



# Psychology of consuming online information

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# Basics



- ▶ When learning something new, information is stored in short term or working memory.
- ▶ When receiving new information the default is to believe it is true, just as a means of processing it.
- ▶ Once introduced, the brain searches for links to the same or similar information.



# Information is processed, linked and stored

- The brain processes information. It can then dismiss, incorporate, and/or hold temporarily.
- Information that is “used” or recalled eventually moves into long term memory.
- The format in which the information is presented determines where the information is stored. (Visual information is stored in a different place from audio or text-based information.)
- The brain makes links between related information in long term memory. (Visuals of a tiger are linked to textual information about a tiger.)



# Cognitive dissonance

- New information that does not agree with what we already know needs to be dealt with.
  - The brain hates cognitive dissonance and will take the easiest route for dealing with it.
  - It takes time and work to resolve cognitive dissonance.
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# Familiarity



- The more times we receive information, the more familiar it becomes.
- Familiarity makes it more likely that something will be accepted as true.
- Repetition helps to move information from short term to long term memory.
- Repetition of the information in different formats helps to create multiple links in the brain, making the information easier to recall.
- Think about how children learn the alphabet: they see letters, they sing songs about the letters, they say the letters, they write the letters, they watch videos about the letters....



# Online psychology

- Advertisers collection information about you
- They sort out those most likely to want what they are selling (and remember it is not always a tangible product—it can be an ideology or opinion) by finding the sites those potential customers use most often.
- They place advertising on the sites their potential customers are most likely to frequent.
- They repeat and repeat and repeat their message.
- They use multiple formats (music, video, text, pictures) to convey their message.



# Propaganda

- Advertisers use the same techniques as propagandists.
- For example:
  - Band wagon—convince you that all the cool kids are buying this
  - Gaslighting—makes you question what you already know
  - Straw man—creates a (non-existent) problem and then solves it.
  - Flag waving—makes an action seem patriotic
  - Celebrity endorsements—makes common people feel more like the rich and famous
  - Transfer—carries over the authority of something we respect to something else



# Emotional connection

- To gain your time and attention, many posts, especially on social media platforms, use materials that evoke an emotional response.
  - Outrage is an effective emotional target for those who want to misinform.
  - Emotions often cause an immediate response before more executive functions can kick in.
  - Be aware of your emotional response to a post and take time to consider the information before reacting.
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# New information Let's try it

- ▶ I assume that most of you do not closely follow U.S. politics. I assume that the following is new information for you:
- ▶ The Democratic candidate for the position of Governor of the State of Georgia is Stacy Abrams.
- ▶ This piece of information has reached you in two ways—you have received an audio message and a text message. This information is now “on hold” in your short term memory. Your brain probably has no links to this person’s name, but you may have links for other pieces of information— Governor or Georgia or Democratic.
- ▶ We will come back to this later



# Images



- Images create lasting memories in the brain because humans are very visually oriented
- More than 50% of the brain's cortex (the surface of the brain) is devoted to processing visual information.
- It takes as little as 13 milliseconds to process and understand an image.
- An image alone or paired with text is easier to remember than text alone.

# Picture of Stacy Abrams





# How does this work online?

- ▶ Information seeking today is built for speed
  - ▶ The average teen seeking information on the Internet spends an average of 10 seconds on each page.
  - ▶ The Internet is built to allow and encourage scanning, resulting in shallowness and cursory reading.
  - ▶ The amount of information that can be processed when scanning is limited.



# Confirmation bias

- The brain prefers the status quo
  - The brain tends to focus on/select information that confirms information it already knows.
  - This limits the intake of new information or information that does not agree with what we already know.
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# Heuristics

- The brain uses shortcuts to make sense of information.
- A common heuristic is a company logo. The logo is repetitively presented until it becomes shorthand for the company itself.
- If the company is seen in a positive light, the logo also carries that positive message.
- When seeing the logo for a company we like, the brain tends to accept the information that accompanies it as positive.
- A logo can be attached to almost anything.



# Predictive algorithms

- ▶ Using captured information from keystrokes, likes, shares, etc., the computer can predict what information you might want to see.
- ▶ Showing you information that is similar to what you already like promotes more clicks and shares.
- ▶ Using predictive algorithms prevents you from seeing information that does not agree with your past viewing/clicking/liking history, or that you have not liked or shared.
- ▶ Predictive algorithms often lead to more and more radical suggestions.



# Consider the source

When information is shared, people tend to rely on the assessment of the person who is sharing the information, rather than the information itself.

Celebrities are often used to promote a product or idea, because many consider celebrities “trusted” sources.

When you share information with family and friends, YOU are a trusted source for them, making what you share more likely to be considered true, even if it isn't.

# Stacy Abrams picture





# Advertising pays for the Internet, social media

- ▶ It is important to remember that when using the Internet, YOU are the product. Your information and attention are the commodities being sought and traded/sold.
- ▶ Key strokes
- ▶ Likes
- ▶ Clicks
- ▶ Shares
- ▶ Searches
- ▶ Purchases



# Data collection

- ▶ We often provide advertisers with our personal information voluntarily.
- ▶ Advertisers often make the information you share with them available for sale.
- ▶ Advertisers work across platforms. What you look at on Amazon shows up as advertising on Instagram.



# Four things you can do

- 1. Slow down. What's the rush?
  - 2. Consider the source of the information.
  - 3. Be aware that information can be (and is) manipulated.
  - 4. Think before you click, like or share. Is this something that deserves your time and attention? Is this something that you really want your family and friends to consider?
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Can anybody tell me who this is, where she is from and what her career is?





# Congratulations



- ▶ You received information about Stacy Abrams using text alone and text with pictures.
- ▶ One of the pictures shows that she is running for Governor.
- ▶ Only the text information said that she was a Democrat. Did you remember that part?
- ▶ Only the text information said that she was running for office in Georgia. Did you remember that part?
- ▶ Was seeing/reading information about Stacy Abrams three times during this presentation enough to move the information into long term memory? Try to recall the name, state and political party tomorrow .



# Summary



- ▶ We have only looked at the tip of the information/misinformation iceberg today
- ▶ Knowing/awareness of the techniques used to capture your interest and attention can help you avoid misinformation
- ▶ Your brain function and psychological makeup can work in both positive and negative ways to process information
- ▶ You know how “fast food” is tasty but often lacking in quality and not very good for you? “Fast information” is the same



# Thanks for being here today

- ▶ Any questions?
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