Business Analytics
Career Guidance
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Big Data and Business Analytics...

What is ‘Big Data’ and why is it important?

‘Big Data’ refers to the storage and analysis of datasets that are so large and complex that they become difficult to process through standard database management tools. Big Data is associated with the massive amounts of data that are now being generated in business and in other fields.

Big data becomes business intelligence when it’s employed to spot opportunities and make well-informed decisions about the future of a company. Most organisations, from major multinational companies to non-profits and government organisations, have become heavily reliant on big data. Even the smallest businesses today have access to a broad range of information about things like user experience, web traffic or client satisfaction, and from tweaking your business model to adapting your marketing strategy, this data must be leveraged in a number of ways. Data helps businesses understand their clients, perform internal operations more efficiently and guide decision-making. For example, insurance firms derive key insights for policy and claims management that help reduce risk and improve underwriting processes. Similarly, health care providers can use predictive analytics to help minimise expenses, such as the cost of unnecessary tests, by drawing conclusions from the data-supported nuances in patient behaviour, resulting in more accurate analysis and fewer liabilities to manage.

Advancements in technology, the Internet and social media have allowed businesses to capture greater amounts of quantitative data than ever before. It is estimated that data collected and generated by companies and governments is growing by approximately 40% per year. Global companies that leverage this data smartly have created significant value; including higher productivity, higher profitability, and greater market share.

With business decisions becoming increasingly evidence-based, the need for experts who can derive insights from in-depth analysis of big data is growing as well. These opportunities have led to a huge growth in the demand for graduates with business analytics skills. In the US alone, it is estimated that there will be unmet demand in 5 to 10 years of 140,000 – 190,000 analysts and 1.5 million data-savvy managers.

What is Business Analytics?

“Business analytics” is about the conversion of business data into valuable information through the use of statistical techniques and advanced software. Combining such analysis with intuition can provide insights to businesses and public sector organisations for the achievement of their respective objectives.

Business Analytics provides a set of analytical methods for solving problems and aiding decision-making, particularly in the context of large quantities of data. It involves the development and application of models and concepts to explore management issues and solve managerial problems. Many different organisations use the principles and practice of Analytics.

A Business Analytics degree such as the TU Dublin B.Sc. Business Analytics business, statistics and technology, to give graduates the data skills to extract, analyse, organise and present data to guide successful business decision-making.
What career will a Business Analytics degree prepare you for?

A qualification in Business Analytics opens up a wide range of career opportunities in all sectors of the economy in organisations that need to understand their available data sets to strengthen their strategic decision making process. Business Analytics graduates are prepared to explore the implications of big data and offer timely insights. They know how to cultivate an array of quantitative information and apply their findings to pressing business problems.

Here are some examples of employing organisations who value either the subject knowledge or skills Business Analytics graduates have to offer:

- Industrial and commercial organisations
- Financial sector
- Pharmaceutical and health sector
- Gaming and entertainment sector
- Retail sector
- Management and IT consultancy
- Food and agriculture sector
- Public sector: government and local authorities
- Major recruiters offering graduate training schemes
- Self-employment may also provide an opportunity for graduates

Find information on employers in business, consulting and management, accountancy, banking and finance, recruitment and HR and other job sectors. For sector

What are the advantages of careers in Business Analytics?

1. Graduates of business analytics degrees are in high demand and the field is continuing to expand
2. There are attractive salaries, even in entry level roles
3. There are excellent opportunities for professional development – if you want to learn skills such as project management, your employer will usually facilitate this
4. Your work directly shapes your employer’s business strategy, giving you an increasingly large degree of influence the more experienced you become
5. You can work for a wide range of companies in different sectors, offering career flexibility
6. Once you have some experience, a business analytics related career can be a flexible one – with employers often offer flexible working arrangements including remote working, allowing you to have a lot of control over your working life and location

What are the key skills required for Business Analytics?

1. Excellent analytical and interpretive skills, especially when it comes to pattern recognition
2. Highly organised and methodical personality with excellent attention to detail
3. Strong mathematical ability
4. Detailed knowledge of data analysis and relational database software
5. Excellent communication skills
6. A thorough and up-to-date knowledge of all the legal ramifications of data collection and analysis, such as data protection
Do I need relevant work experience to build a career in Business Analytics?

Applicants to entry level data Business Analytics related roles will be at a considerable advantage if they have relevant industry experience. Employers value proactivity, initiative and a willingness to learn – these traits will be required throughout a data analyst’s career so demonstrating them upfront is vital. The TU Dublin B.Sc. Business Analytics work placement offers you an opportunity to undertake a paid work placement in Year 3 of the programme. In this placement you will work directly with professionals, undertaking real world assignments.

What are the main occupations secured by Business Analytics graduates?

- Data Analyst/Big Data Analyst
- Business Intelligence Analyst
- Data Specialist
- Data Engineer
- Management Consultant
- Insights Analyst/Customer Value Insights
- Business Analyst
- IT Consultant
- Database Engineer
- Database Developer
- SQL or NoSQL Database Administrator
- Software Engineer and Developer
- Project Manager
- Accounts Manager
- Business Process Manager

For detailed occupational information on individual (and other) occupational titles including IT go to Career Directions, GradIreland, Careers Portal, Prospects (UK) and Target Jobs (UK).
Information Resources for Business Analytics

Business Analytics, what it is and why it is important?

https://datajobs.com/what-is-data-science
This article breaks down the key elements of Business Analytics – quantitative methods, technology and business acumen.

https://en.wikipedia.org/wiki/Business_analytics
This Wikipedia article provides a detailed background on Business Analytics and its application.

http://analytics-magazine.org/the-value-of-business-analytics/
This article discusses the value of Business Analytics from a management and business perspective.

https://www.youtube.com/watch?v=6jDjeNJrN14
This IBM YouTube video illustrates how Business Analytics is being used by companies to turn data into business insight.

https://www.youtube.com/watch?v=-456lRyvbsU
This Accenture YouTube video shows how Accenture Analytics is working with its clients to solve challenges in business, health, public utilities, etc.

Business Analytics Careers

https://datajobs.com/big-data-salary
This article provides an overview of big data salaries by role.

This article discusses the rapid rise in Business Analytics degree in response to the global demand for qualified Business Analytics professionals.

This Forbes article discusses the increase in importance of Business Analytics from an industry perspective and how this is driving Business Analytics education.

https://www.irishjobs.ie/Business-Analytics-Jobs
This link provides access to current vacancies in Business Analytics – job descriptions illustrate types of roles and salaries available.
Where can I learn more about the TU Dublin B.Sc. Business Analytics?

For more information on the TU Dublin B.Sc. Business Analytics, please visit the programme website:

http://www.dit.ie/studyatdit/undergraduate/programmescourses/allcourses/businessanalyticsdt302.html

If you require further information on the B.Sc. Business Analytics, please contact Dr Hugh O'Donnell, the Head of Department of Business Computing at TU Dublin, for further information.

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