

## Digital disrupters snapping up PhD graduates



More than 9000 PhDs were awarded in 2017.

### **TIM DODD**

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New research based on LinkedIn data has for the first time broken down the PhD job market, revealing that innovative young high-growth companies are large employers of people with doctorates. The study, titled *Who are the Top PhD Employers?*, says doctoral graduates are increasingly finding jobs outside academe.

“There are significant opportunities ahead for PhDs to work with young global start-ups and innovative Australian high-growth employers,” it says.

The research, undertaken by Ribit at the CSIRO’s Data 61 and the Australian Mathematical Sciences Institute, found nearly a quarter of working PhD graduates are employed in business, another quarter are in government and not-for-profits, and just over a half are in research institutions and universities.

The study, which includes an analysis of LinkedIn data to determine where people with doctorates work, reveals many PhD graduates already working in a cohort of young, growing Australian companies that are disrupting their industries.

“Many of the companies in this list are developing software products to transform their industries,” the study says.

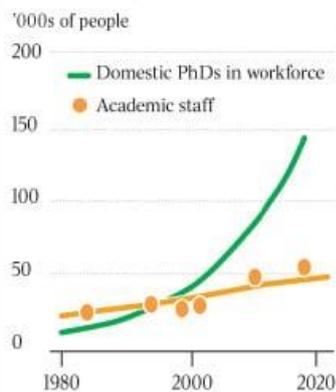
“For example, Down Under Geosolutions’ software is used by the oil and gas industry worldwide; Canva — valued at over \$1 billion last year — is transforming graphic design

worldwide via its online design software; and SafetyCulture is providing airlines, mining and many other industries with mobile safety inspection software.”

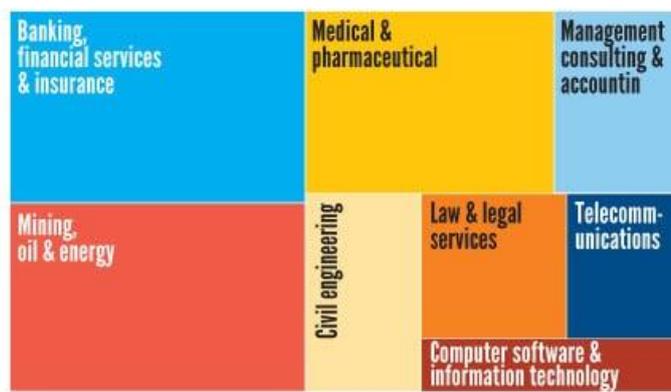
Other disruptive companies employing PhDs are identified, including Appen, which offers voice technology solutions in a global market; Redbubble, which runs a huge online marketplace for independent designers; and Rokt, a world leading marketing technology company.

## DRILLING DOWN INTO THE DOCTORATE MARKET

### PhDs outnumber academic jobs



### Main industries employing PhD grads in Australia



Source: AMSI, Ribit

Ribit director Liz Jakubowski said: “Many of Australia’s most successful high-growth companies are already employing PhD students and graduates and there’s an opportunity for other businesses to take advantage of this fantastic talent pool.

Ms Jakubowski said about 500 PhD students and graduates were listed on Ribit’s online job matching service aimed at innovative companies and start-ups.

However, large numbers of PhD graduates also work in large companies in banking and finance; mining and energy, and the medical and pharmaceutical industries.

The research also found that PhD holders in some disciplines, such as sociology and anthropology, tend to work in research or in academe. Others, such as those in engineering, are far more likely to work in industry.

It is important for PhD holders to find jobs outside of academe because since the 1990s the number of people in the workforce with doctorates has outnumbered the number of academic jobs.

More than 9000 PhDs were awarded in 2017, compared with fewer than 4000 in 2001.

The researchers also surveyed current PhD students and found that just over half of the 446 who responded from Australian universities said they intended to work outside of academe.

Just over a quarter want to work in business.

A co-author of the paper, AMSI policy officer Maaïke Wienk, said the report showed there was value in initiatives to help PhD candidates and employers to “meet half way” to bridge the gap between the academic skills learned in a doctorate and the needs of business. She said it was “also important for business to grasp what PhD candidates could do for them”.

The report says: “Some businesses are hesitant to hire PhD graduates even if they are looking for employees who have deep analytical skills and the ability to tackle complex challenges.”

It also urges PhD graduates to be aware of the skills they can bring to a business and to consider “what additional training they might need to make them attractive to prospective employers”.

An AMSI-run program, APR. Intern, places PhD students in internships in industry. More than 20 per cent of the interns placed have later been offered jobs by the company or organisation where they were placed. AMSI says 42 per cent of interns who said they were “job ready” found employment directly related to their field of expertise.

One APR. Intern, University of Wollongong nursing PhD student Amy Montgomery, said her internship with Ramsay Health gave her the opportunity to experience the private health sector, where she hadn’t worked before.

She is researching how health professionals manage delirium patients.

**Tim Dodd** HIGHER EDUCATION EDITOR

Tim Dodd is The Australian's higher education editor. He has over 25 years experience as a journalist covering a wide variety of areas in public policy, economics, politics and foreign policy, including reporting from the Canberra press gallery and four years based in Jakarta as South East Asia correspondent for The Australian Financial Review. He was named 2014 Higher Education Journalist of the Year by the National Press Club.

