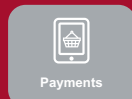


Digital Insight



CGI

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Digital Insight



Introduction



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Today's organisations need a systematic way to turn data into action.

Digital insights create opportunities from complexity. They've become the new currency of business. In an uncertain world, being able to make good decisions swiftly is a big competitive advantage.

Today, businesses need data to tell them not only what's happened – but also what they should do next. But selecting the **right data** is a challenge. And **using it effectively** to influence decisions is the challenge facing all organisations.

That's why CGI helps organisations do useful things with the data that will fundamentally affect their business.

Opportunity from complexity

Digital insight takes management information, business intelligence, data science and analytics to the next level.

Done well, it can discover gaps in organisations. It can make customers happy, improve products, streamline processes, improve revenue and cut costs.

Digital insight from data is being demanded across the organisation. But to be successful, the focus must be on **creating insights** that drive **value, efficiency and customer experience**. **CEOs** need to understand the market, optimise performance and define the right strategy, and **CFOs** want to ensure profitability, and predict and prevent impact from external events. **CMOs** want to reach out to new customers in new markets to grow the business, while **COOs** want to ensure the business's assets are used to their optimum capability. Finally, **CDOs** want to ensure that efficient systems deliver the data analytics needed to continually drive competitive advantages in the market.

30%

of businesses will have begun directly or indirectly **monetising their information assets** via bartering or selling them outright.

Source: Gartner report, "How Organizations Can Best Monetize Customer Data", September 10, 2015

Big data technology and services market will grow at a

23.1%

compound annual growth rate to

\$46.63bn

in 2019

Source: Worldwide Big Data Technology and Services Forecast, 2015–2019, IDC Doc #259532, Oct 2015

Business drivers

By addressing fundamental business drivers, we can design digital insight solutions that deliver measurable **business outcomes**.

Profitable growth

- Organisations need to grow – but they don't want revenue to come at the expense of profitability. Digital insight can help chart the right path to growth.

Operational efficiency

- Intelligent data can be used across an organisation to make everyday operations more cost-effective. With the right systems, everybody in your organisation can know enough to make a positive change every day.

Real-time decisions

- Employees need to make faster, smarter and more informed decisions. Digital insights can provide contextual help to enable them to do so.

Regulation & compliance

- Corporate governance and the demand for controls drives the need to manage data and to provide regulators with the proof they demand to ensure business is conducted in the right way.

Big data integration

- People need to use the best external data from outside the organisation to inform what they're doing inside the organisation.

Technology enablers

► Automated business process decisions

Services can interact with one another in a co-ordinated way, helping eliminate bottlenecks and freeing up employees to do things they're best at.

► Easy-to-use data solutions

We can help make data easy to interact with across the organisation, eliminating silos. We can make data visual, to make insights easily apparent.

► Agile analytics

By learning and testing, we're able to create insight and intelligence tailored to the organisation.

► Data science

We can make sure every part of the business has the right insights and information, based on a forensic analysis of all data.

► Big data

Utilising the best solutions to harvest data from all digital sources we can drive better analytical processes.

Anatomy of a solution

CGI works hand in hand with clients to deliver a digital insight solution tailored to their business needs.

Advice:

- ▶ CGI can help to define the information that the business requires, based on its current operations – as well as its long-term strategy for growth.
- ▶ We can help to create an analytically-led organisation – getting the right insights to the right people so they can make the right decisions.
- ▶ We can define and prototype your analytical solution, so you can see results early on in your digital insight journey.

Insight:

- ▶ **Data Science-as-a-Service.** Data science brings the outside in – it turns external data into insights, helping you to understand patterns and outcomes that can bring fresh ideas to the business.
- ▶ **Data visualisation.** We can transform existing data sets into models that are ready to be used by the key business decision-makers.
- ▶ **Analytical insight.** We can turn data into insights that can optimise and transform finance, marketing, asset management and more.

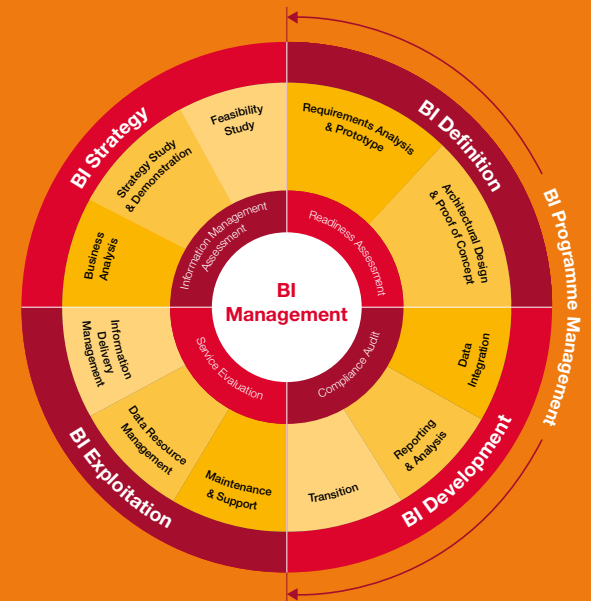
Manage:

- ▶ **Deliver and manage your data environment.** We can create the processes and the technology capability to collect all the data and present it to the right people at the right time.
- ▶ **Digital Insights Platform.** We have the platform that puts powerful and actionable digital insights within reach of everybody.

CGI offers a holistic digital insight service. We work with you to create a bespoke, scalable solution that uses analytics and data science to answer your most important questions.

We start by understanding the information crucial to your business and creating a prototype to ensure the insights will work for you. We'll find out what data is required, how easy it is to find, how accurate that data is, and how timely it can be accessed.

We'll design workflows and processes to acquire and clean the data – sourced either from within your organisation or acquired from external sources – to create data sets that can be used by decision-makers across the business. By starting with the challenges you need to address, we can create the right blend of data visualisation and analytical insight to fundamentally transform your business.





Healthcare

- ▶ Healthcare providers can improve the patient experience, ensuring carers, doctors and hospitals provide ever more joined-up services. Doing this requires information governance to be defined.
- ▶ CGI is helping healthcare providers in major cities to improve their patient care and optimise their treatment by leveraging the results of advanced analytics on medical data.



Utilities

- ▶ Smart meters and grids create a massive flow of highly granular data that needs to be analysed in real time. Energy companies also need to monitor their networks' activity and performance to ensure the efficient delivery of their services.
- ▶ CGI is delivering the analytics and data solutions that are layering digital insights over all this data to help make better quality decisions, ensuring they deliver on their regulatory and commercial commitments.



Insurance

- ▶ The rise of telematics and big data is driving ever more complex risks to be understood through the world of data. CGI is helping our clients to detect fraud through data science, and complex analytics is ensuring they rate their risk in ever more accurate ways.



Sports & Leisure

- ▶ The analysis of data to create a winning formula is now the science behind our sporting achievements. Analysing performance data and managing success through marginal gains achieves the results that are the difference between success and failure.
- ▶ CGI is the Official Systems Integration Partner of UK Sport, and is working closely with its Sport Intelligence Team in the development of a sustainable data management and analysis capability that enables UK Sport to maintain competitive advantage and enhance the quality of decision-making.



Manufacturing

- ▶ Manufacturing companies rely on complicated supply chains and assets to make sure their operations go to plan. They want to monitor – in real time – the status of the supply chains and assets that make up their business. Through our insights and IoT platforms, CGI is analysing our clients' supply chain data and automatically routing the requests needed to manage the people and systems who ensure the efficient management of their business.





Oil & Gas

- ▶ Oil companies need complex analytical dashboards to optimise oil extraction, so they can evaluate the profitability of their operations and meet environmental regulations. CGI can create systems that provide daily insight into production, revenue, cost and well interventions.



Government

- ▶ The public sector has valuable information that private companies can use to create new services. Transport, security and crime data can all be used to help businesses make more informed decisions. CGI is partnering with governments, local agencies and service providers to use our data platform to integrate open data with other sources of data that provide the insights to deliver ever more efficient and relevant services to their citizens.



Banking

- ▶ Customers' demand for ever more flexible banking services brings new opportunities and challenges to traditional banking methods. To deliver secure, innovative services that conform to regulators' demands, CGI is working with some of the largest and some of the newest banks to ensure the information and insights they need in order to deliver successful growth are in place.

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Pharmaceuticals

- ▶ Pharmaceutical companies have traditionally focused on advertising and marketing their products, as well as lobbying, in order to influence healthcare professionals, insurance companies, health institutions and governments. Today, more people are using the internet as a platform to share information and advice.
- ▶ CGI's digital insight solutions and platform is delivering the insights needed for pharmaceutical companies to understand their customers and product requirements, by analysing diverse internet data sources and providing data science solutions to deliver insights on ever more complex data sets.



Communications

- ▶ Mature, saturated markets created a highly competitive landscape – forcing operators to focus on bundling, price optimisation and delivering ever better customer experiences. To reduce customer churn and increase loyalty, telecommunications providers need to better understand their customers. CGI is delivering the consumer and marketing analytics that are ensuring telecommunications providers can increase their ROI by using digital insight to improve the customer experience.

Delivering the solution

CGI thinks of digital insight as a profit centre – not a cost centre. Our goal is to turn numbers and data into knowledge, delivering real business insights that can be used up and down your organisation to **take action** and **grow your business**.

CGI designs digital insight solutions that help your business achieve its goals. Our experienced consultants work with you to define the information and insights that your business needs to achieve success, and to find out what questions you need to answer. We discover what information your organisation currently relies on, and what information it could innovate with. We craft insights to help you achieve the goals you're seeking.

Empower your workforce:

- ▶ We can deliver the right insights to the right people at the right time – putting the organisation's collective knowledge at employees' fingertips.

Drive better customer journeys:

- ▶ The right digital insights can improve the customer journey. Using predictive analytics, we can improve retention and reduce churn by alerting you to problems and giving you the insight to solve them.

Optimise operations:

- ▶ Digital insight can reveal opportunities to drive efficiencies through an organisation. In some organisations, automating decision-making processes can cut costs and reduce risk.

Deliver innovation:

- ▶ Data science can uncover genuine business insights that will transform strategic thinking, and deliver a competitive tactical edge to your organisation.

Digital insight discovery platform

Identification and collection of relevant data. Test & Learn approach.

Sources: Internal data, extended ecosystem, web, APIs, open data.



Data Discovery

- ▶ Discover the hidden meaning of the available data.
- ▶ Multi-dimensional analysis, studies of distributions, outlier detection.



Machine Learning

- ▶ Phenomena forecasting, scoring, segmentation, anomalies detection.
- ▶ Learning on large data volumes, more reliable results.



Data Science

- ▶ Answer to strategic and complex issues with data.
- ▶ Extract value from the available information.



Data Visualisation

- ▶ Translate the extracted value from data into business decision levers.
- ▶ Data storytelling, contextualisation and put into perspective.



Technologies as a service

- CGI Insight, Community Care 360, Collections 360, FlexProperty
- Microsoft Microsoft Azure, IoT, Future Cities, HD Insight, Power BI

Business insight, technical feedback. Industrialisation plan.

Results: First usable results, summary paper, modelling recommendations.

Increase customer engagement by

30%

Reduce costs & compliance overheads by

35%

Reduce the time to market of products and services by

50%

Solving valuable problems

CGI has found that clients face some long-standing issues that a digital insight solution can solve:

- ▶ “We have many ways of producing the same metrics, and the numbers do not agree.”
- ▶ “We do not have a common language across our organisation, especially between business units.”
- ▶ “We have a lot of data but have yet to determine what value it adds.”
- ▶ “We have a data warehouse and a common business intelligence system, but some departments insist on using their own databases and analytical tools in spite of the extra cost.”

Who we help

Executive Needs

CEO

- ▶ Clear data visualisation of key business metrics for agile decisioning.
- ▶ Gain insights from data science to exploit new business opportunities.
- ▶ Real-time data for real-time decisions in a digital world.

CIO

- ▶ Ensure high-quality data delivers clear business metrics.
- ▶ Adapt systems and data to organisation changes.
- ▶ Deliver user-enabled digital insight solutions.
- ▶ Provide agile analytical systems for business leaders.

CFO

- ▶ Deliver financial certainty through accurate data.
- ▶ Model new business lines and channels for growth.
- ▶ Deliver the insights to underpin the business strategy.

COO

- ▶ Ensure effective sales across multiple channels.
- ▶ Adapt processes to strategy and new products.
- ▶ Deliver and manage assets and resources on time to order.

CMO

- ▶ Drive market awareness in an omni-channel world.
- ▶ Deliver a customer experience across every channel.
- ▶ Analyse and react to an agile market place.
- ▶ Deliver campaigns that react to today's digital world.

Why CGI?

- 1** We have a joined-up vision and solution set that enables data insights to be delivered with key skills across data science and analytics on cloud-based technology, which enables agile deployment of insights to your organisation.
- 2** We deliver some of the biggest and most complex data solutions in the UK and global market to some of the largest government and commercial organisations.
- 3** Our 'start small and smart' approach allows accrued business benefit before continuing a project, ensuring digital insight is driven by value.
- 4** We have the experience of analysing and visualising some of the most complex data sets in the UK and global governments and marketplaces, providing innovative insights into customers, fraud, compliance, assets and sensitive government data.
- 5** CGI has delivered the deployment of world-class data exploitation capabilities to our clients for many years, constantly innovating with the insights we discover.
- 6** We are continuously innovating, actively engaging in bringing commercially viable digital insight solutions that enable governments to deliver more efficient services, commercial organisations to find new markets, and many other organisations to manage their assets through ever more complex analytics and IoT solutions.

Examples of our digital insight solutions

- ▶ Working for a **major telecommunications provider**, CGI was able to use data insight to reduce the time it took to understand profitability of new products. Usually, it would take three months to turn the data into an insight. CGI was able to reduce that – first to three days, and ultimately to four hours.
- ▶ Working for a **global consumer technology company**, we used digital insight to help it become more customer-centric. We reduced marketing costs by cleaning its customer database – 60 million records – to eliminate incomplete and inaccurate data.
- ▶ Working for a **multinational financial services organisation**, we created an app that used its customer data to link purchase records with nearby merchants – creating a platform for personalised offers.
- ▶ For a **world-leading transport provider** we are providing the digital insights that enable it to analyse its IoT data to deliver more efficient asset management.
- ▶ For a **major government organisation** we are providing the data hub that will deliver the insights on its services to drive a better experience for its citizens whilst driving cost savings.
- ▶ CGI is the Official Systems Integration Partner of UK Sport, and is working closely with its Sport Intelligence Team in the development of a sustainable data management and analysis capability that allows UK Sport to maintain competitive advantage and enhance the quality of decision-making.



About CGI

Founded in 1976, CGI is a global IT and business process services provider, delivering high-quality business consulting, systems integration and managed services. With 68,000 professionals in 40 countries, CGI has an industry-leading track record of delivering 95% of projects on time and within budget, aligning our teams with clients' business strategies to achieve top-to-bottom-line results.

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