IN IDENTIFYING [..] YOUNG GIRLS AND WOMEN AMONG 600,000+ PLUS VILLAGES WHO COULD BE A POTENTIAL TARGET FOR SEX TRAFFICKING, USING DATA AND ANALYTICS."

is near and dear to my heart. The amount of satisfaction you get from saving a young girl or woman's life cannot be quantified and is beyond measure. The thankfulness you see from their eyes for saving them cannot be described and must be experienced!

What do you wish senior leadership knew or understood?

I sincerely wish senior leaders were data savvy/data literate and are therefore appreciative of how data would help drive their business strategy and priorities and enable them to use data-based insights as a supporting platform for their decision-making process. Data and technology are

no longer seen as supporting functions, but as part of the business and it is therefore critical for the senior leaders to be data savvy in the future. My prediction is that a day with come soon were all CXOs will be expected to be data savvy if they want to be in the role.

Senior leaders should invest into data capabilities supported by relevant technologies/tools (e.g., data management & data analytics including AI) and should not see the investment as a cost, but rather as building the foundation for the future of the business. This can only be achieved if they truly believe in data driven culture and that data is the lifeblood, strategic and competitive asset of their organisation. They should also understand that data should be a

key KPI in their organisation's risk profile and in their balance sheet and scorecards to drive the right data culture. This requires courage and out of the box thinking as the ability to "think data first" is difficult for most enterprises as it requires cultural shift. Many organisations face a major shift when they consider their data-driven ambitions. This shift does not simply change the allocation of work; it changes the nature of their business by making data a primary consideration for business strategies.

Operationalising the outcomes of analytics work requires full commitment in terms of resources, cost, etc. by the senior leaders in the business. Without operationalisation, no value would be created out of the data. For this to happen, senior leaders should be closely involved in prioritising the D&A use cases according to business impact/value creation. Senior leaders should ensure that business strategy is enabled through data strategy and supported by technology strategy – all three working together in an integrated manner.

Conceiving and answering these types of questions requires a well thought out data strategy that includes an expanded set of data and analytics competencies as well as an organisational culture that embraces data literacy. It is not just the data and analytics function/department, but the entire organisation that must get involved. Data and analytics success over competitors requires a much more expansive role for data and analytics in business value generation. It requires executives to weave data and analytics into everything their organisation does.

This is not a simple exercise. In a data-driven intelligent enterprise, data and analytics and AI are no

longer afterthoughts — they are fundamental to digital business transformation. Yet the ability to "think data first" is difficult for most enterprises as it requires cultural shift. Many organisations face a major shift when they consider their data-driven ambitions. This shift does not simply change the allocation of work; it changes the nature of their business by making data a primary consideration for business strategies.

MATURING YOUR DATA CAPABILITY

What have you found to be the key ingredients to make data analytics capability create an impact on business outcomes?

You require people with the right skills, a data-driven mindset culture supported by technology, processes and the right data to work in an integrated manner to create a positive business impact.

Data ingredients includes the end-to-end lifecycle of data management, data governance, data quality, data risk management, effective, efficient and acceptable use of data, etc to drive business outcomes. The insights created due to data should be used as a change agent to change organisation processes, business models, organisational structure including people and technologies as required to drive sustainable positive business outcomes and with a continuous improvement mindset and culture. But to make it happen, the right culture to drive and use data as a key differentiated strategic and competitive asset is critical.

The following diagram illustrates how to create a positive impact on business outcomes

How do you build an effective data-driven organisational culture?

This is a huge and a very important topic and is my favourite. Recent surveys demonstrate that building a data-driven organisational culture is the biggest challenge organisations are having and less than 10% of the organisations have built one successfully.

A true data-driven organisation does most or all the following things to drive the right culture by being proactive, and that is forward-looking by sincerely and religiously treating data as a "first-class citizen" or "crown jewel" of their organisation. This write-up is based on my 25+ years of experience in building a data culture in organisations of various sizes.

Accountability from the Top: Enterprise data strategy to drive data-driven culture and value creation should be pushed from the top namely, the Board, CEO and his/her leadership team by leading from the front and as example and this is a critical differentiator.

"Data First" Mind-set and Culture: More than just installing the right tools, applications, and having right people for an organisation to be data-driven, data should be at the "centre of everything" the organisation does. Namely, it needs to be integrated into its strategies, innovation, operating model, systems, processes, and culture. It's about creating a mind-set in which data-driven value creation forms the basis of all fact-based business decisions and are embraced by all levels of the organisation.

Data and Analytics is a Business Function: Data and analytics functions sit under the business as data is a strategic asset of the business. The function reports to a Chief Business Executive. This enables data strategy to be implemented holistically and integrated well as part of business strategy to enable or create value to the business through execution of the business strategy and drive data culture effectively and efficiently.

Data Strategy that is Executable: Creating business value from data requires people across various business and support functions, processes, technology, data and importantly, the right culture required to work together in an integrated manner. The data strategy should be designed to be holistic for the organisation but pragmatic and implementable rather than just a lofty vision. As discussed earlier, the data strategy should be designed to link data foundations and, data-driven value creation supporting business priorities with clearly defined roadmaps and milestones that are executed in incremental manner rather than a big bang approach. The roadmaps and milestones should be reviewed on a regular basis to ensure alignment with value creation and business priorities.

Prioritisation of Value Creating D&A Use Cases: Prioritising D&A projects so that the focus is on what really matters to the business from value creation perspective is super critical. This is the best way to take the business to a data-driven value creation-oriented culture. Prioritisation of D&A projects requires discipline and collaboration between D&A teams, business teams and stakeholders, and technology teams. Therefore, a solid, tested, and proven D&A prioritisation framework is critical.

Measuring Data Monetisation: Implementing KPIs to measure data monetisation (internal and external data-driven value creation) and working to have the value tracked is critical and this requires business leaders (including finance) to work with the D&A function.

Democratise Data for Easy Access, Sharing and Use: Leadership teams must continuously invest in the foundational and data management activities as a strategic program that would enable democratisation of data for easy access and use by users for data-driven value creation. This requires investment into tools, technologies, and people, but with a focus on ROI through data-driven value creation. Incremental approaches to democratisation of data rather than big bang is the best bet.

Data Risk Management: Managing business risks associated with data

in an organisation is critical in managing an organisation's reputation in the market. Data risk should be a key KPI in the Organisations' Risk Profile that gets discussed at the Board. Data related risks that that get measured and managed include acceptable use of data, namely ethics and privacy, legal and regulatory compliance, data quality, data security, data access, and data sharing. This framework should be supported by a strong data ethics and data usage framework that is tied to the organisation's core values. All data related initiatives should get tested against the framework by applying social, ethical, privacy and legal lens before commencing an initiative.

Smart Data Governance to Enable Data for Value Creation: Data governance is seen as an enabler of data assets for value creation by managing data related business risks effectively and efficiently and not just from legal and regulatory compliance perspective which organizations that are not data driven do. Traditional approaches to data governance which are generally huge initiatives and are big bang rarely work nowadays as organisations do not have the patience, time or budget for it as they are keen on quick ROI of data related investments. Coming up with smarter ways of doing data governance by focussing on what really matters and that would enable value creation for the business – an incremental, but focussed approach, is the best bet.

Data Quality by Design Culture: Data quality is fundamental to driving business outcomes and data driven value creation. No matter how smart and efficient the organisation's business processes are, how advanced, savvy and solid the IT systems that support the processes are, how capable and skilful the employees who use the processes and technology are, and how sophisticated the data analytical models are to produce data-

driven insights, and how intelligent AI solutions are, if the underlying data that these processes, technology, analytical models, people and AI use is not good enough in terms of its quality, the expected business outcomes driving benefits such as data driven insights, digital experience, intelligence and, effective and efficient business decision making will be poor. There is no silver bullet that solves data quality problem. It requires a collective effort of all – people at all levels, processes, and technology.

Driving data quality by design culture means, data quality is conceptualised at the planning stage of a project/initiative/program e.g., business process, technology, business products, and not as an afterthought. Data Quality is embedded as a KPI in Organisation's risk profile and is measured and monitored across the organisation as Business As Usual (BAU). Employees have KPIs defined in their balance scorecard and, employees and functions/departments are rewarded for capturing and managing quality data and third parties and partners are rewarded for providing quality data.

Data Literacy Embedded as part of Learning and Development: Focus on educating /training all employees at all levels of the organisation about data, its lifecycle and supporting data related components e.g., common definitions, data quality, data lineage, data privacy and security, and data driven business value creation as part of its learning and development program similar to IT security training, code of conduct training etc. They broaden the scope from data literacy or story telling around analytics/AI only, and focus on the whole lifecycle of data, its management, use, value creation and governance in the enterprise. This helps organisations to respect the strategic asset and drive the right data culture.

Acceptable Use of Data: Being mindful of finding the right balance between data monetisation and acceptable use of data and in particular, customer data. e.g., social, privacy, legal and ethical obligations when focussing on monetising data. Having access to customer data is a privilege given to organisations by their customers by placing trust in them to not misuse it for their financial benefits.

Continuous Testing and Improvement: Continuous testing to improve its data-driven solution offerings using a strong feedback

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InterSystems

loop process in place, both internally as well as with external customers and partners. Tests may also include user testing—working directly with actual customers or users to obtain direct feedback on possible new features or products. The organisations also have a continuous improvement mindset. It may be involved in repeated optimisation of core processes, such as shaving minutes off manufacturing times or decreasing cost per acquisition. This comes about through careful analysis, crafting mathematical or statistical models, and simulation.

How have you successfully accelerated new innovations to benefit customers or internal operations?

For us, good innovation must be built on strong foundational data supported by solid technology services that would enable us to

deliver improved customer experiences, increase engagement and advance population health. We focus on three strategic areas: insights and analytics; digital health and care delivery and management to provide key areas of competitive advantage. Optimising our internal operations to achieve efficiency and effectiveness is also critical to drive competitive edge. There has to be a measured approach to this race to innovate, and data and analytics can help to inform that approach that would benefit customers or internal operations and also by ensuring that we keep tech-debt to a minimum by making informed choices that align with our business strategy and customer need. To help us harness the power of analytics, we have a dedicated team of talents with deep expertise in

data management, intelligence and data science, and business analysis to advance our agenda. By leveraging their combined experience and knowledge, we aim to make the right choices when it comes to our race for innovation. We also focus on integrating existing, proven technology as a means of innovation through our global acquisitions. For example, in 2019, we leveraged the acquired Express Scripts' platform to deliver cost synergies, drive differentiated innovation and facilitate the transition to Express Scripts capabilities in areas such as supply chain, specialty pharmacy and retail networks. As a result, over 80 million customers across the US are now able to get their medicines safely, efficiently, and affordably.

AI PROJECTS, PRIORITISATION AND PRODUCTIONISING AI

How do you determine which projects to use AI for and how do you prioritise your projects?

As the Chief Data and Analytics Officer for Cigna International Markets, I cover over 30 countries and jurisdictions globally. This makes my task of identifying and prioritising data analytics driven business use cases that would create value for the business an interesting challenge, but also a great opportunity to focus on what really matters for the business. My number one priority is identifying business use cases that are important to each global entity from a business impact perspective by working closely with the respective businesses and, executing, operationalising and measuring the business value created by these use cases. A crucial part of this is handholding my business stakeholders throughout this journey. It is natural that every country CEO or regional CEO wants to focus on data analytics use cases that they hope will create value for their business by contributing to their business priorities. However, it is
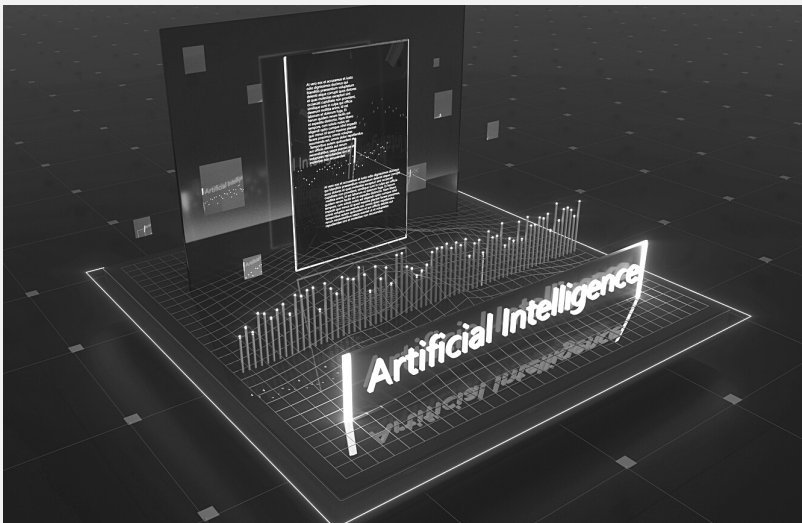
"MY NUMBER ONE PRIORITY IS IDENTIFYING BUSINESS USE CASES THAT ARE IMPORTANT TO EACH GLOBAL ENTITY FROM A BUSINESS IMPACT PERSPECTIVE BY WORKING CLOSELY WITH THE RESPECTIVE BUSINESSES AND, EXECUTING, OPERATIONALISING AND MEASURING THE BUSINESS VALUE CREATED BY THESE USE CASES."

equally important for the business leaders and my team to keep in mind the strategic priorities of our International Markets division as a whole as shareholder value is determined by how well we perform as a division. To that end, my team has built a comprehensive data and analytics business use case and value creation prioritisation framework. This framework applies a number of key decision enabling filters specific to businesses and the International Markets function as a whole, which would help us to make informed decisions by creating the right balance between business specific priorities and our division's strategic priorities.

We apply this framework diligently by working closely with our business leaders, business stakeholders and our partners in prioritising and finalising the uses cases that we need to focus on. During use case project planning stage, we ensure that the business agrees and approves the benefits the use case would generate for the business and commits to operationalising the outcome of the use case before executing a use case project plan. They must also commit to measuring and monitoring value creation and maintaining the solution.

What have you found to be the key ingredients to make data analytics capability create an impact on business outcomes?

There are four core areas where I hope to leave a lasting impact at Cigna and I hope the changes I've already made can be further built upon.

1. I've created a highly capable and competitive data and analytics team that can proactively challenge the business in a constructive manner through a solid, trustworthy relationship with them. They actively guide the

business in the right direction to create value from data by thinking out-of-the-box and by building innovative, powerful, competitive and differentiating value-creating data products for customers, partners and the communities we serve.

2. I hope to have developed a truly data-driven culture in the organisation that exhibits most, if not all the characteristics of a data-driven organisational culture that I have highlighted in this article.

3. We are building towards a strong talent management program to serve the organisation for many years to come.

4. Finally, and the most important thing for me is, that I inspire my team and individuals to express themselves freely and bring out their best as a team and as individuals by providing them the right environment in which to do so.

"I INSPIRE MY TEAM AND INDIVIDUALS TO EXPRESS THEMSELVES FREELY AND BRING OUT THEIR BEST AS A TEAM AND AS INDIVIDUALS BY PROVIDING THEM THE RIGHT ENVIRONMENT IN WHICH TO DO SO."