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Data analytics and internships – An institutional perspective

AFAANZ New Educators' EdTech forum

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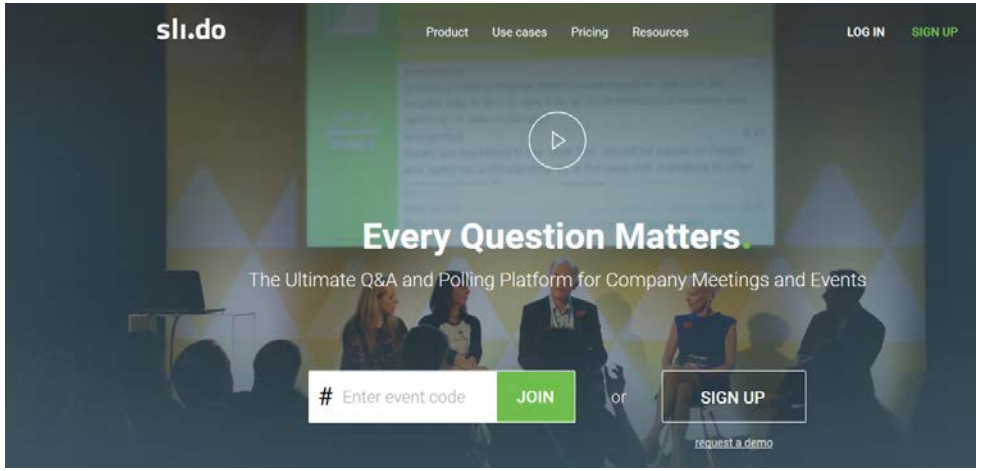
INNOVATIVE | RESPONSIBLE | ENGAGED

Questions?

- I’m taking questions during the presentation using Slido
  - Use any device to go to www.slido.com
  - Use the code # EdTech
  - Ask away!
  - You will be able to see the other questions
  - Choose the ones you most want to see answered to move them up the list



- At the end of the presentation I’ll answer as many questions as we have time for

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We're going through changes

- Accounting is changing with data and technology embedding throughout our curriculum
- Our educative approach is also changing, with internships & WIL opportunities increasingly common
- This presentation explores these dimensions looking at outcomes, impacts, issues, and benefits

My personal pitch

- To adequately prepare our students for their future careers we need to provide a coherent, considered version of how Accounting is practiced currently, not simply regurgitate the teaching methods and materials from the last 50 years and bolt on a few elective subjects in Data Analytics.
- By embracing Data Analytics as an accounting related discipline we will be well placed to demonstrate understanding of the consequences and implications of these emerging technologies and practices as they begin to more profoundly impact the Accounting profession.
- If we can inspire and motivate research topics that capitalize on this nexus then research outputs will become more topical, and more publishable. In addition, building research capability in this important area will improve the chance of winning contestable industry funding

Management Accounting in the age of Big Data

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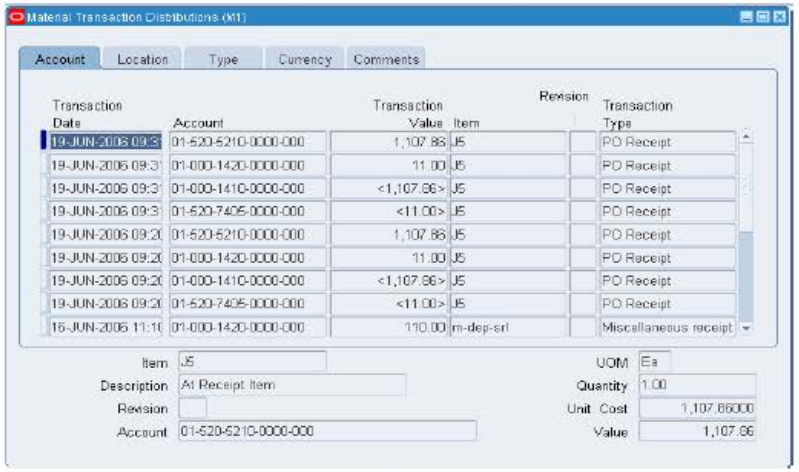

Completeness, Accuracy, Validity

Volume, Velocity, Variety, Veracity

What we don’t really know everything about yet

- What is the impact on accounting, accountants, and accounting education of the increasing use of big data for management decision making?
- Does/How does big data impact the value relevance of traditional accounting data?
- Do traditional accounting information qualities (Accuracy, Completeness, Validity) matter to users of big data? If not why not?
- Given the size related power of big data does it matter if an individual data point is biased, noisy and/or abnormal?

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Data Analytic Insights

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What is analytics?

The systematic process of transforming data into insight for better decision making.

What is accounting?

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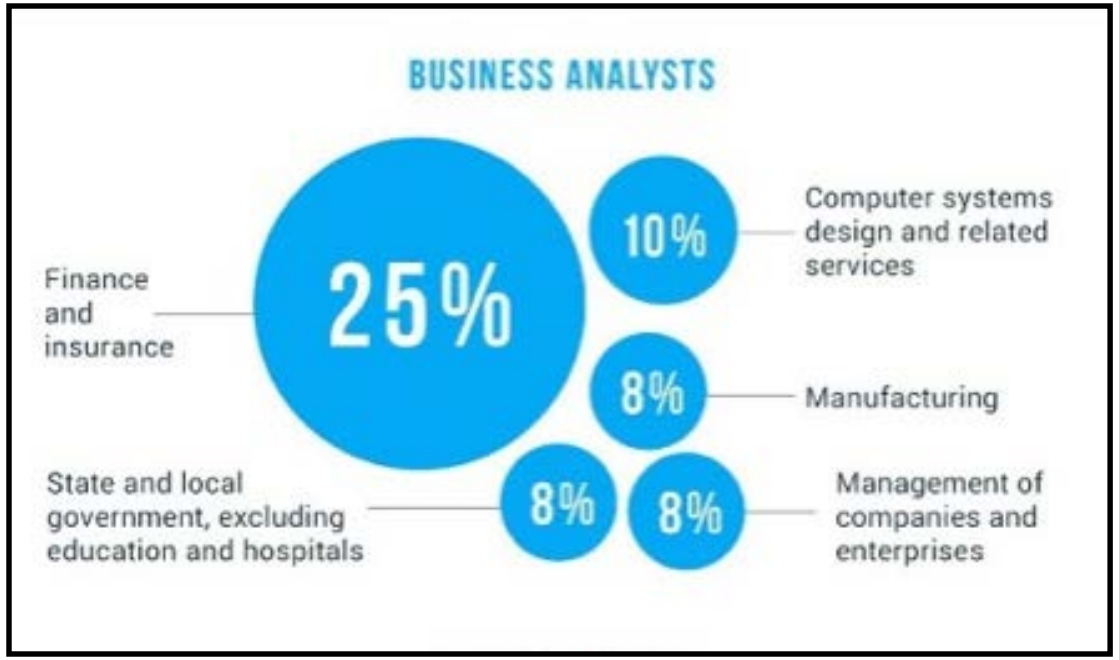
Business analytics
vs.
Data science

Business analytics

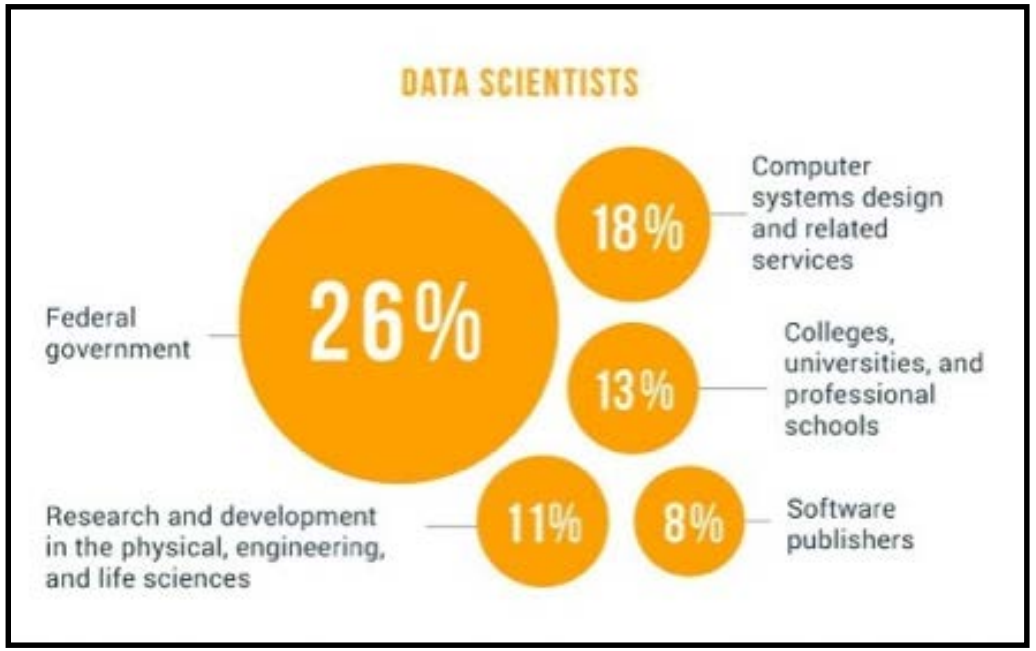
- Research and extract valuable information from various sources to explain historical, current and future business performance
- Determine best analytical models
- Identify best approaches to present and explain business solutions
- Develop suitable narrative between analytical solution and business use cases



Source: http://www.kdnuggets.com/2015/10/infographic-data-scientist-business-analyst-difference.html/2

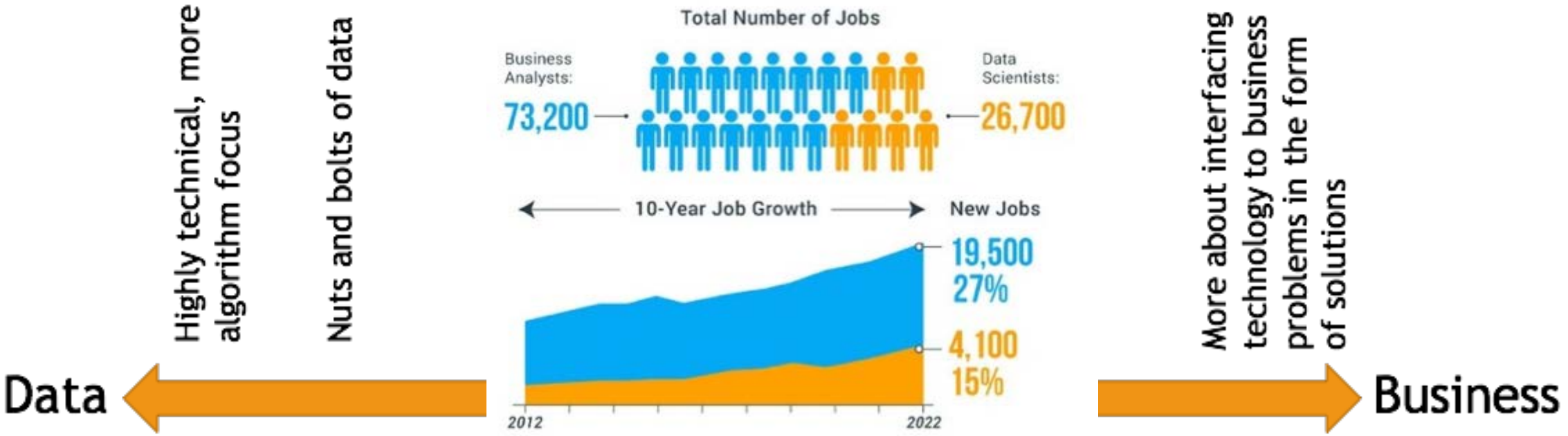
Data science

- More on algorithmic design, development and deployment
- Supports business decision making
- Manage large amounts of data
- Requires deep statistical, programming and IT knowledge



Source: http://www.kdnuggets.com/2015/10/infographic-data-scientist-business-analyst-difference.html/2

The analytics spectrum



Source: http://www.kdnuggets.com/2015/10/infographic-data-scientist-business-analyst-difference.html/2

Salary prospects

Recruiting professionals in analytics remains a challenge

Analytics professionals make twice – sometimes three times – the average Aussie salary

Analytics professionals are uniquely skilled, i.e., multi-disciplined

https://tinyurl.com/ya656rkp

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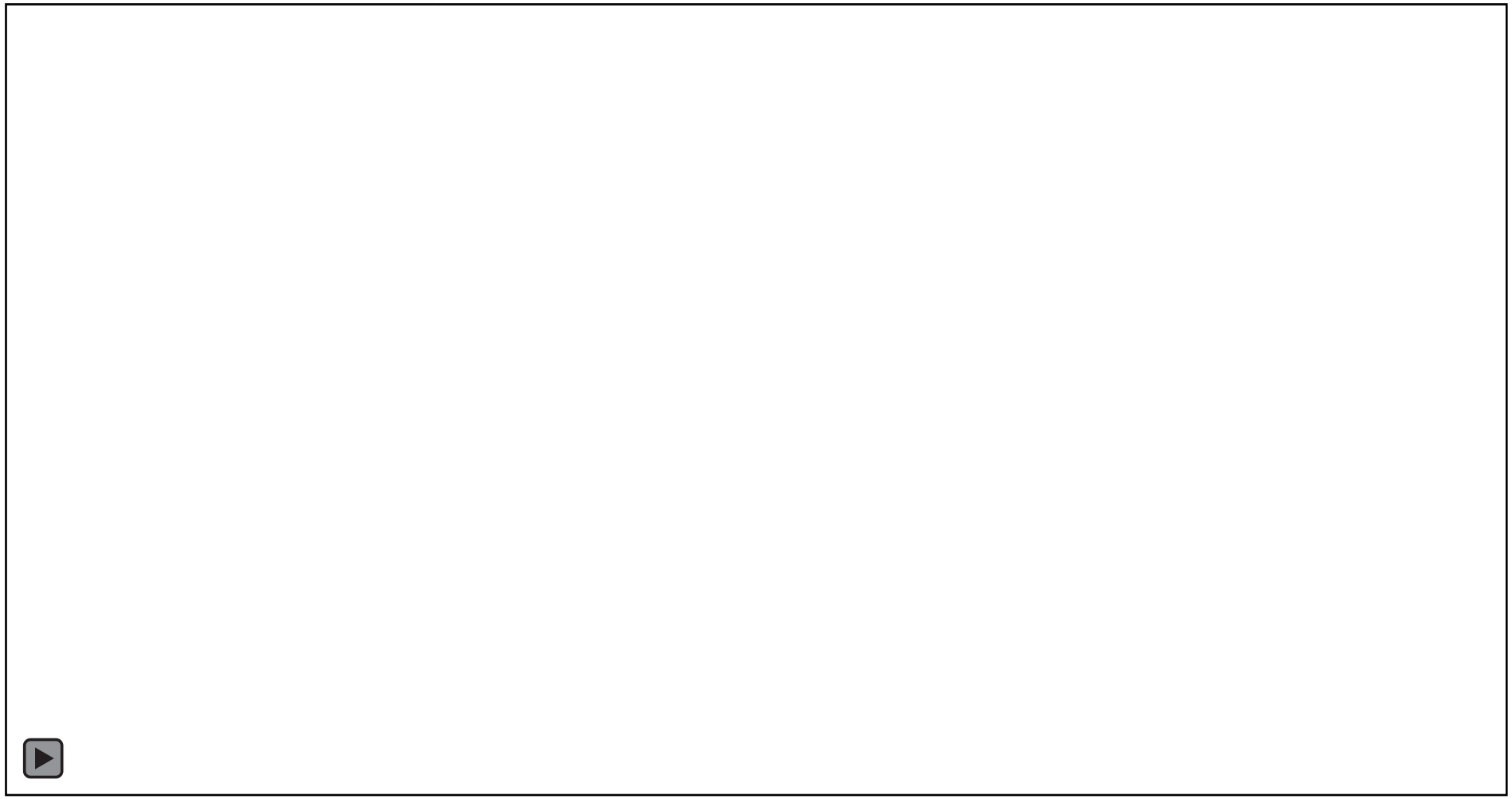

La Trobe M. Business Analytics

2 year FT postgraduate degree with flexible study options (1.5 years cognate)

Practice focused

Collaborative academic program with industry and across LTU academic disciplines

SAS Cert. in Business Analytics

Discount to Professional Development opportunities after graduation

Microsoft Azure

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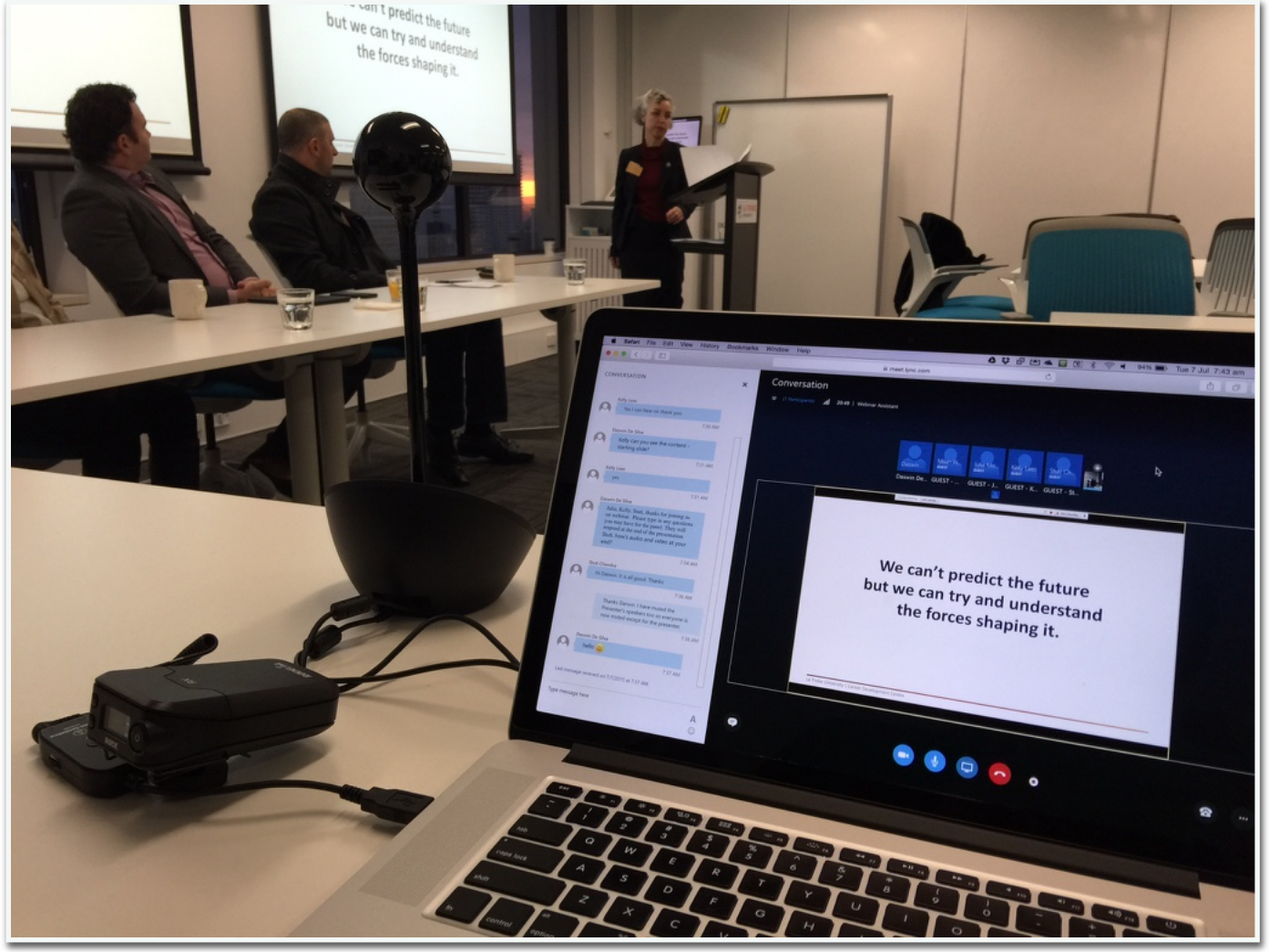

Live streaming of core subjects in the Master of Business Analytics

Attend from anywhere on the device of your choice

Analytics Symposium

Skilling up students beyond discipline knowledge and skills

- Interpersonal skills
- Critical thinking
- Creativity
- Business acumen

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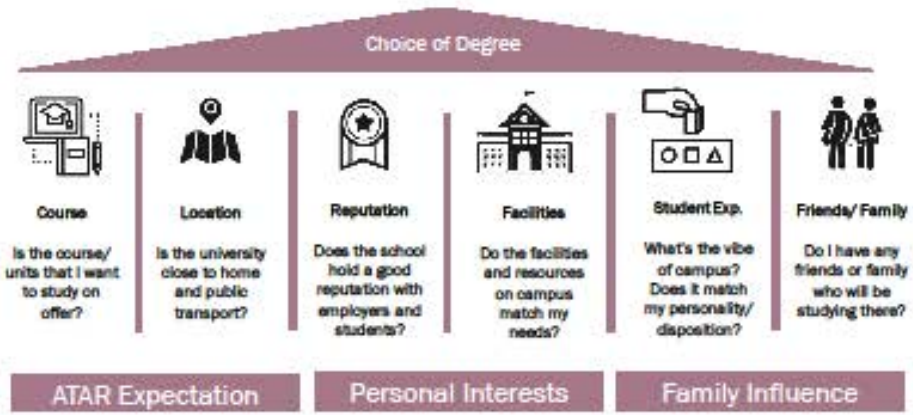
Student insights

WHEN CHOOSING A DEGREE THERE ARE A LOT OF FACTORS AT PLAY

And depending on the individual this level of influence may change.

Student choice is underpinned by a number of core influencers that impact the level of importance of key decision factors.



The levels to which a course, university and overall offering resonates with prospective students depends on their own unique situation and context.

Source: Project Debrief Harvest Insights, 9.11.18. Research commissioned by La Trobe University

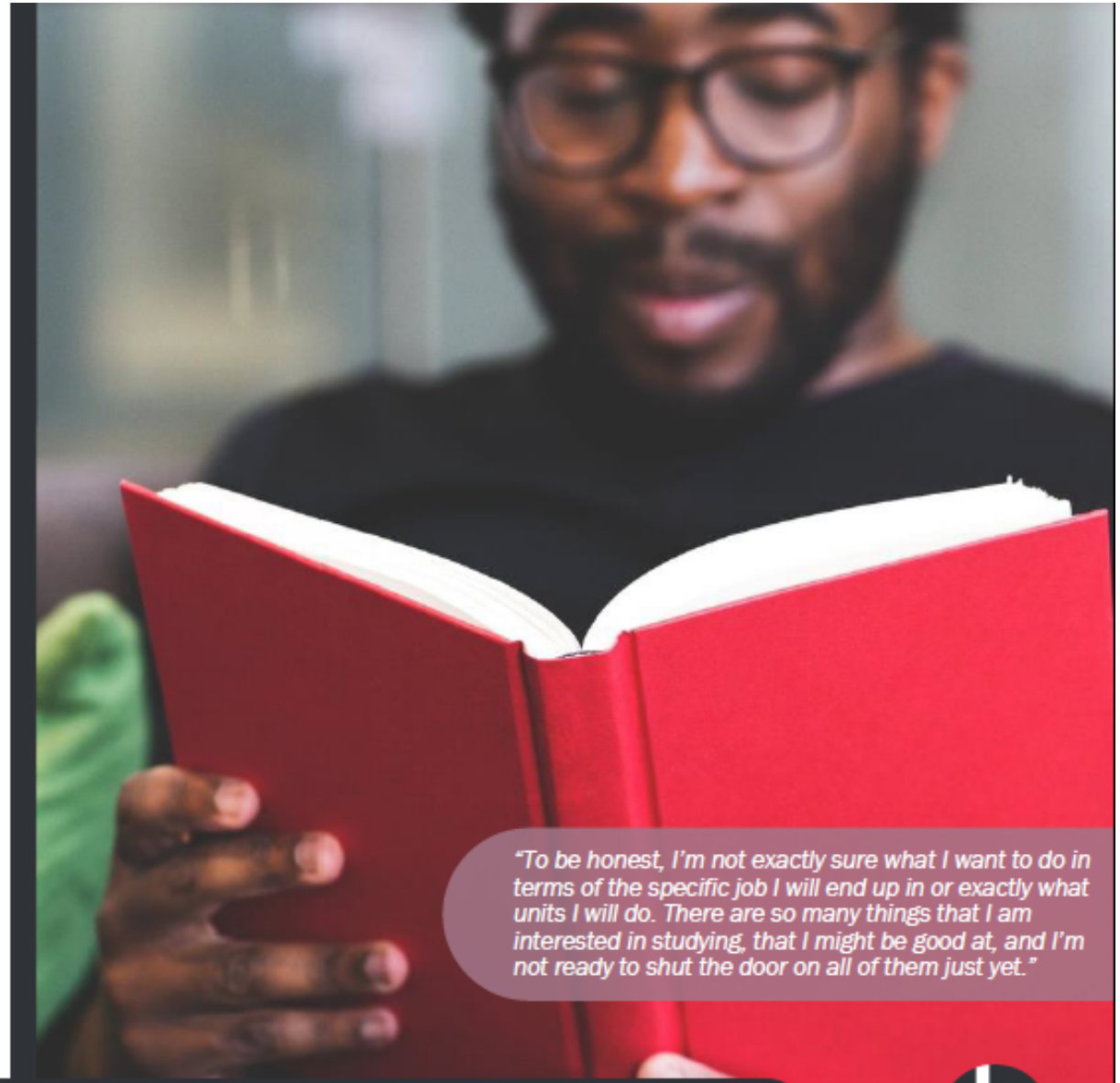
STUDENTS TOLD US THEY ARE OPENMINDED ABOUT WHAT TO STUDY

They tend to keep their options open.

Year 12 students nearing the end of their study, and having submitted their university preferences, are still yet to clearly grasp exactly what it is they want to do or be in the future – at least not in great detail.

They are typically able to tell us about a field or area of interest, but that is quickly followed by many other passions, hobbies or things they are good at and that they may like to explore in the future.

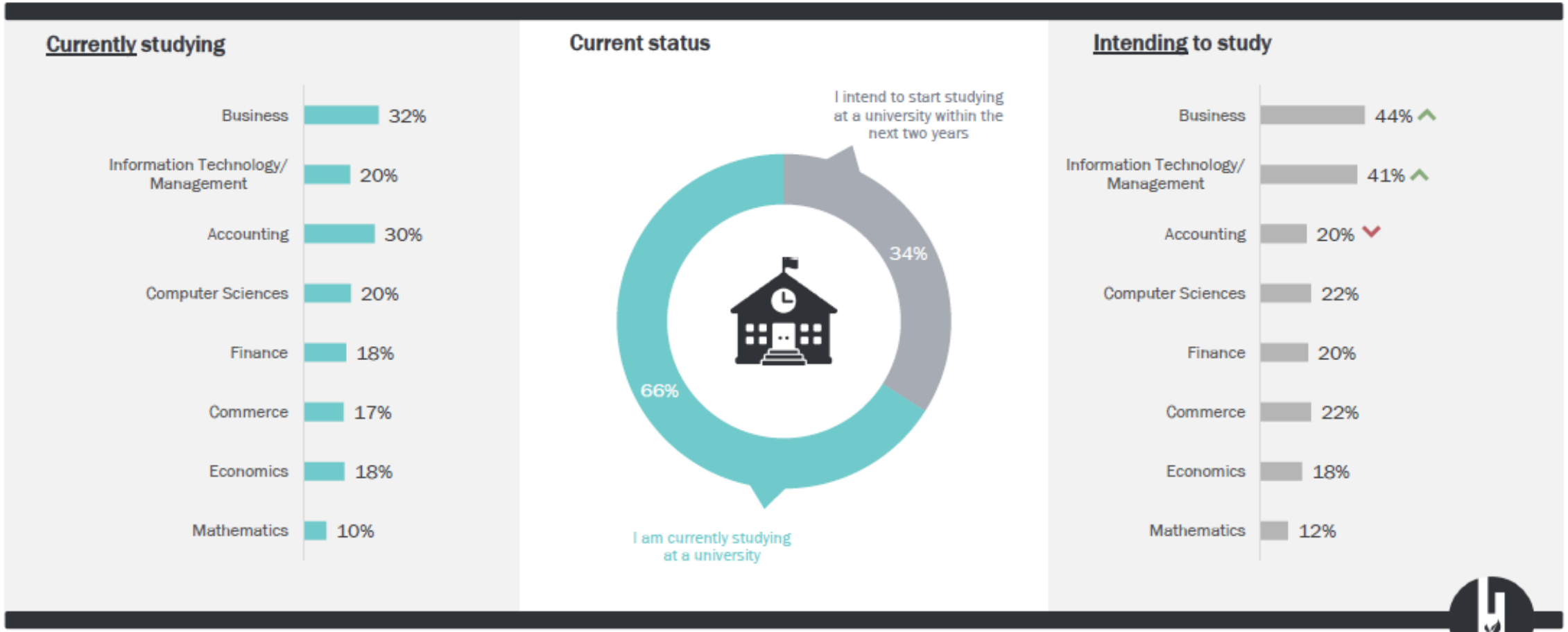
Opportunity is plentiful and as a result, these students like to keep an open mind when it comes to considering their university course and the majors, minors and electives that come along with it. They tend to prefer learning by experience so as to not limit themselves to something they may not enjoy or be good at.



Students want a degree that offers flexibility, choice and experience (i.e. majors, electives, internships), particularly in the first year of their studies.

Source: Project Debrief Harvest Insights, 9.11.18. Research commissioned by La Trobe University

BUSINESS IS ALSO CLEARLY EMERGING AS A STUDY AREA OF INTEREST AMONGST THOSE YET TO START UNIVERSITY



QA8. Which of the following area or areas are you currently or are you intending to study? Please select all that apply or interest you
Total sample (n=450)

Source: Project Debrief Harvest Insights, 9.11.18. Research commissioned by La Trobe University

VICTORIAN STUDENTS VALUE THE OPPORTUNITY TO GAIN REAL WORLD EXPERIENCE

Overview

30%

Businesses are increasingly using digital technology to generate sustainable competitive advantage by creating innovative business models, exceptional customer experiences, and efficient internal capabilities.

In this course students will learn the fundamentals of business and how to unlock the potential of technology and various digital platforms to improve business performance. Students will develop a blend of technical and practical business skills across a variety of different disciplines including business, marketing and commerce.

28%

Graduates will be able to use their analytical skills and entrepreneurial passion to help businesses identify commercial opportunities, solve problems and drive innovation.

Course Content

The course will cover a range of topics including:

- Introduction to business
- Principles of management
- Digital analytics
- Business statistics
- Marketing fundamentals
- Introduction to E-Commerce
- Entrepreneurship and innovation
- Social media and mobile marketing
- Interactive web design

43%

In the final year of this course students can elect to undertake a work placement where they will learn how to identify successful business models and strategies and impact change within a reputable industry partner organisation.

Graduate skills

33%

- A versatile skill set that allows you to work with new and existing business models, both online and offline, to support and improve decision making
- Be able to interpret sales and evaluate marketing opportunities using critical thinking and problem solving capabilities
- The ability to identify, source, extract and analyse information from industry leading software tools and digital platforms
- Fundamental business skills including effective communication, time management and attention to detail

Career Outcomes

This course will prepare graduates for careers in a wide range of industries including advertising, marketing, digital media, international business, investment, banking and finance and may lead to jobs such as:

- Management consultant
- Business analyst
- Digital business analyst (Social Media & E-commerce)
- Asset investment analyst
- Innovation consultant
- Market research analyst
- Business intelligence analyst
- Digital marketing manager
- Social media officer
- Multimedia developer
- Web designer

Duration

3 years

19%

QC1. Please highlight the words or sentences in the above description that you like.
QC2. Please highlight the words or sentences in the above description that you dislike.
Victorian sample (n=150)

Source: Project Debrief Harvest Insights, 9.11.18. Research commissioned by La Trobe University

WORK PLACEMENT APPEALS MOST TO VICTORIAN STUDENTS

11%

Overview

Technology has changed the way businesses operate and organisations now have access to an overwhelming amount of information about their business, customers and products. Individuals with the ability to interpret, analyse and translate this data into meaningful recommendations, forecasts and business solutions are in high demand across the globe.

In this degree, students will learn the fundamentals of business and how to identify and solve business challenges through strategic analysis of various data sources. Students will develop a combination of problem solving, critical thinking and influential communication skills across a variety of disciplines, including business, marketing and commerce.

30%

Graduates will be able to use their analytical skills and data-driven strategic thinking to help businesses identify commercial opportunities, solve problems and drive innovation.

Course Content

The course will cover a range of topics including:

- Introduction to business
- Innovative business practice
- Fundamentals of marketing
- Introduction to management
- Fundamentals in business analytics
- Introduction to database design and management
- Business statistics
- Business forecasting
- Disruption in business
- Business information systems
- Data visualisation and presentation

44%

In the final year of this course students can elect to undertake a work placement where they will learn how to identify successful business models and strategies and impact change within a reputable industry partner organization.

Graduate skills

- A versatile skill set that allows you to work across different business teams to support and improve their decision making
- Be able to analyse and present data using critical thinking and problem solving capabilities
- Proficiency in using business analytics software tools and digital platforms
- Fundamental business skills including effective communication, time management and attention to detail

27%

Career Outcomes

This course will prepare graduates for careers in a number of highly influential industries such as advertising, marketing, product management, international business, investment, banking, accounting and finance and may lead to jobs such as:

- Management consultant
- Business analyst
- Digital business analyst (Social Media & E-commerce)
- Project manager
- Asset investment analyst
- Innovation consultant
- Market research analyst
- Business intelligence analyst

26%

Duration

3 years

15%

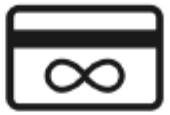
QB1. Please highlight the words or sentences in the above description that you like.
QB2. Please highlight the words or sentences in the above description that you dislike.
Victoria sample (n=150)

Source: Project Debrief Harvest Insights, 9.11.18. Research commissioned by La Trobe University

Appeal was driven by a clearly defined skill set and link to career

Digital Business was likely or very likely to enrolled in by 4 in 10 respondents from Victoria and Singapore who reviewed the concept. The appeal was significantly greater (7 in 10 likelihood) amongst respondents from China and India.

Across nations though, the reasons underpinning intention were similar; 3 in 4 prospective students believed that this degree would *Give skills for successful career in modern business*. This sentiment is underpinned by strong appeal of the graduate skills that they would gain as a result of completing the degree, and the opportunity to undertake a work placement.



Again we saw appeal linked to tangible business skills and career outcomes

Business Analytics was likely or very likely to enrolled in by 4 in 10 respondents from Victoria and Singapore who reviewed the concept. The appeal was greatest (8 in 10 likelihood) amongst respondents from China.

The reasons underpinning appeal were the powerful combination of broad business skills and practical analytical content; 8 in 10 prospective students believed that this degree would *Give a broad understanding of business* and *Give skills for a successful career in analytics*

Source: Project Debrief Harvest Insights, 9.11.18. Research commissioned by La Trobe University

Breadth and Depth

Students want to study something that is broad so they are not limiting their career options (because they often do not know what they want to do), but they also want specialised skills so that they stand out from the crowd.

The B Bus (major in Business Analytics) is a great example of this.

Literally Literal

Students are very literal, so course names must be specific, meaningful, and related to outcomes, for students to understand them.

Students also struggle with jargon, e.g. big data, digital architecture, so where possible, try to avoid using these terms or provide an explanation.

Industry Over Career

Students who want to study business typically do not know what they want to do.

When talking about career outcomes, the specific careers are less important than convincing them that the degree will open doors to a variety of industries/employers.

Keeping their options open is their priority.

Source: Project Debrief Harvest Insights, 9.11.18. Research commissioned by La Trobe University

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Internship insights

Internships - student perspective

- Work experience
- Try out a potential career path
- Provide an advantage in the job market
- Network with industry professionals
- Build confidence
- Transition into a job

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Internships - university perspective

- Enhance the education experience for students
- Strengthen partnerships with external/industry partners
- Build university brand recognition
- Collaborate with industry to scope and solve real work problems – potential to grown into research collaborations

Internships - Employer perspective

- Gain new perspectives on the way their organisation is performing
- Pick up some current technology user insights
- Trial period – try before you buy
- Help to complete projects that could be resourced otherwise
- Gain a brand advocate

The other side of internships

- Inappropriate workplace/workload expectations
  - Can come from either or both employer and student perspective
- Failures of supervision and mentoring
- Who's the boss when something goes wrong?
- How far does our duty of care extend?

Accounting internships feedback

- *"What I have found exciting at Australia Post was being given tasks to do such as uploading December Forecasts for multiple projects into the accounting program SAP and using SAP to extract information on specific projects for project analysts then presenting it in an informative and clear excel table to the project analysts"* TM – Australia Post

- *"I quite enjoyed the day-to-day challenges and thinking outside the box. I worked with different accounting software like TM1 and SAP and I also used Microsoft Excel. I had the opportunity to work in the following teams: Statutory and Regulatory, Financial Control, Financial Planning & Analysis and Financial Process Optimisation. It was engaging, interactive and this has helped me become more motivated to complete my degree. The skills I have learned are really useful in life and my future career."* SY – Insurance Australia Group (IAG)

- *"Seeing the hundreds of folders and excel documents was quite overwhelming at first, and each time I was shown a new spreadsheet I had to write down the pathway if I were to ever find it again. I had initially thought I was good at using excel, but after being presented with 70,000 rows of data I quickly learned that wasn't the case."* KF – La Trobe University Department of Finance

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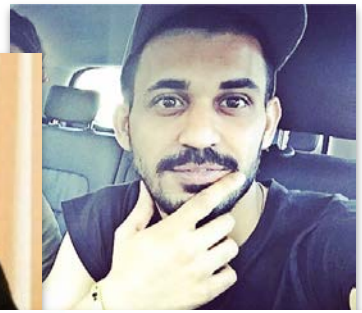
Industry placements & projects

LA TROBE UNIVERSITY

Hawker Brownlow DIGITAL

me

RACV



Launch HOUSING

IT'S TIME TO END HOMELESSNESS

Bupa

The Leprosy Mission Australia

Transforming lives since 1913

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“I am still pursuing my Master's degree and I am currently in the final semester of my course. However, I have secured a full-time role as an Associate Consultant at Servian, a leading Data Analytics Consultancy based out in Melbourne.” - Mahesh Krishnan

Full interview on NEST.latrobe coming soon.

La Trobe industry focused PhD

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- The industry focused PhD is offered in partnership with an industry organisation from private, government or not-for-profit sector.
- Industry partners get access to world-leading research capabilities to help solve their business challenges, increase their performance and develop a culture of innovation.
- Students undertake a research project that addresses real-world challenges identified by and of critical importance to the industry partner.
- The PhD student is embedded within the industry partner organisation for a period of time during the program.
- During the industry PhD, the student is co-supervised by La Trobe and the industry partner, and their PhD scholarship is co-funded by both.

La Trobe Industry internships

- We offer industry internships to PhD students in various disciplines through our collaboration with APR.Intern, Australia's leading internship program facilitating short-term research projects completed by postgraduate research students across all study disciplines and business sectors to deliver research solutions for industry.

- The internships are approximately 4-5 months duration and they focus on clearly defined research projects within industry organisations. Possible host organisations include private sector, government, and not-for-profit organisations in a variety of fields.

In Summary

“To stand still is to go backwards”

Lewis Carroll – Alice through the looking glass

- Changes in the way the world sees and uses data
- Changes in student expectations and choices
- Changes in the way we create and deliver our educational products

"It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.“

Charles Darwin

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Question Time!

www.slido.com