

EVOLVING OCCUPATIONS AND SKILLS IN A DIGITAL AGE

In this report, we explore how jobs and skills in Singapore are evolving in the era of digitalisation

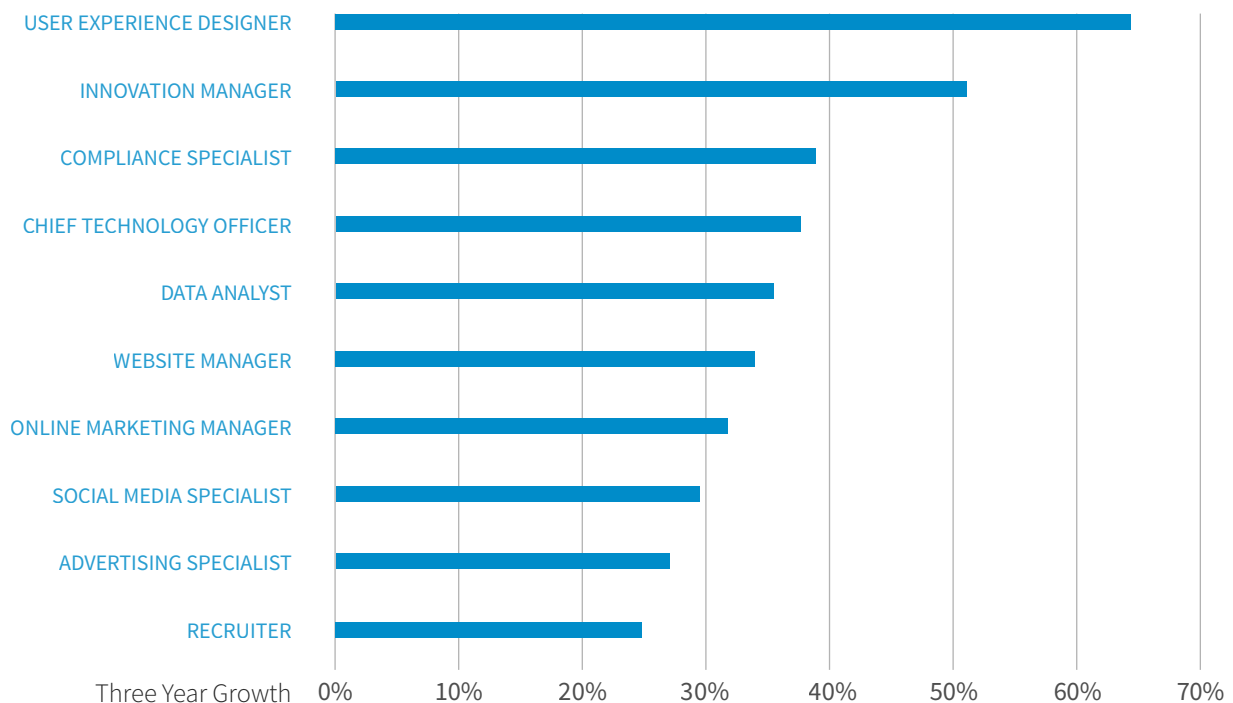
THE RISE OF DIGITAL OCCUPATIONS

The scale of digitalisation has exploded in the past decade. From taking consumer experiences mobile to automating warehouse operations, there are countless instances of processes going digital. This trend is perhaps best characterised by the growth of digital occupations – after all, human capital is a key building block of an economy.

THE FASTEST GROWING OCCUPATIONS IN SINGAPORE

Digging into the network of almost 2 million LinkedIn profiles in Singapore, we derived a list of occupations that experienced high growth in the past three years. Not surprisingly, 7 of the 10 occupations are digital roles.

FIGURE 1: FASTEST GROWING OCCUPATIONS IN SINGAPORE



Source: LinkedIn (Dec '13 – Dec '16)¹

User Experience Designers take the lead, as this has become the key to product strategies and consumer outreach for almost every business. It is also worth noting that User Experience (UX) is not a skill confined to UX designers; professionals with UX skills include software developers, creative/web designers, advertising specialists, marketers and product managers, too.

The rise of **Chief Technology Officer (CTO)** underscores the significance digital innovation is playing in business.

Website Managers, Online Marketing Managers and Social Media Specialists have also increased in numbers as more businesses develop their digital presence.

And of course, with digitalisation comes the rich 'data exhaust' that requires the expertise of **Data Analysts** to make sense of it and mine it for further competitive advantage.

¹ To Determine the growth rate of an occupation, we looked at the number of LinkedIn members in each occupation in December 2016 and compared that with December 2013

EVOLVING COMPETENCIES WITHIN INDUSTRIES

However, looking at the growth of digital roles is only a part of the puzzle if we want to understand how business models and functions are transforming. The kind of digital competencies that are building up over time in companies is another important piece of the puzzle. A good proxy is to look at which skills are growing fast on the profiles of professionals in different industries.

For this article, we take a deeper look at two non-tech industries that are undergoing massive digital transformations – [Marketing & Advertising](#) and [Banking & Finance](#).

MARKETING & ADVERTISING

Brands are increasingly connecting to consumers on digital channels, and this is reflected in the skill sets of professionals in the Marketing & Advertising industry. Among the ten most common skills they possess, half of them are related to digital and social media marketing:

SEO/SEM

Topping the fast-growing skills list is Search Engine Optimisation/Marketing, which is an ever-changing expertise, due to the constantly evolving algorithms of search engines.

ADOBE SUITE

Adobe's suite of programs – specifically Photoshop, Illustrator and Premier Pro – maintains its popularity among marketers, evident from the strong growth of members listing these competencies on their profiles.

PAY PER CLICK (PPC) MARKETING

Third on the list is PPC Marketing. The PPC landscape saw several changes in the past few years, and continues to play a vital role in helping advertisers drive more traffic, leads and conversions.

PROGRAMMATIC ADVERTISING

This has hit the mainstream recently, and is gaining traction amidst the larger trend of marketing automation. Widely tipped to be the future of advertising, given the huge benefit of targeting efficiency, the number of marketers listing this skill on their profile has grown by over 50% in the past six months alone.

² To calculate trending skills, we looked at the number of LinkedIn members who added a skill in the half-year period of Oct'16 – Mar'17, divided by the number of members with the skill on Oct'16.

BANKING & FINANCE

This sector has seen its fair share of digital disruption from factors such as data explosion and the rise of e-payment technologies.

VISUAL BASIC FOR APPLICATIONS (VBA)

With the constant push towards automating processes and daily tasks, VBA maintains its vast popularity as the fastest growing digital skill in this sector. This is also a reminder that digitilisation is not just about mobile apps and software engineering; VBA is widely used in several non-tech functions such as investment banking, risk management and back office operation.

TABLEAU

Tableau stood out as the fast growing skill in the business intelligence category. In a data world, financial institutions are increasingly using such tools for a range of activities, such as monitoring risks with interactive dashboards or analysing the effect of investment decisions.

MACHINE LEARNING

This is also trending up fast, with a wide range of applications from automated recommendations for product engineering, assessment of credit worthiness, to risk management and fraud analytics, among others.

PYTHON

Python is probably one of the hottest programming languages in banking today. Financial institutions use Python for various programs in risk management platforms, trading systems and pricing. There are currently over 400 local jobs requesting Python skills, of which a third are from this sector.

³ Job data is based on jobs listed on LinkedIn.com as of March 30

A COUNTRY-WIDE EMBRACE OF AI, CLOUD, DATA, DESIGN AND WEB PROGRAMMING

Marketing & Advertising and Banking & Finance are just two examples amongst multiple sectors where going digital is essential for long-term success. We did a similar analysis of fast-growing skills at a country level to understand trends that may be applicable to multiple industries.

This is a list of digital skills that have grown by 10% or more in the past half year among profiles of the members based in Singapore:

FAST GROWING DIGITAL SKILLS IN SINGAPORE

Adobe Photoshop/Illustrator	JIRA
Amazon Web Services (AWS)	Machine Learning
AngularJS	MongoDB
Big Data	Node.js
Data Analysis	Python
Design Thinking	R
Git	Software Development Life Cycle
Google Analytics	Statistical Data Analysis
Hadoop	Tableau
HTML5	User Experience Design

A FEW KEY TRENDS STOOD OUT

Web programming skills are constantly evolving, and we see some programming languages becoming more popular than others. On the data side, we see an uptick in business intelligence tools, statistical skills, database management skills and machine learning.

WHAT DOES THIS MEAN FOR BUSINESSES?

The rapid pace of transformation has left some companies struggling to keep up, yet digitalisation is only going to accelerate moving forward.

Digitalisation is not confined to the tech sector, as shown by the changes in the two non-tech sectors described above. Companies need to embrace this trend and adapt their business models and strategies accordingly, so as not to be left out.

WHAT ROLE DOES THE RECRUITMENT INDUSTRY PLAY?

Agencies are vital in helping businesses navigate the uncertainties and changing talent landscape that are critical for success. Agencies that can partner with organisations to help craft strategies to find, attract, and hire the right talent will ultimately be successful, but they need to go beyond recruitment. Agencies need to be at the forefront of understanding digital talent and how and where disruption occurs, as well as how it can be best navigated to help build organisations for digital success.

This is part of the Singapore Insights series that aims to uncover important trends by leveraging LinkedIn data.

The results of this analysis represent the world seen through the lens of LinkedIn data. As such, it is influenced by how members choose to use the site, which can vary based on professional, social and regional culture, as well as overall site availability and accessibility. These variances were not accounted for in the analysis.



ABOUT THE AUTHOR

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Alvin leads an insights team at LinkedIn that helps organisations make data-driven decisions on talent issues. He has been with LinkedIn since it first opened its office in Singapore almost five years ago, and has worked with numerous global and ASEAN businesses in supporting their growth with social recruiting and talent analytics.

ABOUT LINKEDIN TALENT SOLUTIONS

LinkedIn Talent Solutions offers a full range of recruiting solutions to help organisations of all sizes find, attract and engage the best talent.

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