

# SIT105 – Thinking Technology and Design

## Class 03



**Credibility &  
Social Media**

A/Prof. Xiao Liu  
[xiao.liu@deakin.edu.au](mailto:xiao.liu@deakin.edu.au)

# Deakin's Waurin Ponds Campus



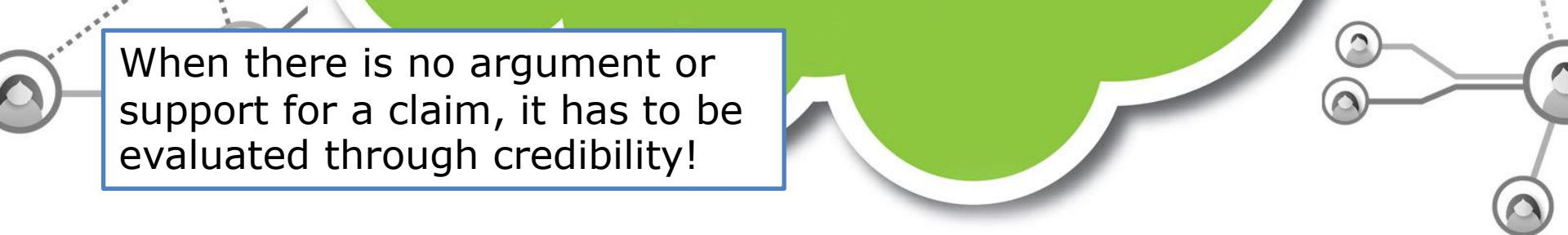
## CRITICAL THINKING QUOTE OF THE WEEK



**“Credibility is a  
basic survival tool.”**

Credibility can influence people's behaviours, patterns and thoughts. It can help determine if something or someone is trustworthy and believable.

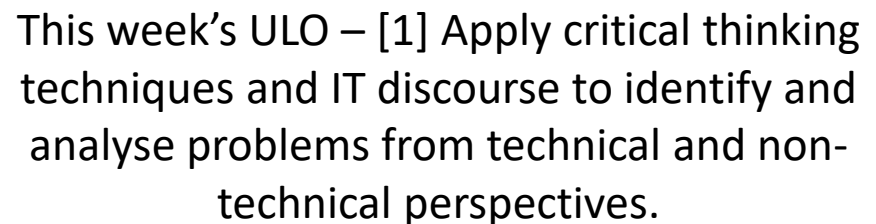
Rebecca Solnit is a famous writer who lives in San Francisco, California. She has written on a variety of subjects, including the environment, politics, place, and art.



When there is no argument or support for a claim, it has to be evaluated through credibility!



So This Week  
Let's Look At  
Credibility.



This week's ULO – [1] Apply critical thinking techniques and IT discourse to identify and analyse problems from technical and non-technical perspectives.



## Credibility in Business: “Your most important asset!”

**Without credibility, everything you say to investors, potential partners or even your employees can be questioned.**

- After you graduate and look to start your own business: What do you think sells your company to the outside world? A promising idea? A great founding team? A solid intellectual property (IP) portfolio?
- These are great but....**credibility** may be the most important asset, especially for a start-up company.
- **Credibility** is the indicator with which others judge you and, by extension, your company. It drives your ability to raise capital, attract partners and hire the best employees.



# Credibility

**FAKE**



- This is one of the **most useful topics** of the course!
  - For study and for life in general
- Knowing how to **critique and understand and evaluate** information is important!
- This topic is really about whether **claims are true or not!**
  - So the careful determination of whether a claim is true or not...
  - We need to verify the **line of reasoning and ideas**, that leads to the source of a claim (person or info)

# Credibility

FAKE



- A **claim** is something that in principle can be true or false
  - With a focus on the **verification** or **lack there of** claims/statements
- **Truth** is not a clear concept!
  - For the purpose of the class lets look at **credibility** in the sense as to **what can be verified by science**
  - Some things are true, but how scientifically?

# Credibility






- As humans we don't normally **justify** our beliefs very often
  - So after today's line of thinking you will notice which beliefs you have **accepted blindly** and which ones you have **followed scientifically** with justification
- Some claims are **not verifiable**, some of these will be related to metaphysical or afterlife... and that is fine!
  - **Not all claims have to be verified**, you can have faith in religious beliefs...That is fine!

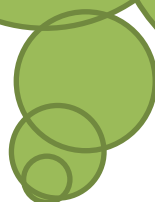
*However when you start making wild kinds of claims that can be verified (you enter the field of reason and logic) problems can occur!*

**FAKE**





Has There Been  
Examples in the  
Public Sphere,  
Where Credibility  
Has Been  
Questioned?



所在位置: 2021年> “熟鸡蛋返生孵小鸡”？荒唐！

## “熟鸡蛋返生孵小鸡”？学术尊严岂容亵渎



煮熟的鸡蛋能“返生”？河南郑州春霖职业培训学校校长郭某发表论文称，在其指导下，学生利用“超心理意识能量方法”，使煮熟的鸡蛋变成生鸡蛋并孵化小鸡。消息传出，瞬间“炸屏”。目前，郑州市人社局审批部门已到涉事学校进行调查，吉林省也派出工作组调查《写真地理》杂志出版单位。

2021-04-27 15:04

## 意念把熟鸡蛋返生孵小鸡？校长荒唐论文还孵化了哪些荒诞？

近日，一篇有关熟鸡蛋返生孵小鸡的论文，在网上热传。该论文收录在《写真地理》期刊，第一作者为郑州市春霖职业培训学校校长郭萍。据公开报道信息显示，郭校长还有物体穿瓶越壁、熟绿豆返生发芽等相关著作。

2021-04-27 11:09

## 这枚“返生”的熟蛋，到底刺痛了什么

2021-04-27 16:01

## “熟鸡蛋变生鸡蛋”，学术尊严扫地

2021-04-27 11:25

## 新华热评：一个敢写一个敢发，反智论文何以过审？

近日，一篇熟鸡蛋变成生鸡蛋并孵化出雏鸡的论文在网上疯传。许多网友表示，一个敢写一个敢发，此等反智论文究竟是如何过审的？

2021-04-27 11:11

Let's go to [www.menti.com](https://www.menti.com)

3923 9517



# Mentimeter

Please enter the code

Submit

The code is found on the screen in front of you

## Police: Teenage Girl's Viral Tweet Was Kidnapping Hoax

- A 16-year-old girl who mysteriously disappeared after tweeting that someone was in her house is now being accused of faking her own kidnapping.
- Kara Alongi urgently asked her [Twitter](#) followers on Sunday night to call 911, saying "there is someone in my house [sic]."
- It didn't take long for the Internet to rally around her message. Not only did **#HelpFindKara** trend worldwide on Twitter, nearly **34,000** people retweeted her call for help to raise awareness about the incident.
- She also gained about **95,000** followers by Monday morning and the local police department received more than **6,000** calls after her tweet went viral.
- But now, police are saying that that the tweet was actually a hoax!
- When Alongi's family returned home about an hour later, they called authorities who found no traces of forced entry or stolen property, according to the [New Jersey Star-Ledger](#).



# Following the News Article ...Debate!



## Your Task!

Spend 5-minutes with your group to discuss these questions.

### 1. Who caused the most issues here?

- *The girl for tweeting about this fake intruder?*
- *The users of Twitter for believing a claim from a random Twitter account... and then calling the police?*
- *Both?*

### 2. **How** should it have been handled?





Let's go to [www.menti.com](https://www.menti.com)

3923 9517



# Mentimeter

Please enter the code

Submit

The code is found on the screen in front of you

“Amazing job”, “fantastic result”, “these guys are the best cleaners!”  
These are snippets of the online reviews the consumer watchdog has used to sue a carpet cleaning company in the Federal Court.

## ACCC cracks down on fake reviews, sues Electrodry



Electrodry is accused of posting fake reviews online.

The Australian Competition and Consumer Commission launched legal action against A Whistle and Co, which trades as Electrodry Carpet Cleaning, for misleading and deceiving customers with fake reviews and testimonials online.

Could we use a **technical approach** to assess the credibility in occurrences like this?



## ACCC cracks down on fake reviews

**THE consumer watchdog is getting serious in its war against fake online reviews, slapping one removal firm with a massive fine over alleged dodgy testimonials.**

Citymove has paid penalties totalling \$30,600 over three infringement notices issued by the Australian Competition and Consumer Commission.

The ACCC alleges Citymove used fabricated customer identities to post two testimonials on Google+ and one testimonial on YouTube.

Positive ratings on Google+ can bump businesses up in Google Search results and feature prominently when customers search for local services.

The ACCC says it identified the Citymove testimonials as being potentially false or misleading when the same testimonial appeared on different review websites under different customer identities.

**Source:** <http://www.news.com.au/finance/small-business/accc-cracks-down-on-fake-reviews/news-story/eb8d6c1fc7a2599a4ed4ec26ffe9fb2a>

Let's go to [www.menti.com](https://www.menti.com)

3923 9517



# Mentimeter

Please enter the code

Submit

The code is found on the screen in front of you

# Cornell software fingers fake online reviews

Cornell brainiacs have come up with software that spots fake reviews, something we humans aren't good at. Fictitious happy customers beware.

## SPOTTING A FAKE

*In 2011, Cornell University computer-science students developed an algorithm that identified 90% of fake reviews, in part by flagging telltale signs. Here are a few common ones.*

A user account with just one review

Reviews coming from multiple accounts on one computer

Reviews that diverge sharply from the sentiment of others

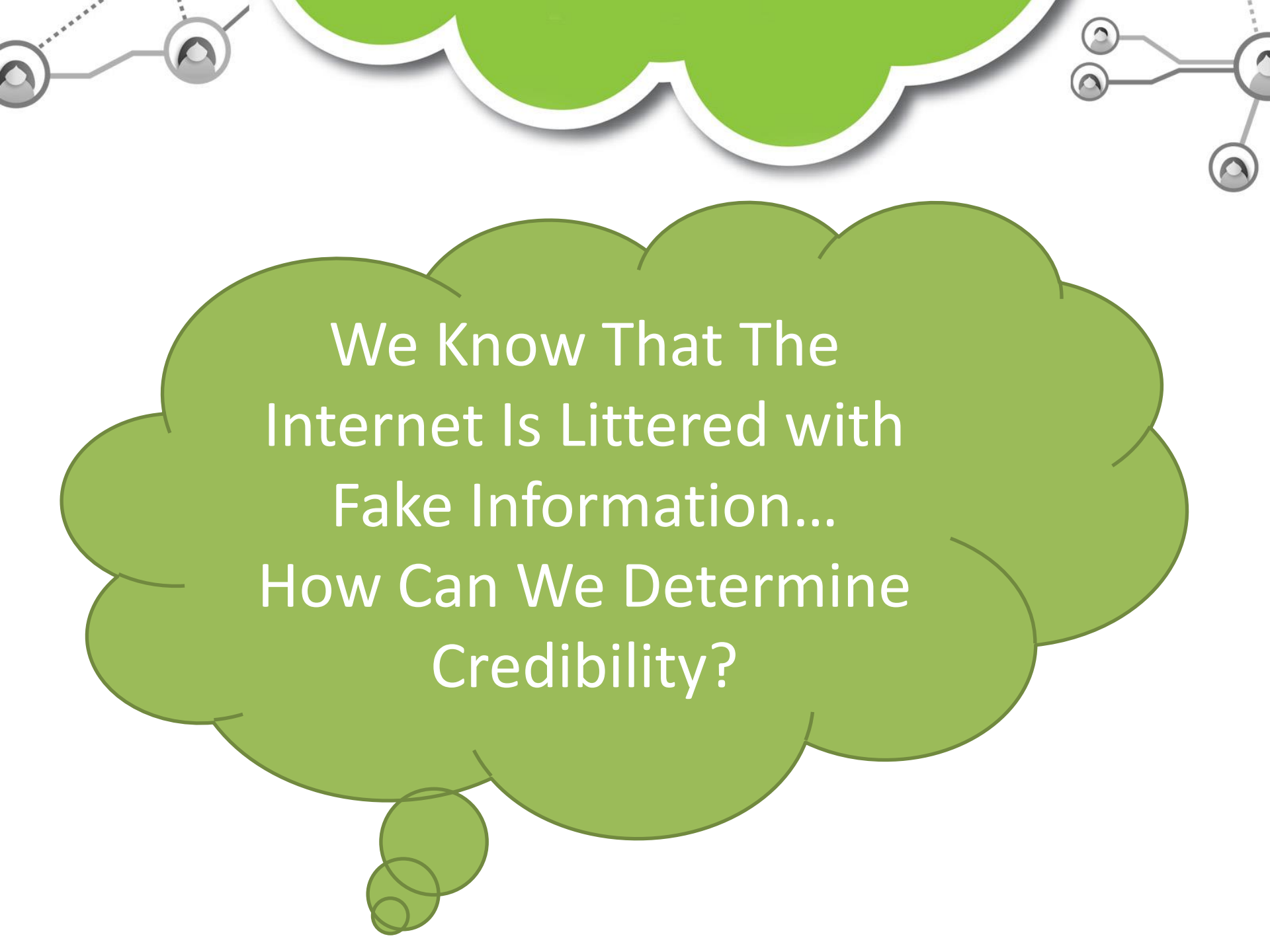
Effusive adjectives (real people seldom gush)

Vague terms like "vacation" and "my husband" (real people talk about specifics like the bathroom or price)

**Source:**

<https://www.cnet.com/news/cornell-software-fingers-fake-online-reviews/>





We Know That The  
Internet Is Littered with  
Fake Information...  
How Can We Determine  
Credibility?

# Suspicious Credibility

Where did it come from?

The credibility of:

1. a claim can be suspicious
2. a claim's source can be suspicious

Example #1 F1 RedBull Racing team won \$101.5 million dollars in the 2013 season.

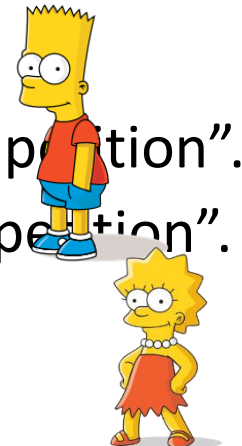
Source: Joe Saward F1 Journalist: <http://bleacherreport.com/articles/1955397-formula-1-prize-money-what-are-the-rewards-per-race-and-per-season>

Example #2

**Bart Simpson:** "I won that money in a science competition".

**Lisa Simpson:** "I won that money in a science competition".

Who is more credible?



# Degrees of Credibility

Credibility has levels of degrees, it is not clear cut yes or no.

It can giving you reasons to be: **suspicious**, **quick to believe**, or any level **in between**.



There are degrees of credibility for both:

1. **Claims**
2. **Sources of claims**

Examples:

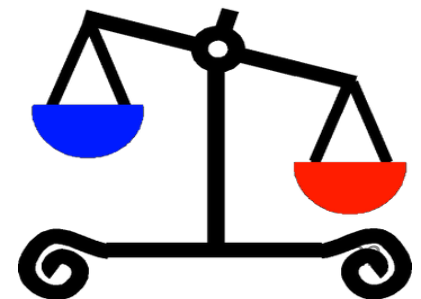
- **Surgical robots are safer than human surgeons**
- **Autonomous cars are safer than human operated cars**
- **Scientist says the Earth is getting hotter**
- **Politician says the Earth is getting hotter**

Claims (red)  
and claims  
with sources  
(blue)

# Interested Party

- An **interested party** stands to **gain** in our belief in a claim.
  - E.g. things like money or fame
- A **disinterested party** has **no interest** in our belief in a claim.
  - Much more believable if they don't stand to gain anything! But still not 100%.

A salesman may be an interested party.



# Interested Party (person or group)

- Interested parties are **less credible** than other sources of claims

Example: you want to buy a car.

“That 10 year old car runs perfect” said salesman.

“That 10 year old car runs perfect” said mechanic.



Your Task!

**Which person/source do you trust more and why?**



Let's go to [www.menti.com](https://www.menti.com)

3923 9517



# Mentimeter

Please enter the code

Submit

The code is found on the screen in front of you

# The Most and Least Trusted Professions in Australia 2019

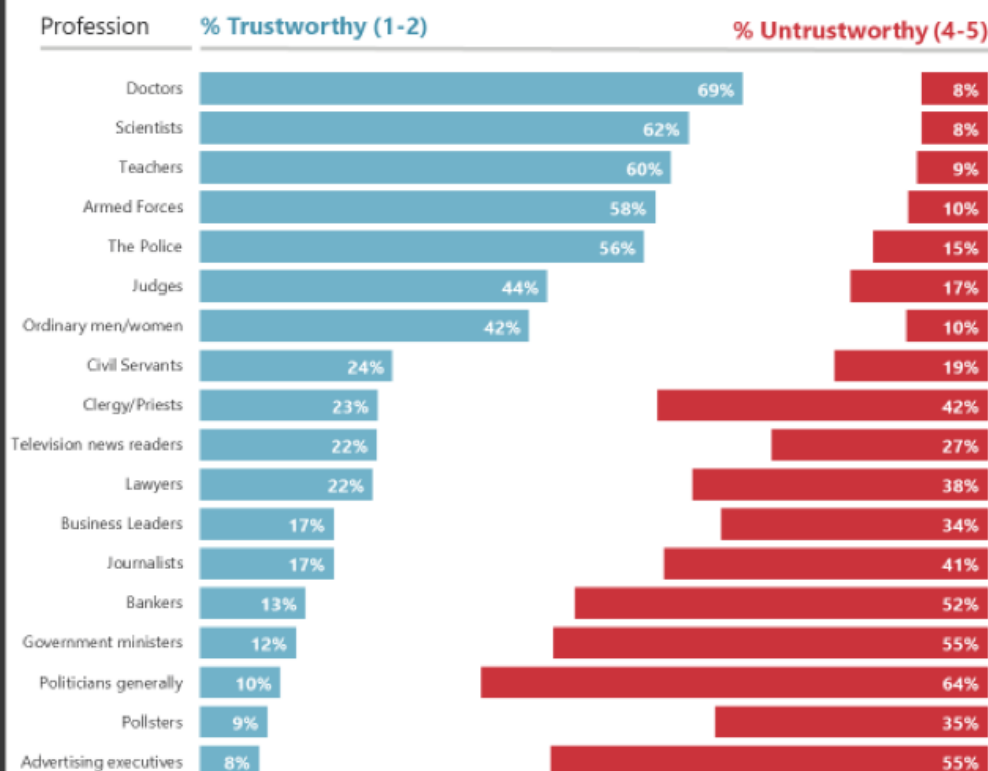
*Please look at this list of different types of people. In general, do you think each is trustworthy or untrustworthy in [COUNTRY]?*

*Please use a scale of 1 to 5, where 1 is very trustworthy and 5 is very untrustworthy.*

## Australia – ranking

**Doctors are the most trustworthy profession in Australia, slightly ahead of scientists who are the most trustworthy globally.**

**Australia's trust in the Police is 18 percentage points above the global average and trust in the Armed Forces is 15 points higher.**



Base: 19,587 online adults aged 16-74 across 23 countries

# Credibility / Suspicion Table

Claim	Source	Suspicion
High Credibility	High Credibility	Low
Lacks Credibility	High Credibility	Medium
High Credibility	Lacks Credibility	Medium
Lacks Credibility	Lacks Credibility	High

If we combine the claim and the source together.

We can work out the suspicion level.

E.g. High credibility claim but low credibility source is medium suspicion level.



# Claims Lacking Credibility

A claim lacks credibility:

1. When it conflicts with our observations

**Nick has purple hair.**



2. When it conflicts with what we think we know  
(background knowledge)

**2 + 3 = 11**



3. When it conflicts with credible claims

**The Sun revolves around the Earth.**





Now Let's Look At The  
Theme Of This Week.

Credibility With Regards  
To Social Media!







# 'Fake News' explained: How disinformation spreads





# Social Media & News (PCQ Activity)



Let's fill out this table to determine the pro's, con's and any questions as to whether social media is a benefit or hindrance to breaking news.

Pro's	Con's	Questions
Get notice of new events very quickly (e.g. Twitter).	You can't rely on the credibility of all the sources.	If I don't rely on Social Media, how do I find out news and events in the quickest way possible?



# Social Media Accuracy Checklist!

Here are some items to consider that can help determine authenticity of Social Media posts:

1. **Location of the source** - are they in the place they are tweeting or posting about?
2. **Network** - who is in their network and who follows them? Do I know this account?
3. **Content** - Can the information be corroborated from other sources?
4. **Contextual updates** - Do they usually post or tweet on this topic? If so, what did past or updated posts say? Do they fill in more details?
5. **Age** - What is the age of the account in question? Be wary of recently created accounts.
6. **Reliability** - Is the source of information reliable?



*Can you think of any others?*

Source: Sheridan Libraries - Johns Hopkins University  
<http://guides.library.jhu.edu/c.php?g=202581&p=1335031>

# In Conclusion...

- ✓ Credibility can be a survival tool and maybe your most important asset for your career and life.
- ✓ Interested parties can influence a claims credibility.
- ✓ Review the credibility table to see the suspicion level of a source.
- ✓ China is cracking down on Internet rumours!
- ✓ Sometimes a single person can cause a melt down on Twitter from fake Tweets!
- ✓ Cornell University students found a way to spot online fake reviews and for social media Johns Hopkins University has established guidelines for assessing social media posts.

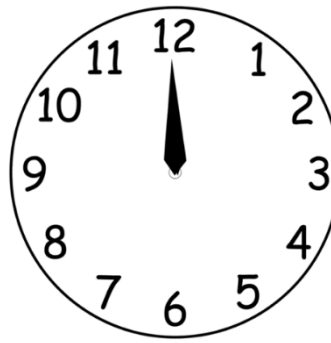




## Additional Readings

- Multilingual COVID-19 Fake News Detection and Intervention Project
  - Lead by Deakin (A/Prf. Xiao Liu and A/Prof. Jianxin Li) with UGM, Indonesia
  - Sponsored by Study Melbourne Research Partnership Program by Government of Victoria
- Let's have a look at <https://counterinfodemic.org/>

## Take 5



From today's class and our group discussions.

Take 5 minutes to jot down the main things you learned today.... What are your 'takeaways'.







**End of  
Class!**

Any Questions?

### Readings:

**Measuring Social Media Credibility: A Study on a Measure of Blog Credibility**

[http://www.instituteforpr.org/wp-content/uploads/BlogCredibility\\_101210.pdf](http://www.instituteforpr.org/wp-content/uploads/BlogCredibility_101210.pdf)

**A Survey of Fake News:  
Fundamental Theories, Detection Methods, and  
Opportunities**

<https://arxiv.org/abs/1812.00315>