Transcript

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Presenters: Venus Liao, Professor Mark Dale and Justin Tay
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Venus Liao

Good afternoon, everyone. Welcome to Swinburne Webinar Series on a Friday afternoon. My name is Venus Liao. I'm the regional recruitment manager from Swinburne University. I look after that Australia Onshore and New Zealand region. Thank you for joining us today for virtual training.

On your right hand side is the panellist for today's webinar. That's Professor Mark Dale from Swinburne Business School. And we have Mr. Justin Tay, International Recruitment Manager from the Faculty of Business and Law at Swinburne University.

Today, we will be hearing from Professor Mark Dale, talking about the difference between business and data analytics versus data science, which is a common inquiry we receive. In addition, he will also be addressing how COVID-19 has affected the BIS industry and future job outcomes. As a teaching professor, Professor Mark Dale will also be able to share the feedback from our current students about online learning. So there's plenty of useful information to learn from today's session.

During the presentation, if you have any questions, please leave your questions in the Q&A box down below. At the end of the webinar, we will leave 5 to 10 minutes to go through your questions. We will try our best to answer your questions today. But if your questions is not answered but asked today, please feel free to contact Mr. Justin Tay or your regional recruitment managers from Swinburne University. We'll be sharing today's presentation slide and recording video on the Swinburne website, the information for agents and partners page, plus the webinar.

I would like to introduce today's presenter, Professor Mark Dale, the Discipline Lead from Business School at Swinburne University. Thank you, Mark.

Mark Dale

Thank you, Venus. And hello, everybody. And thank you for your support of Swinburne University. So today, as Venus has explained, I'll be talking about the business analytics course and data visualization units we have at Swinburne University. And so let's begin the presentation now. So I'm just going to do that. That's fine. Great.

Data is the new oil, when we're thinking about organisations and our economy, to an extent, as well. And it can provide high value to organisations. Business intelligence is now a key focus for organisations as they concentrate their efforts on analytics, starter insights, and discovery, reporting

and governance. And organisations are transforming industries, based on the power of data and business analytics alone.

Venus Liao

Hi, Mark.

Yes?

Venus Liao

I'm just going to cut you off here. I can't see your presentation. Do you mind just share your screen with us?

Mark Dale

Yes, Venus. I thought I was doing that.

Venus Liao

Yes. Let's try again.

Mark Dale

OK. So if I am there. Apologies for that, everybody. Can you see that now?

Venus Liao

It's on. We are on slide number three.

Mark Dale

Yes, that's fine.

Venus Liao

Perfect.

Mark Dale

I'll go back just one slide. So everything's fine now. Justin and Venus, everyone, can-- you can see my-- Great. Thank you, Justin. So just to go back to what I was saying before, folks, data is the new oil and of-- of our economy and of organisations. And organisations are investing large sums of money but also lots of effort in regarding to analytics and data insights, discovery, reporting, data governance.

And this data, and the way in which organisations are dealing with data, is transforming industries. Organisations like Amazon and Alibaba, I mean, they don't hold inventory yet they-- some of the largest supply chain organisations in the world. Uber doesn't own a taxi, yet it's one of the-- the largest transport or personal level transport companies in the world.

So we understand that business analytics, and data management, and data security are in demand capabilities and will continue to drive innovation across almost all industries. And that's why we offer business analytics at Swinburne. So it's going to be-- and we very much understand that data is the new world. And helping organisations manage data is a key competency that we're developing at Swinburne.

So why study business analytics at Swinburne? Well, business analytics, it's helping organisations to make sense of their proliferating data. And it's growing by leaps and bounds, growing and innovating job market, both at a global and a local level. Prior to the emergence of data as the new oil, so to speak, IT jobs were international, but not as international as they are now. And especially with what's happening with COVID, and some of the-- the increase of interconnectivity between people across geographical regions is a very significant development.

New technologies are driving new skills, the internet of things, artificial intelligence, augmented reality, virtual reality, Blockchain, Cloud, and mobile technologies. And new technologies will continue to come over the horizon, which will generate data. And we need to be ready for that. And at Swinburne, we're-- we're-- we're aware of the new technologies. And we're building those skills within our student cohort to be able to move into the new-- the evolution or the evolving job market.

And these are expanding career pathways, opportunities to move upwards and sideways, within organisations, based on having business analytics and data analytic skills. And it's a rewarding and exciting career, rewarding remuneratively and also professionally in terms of career, where your career can take you both internationally and locally, and across industries as well. And so "data and technology," as the Economist reports, "will continue to be the main driver of employment in the future." So we're preparing students for a-- not only an emerging job market but a job market that's going to be around for a long time but will continue to evolve.

So here are some examples of data driven business models. We have Airbnb, the world's largest accommodation provider, yet it doesn't own any real estate. We have Uber, the world's largest taxi service, and it doesn't own a taxi. We have Alibaba, the world's most valuable marketplace, yet it doesn't own any stock. And Facebook, the world's most popular media company, yet it owns no content. So these are organisations that are transforming their industries and creating new industries. But they're based purely on data alone and the insights that are being driven from that data.

So business analytics and data science, and I'm just going to adjust my screen here, so I can read my text. But business analytics focuses on people, the use of data information, building dynamic capabilities within the firm, better engagement with customers, clients, and partners, and the use of innovative technology, et cetera. So it's really about data for business purposes. Business analytics professionals, they blend technology as well as management skills-- data management skills, business analytics skills, and management skills, as I said before.

Whereas, data science, it's focusing on the programming and the algorithms behind analytical tools. And data science professionals design and structure data sets or design machine learning algorithms. Now, we have faculties at Swinburne, the Faculty of Science, Software Engineering and Technology, which does data science. But with regard to the Faculty of Business in learning and so on, in my department, we focus on business analytics and preparing students-- preparing profession-- students to move into professional careers. It involves where they are helping organisations, develop

and evolve strategies, and improve operational performance on the basis of their data analytics. OK. Going to move up.

The job outlook in Australia for business analytics, well, we have graduate business analyst positions of up to 70K to 100K. We have senior data analysts from 160K to 190K. And as you go up the pay grade, this superannuation, and bonuses, and so on are attached to those remuneration grades-- so business analytics specialists, business intelligence specialists, senior data architects, and senior enterprise architects.

And what I haven't also mentioned there is that because data is now the engine room of business decision making, people with data skills can move into management roles as well, and not just stay within the data domain. So as I said before, the sideways movement that is open to students is very much evident in organisations with people who have come out of university with business analytic schools and now moving into management roles, managing teams, and even taking on senior management roles in organisations like banks, for example, where I consult that-- and working in the business. So it's having a business analytic skill or capability is a very enabling competency to have. And demand for business analyst skills is expected to be very strong over the next five years and probably further really, given the importance of data to organisations.

So roles associated with business analytics-- well, we can have business analytics. You can have data architects. You can have-- and I'm just moving that-- data governance. And that's a very important skill to have or, what can I say, role to be in. A lot of organisations--

And over the Christmas break, I was doing some consulting work in Origin Energy Australia, and IOOF, which is a wealth management firm here in Australia. And those organisations are amassing large amounts of data. But that data needs to be managed in a way that's aligned to community expectations, and government regulations, and so on.

So it's not only the technical skills around managing data and analyzing data, but it's also-- there are-- there are definite roles around data security and data governance, helping organisations theoretically put their hand on their heart and say, well, yes, we do this properly. We protect the privacy of customers' data. We protect the security of customers' data, and so on.

Data management is another key role. Consulting, data storage, enterprise architecture-- these are all roles, professional roles, that have-- well, they're in high demand in industry, but also have at their core a data or business analytics competency. So it's a very exciting area to be in, really, from a professional perspective. It's really expanding rapidly. And the opportunities that are emerging for people, very exciting.

So business analytics and COVID, so let's have a look at what-- what-- what COVID and this sort of the recent experience in Australia, where and-- and across other countries as well, where people are now working from home. People are now shopping online. People are communicating with one another through digital media and so on. What does that mean in terms of industry, and the economy, and education itself? So let's have a look at that.

We have this digital workforce now. I mean, we had a digital workforce to begin with. But that's become like we're all now almost part of that digital workforce in terms of-- in the past, we may have gone to a work site and-- and used computers and used digital technology now. But now, our ability to be at work is dependent on digital technology. So overnight, we switched to telecommuting. Working remotely drives new challenges for business, not only from a security

perspective, but also in terms of capacity and being able to support people working online, rather than being at an office, so to speak.

Data delivery, being able to get data to people in an efficient and also secure way is a very-- well, it's-- it's making life difficult for IT departments, because especially in the education sector, with a lot of Australian universities, for example, teaching into-- well, with many students say, for example, in Asian countries unable to come to Australia or universities like Swinburne and so on, where we're moving our technology further out into Hong Kong and so on, so that students are able to access our content in a more efficient way, rather than having to try and access a server here in Melbourne.

Data management is also an important skill, not only in terms of giving people access to data, but also the right data. Data security is also a very important thing in a sense that banks get hacked something like 0.5 of a second. The average life of a piece of malicious code is something about three seconds. So security and new technologies present new risks to organisations, as they're adopted. So data security is a very evolving discipline.

Data governance, as I talked about before, data analytics and business intelligence. Helping organisations in this new world work up, what's the best way to engage their customers? How to build that relationship, build that intimacy, but through digital technology and so on? But also, supply chains being squeezed, and stretched, and so on, especially around supermarkets, for example. COVID and the changes that have happened as a result of COVID are really driving significant changes across supply chains for organisations.

So in terms of the customer interface, essentially, customer channels, we've got face-to-face interaction is not possible. And our business models transformed into online models. Demand on supply chains spiked. And even just some basic items in supermarkets and so on, given that the high anxiety over that the supply of particular products, well, supply chains just couldn't scale up to meet that demand.

And demand for connectivity increased exponentially as well. So people, for example, students. Students would go to university, would go to a class, and sit there, and-- and have their lecture, and so on. But now, all those lectures are online. And that's an example of the ways in which the-- the use toward dependency on digital technology for connectivity has really spiked during this period. And universities, as an example transitioned very quickly to a digital operating model.

We now, at the moment at Swinburne, are offering classes and so on via digital technology. It's a very-- it's been challenging. But students have been giving very, very positive feedback about the flexibility that it offers, the ability to still engage with lecturers, and so on, but in a way and in a time in a manner of their choosing. So for example, in the evening or in the early morning. And staff have been making themselves available to maintain that higher level of, I suppose, student learning experience, which is a very-- well, it's something that Swinburne has a reputation for.

So as I said before, universities transitioned very quickly to a digital operating model. And this will have a lasting impact on productivity and efficiency within universities, as they basically look to use what has been-- what-- the positive things out of this experience in terms of the innovation around content and teaching, as well as student engagement and student learning experience.

So you may have seen this slide before. But this is just to simply illustrate that from a interconnectivity perspective and dependency on digital media during his time, online transactions, and online shopping, and so on has grown exponentially, 80% in North America. Lockdowns continue

to produce growth for pure e-commerce brands in Europe. And brands that were primarily based on face-to-face relationships and so on, even these sort of micro industries of like fitness and things like that are now having to innovate to really deal with the, I suppose, the existing demand for those sorts of services but in new ways of delivering those services.

So why study at Swinburne? Well, we have innovative content, which is data-oriented and technology. We're continually going to market, looking at new technologies-- the Blockchain, the internet of things, the digital twins, and so on-- and bringing that technology and bringing those ideas into our class and exposing our students to those technologies.

We're industry engaged. We have partners in SAP, Tableau. We partner with big consultancies like Deloitte, PwC, and KPMG, and so on. We're engaged with the banks, the major banks of Australia, and so on from-- from not only from their guest lecturers and people coming in from in those industries to talk questions, but also students being able to go out and do projects and so on with those organisations.

We have employment pathways, internships, and placements. We have personalized teaching and learning. And that's a very strong, what I would call, characteristic of Swinburne. I think that's where Swinburne does differentiate itself from a lot of universities, in the sense that we do pride ourselves on the connection we make with our students, and our support for our students, and also our flexible study, blended and online, and face to face, as well as the online delivery plus also other channels as well.

And just to sort of reiterate that point, the teaching-- teaching excellence at Swinburne is something that we're-- the university is mindful of. It actively promotes amongst its workforce and students, based on their feedback. The surveys that happen at the end of every semester are generally appreciative of the efforts that are made in that regard.

So Swinburne results, 81.4% of undergraduate teaching quality is highest in Melbourne, 82.2%, give us a five star rating for educational experience, 76.3% undergrad full time employment highest in Melbourne. $60,000 of undergraduate salary, it's the highest in Melbourne. So that's what our undergraduates are-- are achieving. But also, in terms of our postgraduate as well, well, the feedback I get as a discipline leader within the faculty is very, very positive in terms of the students' response to the help and support they get from staff, but also the, I suppose, the-- the cutting edge content that they're exposed to and the technologies and so on.

So our two main business analytics offerings-- at the undergraduate level, we have a Bachelor of Business Information Systems called the Bachelor of Business Information Systems, BBIS. And that focuses on business analysis, data analytics, and data management majors. And then, at the postgraduate level, which I think many of you would be interested in, we have a Master of Business Information Systems. We have a graduate certificate in the four units, and a graduate diploma of eight. And then, the-- the great proper of 16 units, we have entry pathways for people who don't have experience and entry pathways for people who do have experience.

We offer certification from the International Institute of Business Analysts. And again, these sorts of programs are very important for the employment attractiveness of our students, because they're recognized within the industry as well, that students will graduate from these courses having been exposed to SAP, and to business analytics tools like Tableau and so on. And so, will go to the industry in many ways ahead of their peers from other universities who don't have those experiences. And so we have business analysis and analytic specializations as well at the postgraduate level. OK.

So the student learning experience at Swinburne-- well, it's a combination of both face-to-face lectures and tutorials, videos, and discussions, and readings, case studies, real world projects. Our assessment at the undergrad level is examination system summit. At the postgrad level, assessment is based on assignments and portfolios. We don't have exams. We phased out exams a couple of years ago. And we're finding the feedback from students is that they appreciate that, because it allows us to focus our assessment on industry relevant skills and competencies.

So we have international study opportunities. So for example, we have the Business Innovation in Europe Study Tour. And we have one for supply chain as well. We have a number of programs. There's one that goes into America, another one that goes into the outback of Australia and works with remote communities, and so on. So there are opportunities for students once they land at Swinburne to then spread their wings, so to speak, and travel overseas under the auspices of a Swinburne course and visit SAP, or visit Daimler-Chrysler, or visit BMW, or visit Alibaba, and so on to really understand what-- how digital technology is used on the ground in these organisations. They're very, very popular to us.

So basically, at Swinburne and business analytics, we're-- we're-- we're fundamentally trying to equip students to understand the-- the challenges of existing technology, but also understand that the challenges of technologies coming over the horizon at us and what they mean for industry, and the challenges for industry, as well as the risks and the benefits, and so on, and also, the opportunities that those technologies will create for students as they enter the workforce in two, three, four, five year's time. So fundamentally, we're industry focused. And we're focused on learning experience. We're focused on exposing students to technologies that will have industry relevance, and giving them foundations and skill sets that are going to be in demand within industry.

And here, are some of our partners. We work with the National Australia Bank. We work with one of the largest supply chain companies in the southern hemisphere, Linfox. We work with KPMG. Arq Group is a large consultancy based, primarily in Australia. Tableau, PwC. Telstra is one of the largest telecommunication companies in the world, based here in Melbourne or in Australia. SAP, the Australian Government Siemens, and so on.

We work with some blue chip organisations. And those relationships have been built over the last 30 years. And those companies continue to come back to Swinburne, looking and talking to us about ways in which we can evolve the relationship and what opportunities can be provided to students and so on. So we're very grateful at Swinburne for those-- for those companies and their support. But we're also mindful that those companies benefit from the students that we're producing. And that's a win-win.

So thank you very much. I know it's a short presentation. But hopefully, you will have an understanding, I think, of the business analytics courses at Swinburne both in undergraduate and postgraduate level, but I think more importantly, the-- the focus we have at Swinburne in giving students a very positive learning experience, even during the times as we're experiencing now with COVID and so on, the support we have for students and the sorts of outcomes we want for our students, both in terms of the skill set but also in terms of their-- their educational experience and educational life at Swinburne University. So thank you very much.

Venus Liao

Thank you, Mark, for your presentation. We have two minutes left for today's Q&A session. And we've already got a couple of questions lining up here. So I'm going to ask you, Mark, to perhaps shorthand your answer. And so we will try to get through as many questions as we can.

Mark Dale

Certainly. OK.

Venus Liao

All right. So we have this question asking about, "Will the student study Python or another language to analyse data, what will be the portion of learning computer system versus business built?"

Well, students can look to do units in other faculties, as a part of the MBIS. So if they want to learn a programming language, by all means, they are able to do that. They're not locked into-- well, they have opportunities to do electives and so on to do more technical units in programming languages. Could be Java. Could be in C. It could be in ADAP, which is the SAP language. Or ABAP, sorry. So they're not limited to just looking at data from a business perspective. If they want to go down another path, they're able to do that. It's part of their studies.

Venus Liao

Thank you, Mark. I know you have already mentioned this in the beginning part of your presentation. But can you quickly summarise and tell us what is the difference between Bachelor of Business Information Systems and Bachelor of Information and Communication Technology, BICT?

Mark Dale

So the Bachelor of Business Analytics and Information Systems is about how people in organisations use data and building student-- or developing students who have skill sets in helping organisations use data. In terms of Bachelor of ICT, that's really about building the algorithms, designing the platforms that the technology will run on, that will help businesses use data in the way they want to. So if you think of it in two-- in layers, for example, the lower layer is the Bachelor of ICT. It's basically down to the technology. It's with the bits, and the bytes, and the cables, and so on. Whereas, at the business analytics and business information, we're at the management layer. We're helping organisations use data to make better strategic decisions.

Venus Liao

Thank you. Just quickly, to answer the questions, a lot of them are asking, can this course be taken online? And I'd just like, Mark, if you could quickly tell us.

Mark Dale

Yes. I mean, the simple answer to that, Venus, at the moment, yes.

Venus Liao

That's great. All right. We do have hit the 2:30 mark. And we have to bring to the end of today's session. I want to thank you again, Professor Mark Dale, for your presentation on Swinburne BIS. And thank you to the participants joining us around the world for today's session.

An invitation for next webinar on next Wednesday 27th of May on Accounting and Finance will be sent out to you all today. Hopefully, to see you on next Wednesday's session at 2:00 PM. We want to thank you and wishing you a nice weekend, everyone. Take care. Goodbye.

Mark Dale

Bye, bye, folks.

[END OF TRANSCRIPT]