



# Closing the Digital Skills Gap in APEC Economies

*DARE Digital Skills Forum Report*

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## The Process:

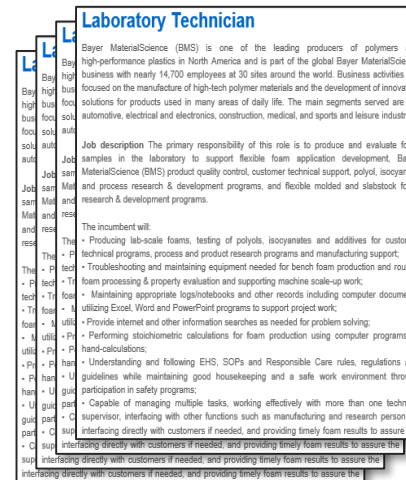
# Collecting Real-Time Labour Market Data



### Visit Online Job Sites



### Collect & Deduplicate Job Postings



### Tagging & Normalising Postings to Generate Detailed Data

- Job Title & Occupation
- Employer & Industry
- Technical Skills
- Foundational Skills
- Certifications
- Educational Requirements
- Experience Levels
- Salaries

## What it Takes: Collection Infrastructure

The effort needed to build a comprehensive data collection structure is significant, as our experience shows.

**3.4 million**

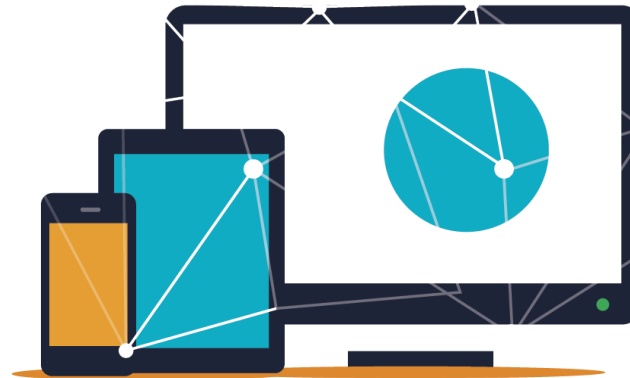
Active jobs  
collected weekly

**40,000**

Sources across the web - job  
boards and corporate sites

**>1 million**

Firms represented, from  
large corporations to SME's  
US, UK, CA, ANZ, SG



**80%**

Deduplication ensuring  
integrity and consistency

**300 million**

CV's processed per  
annum

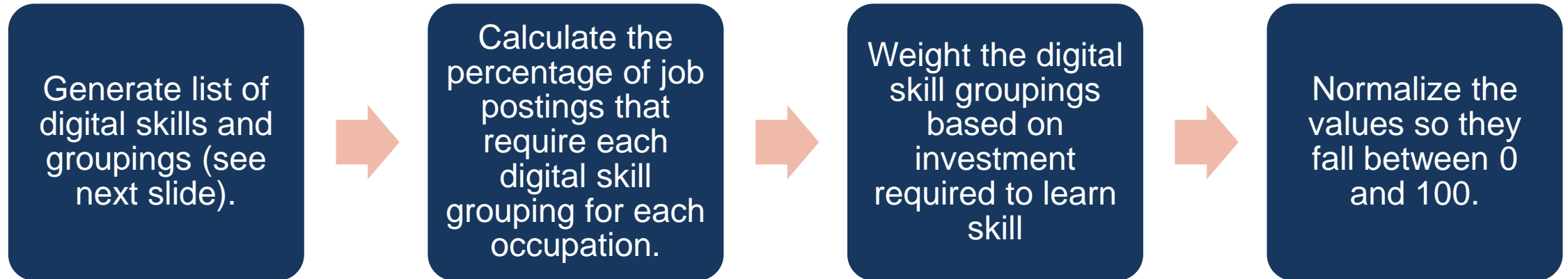
**>1 billion**

Historical job market  
records

### Dynamic Labour Market Ontology

23	Career Areas
2,000	Occupations
18,000	Skills
60,000	Skill Variants

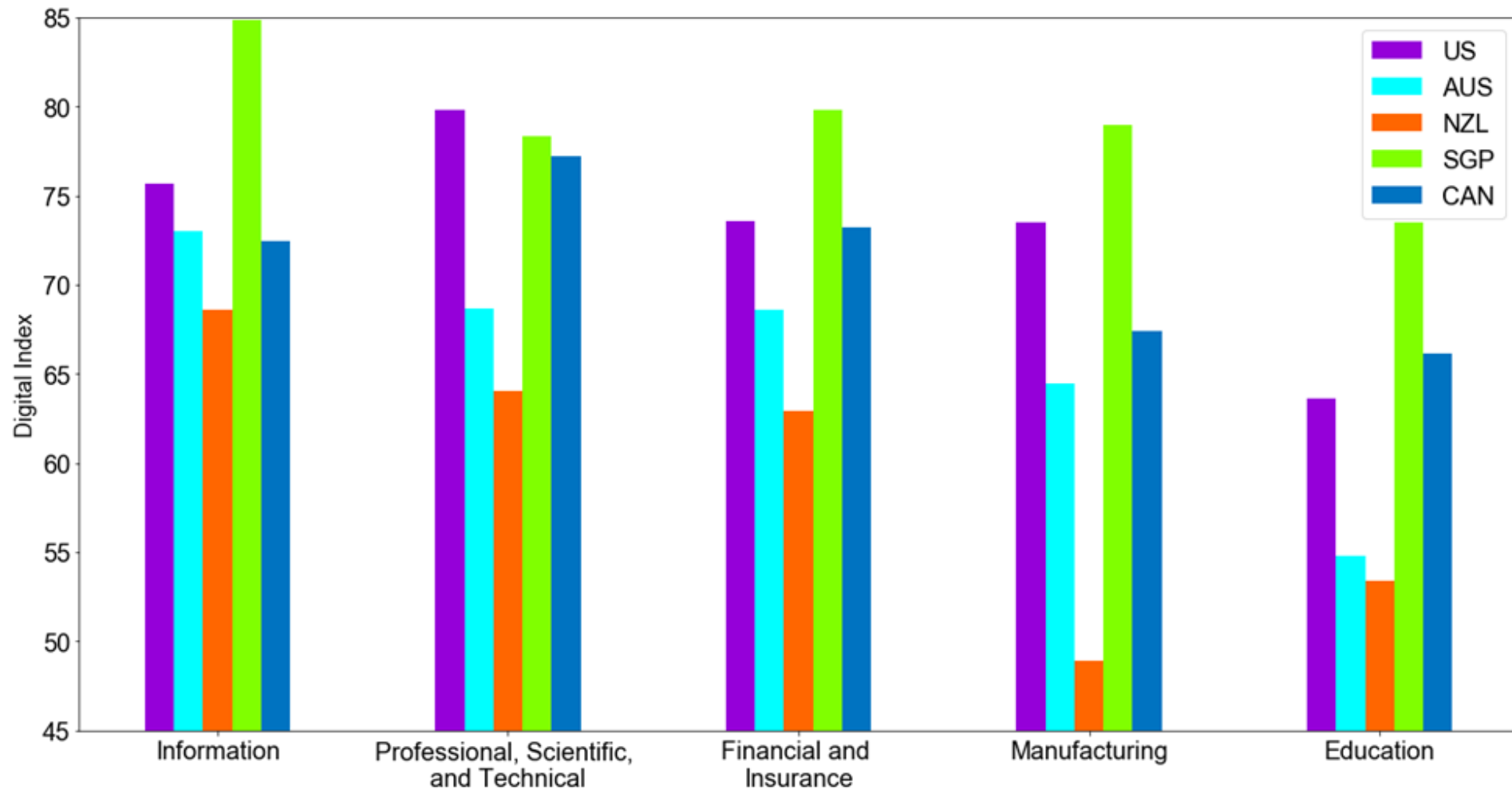
# Building a Digital Index



# Skill Groupings

	Digital Skill Grouping	Description	Examples	Weight
Baseline	Baseline	Productivity software	Microsoft Excel, Computer Literacy	0.5
	Customer Relationship Management (CRM)	CRM software	Salesforce, Microsoft CRM	1
	Digital Design and Marketing	Digital production and advertising	Email Marketing, Social Media, Graphic Design	1.5
Specific	Machining and Manufacturing	Machining and engineering software and tools	AutoCAD, 3D Modeling, Computer Numerical Control	2
	Data Analysis	Data analysis tools	R, Stata, Data Science	2.5
	Computer and Networking Support	Set up, support, and manage computer systems and networks	Computer Troubleshooting, Cybersecurity	3
	Software and Programming	Programming languages	Java, Python, SQL, C++	3.5

# Digitalization is widespread and has reached most corners of every economy



## Baseline digital skills are in high demand and highly transferable

- **High demand:** 26% of all job postings explicitly require at least one baseline digital skill in 2019.
- **Common across occupations:** Baseline skills are in the top 3 skills required in all economies studied and are found across a wide range of occupations, making them portable
- **Basic skills requirements for most jobs:** Even the least digital occupations often require some level of baseline skills, so acquiring these skills is worthwhile across professions.

## Seven out of ten job postings in the economies studied are in digital occupations

Economy	Skill Level	Digital Jobs	Total Jobs	Digital Jobs Ratio
AU	Low Skill	87,800	187,966	47%
AU	Middle Skill	177,214	218,524	81%
AU	High Skill	405,034	480,878	84%
CA	Low Skill	222,785	562,587	40%
CA	Middle Skill	239,118	327,836	73%
CA	High Skill	424,995	448,174	95%
NZ	Low Skill	49,601	102,074	49%
NZ	Middle Skill	33,476	59,862	56%
NZ	High Skill	76,425	85,027	90%
SG	Low Skill	63,552	94,999	67%
SG	Middle Skill	88,541	100,775	88%
SG	High Skill	215,744	224,624	96%
US	Low Skill	3,757,816	10,578,135	36%
US	Middle Skill	6,272,823	8,608,208	73%
US	High Skill	12,476,629	13,701,168	91%



# Digitalization and remote work are often interrelated

