Do you find it difficult to provide consistent service to your customers?  
Do you have a problem with mistakes in your processes and customer service?  
Are you losing valuable IP when your most knowledgeable staff leave or retire?  
Do your frontline staff struggle to keep up with customer queries?  
Do you want to make improvements in streamlining and automating your processes for speed and efficiency?

If your answer is YES to any of the above — then cognitive analytics could be your solution.

Cognitive Computing systems help us expand the boundaries of human cognition which learn over time and have a natural interaction between the computer and the human. In very simple terms, cognitive analytics involves self-learning systems that use data mining, pattern recognition and natural language processing (NLP) to mimic the way humans work. They use patterns from past data, can read and understand text and the objects in images to build up internal knowledge banks. Cognitive systems can then perform complex problem solving without human interaction.

Employing cognitive analytics allows your computer systems to automatically do work that has traditionally been done by humans. As a result, your teams’ own work is augmented with pre-trained intelligence and automated processes allowing work to be done faster, cheaper and/or better. Examples of where cognitive analytics can help humans are:

- Performing tedious administration processes that prevent staff from getting on with more important, highly skilled tasks.  
- Building knowledge repositories to ensure your company’s IP is maintained over time and to all your experts to concentrate on innovation  
- Collecting and comparing images and other evidence in assessing insurance claims

Your organisation benefits through cost savings or more efficient use of resources. Your customers will benefit through improved service delivery and better outcomes.
Cognitive technologies are already being used across all sectors: banking and insurance, consumer products, healthcare, media and entertainment, utilities, public service, retail, technology, hospitality, security, etc. Application areas are just as broad: marketing, customer service, research and development, logistics, intellectual property and corporate knowledge bases, etc.

Let’s have a look at some applications that you could employ:

Cognitive Analytics and Your Customer Service

A common problem we see for businesses is they have enormous amounts of data and not enough analysts, data scientists, etc., to effectively manage, or even keep up with, to ensure insights can be derived to benefit customers. Thanks to advances in NLP it is easier for all staff to act like analysts and communicate with your data and machines. Team members who aren’t as familiar with data language or processing are now able to interact with programs and platforms in a human like way.

Take as an example your customer service or call centre team. Team members are able to submit requests in normal language, cognitive analytics systems translate this normal speech into data requests and then provide accurate responses in the same manner.

Cognitive technologies are therefore automating work and augmenting your workers’ knowledge or tasks helping him or her do the job better or faster.

Many companies are taking this a step further and employing automated voice response systems that replace human customer service agents for first-tier customer support.

Benefits:

- Reduced human resource time.
- Identify customer events to enable automated marketing triggers (cross-sell, up-sell, etc.).

![Figure 1: Benefits of a Cognitive System](image-url)
• Consistent measurement of call.
• Capture of customer service information for increased service level.

Cognitive Analytics and Knowledge Repositories

Woodside Energy's IBM Watson system provides a good example of the use of cognitive technologies for automation to improve quality and efficiency. Woodside operates some of the largest manmade petroleum engineering structures in the world and they are located in remote parts of the ocean. Woodside's data science division implemented an internal program called "Lesson Learned", which pulled together decades of engineering data from sources including testing, technical documentation, messages and company experts’ notes and reports. Technical workers can now ask the system questions, in natural language format, and receive accurate, detailed answers, in real time.

Such systems employ algorithms that weigh up many solutions to the same problem and finds the best one, saving days of research and planning work.

While the system automates the work of experts, it doesn’t replace them. It does mean however experts can focus more time on tougher issues or innovations that require human interactions and negotiations. Meanwhile their expertise and knowledge is automatically being transferred and shared.

This type of analytics has application across many industries: health, tertiary education, legal, engineering, telecommunications, etc., with wide ranging benefits:

• Increased intellectual property value of your organisation
• Dramatic decrease in down-time for staff and customers
• Faster response time
• Fewer problematic incidents
• Reduced costs
• Increased opportunity for innovation

Cognitive Analytics and Image Recognition

**INSURANCE:** companies can now take advantage of the ability to decipher images and videos to categorise their contents. Processing insurance claims for example can be assisted by image recognition and classifications techniques. Images of car damage can automatically be recognised e.g. front end collision, broken windscreen, side collision, etc. When combined with text and voice data, payouts can be automatically calculated and claims automatically triaged and channelled to the best area for the next level of investigation offering significant business benefits:
Streamlined and consistent claims processing

24 hour service

Reduced claim timeframes

**Security:** Such image recognition can also be employed to monitor CCTV and webcam videos reducing staff requirements and quicker response to incidents.

Cognitive Analytics and Decision Support Systems:

Natural language processing techniques make it possible to analyse large volumes of unstructured textual data from. Machine learning can draw conclusions from large, disparate and complex data sets and help make high-quality predictions from operational data. Many companies are using cognitive technologies to generate insights that can help reduce costs, improve efficiency, increase revenues, improve effectiveness, or enhance customer service. Here are some industry examples:

**Health:** Clinical decision support systems that propose diagnoses, suggest medical treatments, or recommend patients for clinical trials are examples of this.

**Finance:** Cognitive applications automatically read and filter news and data to highlight information that may influence a financial advisor’s view of an asset class or stock.

**Retail:** Many companies we work with are using machine learning and cognitive analytics to improve sales effectiveness and boost revenue. One approach taken is automatically classifying customers using a predictive algorithm into categories that are likely to have similar needs or buying patterns. The resulting categories can be used to prioritise sales efforts and tailor promotions resulting in substantial additional revenue.

Cognitive Analytics and Social Media Analysis

We recently assisted a large Philippines insurance company to improve their marketing and customer service. Through the use of a social media sentiment monitoring tool it is able to track and understand what consumers are saying about the company and its competitors. The tool, which incorporates natural language processing technology, automatically identifies salient topics of consumer chatter and the sentiments surrounding those topics. These insights influence the organisation’s decisions on setting fees and offering consumer perks, and how customer service representatives should respond to certain customer inquiries about services and fees. This application would be beneficial to any business wishing to improve its customer communication and service levels.
How can BusinessMinds help?

As the examples above have shown, cognitive analytics can be used in a variety of ways to augment your data and staff resources to create business benefits — and overtake your competitors.

Understanding how to obtain the maximum benefit from cognitive technologies requires a careful analysis of your organisation’s processes, its data, its talent model, and its market. We can help you look across your business processes to examine where cognitive analytics can be most useful. Perhaps some of the above examples have started your thinking?

BusinessMinds is able to perform a quick, inexpensive proof-of-concept to demonstrate how it could work and the benefits to be achieved. We know it is important to gain a partner who can make sure your system is trained and properly set up to maximise results and your return on investment.

SEE IT IN ACTION:

Catch us at the Future of Insurance Event this 23rd of March, 2017 at The Westin, Sydney to discuss your possible application of cognitive analytics and see a demo.

You may also contact us at: info@businessminds.com

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