

FIT1049: IT professional practice

Week 3: Information gathering,
processing and analysis



Things to cover today...

At the end of this lecture, you will broadly understand:

1. The concept of the 'Intelligence Cycle', and how it can be applied to the process of research in IT professional practice;
2. How information can be targeted, gathered and classified accordingly to the pre-determined purpose of research;
3. How information gathered, analysed and processed becomes both deliberately and accidentally transformed into intelligence; and
4. How to respond and counter the prevalence of fake news and similarly unverified yet easily accessible and seemingly legitimate information in the post-Internet societies.

FIT1049: IT professional practice

Week 3 (alt.): How we deal with
information in the post-Internet world





CENTRAL
INTELLIGENCE
AGENCY

THE WORK OF A NATION.
THE CENTER OF INTELLIGENCE.

Report Threats

رئیسیه

Contact

Search CIA.gov...

SEARCH

العربية 中文 Français Русский Español More ▾

HOME

ABOUT CIA

CAREERS & INTERNSHIPS

OFFICES OF CIA

NEWS & INFORMATION

LIBRARY

KIDS' ZONE

Kids' Zone

Kids' Zone

K-5th Grade

6-12th Grade

Who We Are &
What We Do

Our Mission

What is
Intelligence?

★ The Intelligence
Cycle

Our Organization

Our People

Home » Kids' Zone » 6-12th Grade » Who We Are & What We Do » The Intelligence Cycle

The Intelligence Cycle

When we're tasked with a specific project, we follow a five-step process called the Intelligence Cycle. This process ensures we do our job correctly as we work through a system of checks and balances. Let's take a closer look at each step:

- Planning and Direction
- Collection
- Processing
- Analysis and Production
- Dissemination

ABOUT CIA



Headquarters Tour

Take a look inside the CIA.



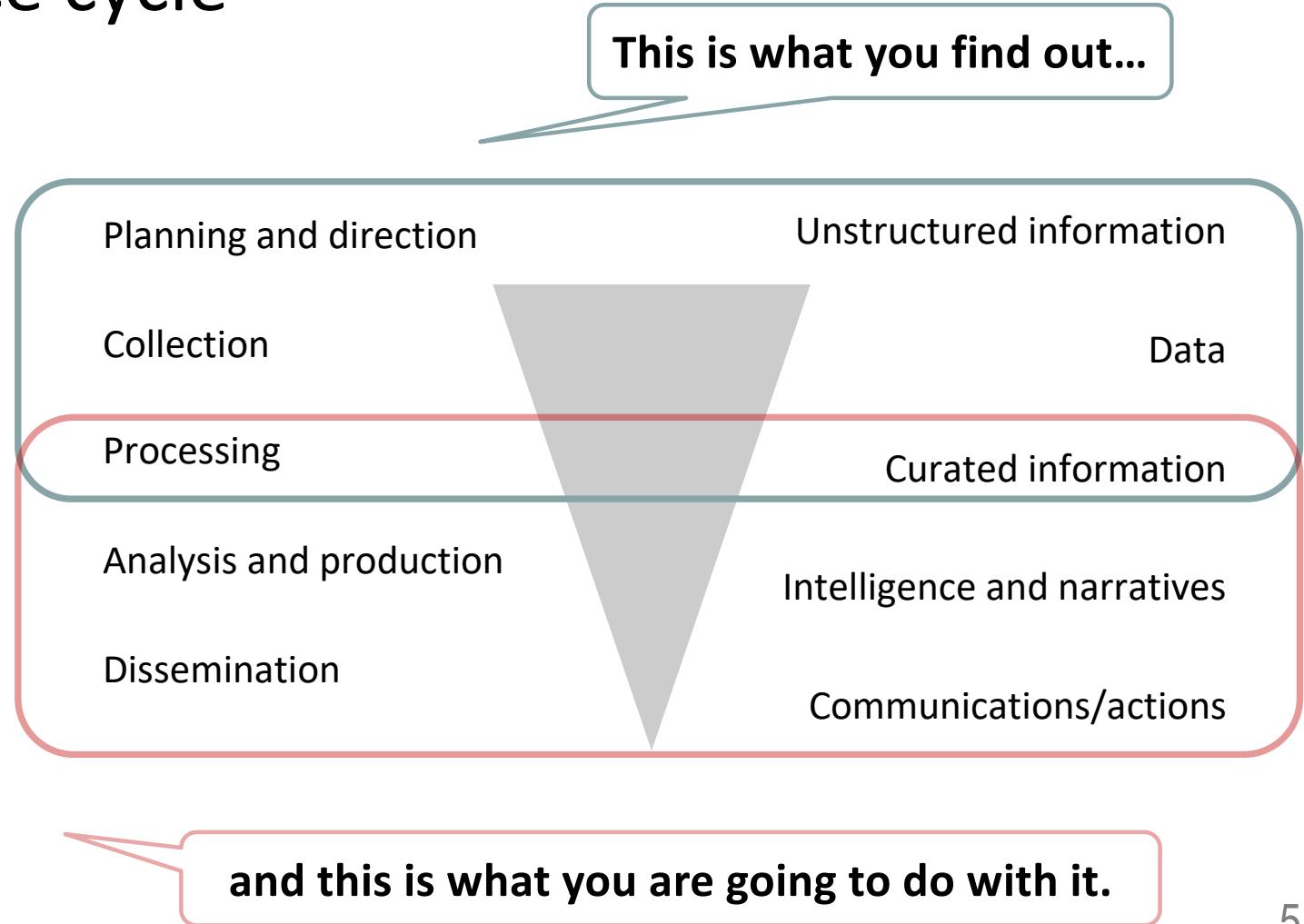
Interactive Timeline

Experience more than 60 years of CIA history.

[Learn More About CIA](#)

(Central Intelligence Agency, The US Government, 2007)

The ‘intelligence cycle’



Planning and direction

What do you need to know?

What do they need to find out?

Amy is a software developer with UX background, and she is being deployed to backfill a vacancy in a well-established team of developers who have been already working on a project for 6 months. She will start the day with a meeting with her direct supervisor. What should she find out?

Jin is a cybersecurity analyst working for a large bank. His manager just asked him to conduct an environmental scan of biometric products in the market, before the bank's management would formally commit to select one that can be implemented in the organisation. Jin is having a first meeting with his manager to discuss this project in detail. What should he find out?

How to tame the unknown?

Known **known**: Something you know that you know.

Unknown **known**: Something you didn't know that you knew.

Known **unknown** : Something you knew that you didn't know.

Unknown **unknown**: Something you didn't know that you didn't know.

Time and circumstances

Time and circumstances usually dictate the depth of research you conduct in professional practice,

...and this often forces you to determine your finding on the balance of probabilities.

Goals of ‘research’ in professional practice

You may not find a clear-cut answer,

...but ‘research’ informs your practice...

...and increases the degree of control (while reducing the risks).

Collection

What do you collect? How? And why?

Collection – common sources and methods

Type of sources collected	Unobtrusive collection of data	Overt, direct and consensual solicitation of data	Covert, indirect and non-consensual collection of data
Published/documentary sources (including online sources)	Systematic survey of media outlets, public social media, websites, government publications, books, journals, magazines etc.	Formal requests for submissions and reports; institutional/organisational surveys and questionnaires	
Human sources	Unstructured conversations and meetings	Interviews, hearing and focus groups	Out of scope
Data and analytics	Systematic collection of publicly available statistics, BI, spatial and geographic data, IP/competitive intelligence, images etc.	Surveys and questionnaires; systematic collection of statistics, BI, spatial and geographic data, IP/competitive intelligence, images etc. gathered for specific purposes	

Published/documentary sources*

Let's take job applications as an example...

You usually start with something like this.

The screenshot shows the GradConnection homepage with a search bar for "Information Technology Internships and Vacation Programs". Below the search bar, there are several employer logos and descriptions, including ANZ, Deloitte, KPMG, Commonwealth Bank, PwC, and others. Each employer has a "View 6 jobs available" button.

The screenshot shows the ANZ section of the GradConnection website. It features a large banner with two people smiling and the text "GREAT PLACE TO BELONG". Below the banner, there is information about the "2018/2019 Summer Internship Program". The program details include:

- Work with leaders in their field
- Build relationships and be part of a thriving summer intern community
- Be considered for early entry into our 2020 Graduate Program

There are also sections for "About The Role", "Role Location: Australia Wide", and "Role Type: Summer Internship (Nov – Jan)". On the right side, there are filters for "Job Type: Internships", "Disciplines: Accounting, Administration, Agriculture, Architecture, Actuary, Arts...", and "Position Type: Full time".

(GradConnection, 2018)

2018/2019 Summer Internship Program

- Work with leaders in their field
- Build relationships and be part of a thriving summer intern community
- Be considered for early entry into our 2020 Graduate Program

About The Role

Role Location: Australia Wide

Role Type: Summer Internship (Nov – Jan)

No matter where your career takes you, our Summer Intern Program aims to provide you with the foundations you need to grow and succeed. Our paid eight-week program is a great way to explore a career with ANZ, and gain invaluable experience.

We believe the best way to learn is to throw you into new experiences. Each of our eight week Summer Intern Program streams has a different focus.

Join our Technology program and you might be helping out on the architecture or systems we need to deliver the best experience to our customers. In Australia Division, you could be focusing on banking, lending and investments to help businesses of all sizes grow and achieve their goals.



About You

We're interested in people from diverse backgrounds, who are excited to be part of an industry that's rapidly transforming for a digital and social world. People who want to make a difference for our customers, culture and community.

Upon completion of the program, you might even receive an early offer for our Graduate Program.

To be eligible you should be:

- a citizen of, or hold permanent residency in, Australia or New Zealand;
- in your penultimate or 2nd last year of study of your bachelor or post-graduate degree
- available for the program from 12 November 2018.

About ANZ

At ANZ, everything we do boils down to 'why' – our purpose – to shape a world where people and communities thrive. We're just as focused on seeing our people thrive as well as our customers. We'll give you every opportunity to develop your career.

We are responding faster to changing customer requirements, focusing on the things that matter the most, energising our people, eliminating waste and reducing bureaucracy.

A happy workplace is a thriving one. So in order to attract and keep the best talent, and say thanks for the hard work, we make sure all our employees are rewarded.

At ANZ we aim to create an inclusive environment where employee differences such as gender, age, culture, disability, sexual orientation, family and caring responsibilities and religion are valued. We work flexibly at ANZ. Talk to us and let us know how this role can be flexible for you.

Applications close: 6th August. Apply today.

Find out more.

(GradConnection, 2018)

ANZ Personal Business Corporate

Careers Life at ANZ Job opportunities Programs How to apply

Careers > Programs > Graduate program

Graduate Program

How to apply

- Create a profile
- Search for jobs
- Application process

Applications for our 2019 graduate and summer internship programs now open.

Success starts here



Our Graduate Program is designed to challenge and reward you. Be part of building communities, providing people with opportunity and transforming ideas into reality. We're interested in people with diverse backgrounds, who want to join a bank that's reinventing itself to address society's challenges, raise standards in banking and create opportunities for future generations. No matter where your career takes you, our Graduate Program will provide you with the foundation needed to grow and succeed. If you're motivated by creating social good, join us. Our July recruitment campaign is now open.

Broaden your horizons

Each of our key business areas in Australia and New Zealand has programs that offer multiple rotations.

You will get 18-24 months of valuable experiences across our businesses including exposure to a diverse range of people, environments and situations. We also provide supportive coaching, peer-to-peer learning, mentoring, training, networking and sponsorship from senior leaders.

Each program has a different focus.

Australia Division (PDF 430KB)

Regional Business Banking (PDF 435KB)

Technology (PDF 169KB)

Finance (PDF 452KB)

New Zealand (PDF 590KB)



Who can join the Graduate Program?



Diversity of thinking is one of the keys to success, so we encourage students from all degree disciplines to apply for our program.

Your university grades aren't the be-all and end-all. We're equally interested in your creative thinking and comfort in adapting to new people and situations.

To be eligible for our Graduate Program, when submitting your application you should be:

- ✓ a citizen of, or hold permanent residency in, Australia or New Zealand;
- ✓ in your final year of university studies (bachelor degree or higher); or
- ✓ you have graduated in the last three years.

[Apply to our New Zealand Graduate Program](#)

[Apply to our Australian Graduate Program](#)

About us

[About ANZ](#) [Debt Investor Centre](#) [Our Company](#) [Media Centre](#) [Shareholder Centre](#) [Corporate Sustainability](#)

[Australia](#) [Privacy and website security](#) [Website terms of use](#) [Sitemap](#) [Help](#) [Jobs at ANZ](#)

© Australia and New Zealand Banking Group Limited (ANZ) 2018 ABN 11 005 357 522. ANZ's colour blue is a trade mark of ANZ

Connect with us



(ANZ, 2018)

...or look into the 'primary source' to gauge how they see the role?



SIGN IN



CAREERS



GRADUATE TO ACCENTURE

nab more than money

Personal Business Corporate About us

Internet Banking Login

Work with NAB
WORK WITH POTENTIAL

Our range of trainee programs offer fully supported learning and different, exciting career pathways.

Our trainee programs are a great way to get your foot in the door and help you determine what you want out of your career - at NAB or beyond. The best part is that we'll fully support you as you develop your skills and abilities, through tailored learning and development programs, mentoring and more.

TRAINEE PROGRAMS

- African Australian Inclusion Program
- Agribusiness traineeship
- Indigenous traineeships




Trainee Program

Earn while you learn with us.

Create a meaningful career, and yourself.

Combine studies with work, all while receiving professional and financial support.

Our Trainee Program is a unique three-year opportunity that offers real paid work experience while you complete your degree. Why not get ahead of the curve and graduate with both a degree and full-time, relevant work experience? You'll set yourself up for a successful and fulfilling career by gaining an early insight into what areas of work you're most passionate about.



Putting what you're learning at uni into practice, you'll join our Assurance, Clients, or Tax teams to work on solving our complex client problems.

Start a conversation



Vacation Program

Get creating. Practice what you learn.

Gain valuable experience and develop the skills and networks needed to create a meaningful career.

Did you know that most of our vacationers receive an offer for a full-time graduate position after completing the program? If this isn't reason enough to apply, then read on...

If you're in your second last year of university in an undergraduate or postgraduate degree, our summer Vacation Program offers you first-hand experience at the heart of our business. The program runs over three to eight weeks (length varies per state) and includes full-time work experience during your university break, allowing you to get a head-start in your career before you go.



Create  yourself.

Find out more at pwc.com.au/careers

Researching further?

BUSINESS
INSIDER

TECH

FINANCE

POLITICS

STRATEGY

LIFE

INTELLIGENCE

Here's what it's really like to be an intern at Facebook

Jillian D'Onfro Aug. 19, 2016, 9:30 AM 199,596

[FACEBOOK](#) [LINKEDIN](#) [TWITTER](#) [EMAIL](#) [PRINT](#)

As summer vacation winds down, many college kids are heading back to campus ready regale each other with stories of their summer internships.

Few will have more bragging rights than former Facebook interns.



TODAY ON THE SHOW NEWS MSNBC

TODAY

FOOD HOME HEALTH & WELLNESS STYLE PARENTS POP CULTURE SHOP

YOUR MONEY

How to land an internship at Facebook: Be persistent, crave knowledge

by Rachel Becker / Mar. 02, 2016 / 10:23 AM ET / Source: TODAY

For many fields these days, to have a great career, the first step is landing an internship. Students can cultivate lasting professional relationships and mentors from the experience, and, with hard work and a bit of luck, the internship can lead to a full-time job offer.

Should we believe what we read in the secondary sources?

The best graduate jobs, internships & graduate programs in Australia

Leading graduate employers and careers advice in one location

I'm looking for and my field of study is

[Graduate Jobs and Internships](#) [All Fields of Study](#) [Search](#)

GCA
GraduateCareers
AUSTRALIA

Home About Research and Surveys Research Reports Career Planning & Resources Contact Us

graduate opportunities.com

GCA's website and ebook for job-seeking university students and graduates

seek

Sign in or Register | Employer site

Job Search \$150k+ Jobs Profile Company Reviews Career Advice

What Where

Enter keywords Any Classification Enter suburb, city, or region SEEK More options

Jobs in Australia >

GradConnection

Home Jobs Calendar Universities Blog Login or Register Advertise

Find Graduate Jobs and Internships in Australia

545 Graduate and Internship Programs available right now

Select a job types Select an industry Select a location Find jobs

Register or Login to view all available jobs

Australian Government australia.gov.au

Home Information and Services About Government News and Social Media About Australia myGov

Home / Information and Services / Jobs and Workplace / Australian Government Jobs / Graduate programs

In this section

- Australian Government jobs
 - Cadetships, scholarships, work experience
 - Graduate programs
 - ICT entry-level program
 - State government jobs
 - Career information

Check out the graduate opportunities in Australian Government agencies. Australian Government agencies usually advertise graduate employment opportunities between February and June each year. As well as appearing in the [electronic APS Employment Gazette](#), opportunities will be listed on individual agency websites. Choose from the list below to locate information about Australian Government and individual agency graduate programs:

Or the tertiary sources?
From indexing of jobs and opportunities...



Current students

Student administration Course and academic Study resources Student life and support News and notices

Career Connect

Jobs and careers

+SHARE

Finding work

- > Job-hunting methods
- > Casual or part-time work

Our commitment

Our service commitment to you (pdf, 0.8 mb)

Student Futures

Find out how to launch your career with Student Futures

the muse

HOME EXPLORE COMPANIES SEARCH JOBS COACHES AND COURSES GET ADVICE FOR EMPLOYERS Q Sign In Sign Up

CAREER ADVICE JOB SEARCH CAREER PATHS MANAGEMENT TOOLS & SKILLS BREAKROOM

RESUMES & COVER LETTERS

Just found your dream job? Land that interview with our resume tips and advice on writing cover letters.

Stand Out From the Pack With These 5 Creative Resume Hacks

This Is Exactly How to List Volunteer Work on Your Resume

seek

Sign in or Register | Employer site

Job Search \$150k+ Jobs Profile Company Reviews Career Advice

Career Advice

Your destination for expert career guidance

Search

Job Hunting Changing Careers On the Job Career Advice Salary & Industry Trends Resources & Templates First Job

< Back

Career Advice > Resumes & Cover Letters

★ Saved Advice

Sort by Newest

Resumes & Cover Letters

RESUMES
The GOOD and the BAD

Here we hone in on the little details that separate a good resume from a bad one.

Resumes & Cover Letters | Infographic

...to indexing of know-how and necessary skills.

Consulting Associate Interview

Anonymous Interview Candidate in Tampa, FL (US)

No Offer

Negative Experience

Average Interview

Application

I applied through other source. The process took 2+ months. I interviewed at PwC (Tampa, FL (US)) in July 2011.

Interview

Snobby culture. Interview standard. Review background and listen to them talk and talk

Interview Questions

How did you motivate your team

[↳ Answer Question](#)

Consulting Associate Interview

Anonymous Interview Candidate in Boston, MA (US)

No Offer

Positive Experience

Average Interview

Application

I applied through an employee referral. The process took 2 weeks. I interviewed at PwC (Boston, MA (US)) in September 2010.

Interview

I had 3 phone interviews, the 1st one was with the HR which consisted of basic questions the other 2 were with managers which were 30min and 15min long. The 4th round was at the Boston office where I had to meet 7 people which included 2 Partners, 1 Director. It was interactive and all of them were very easy to talk to.

Interview Questions

Mention an incident where you faced a problem with a team member?

[↳ Answer Question](#)

Consulting Associate Interview

Anonymous Employee

Accepted Offer

Positive Experience

Average Interview

Application

I applied through college or university. I interviewed at PwC.

Interview

On campus basic fit questions. Know your resume and the business in the first round. Second round is more situational questions that can get a little tricky at times but as long as you have thought through your experiences ahead of time, you will be okay.

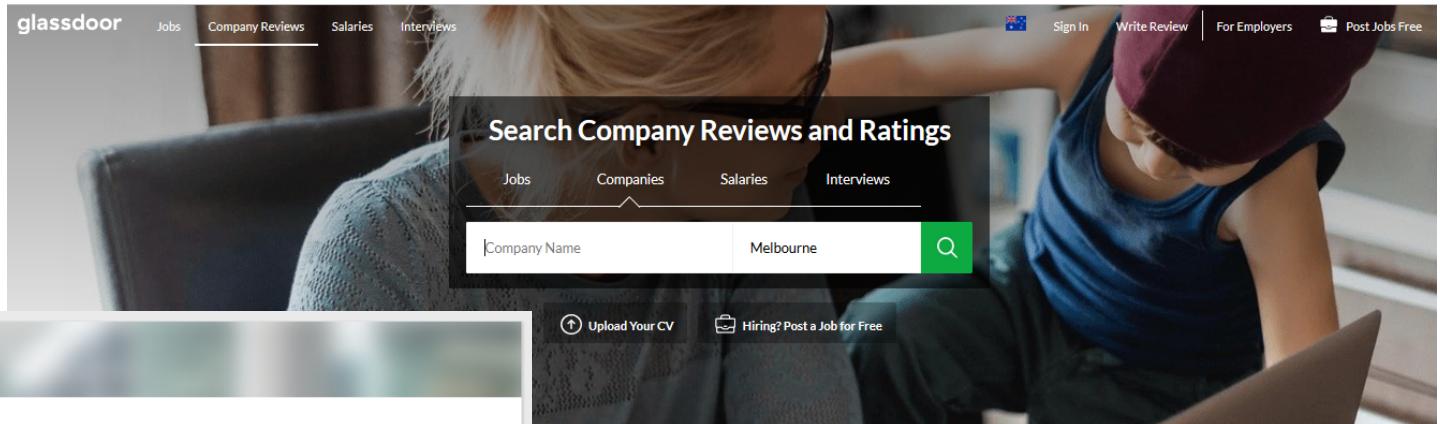
Interview Questions

How has your experience made you a good fit for this role?

[↳ Answer Question](#)

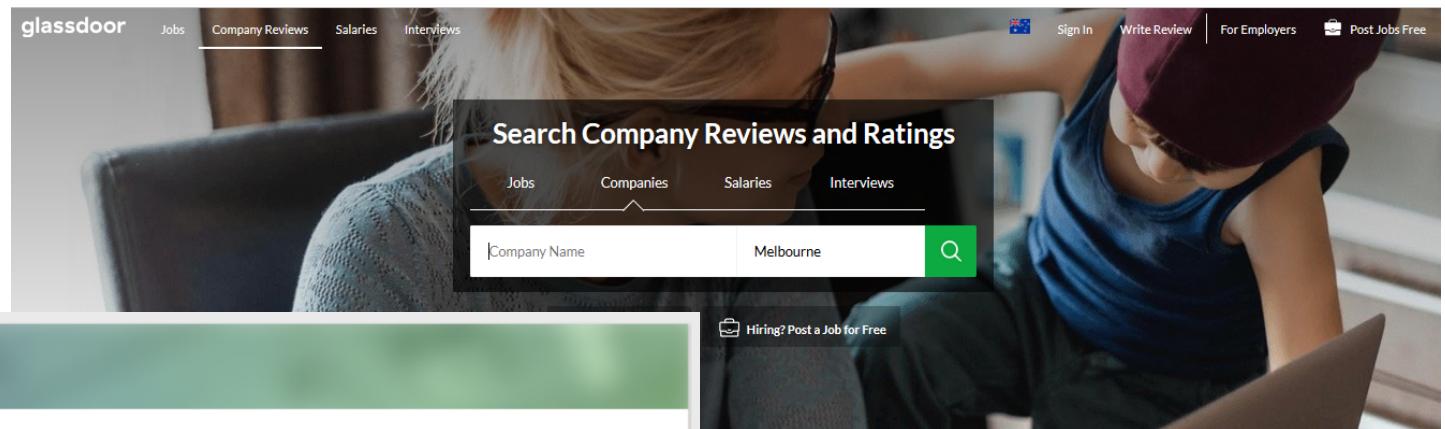
...and how do we make sense of these 'primary sources' that are so close to being 'secondary'?

...and with the interface
that looks very much
'tertiary'.



A screenshot of the PwC company profile on Glassdoor. The profile includes the PwC logo, a blurred background image, and the text 'PwC'. Below this, there are several statistics: '19k Reviews', '9.7k Jobs', '35k Salaries', '7.4k Interviews', '4.6k Benefits', and '258 Photos'. There are also 'Follow' and '+ Add a Review' buttons. A callout box with a person icon asks 'Work here? Get a FREE Employer Account' and provides a link 'Get a free employer account'. The 'Overview' tab is selected. The 'PwC Overview' section contains information about the company's website (www.pwc.com), headquarters (New York, NY, US), size (10000+ employees), type (Company - Private), revenue (\$5 to \$10 billion (USD) per year), and industry (Accounting). It also mentions that PwC helps clients meet challenges in assurance, tax, and advisory. A 'Mission: At PwC, it starts with you.' section is present. To the right, there's a section titled 'PwC Interview Questions' with three charts: 'Experience' (73% Positive, 18% Neutral, 9% Negative), 'Getting an Interview' (Applied Online: 41%, Campus Recruiting: 36%, Employee Referral: 10%, Recruiter: 7%, In Person: 3%, Recruitment Agency: 2%, Other: 1%), and a 'Difficulty' scale from Hard (light grey) to Easy (dark green) with a value of '2.9 Average'.

(Glassdoor, 2018a)



Monash University

Engaged Employer

Overview 299 Reviews 94 Jobs 152 Salaries 25 Interviews 55 Benefits 17 Photos Follow + Add a Review

Monash University Overview

Work here? Get a FREE Employer Account

Website	www.monash.edu	Headquarters	Melbourne
Size	10000+ employees	Founded	1958
Type	College / University	Industry	Colleges & Universities
Revenue	\$1 to \$2 billion (USD) per year	Competitors	Unknown

There's a certain feeling you get from coming to work at Monash. A feeling that you're part of something bigger. Where making an impact isn't just a pipe dream – it's a very real possibility.
Where you can take your work in ... [Read more](#)



(Glassdoor, 2018b)

Monash University Interview Questions

Experience	Getting an Interview	Difficulty
<ul style="list-style-type: none"> Positive 80% Neutral 12% Negative 8% More	<ul style="list-style-type: none"> Applied Online 64% Employee Referral 16% In Person 12% 	2.2 Average

Legend: Hard (light gray), Average (medium gray), Easy (dark green)

So what to believe?

The best graduate jobs, internships & graduate programs in Australia
Leading graduate employers and career advice in one location

I'm looking for and my field of study is

Job Search | \$150k+ Jobs | Profile | Company Reviews | Career Advice

What: Enter keywords Any Classification Where: Enter suburb, city, or region

Sign in or Register to see your saved searches and saved jobs on all your devices

IBM
IBM Careers Australia
Working at IBM | Graduates and Interns | Experienced Professionals | Join our Talent Network

Do your best work ever.
The world is at a major turning point: technology is enabling entirely new forms of business operations, business models, industries and outcomes. We have exponentially more power to reach the full potential of our life's work than any humans before us.
This is our vision for the future. This is where you can do your best work.

Follow IBM: [Facebook](#) [Twitter](#) [YouTube](#) [LinkedIn](#)

Phaedra Joined IBM 2007

australia.gov.au

In this section

- Australian Government jobs
- Career information
- Graduate programs
- ICT entry-level program
- State government jobs

Check out the graduate opportunities in Australian Government agencies. Australian Government agencies usually advertise graduate employment opportunities between February and June each year. As well as appearing in the electronic APS Employment Gazette, opportunities will be listed on individual agency websites. Choose from the list below to locate information about Australian Government and individual agency graduate programs:

Graduate programs

Home | Jobs | Calendar | Universities | Blog | Login or Register | Advertise

Find Graduate Jobs and Internships in Australia
545 Graduate and Internship Programs available right now

Select a job types Selected an industry Select a location Find jobs

Register or Login to view all available jobs

MONASH University

Current students

Student administration | Course and academic | Study resources | Student life and support | News and notices

Career Connect

Jobs and careers

Finding work Our commitment
Job-hunting methods | Casual or part-time work

Student Futures

Find out how to launch your career with Student Futures

Westpac Group

Careers

- Your Employment Offer
- Here's how to apply
- Choose a career at Westpac
- Working together at Westpac
- How Westpac cares
- Pathways

About us | Careers

Join the Service Revolution

Westpac job search | Westpac Group job search

Monash University

Overview | Reviews | Jobs | Salaries | Interviews | Benefits | Photos | Follow | Add a review

Work here! Get a FREE Employer Account

Work in HR/Personnel or Marketing | Get a free employer account

Monash University Overview

Website: [www.monash.edu](#) Headquarters: Melbourne
Size: 20000+ employees Founded: 1958
Type: College / University Industry: Colleges & Universities
Revenue: \$1 to \$2 Billion (USD per year) Competitors: Unknown

There's a certain feeling you get from coming to work at Monash. A feeling that you're part of something bigger. While making an impact isn't just a pipe dream - it's a very real possibility. Where you can take your work in... Read more

Monash University Reviews

3.7 Rating Trends

PwC Australia Careers. What will you create?
Meaningful careers that help you to connect, grow and make an impact.

Start a conversation

Career Advice

Your destination for expert career guidance

Job Hunting | Changing Careers | On the Job | Career Advice | Salary & Industry Trends | Resources & Templates | First Job

Back | Career Advice | Job Hunting | Resources & Cover Letters | Writing your resume

Saved Advice

start

GCA GraduateCareers Australia

Home | About | Research and Surveys | Research Reports | Career Planning & Resources | Contact Us

graduateopportunities.com

See what grads don't ARUP

Free 2017 jobs guide

GCA's website and ebook for job-seeking university students and graduates

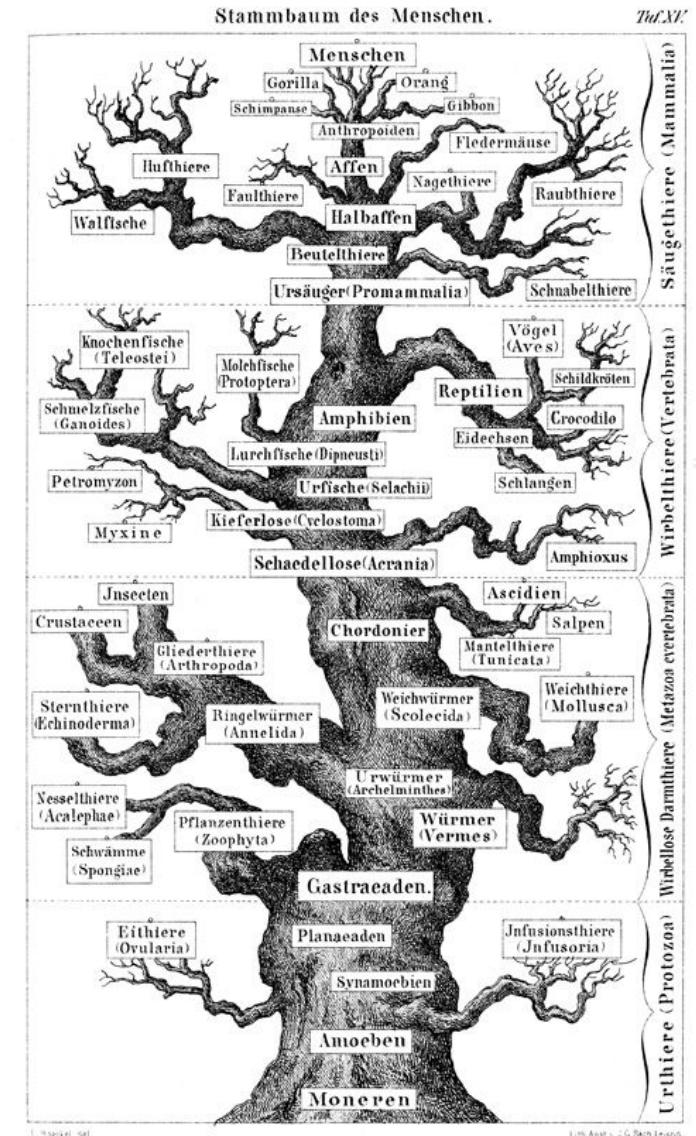
(So comes the) Processing

Sources need to be classified, indexed and primed before they are made sense...

Why does it matter?

Information used to come with a fair bit of its context...

Ernst Haeckels, 19th C.
[\(Die Evolution Des Menschen, 2018\)](#)





Giuseppe Maria Mitelli, Bologna, 1677
[\(Biblioteca Digitale Delle Archigginasio, 2018\)](#)

...and the
Internet often
removes this
context.

As a result, the information loses its visible contexts.

When it was said/written?; It is still valid? (Currency)

Who actually said/wrote it? (Authorship)

Who is he/she anyway? (Authority)

Where can you find? (Authority/stability)

Is it even true? (Accuracy)

Is it actually drawing upon the original material (and how)? (1° source)

Or it is retelling someone else's material (and how)? (2° source)

Or is it reorganising someone else's materials into something else (and how)? (3° source)

What's the purpose of it being put on the Internet anyway?

Is it real? Or just is it trying to confuse/mislead us?

Some deliberately take advantage of this lack of contexts...

Fake news /feɪk nju:z/ [n.] false, often sensational, information disseminated under the guise of news reporting
[\(Collins English Dictionary, 2018\)](#)



[\(ABC, 2017\)](#)

And the technologies make it even more complex...

The image is a composite of two screenshots. On the left, a close-up photograph of a person's eyes is shown, with the text "Detecting 'deepfake' videos in the blink of an eye" overlaid. On the right, a video thumbnail for BuzzFeed Video titled "You Won't Believe What Obama Says In This V..." is displayed, featuring a portrait of former US President Barack Obama.

THE CONVERSATION
Academic rigour, journalistic flair

Arts + Culture Business + Economy Cities Education Environment + Energy FactCheck Health + Medicine Politics + Society **Science + Technology**

Search analysis, research, academics...

Detecting 'deepfake' videos in the blink of an eye

August 29, 2018 8.44pm AEST

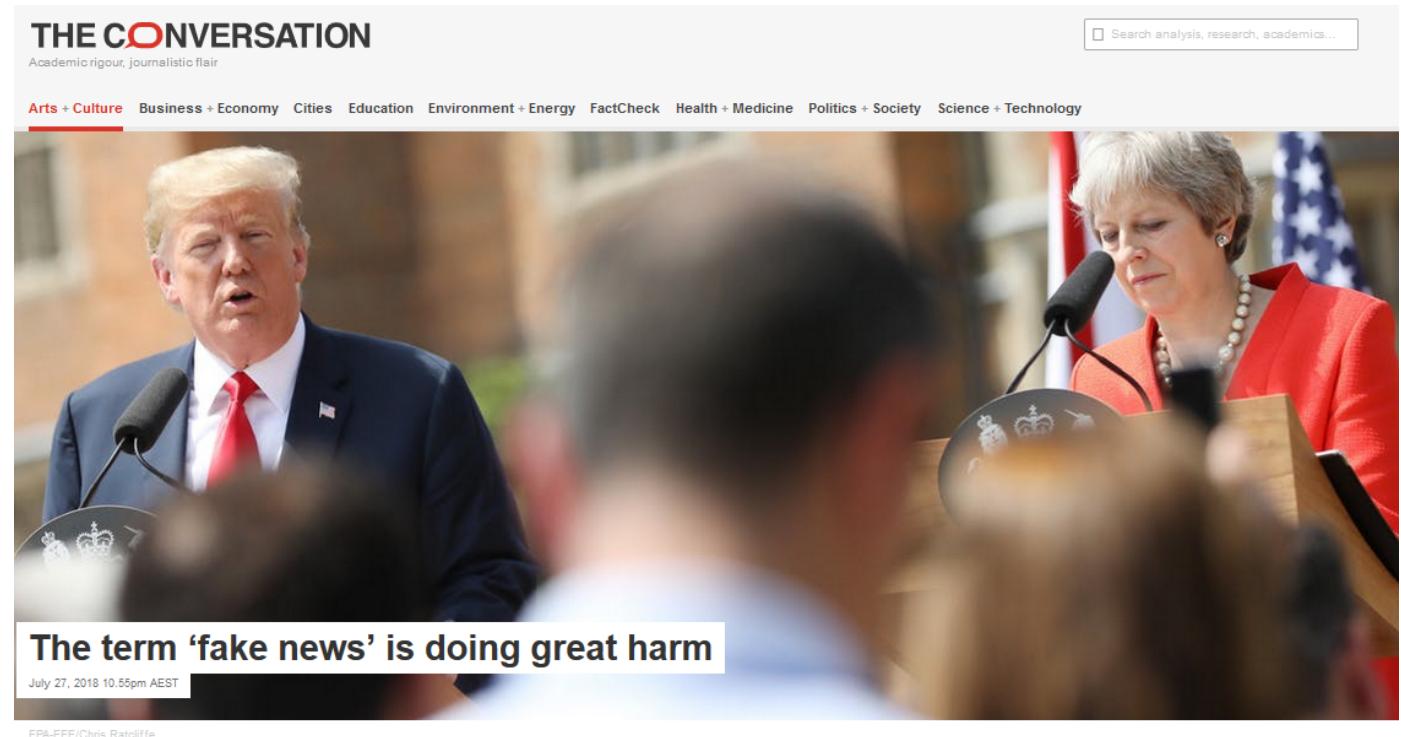
It's actually very hard to find photos of people with their eyes closed. Bulin/Shutterstock.com

BuzzFeed VIDEO You Won't Believe What Obama Says In This V... Watch later Share

([Lyu, 2019](#))

... and some take advantage of this precariousness.

“During a recent press conference in the UK, Donald Trump shut down a reporter from the news network he loves to hate. “CNN is fake news – I don’t take questions from CNN,” he said, moving swiftly on to a reporter from Fox News.”



([Habgood-Coote, 2018](#))

And some (many?) only want to hear what they want to hear...

THE CONVERSATION
Academic rigour, journalistic flair

Arts + Culture Business + Economy Cities Education Environment + Energy FactCheck Health + Medicine Politics + Society **Science + Technology**

Confirmation bias: A psychological phenomenon that helps explain why pundits got it wrong

November 22, 2016 2:14pm AEDT

...both cognitively (e.g. [Nickerson, 2016](#))...

MIT Technology Review
Log in / Create an account Search Q Subscribe

Topics+ The Download Magazine Events More+

Intelligent Machines

Bias already exists in search engine results, and it's only going to get worse

The way search engines work is far from unprejudiced, a new book argues.

by Jackie Snow February 26, 2018

why are black women so

why are black women so angry
why are black women so loud
why are black women so mean
why are black women so attractive
why are black women so lazy
why are black women so annoying
why are black women so confident
why are black women so sassy
why are black women so insecure

**ALGORITHMS
OF
OPPRESSION**

HOW SEARCH ENGINES
REINFORCE RACISM

SAFIYA UMOJA NOBLE

...and technologically (e.g. [Snow, 2018](#)).

The Internet is a wonderful thing.

It is not the only source available though.

Human sources

Don't ask for what you want; solicit what they have to say about it.

Recruitment of sources

Who should you be speaking to?

What can you tell?

“No, I am not aware if anyone in my team is particularly concerned with the idea of a new system though. I have spoken to a couple of them. I mean out of 30 odd staff, so it’s not a big ‘sample size’, but it’s still good feedback, you know. I mean, I know the new system will change the way they will interact with clients, but operationally it will overall make things more efficient, so I cannot see if the staff would have any issue with it. I have coordinated something similar a few times over years, but they all happened fine one way or another. I actually know there are a couple of people who have a very strong view on it, but it’s always like that. You cannot please everyone can’t we? Anyway, this system thingy is something our management is keen on, as you probably know.”

The unknown unknown #2

Known known: Something you know, and others know.

Unknown known: Something you didn't know, but others knew.

Known unknown: Something you knew, but **others didn't know**.

Unknown unknown: Something both you and **others don't know**.

Asymmetry of information (and power)

Information gathering inevitably creates a power relation;
your awareness of your position is crucial to build a trusting relationship.

(Un-)reliability of human sources

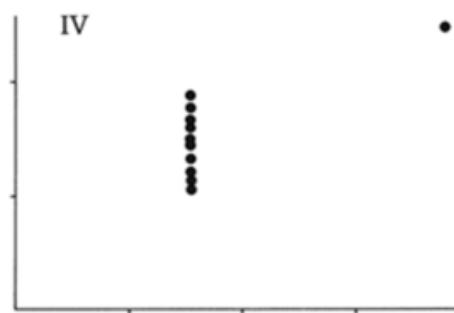
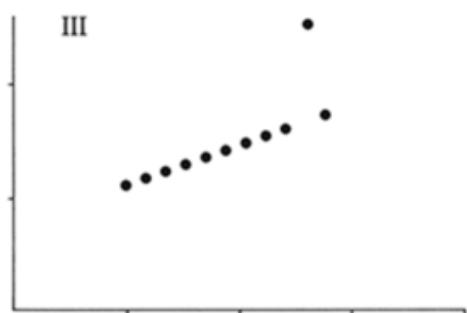
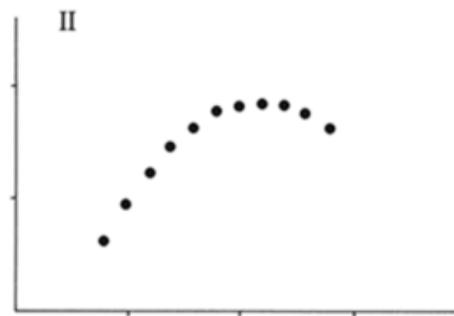
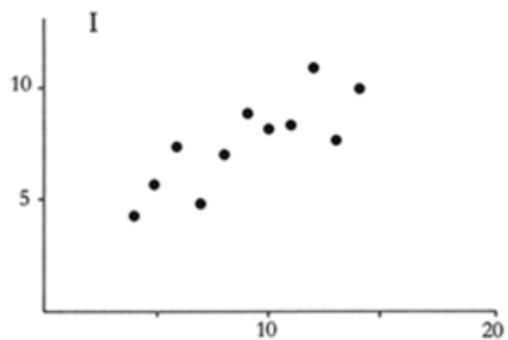
We all have our own agenda, circumstances, personal and moral inclinations, and emotional response to those seeking information out of you.

Data and analytics (as sources)

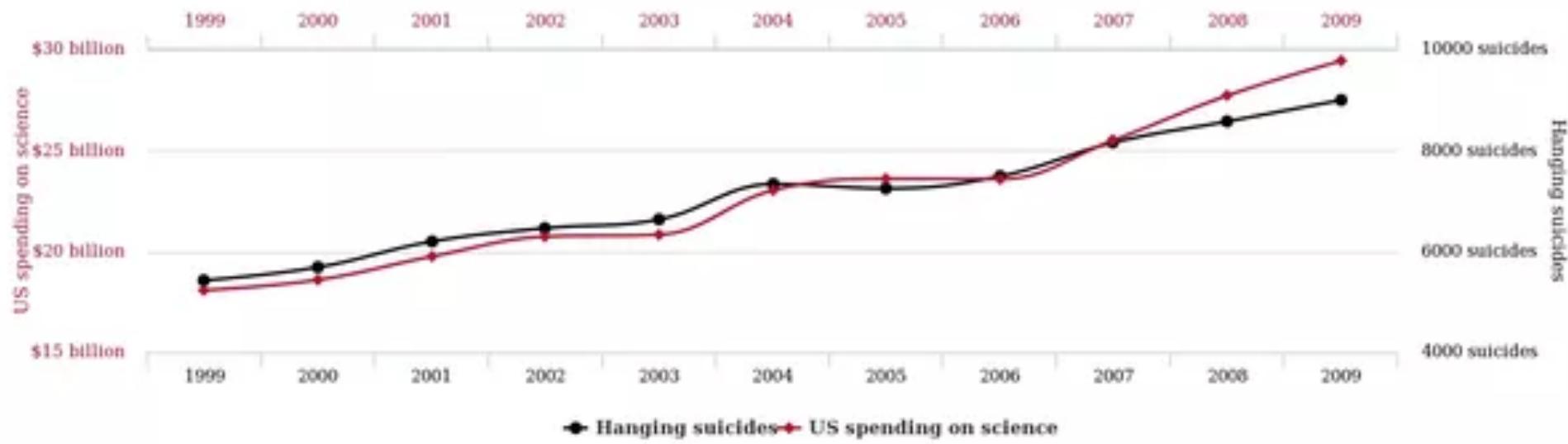
It's getting increasingly cheap, sophisticated and 'believable'.

And yet how they differ, as the graphical display of the data makes vividly clear:

F. J. Anscombe, "Graphs in Statistical Analysis," *American Statistician*, 27 (February 1973), 17-21.



US spending on science, space, and technology
correlates with
Suicides by hanging, strangulation and suffocation



(Priori, 2018)

(NASA, 2018)

FINANCIAL REVIEW
NEWS WEBSITE OF THE YEAR

☰ Menu Home News Business Markets Street Talk Real Estate Opinion Technology Personal Finance Leadership Lifestyle All

Home / News / Policy / Climate

Jul 16 2017 at 11:00 PM
Updated Jul 17 2017 at 11:09 AM

☆ Save article My Saved Articles Print License article

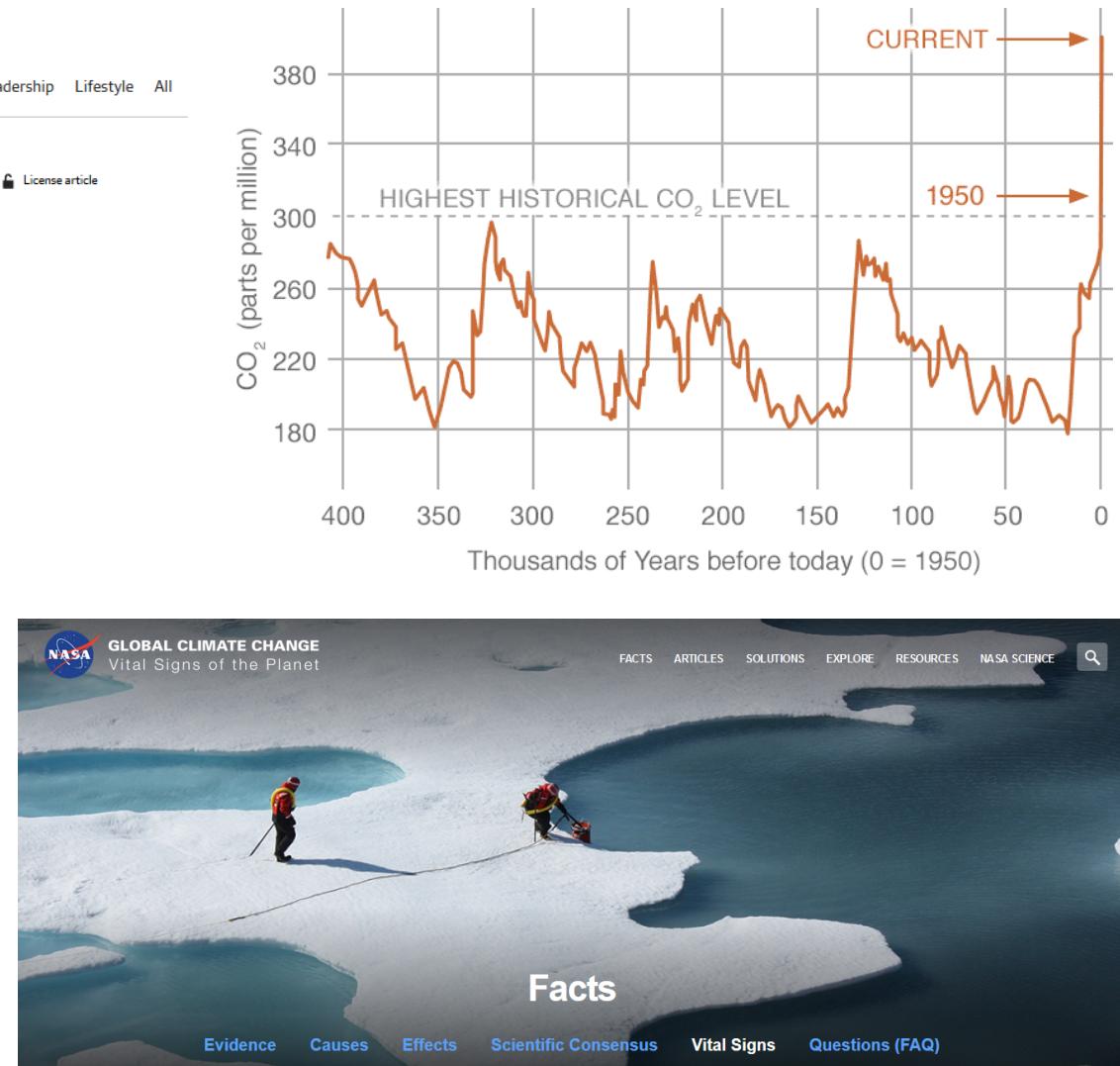
More than half of federal Liberal MPs 'don't trust' climate science: think tank

G+ f t in d



Former prime minister John Howard said at a US Studies Centre forum last Thursday that he is becoming more sceptical about climate change. Daniel Munoz

(Patrick, 2017)



CNBC MAKE IT.

VISIT CNBC.COM | Search for Make it content Q SEARCH

HOME ENTREPRENEURS LEADERSHIP CAREERS MONEY SPECIALS

f in tw em

LEADERSHIP

Meet Christopher Wylie, the millennial whistleblower behind Facebook's data controversy

Zameena Mejia | 6:00 PM ET Mon, 19 March 2018



f t in p em

(Mejia, 2018)

Support The Guardian

Subscribe Sign in / Register Search ▾

News Opinion Sport Culture Lifestyle More ▾

World ▶ Europe US Americas Asia Australia Middle East Africa Inequality Cities Global development

The Snowden files
The NSA files

James Ball
@jamesrbuk
Tue 3 Dec 2013 05.00 AEDT

This article is over 4 years old

163

How the Snowden leak is changing the tech landscape

Parliaments, tech leaders and privacy activists are scrambling to respond to revelations about NSA and GCHQ surveillance

▲ New companies are stepping up efforts to build encrypted email and data storage services. Photograph: Kacper Pempel/Reuters

most viewed in Australia

The world is being undone before us. If we do not reimagine Australia, we will be undone too
Richard Flanagan

Meet Eugenie and Beatrice ... princesses, but just like us!
Tanya Gold

Tony Abbott says Shorten's republic plebiscite plan is 'completely toxic'

Venezuela's Nicolás Maduro survives apparent assassination attempt

If you think Meghan Markle's father is a wrong'un, check out her father-in-law
Catherine Bennett

(Ball, 2013)

Analysis

So, what can you say about all the things you found?

Triangulation #1

“We do feel like we could get our client management system to do a little more, like pushing out some analytics for decision making and things. But then it might be just me not knowing much about IT. We know that Peter’s been working in IT for decades, even before I came to this company. I know he is trusted by many, and over years he has done some really good things, so I’d be keen to hear what he thinks, actually.”

Susan, Director, Operations

“Yes, the current system is okay. I can do most of what I need to do pretty well, but there are lots of quirks in our system which have kind of grown over years. And no, I don’t think our system is made to put out anything sophisticated like analytics and so on. It just gives you some stats, and only Tim in Finance could do it.”

Natalie, IT Support Officer, IT

“I have been working in IT at this organisation for 20 years, so I know a fair bit about how the work is done here and what we need, you know. I know that the management thinks the new system would make some processes more efficient, but I actually doubt it. We just need to update some aspects of the existing system, because it is working already, after all.”

Peter, Manager, IT

Triangulation #2

“Look, I know it looks like one of those IT projects, but the way I see this is just to make some of the manual work automated, so that we can resource more in other sections. It’s just crazy that we spend so much money only to manage the most basic client information, when other companies can actually do the same things for a much cheaper price tag however with sophisticated BI.”

Mary, CIO

“Oh, gosh, I hate this system! I just don’t know why this company sticks to this old clunky system... I mean, I don’t need to use it, so it’s okay, but every now and then I get asked to do the stats, which can be a bit of pain. Why do I do it? I actually don’t know. Maybe because I was involved in the implementation of it 10 years ago when I was still working there?”

Tim, Senior Finance Officer, Finance

“Your company’s system is crap. I emailed to three times, and every time I emailed to your ‘Service Desk’, I had to explain the situation again and again, with different staff members. They were nice and professional, but the service I received was appalling...”

John, a customer

Balance of probabilities

So who is right?

This is not a meaningful nor useful question to ask...

Towards narrative construction

The information doesn't get you too far;

it is the story that eventuates in tangible outcomes.

An ‘anonymous’ case study

A fresh graduate entered a firm as a junior data analyst, and one of the first tasks for him given by his manager was to do a bit of research on specific BI data sets to see how they could be visualized as a management tool. Being ambitious and competent, he produced such things straight away, however with addition of some extra data which he thought would be helpful for his manager, and also presented it as a report with his own interpretations of what he thought the data could actually tell. He sent this report to his manager, with some of his colleagues copied in since they helped him along the way. All this, he thought, was to make himself useful.

The report however eventually ended up being circulated more widely than it should be, and what was supposed to be only an internal exploratory research work started being treated as though it was a formal project work conducted within this person’s work area. The manager was scrutinized for the fact that a new junior staff conducting such an ‘important’ piece of work (which it wasn’t), and the interpretations included in the report were, again, scrutinized both professionally and as part of the firm’s internal politics.



The
Intercept_



Photo: Thomas Monasteri/NY Daily News Archive/ Getty Images

LIE AFTER LIE: WHAT COLIN POWELL KNEW ABOUT IRAQ 15 YEARS AGO AND WHAT HE TOLD THE U.N.



Jon Schwarz

February 7 2018, 12:38 a.m.

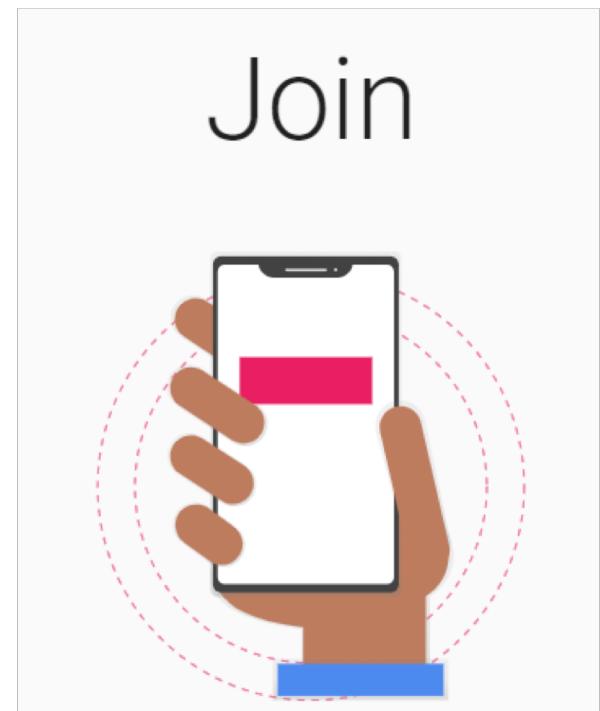
([Schwarz, 2018](#))

Week 3 ePub revision: Recall and apply...

Please head to <https://flux.qa> and sign in with your Monash account (you should then stay logged in for the semester).

Hit the plus button in the top right and type in code **8JQJ4J** to join the FIT1049 group. The code is case sensitive.

*Please note that this is a Monash system, and your responses to questions are not anonymous.



Question 1: The ‘intelligence cycle’

Which of the following is part of ‘planning and direction’?

1. Consulting the stakeholders to refine the scope of research in order to establish a shared understanding of what needs to be researched;
2. Communicating the outcomes and implications of the research in order to increase the profile of the research being conducted; or
3. Implementing any overt or implicit actions based on the outcomes of the research.

Question 2: Research process

You have sets of data generated as a result of Business Intelligence analysis, and you are starting to see some trends in the recent financial activities in your company. Which stage of the research process are you at?

1. Planning and direction;
2. Collection and processing;
3. Analysis; or
4. Production and dissemination.

Question 3: Sources of information 1

Can an information source be both a primary and secondary source at the same time?

1. No – these classifications are objective and absolute, and a source must be either primary or secondary;
2. Yes – these classifications are objective and absolute, but a source can include some parts that are primary, and some parts secondary; or
3. Yes – these classifications are subjective and relative, and a source can be both a primary and secondary depending on how the information source is used in the context.

Question 4: Sources of information 2

You are asked by your manager to conduct a research on the current development in an area in IT unfamiliar to you. Which one of the following options would be most effective?

1. *Secondary/tertiary research*: e.g. Look at *Wikipedia* entries to grasp the research topics and identify keywords, and then proceed with more specific research;
2. *Literature search/survey*: e.g. Survey the existing literature to gain an understanding of the extent of existing research conducted on the research topics; or
3. *Assessment of relevant primary sources*: e.g. Pick a small number of research conducted on a similar topic, and refer to their references to gain further understanding of the field of research.

Question 5: Attributes of information

In May 2018, a newspaper article reported that *Company A* developed a new technology that addresses certain vulnerabilities of one of the existing encryption techniques. The technology however is now outdated since a number of emerging security risks were reported. Which aspect of the newspaper article does this new development compromise?

1. Currency – the article is no longer current since the technology is already outdated;
2. Accuracy – the article is no longer accurate, since the vulnerabilities are no longer addressed by the technology; or
3. None of the above.

Question 6: Managing the information

In the professional practice, managing any research related information in a consistent manner is imperative for:

1. The individual conducting research to maintain a clear oversight over the information he/she gathered;
2. The organisation to be accountable for its activities conducted by individual employees; or
3. The profession to maintain its integrity.

Things to do this week...

1. Make sure you shared your eFolio and the submission item arising from the Week 3 tutorial.
2. Read the Moodle Book for Week 4 before the tutorial next week.
3. Check out Assignment 1, which is now available under the 'Assessment' tab.



FIT1049 IT professional practice S1 2019

[◀ Week 2 \(11 Mar - 17 Mar\)](#) [Week 3 \(18 Mar - 24 Mar\)](#) [Week 4 \(25 Mar - 31 Mar\) ▶](#)

Information gathering, analysis and processing

After completing the unit's activities in Week 3, you will:

- understand what 'research' entails in IT professional contexts;
- understand and apply a systematic, analytical and critical approach to information in order to improve the effectiveness and efficiency of information gathering, as well as the quality of the analysis and processing that follow;
- understand how poorly conducted information gathering, analysis and processing could compromise the integrity of your professional practice and outcomes; and
- understand and apply appropriate citations and referencing in order to acknowledge the sources, hence maintaining both the professional and academic integrity.

Pre-class activity: Something to read

Please read the following Moodle Book prior to your tutorial attendance on Monday or Wednesday. It would take approximately 15 minutes to read; this however does not include time to read all the materials and sources linked out from the Book, which are provided only for your interest in case you would like to learn more on specific topics.

[Week 3 reading](#)

Tutorial: Something to do

Please find below the tutorial sheet for this week, in which you will find an overview, learning outcomes as well as instructions for the activities to be conducted during the tutorial. While your tutors will go through these, it would be useful if you have a look at this document prior to attending the tutorial.

[Week 3 tutorial sheet](#)

36.7KB Word 2007 document

Lecture: Something to think about

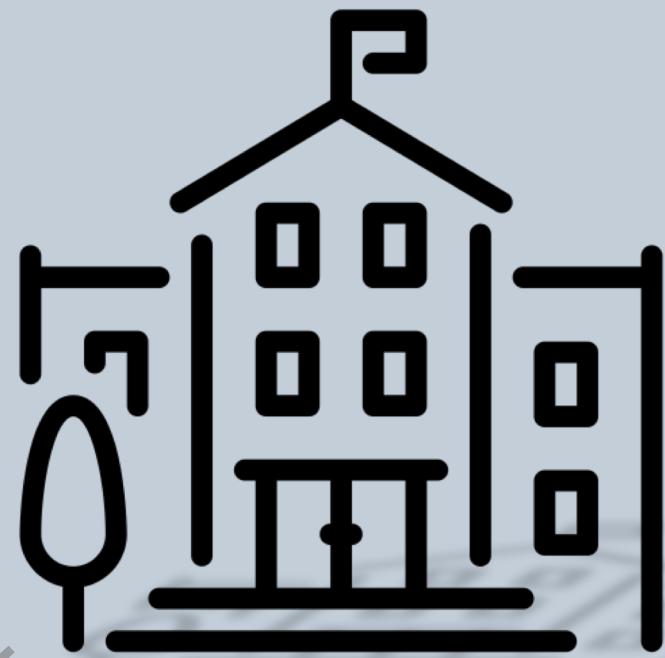
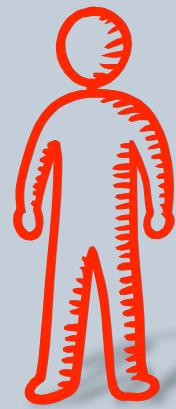
Based on the reading material and the tutorial activities, this week's lecture will interrogate further:

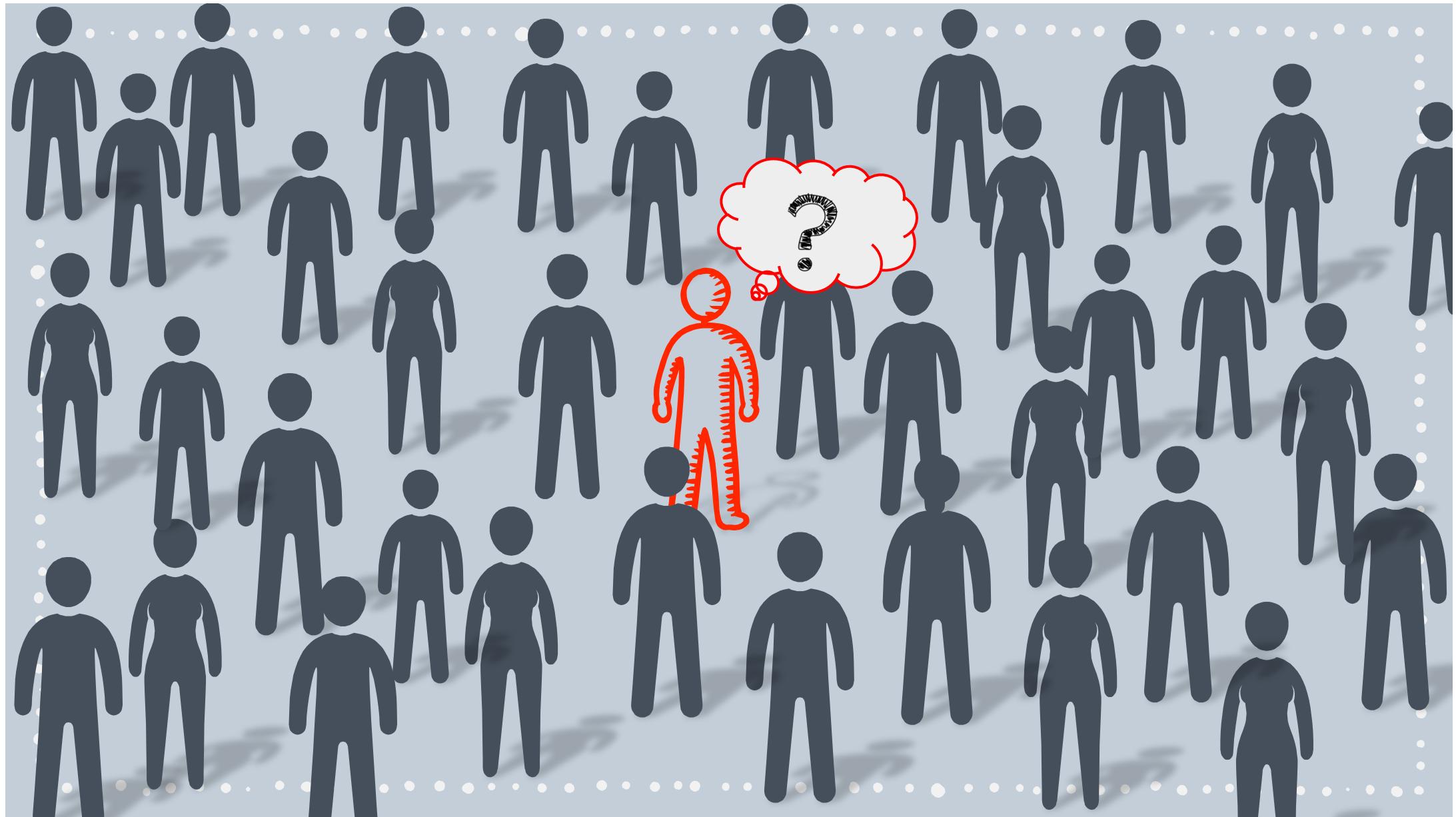
- The concept of the 'Intelligence Cycle', and how it can be applied to the process of research in IT professional practice;
- How information can be targeted, gathered and classified accordingly to the pre-determined purpose of research;
- How information gathered, analysed and processed becomes both deliberately and accidentally transformed into intelligence; and
- How to respond and counter the prevalence of fake news and similarly unverified yet easily accessible and seemingly legitimate information in the post-Internet societies.

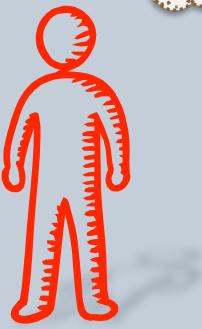
Learning Communities



**Learning Partner
Recommender System**

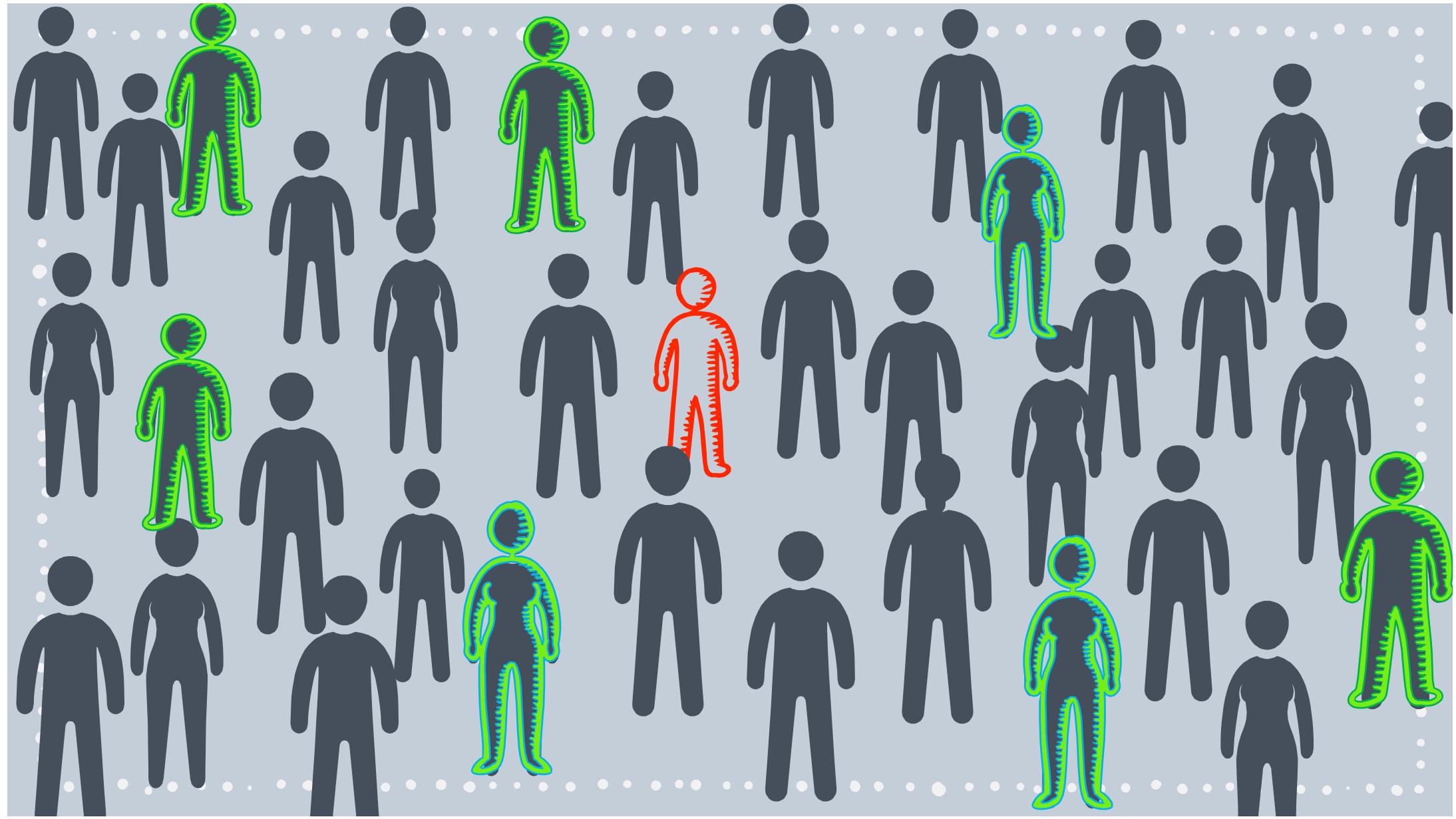


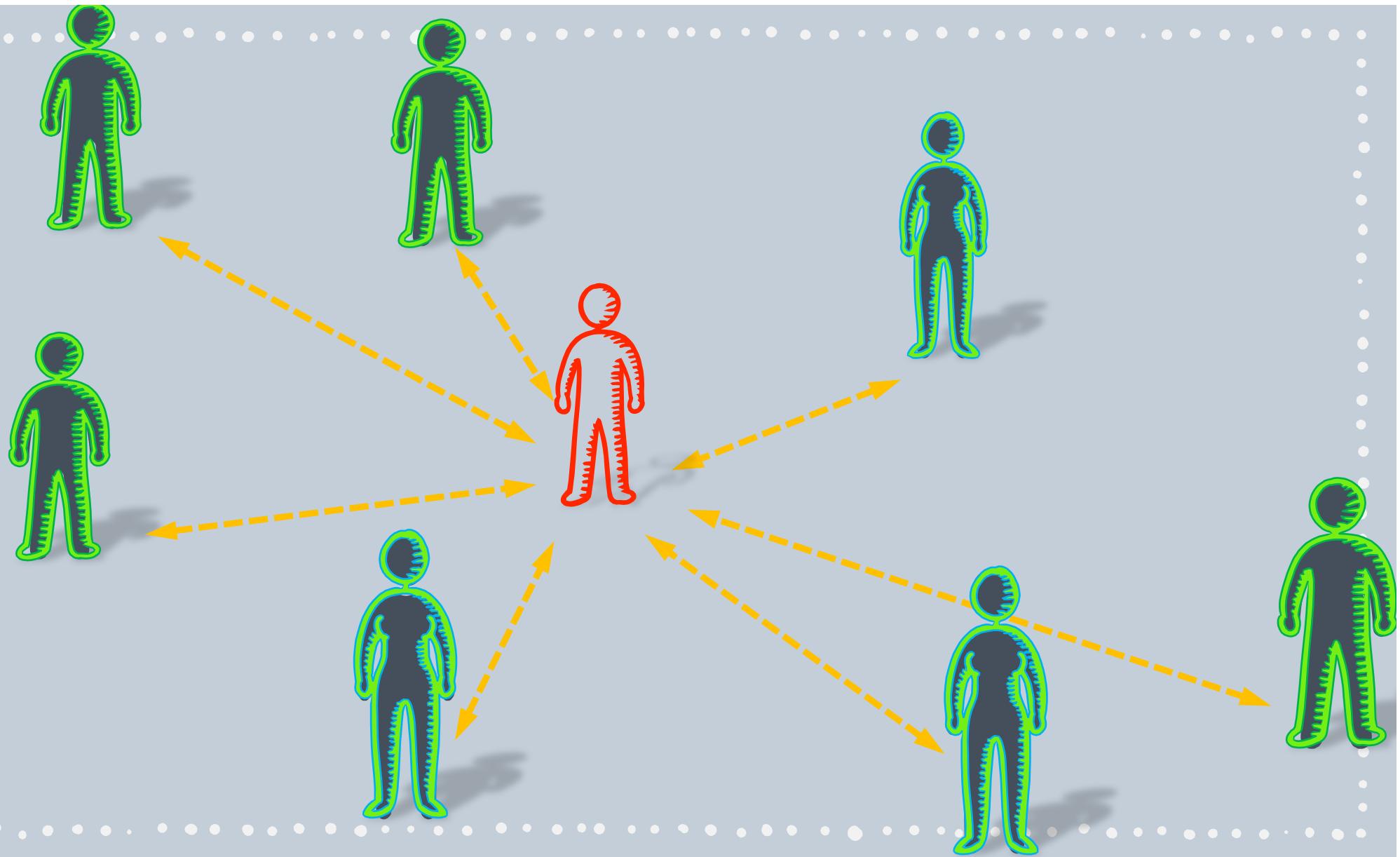




What do I
look for in
a study
partner?

What can I
say about
myself?







More about the project and
LPRS soon!

<https://lprs.infotech.monash.edu:5000>