Fact Vs Fiction
How to Bust Fake News
Before you share...

Do a quick evaluation!

- Check your **emotions** when you first read the article – anger, sadness, disbelief?
- Develop **fact-checking habit**
- **Clickbait** headlines
- Images to attract **attention**
- News with sources from **studies**
Where do you get your news?
<table>
<thead>
<tr>
<th>Social Media</th>
<th>Alternative News</th>
<th>Mainstream Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ‘Echo chamber’</td>
<td>• May have a potential bias (political, religious, familial, etc.)</td>
<td>• Have a process in place for fact-checking</td>
</tr>
<tr>
<td>• News shared by friends or</td>
<td>• Will need to fact-check</td>
<td>• Do make mistakes – written apology</td>
</tr>
<tr>
<td>family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Not getting the full picture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reinforces existing beliefs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Today in brief

- Feelings
- Four Moves
- I See, Therefore I Believe
- A little blue bird told me...
- What’s next?
Feelings

Check your emotions when you first see the headline
‘Four Moves’
By Michael Caulfield, Web Literacy for
Student Fact-Checkers
1. Check for previous work

- Has the claim been fact-checked?
- How to?
  - Check fact-checking websites
    - https://www.snopes.com/
    - http://www.hoax-slayer.net/
    - http://www.truthOrFiction.com
    - https://www.gov.sg/factually
  - [Try!]
    - Claim: **Mutant Daisies Found Near Fukushima! This is What the Radiation is Still Doing to the Planet**
    - Search Google → fukushima daisies site:snopes.com
2. Go ‘upstream’ to the source

- Find the original or earliest record of the claim and do your evaluation on the original source
  - ‘reporting on reporting’

- How to?
  - If they have quoted someone or another news agency, try finding those
  - [Try!] Find the source of this news article: http://gottadotherightthing.com/successfully-recreate-tyrannosaurus-rex-chicken-dna/
3. Read laterally

- When you have identified the source of the claim, read about what others say about the source, e.g. the publication, author, website etc.

- Remember P – E – A
  - Process
  - Expertise
  - Aim
Process

• If a source is reliable, they should have a fact-checking process in place so that the information is accurate, verified and mistakes are corrected when discovered.

Expertise

• Researchers and professionals have expertise, and their views will hold more weight than a man from the street.

Aim

• Aim is the purpose of the author or website in writing the article.
3. Read laterally

- How to?
  - What do other sites say about this site?
    - Domain searches
      - [Try!] worldnewsdailyreport.com
        -site:worldnewsdailyreport.com
  - Who runs the site?
  - Who is the author of the article?
  - Are the names/organizations mentioned in the article real?
  - Are there any links to support the statements made?
  - What is the aim of writing this article?
4. Circle back

- Go back and start over again to the initial information, especially if you have hit a roadblock. With the information you know now, you are likely to make a more informed decision.
Activity 1
Detective work

- Read this article on an earless bunny:

- Answer the questions here:
I See, Therefore I Believe

Google Chrome
TinEye
Forensically
Steps

1) Have alleged image on Chrome
   - OH NO! MY INDON MAID FRIED MY PET LUOHAN FISH FOR DINNER

2) Right-click on the image and click “Search Google for image”
Steps

3) Try changing the keywords in the search box
Steps

4) Try finding the first known appearance of the image by tweaking the date.
Steps

1) Copy **image URL** by right-clicking on the image or download image and paste the link in **TinEye**
**Steps**

2) Play with the filters
   - **Best match** – image with the most identical fingerprint to the image used to search
   - **Most changed** – the most heavily edited image result
   - **Biggest image** – creators are likely to upload the biggest resolution of their image

3) Try “Show only the 1 result found in collections” – may get the original Stock Photo
Steps

4) Check out the links of similar images
1. Go to: https://29a.ch/photo-forensics/#forensic-magnifier
2. Download the image you want to evaluate
3. Click on ‘Open File’
4. Check out the Error Level Analysis
5. Try reverse image searching as well to find if there are any other websites which reported the news
Activity 2
How real are these images?

- Choose as many images from the next slide
- Choose any of the tools (Chrome, TinEye or Forensically) to evaluate how real the images are
- Rate your evaluation of the images from 1-3 with:
  1 = Fake, 2 = Unsure, need more information, 3 = Real
1) The Gates of Hell Just Opened In Guatemala
2) Killer Whale waiting on the penguins to jump
3) Man Takes Selfie Moments Before Deadly Shark Attack
4) Giant Crumpled Paper Drops From The Sky, Lands On Hill In New Zealand
How real are these images?
Rate your answers from 1-3 with 1 = Fake, 2 = Unsure, need more information, 3 = Real

1) The Gates of Hell Just Opened In Guatemala: 2.5
2) Killer Whale waiting on the penguins to jump: 1.5
3) Man Takes Selfie Moments Before Deadly Shark Attack: 1.1
4) Giant Crumpled Paper Drops From The Sky, Lands On Hill In New Zealand: 2.5
5) **Ice-Scream:** You won’t believe what THIS frozen river in Russia resembles

6) **Surreal images of Venice’s canals frozen solid**
Photo Forensics

Things to note

- Will be more effective with the ORIGINAL doctored image
  - With the proliferation on the Internet, may be a little difficult
- Needs a keen eye to spot differences
- Needs knowledge of photograph metadata
- Not foolproof
  - There may be instances where errors can go undetected

- For more information, read this article: http://headt.eu/detect-image-manipulations/
EXIF = Exchangeable Image File Format
"a standard that specifies the formats for images, sound, and ancillary tags used by digital cameras (including smartphones), scanners and other systems handling image and sound files recorded by digital cameras" – Wikipedia

Some metadata tags:
- Date and time
- Camera settings
- Location information
Camera

Make: Apple
Model: iPhone 6s
Exposure: 1/133
Aperture: 2.2
Focal Length: 4.2 mm
ISO Speed: 25
Flash: Off, Did not fire

Author and Copyright

Copyright not found.

Location

Latitude: 34.665109 North
Longitude: 135.4348 East
Altitude: 21.0277748 m
A little blue bird told me...
Who’s telling the truth?
Who’s telling the truth?
Is Michael Li’s screenshot of Dan Patrick’s twitter typo real?
How do you check?

Twitter Advanced Search

- How do you begin searching?
- Try answering these questions below while searching:
  - Are the Twitter profiles real?
  - Are the profiles verified?
  - When was the date of Michael Li’s original tweet?
  - Is the original tweet similar to the tweet shown in the screenshot? Could you think of a reason why it could be the same or different?
Advanced search

Words
- All of these words: "marriage one man"
- This exact phrase
- Any of these words
- None of these words
- These hashtags
- Written in: All languages

People
- From these accounts: @danpatrick
- To these accounts
- Mentioning these accounts

Places
- Near this place

Dates
- From this date: to

Search
Activity 3
Find out if The Boston Globe made such a typo
What’s next?
Future of Fake News

- Watch this:
  http://futureoffakenews.com/videos.html
Further Reading

VERIFICATION


PHOTO FORENSICS

- Sencar, H. T., & Memon, N. D. (2013). Digital image forensics: there is more to a picture than meets the eye. New York, NY: Springer.
Websites

- https://firstdraftnews.org/
- https://www.poynter.org/channels/fact-checking
- http://libguides.nus.edu.sg/nm230