



PHOENICIA UNIVERSITY

Fake News Detection Essentials

How to spot manipulated headlines, faked images, and synthetic media before you share them.

Based on lecture material on Fake News and News Validation

1

What Actually Counts as “Fake News”?

“Fake news” is a blanket term for very different problems. Some content is honestly wrong, some is deliberately false, and some is true information shared out of context to cause harm. Telling these apart changes how you should respond to it.

It's Not One Thing

Misinformation, disinformation, and malinformation are ethically different, even though they spread the same way.

It Spreads Faster Than Corrections

Studies of social platforms found false claims travel significantly faster and further than true stories, largely because they're more novel and emotionally charged.

Three Categories of Misinformation

Misinformation

False information shared without knowing it's false.

Disinformation

False information created and shared deliberately to deceive.

Malinformation

Genuine information shared out of context, or with intent to harm.

2 You Encounter Misinformation Every Day

Misinformation rarely announces itself — it usually just looks like an ordinary post in your feed.

1

A headline that outrages before you click

Clickbait is engineered to trigger a reaction before you've verified anything.

2

A screenshot with no source

Screenshots strip away links, dates, and context — exactly what you'd need to verify a claim.

3

A “shared by a friend” post

Trust in the sharer, not the source, is one of the biggest reasons false claims spread.

4

An old photo recirculated as breaking news

The same dramatic images get reused for unrelated disasters, years apart.

5

A video clipped out of context

Removing the seconds before or after a clip can completely reverse its apparent meaning.

6

A chart with no labeled axis

A graph without labeled units or a source can be built to visually exaggerate almost anything.

3

Spotting Clickbait Headlines

What Clickbait Actually Does

Clickbait headlines are engineered to create a curiosity gap — they promise a payoff (“you won’t believe what happened next”) without giving enough information to satisfy it, forcing a click just to close the loop.

THE ORIGINAL CLICKBAIT MACHINE

Upworthy's Headline Era

Upworthy, 2012–2014

The media site Upworthy became known for open-loop headlines like “He Was Bullied For Years — What He Did Next Changed Everything.” The format spread across the web because it reliably drove clicks, even as critics pointed out the stories rarely matched the drama promised.

How to Spot It

Watch for headlines that describe a reaction (“the internet is stunned”) instead of the actual news, withhold a name or number that should be there, or end mid-sentence.

Lesson: if a headline makes you feel something before you know anything, that's the design working as intended.



4

Reverse Image Search

What It Actually Does

A reverse image search lets you upload or paste a photo instead of typing words, and shows every other place that same image has appeared online — often revealing its real date, location, or original context.

THE SHARK THAT WON'T GO AWAY

A Recycled Hoax Photo

Circulated since 2011

A composite image of a shark swimming down a flooded highway has resurfaced during nearly every major hurricane since 2011 — Irene, Sandy, Harvey, Florence, Ian — each time captioned as if it were breaking news. A reverse image search instantly reveals its much older, unrelated origin.

How to Use It

Right-click an image (or use a phone's search-by-image option) and check the earliest date it appeared — if a “breaking” photo has years of search history, it isn't breaking news.

Lesson: a dramatic photo with no traceable origin should be verified before it's believed.

5 Fact-Checking Tools

No single tool catches everything — verification usually means combining two or three of these.

1

Google Fact Check Explorer

Aggregates fact-checks from certified organizations worldwide, searchable by claim or keyword.

2

Reverse image search (Google, TinEye)

Traces where a photo has really appeared online, and when.

3

Snopes

One of the oldest English-language fact-checking sites, tracking viral claims since 1994.

4

Reuters Fact Check / AFP Fact Check

Wire-service verification teams that investigate viral claims using on-the-ground reporting.

5

InVID / WeVerify

A browser plug-in built for journalists to verify video content, keyframe by keyframe.

6

Wayback Machine

Shows archived versions of a webpage, useful for checking if an article was quietly edited.

6 Verifying Sources

Ask Who, Not Just What

Before trusting a claim, check who is making it: does the site have a real editorial process, named authors, and a physical or corporate identity? Anonymous accounts and sites with no “About” page carry a very different burden of proof than an established outlet.

A NEWSROOM THAT NEVER EXISTED

Fabricated Local News Sites

Identified repeatedly through the 2010s

Investigations have repeatedly found networks of websites designed to look like local newspapers — complete with city names and generic mastheads — actually run by political or commercial operations with no journalists on staff at all.

How to Verify

Search the outlet's name plus the word “fact-check” or “bias,” check whether wire services like AP or Reuters are reporting the same story, and look for a named, contactable author.

Lesson: a professional-looking website is not the same thing as a professional newsroom.



7

Deepfakes and AI-Generated Content

What a Deepfake Actually Is

Deepfakes use machine learning to generate or alter video, audio, or images of real people saying or doing things they never did. The technology has become fast and cheap enough that isolated frames can be nearly impossible to distinguish from real footage with the naked eye.

A FAKE SURRENDER

The Zelenskyy Deepfake

March 2022

A manipulated video appeared to show Ukrainian President Volodymyr Zelenskyy telling soldiers to surrender to Russia. It was quickly identified as a deepfake — his head was disproportionate to his body, and his voice had an unnatural accent — and platforms and the Ukrainian government moved fast to debunk and remove it.

How to Spot One

Look for unnatural blinking, mismatched lighting between a face and its background, awkward audio-lip sync, and blurring where hair meets skin — then check if credible outlets are reporting the same footage.

Lesson: the harder deepfakes are to spot visually, the more verification has to shift from your eyes to the source.



8

Identifying Bias in News

What a Story Includes

Selection bias

Bias can come from which stories get covered at all — reporting only one side of an issue shapes opinion just by what it leaves out.

Ask: what isn't being covered here that probably should be?

How a Story Is Framed

Framing bias

The same facts can be framed as a “crisis” or a “correction” depending on word choice, imagery, and which experts are quoted first.

Ask: would this feel different with a different headline or photo?

Did you know? Confirmation bias means readers often rate a neutral article as “biased against them” simply because it doesn't fully confirm what they already believed — bias isn't only in the newsroom, it's also in the reading.



9

Cross-Checking Information Before Sharing

The Four-Step Habit

Media literacy researchers recommend a simple sequence before sharing anything: stop before reacting, investigate the source, find how other credible outlets are covering the same claim, and trace the original context of any quote, photo, or clip.

A METHOD, NOT A RULEBOOK

SIFT

Mike Caulfield, media literacy researcher

Caulfield designed SIFT — Stop, Investigate the source, Find better coverage, Trace the original — as a fast method for anyone, not just journalists, to fact-check in under a minute instead of treating verification as a research project.

Why It Matters

Most misinformation isn't stopped by fact-checkers — it's stopped by the person about to hit share, one pause before they do.

Lesson: the strongest fact-checking tool most people already own is a thirty-second pause.



10 Seven Ideas Worth Remembering

Concept	What It Means	Real-World Example
Not all false content is the same	Mis-, dis-, and malinformation spread differently	The three categories of misinformation
Headlines can be engineered	Curiosity gaps drive clicks before verification	Upworthy-era headlines
Images can be verified	Reverse search reveals a photo's real origin	The recycled shark photo
Sources deserve scrutiny	A professional look isn't a professional newsroom	Fabricated local news networks
AI can fabricate footage	Deepfakes can alter what a real person appears to say	The Zelenskyy deepfake, 2022
Bias hides in selection and framing	What's covered and how matters as much as facts	Selection vs. framing bias
Pause before sharing	A short verification habit stops most spread	The SIFT method





Key Takeaways

- ◆ Critical thinking is essential for identifying misinformation and verifying sources.
- ◆ False information spreads faster through modern digital platforms and AI-powered technologies.
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- ◆ Media literacy and verification skills are essential for navigating today's digital information landscape.