



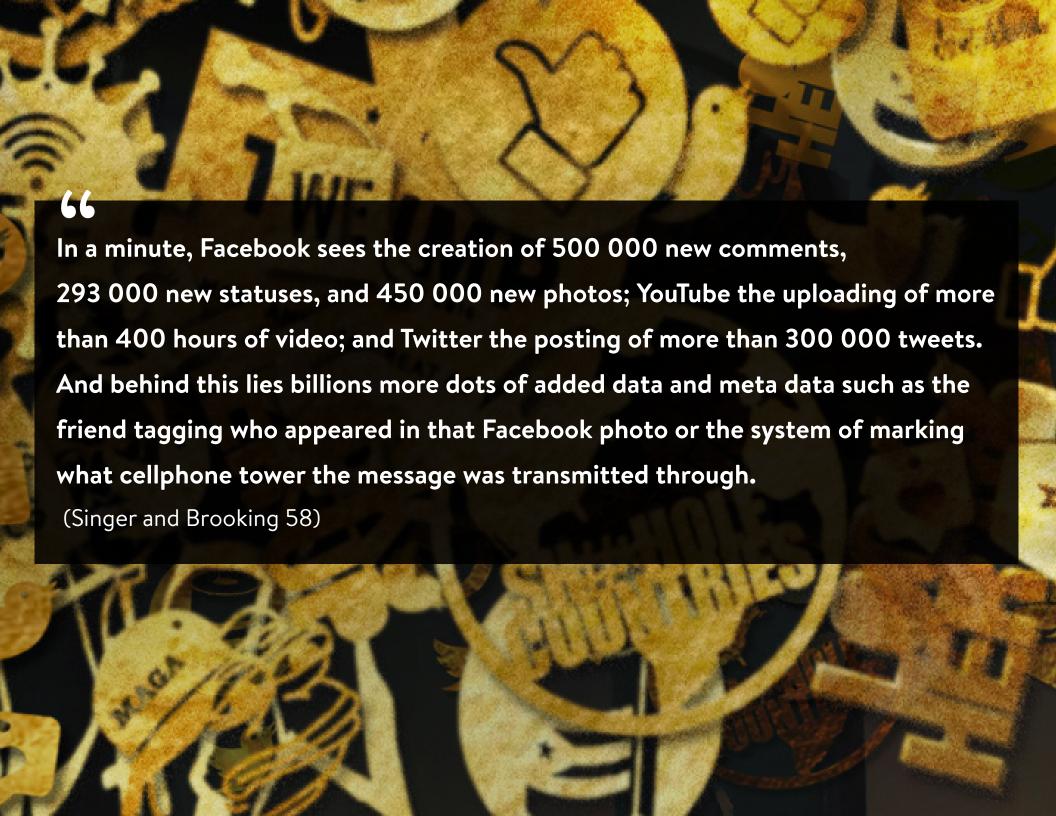
FORMAT AND DESIGN WORK

The design work for this thesis project takes two forms; the first is an immersive, hanging sculptural installation made of mirrored laser cut symbols; the second is a series of notebooks containing illustrations and infographics designed to enhance media literacy.

I had intended to show the pieces together as part of a gallery exhibit and defense in OCAD University's Graduate Gallery in summer 2020, but due to restrictions imposed by the Covid-19 pandemic, this plan has been altered to suit a remote, asynchronous defence.

The sculptural work will be shown as a mock up in this document and the notebooks will be presented to the committee in hard copy as well as in separate document.



































ICON DESIGN

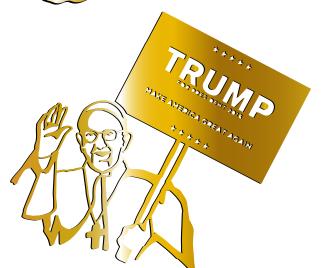
This data is represented in ten to one ratio through designed laser cut graphics made of mirror and acrylic. Strung together in a domed canopy and suspended from the ceiling over rows of children's school desks, the individual icons blend and become abstracted at a distance.

In addition to the representation of data about the volume of social media posts, the sculptural installation also highlights viral news headlines, expressions and events in graphic forms, offering the viewer many points of entry for reading the work.



ICON SAMPLES

#Pizzagate: On December 4th 2016, a man entered a D.C. pizzeria called Comet Ping Pong, with an assault rifle. The man believed an online conspiracy theory indicating that the pizzeria housed a child trafficking ring led by Hillary Clinton. The conspiracy has since been debunked (Singer and Brooking 127).



"Pope Francis Shocks World, Endorses Donald Trump for President": This fake news story was shared by three times more Americans than the top real news stories during the 2016 election. The story was generated in Veles, Macedonia, a town with a population of just 55 000 people, that became the registered home of over 100 protrump websites. The sites propagated fake news stories and made healthy profits for their young, tech savvy Macedonian authors. (Singer and Brooking 118).



Pepe the Frog: This cartoon character was developed in 2005 by artist Matt Furie. He later became an Internet meme and eventually, a symbol for white nationalism in the United States. Pepe represents the ways in which the Internet can co-opt a symbol or as Singer and Brooking write, "[surpass] virality to become a part of the underlying culture of the Internet (Singer and Brooking 187).



INSTALLATION

Once the viewer enters the installation, walking between the rows of desks, the content of the icons become more readable and the viewer can begin to access the information held there; however, the mirrored surface impedes a clear reading of each icon, forcing the viewer to look past their own reflection to read the contents of each component and the work.

This act of concealing and revealing simulates our relationship with the digital space that is all at once present, immediate and yet elusive.











These icons are designed to be arresting, evocative, and at times humorous, seizing attention through an appeal to our emotional impulses in the same way that viral online media does.



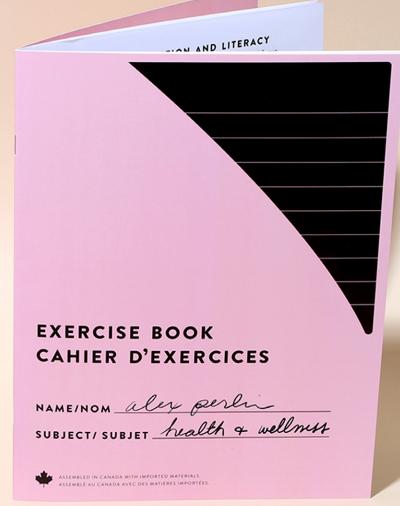
NOTEBOOKS BY SUBJECT

The **Health and Wellness** notebook describes the requirements for maintaining healthy and stable democracies.

The **Science** notebook breaks down the anatomy and subspecies of trolls, bots and malicious actors.

The **Social Studies** notebook speaks to the impacts of digital media on our mental health.





HOW TO VIEW THE NOTEBOOKS

The following pages include PDF versions of the notebooks.

The notebooks are also available in a digital format on issuu.

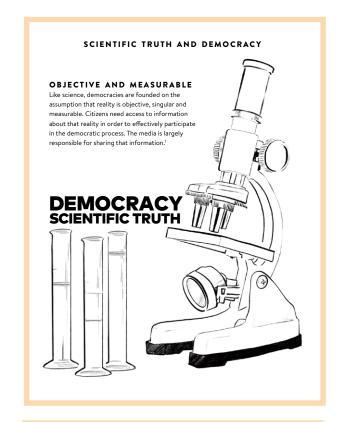
Please click the links on the next page to view the digital versions.

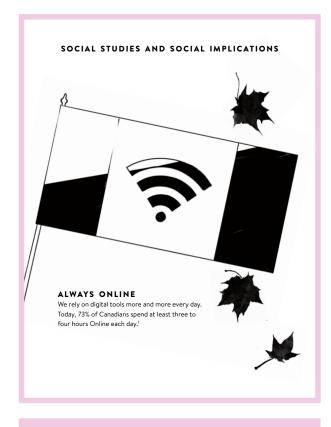


LINKS TO DIGITAL NOTEBOOKS

Click the links below to view the digital versions of the notebooks on issuu.com.







HEALTH & WELLNESS

SCIENCE

SOCIAL STUDIES

Health and wellness: https://issuu.com/apperlin0/docs/final_sciencebooklet_issuu
Social Studies: https://issuu.com/apperlin0/docs/final_socialstudiesbooklet_issuu

EXERCISE BOOK CAHIER D'EXERCICES

NAME/NOM alex perli SUBJECT/SUBJET health 4 wellmust

WHAT MAKES A DEMOCRACY HEALTHY?



FREE HUMAN +FAIR RIGHTS

A RULE OF LAW APPLIED EQUALLY FOR ALL CITIZENS

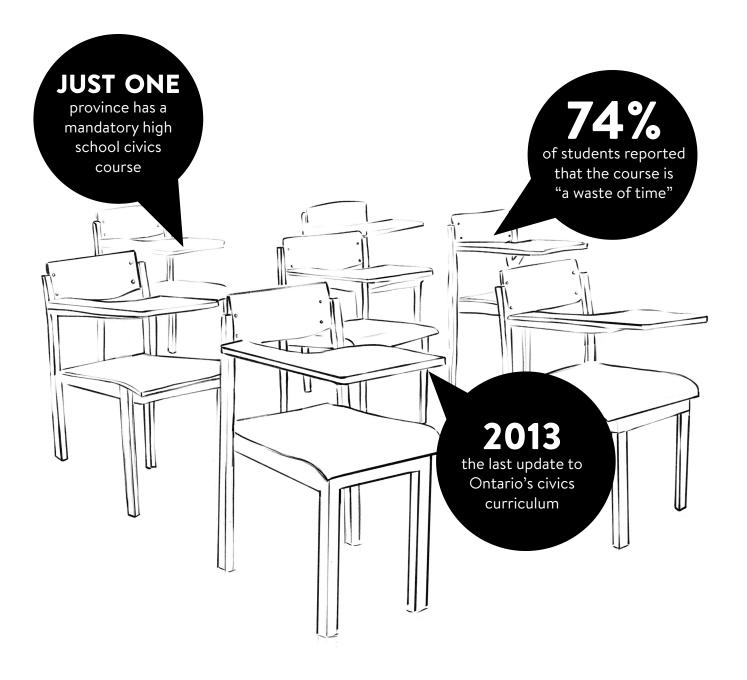
Healthy democracies rely on these four elements, according to Larry Diamond, an American political scientist. This book will focus on the role of active and engaged citizens.¹

WHAT'S INVOLVED IN ACTIVE PARTICIPATION?



Like our physical health, being actively engaged citizens requires a balanced approach. Democracies require a balance of rights and responsibilities, but balance also applies to what we **TAKE IN** as citizens in the form of education, media, and general information, as well as what we **PUT OUT** or how we participate and how that contribution impacts the larger community.

WHAT WE TAKE IN: THE HEALTH OF CIVIC EDUCATION



We might think of the classroom as a place for education around democracy and citizenship, but there is very little focus on civic education in Canadian curriculum. Only Ontario has a mandatory civics course that is taught in high school and many believe it is ineffective. It hasn't undergone a major update since 2013, suggesting that it neglects to teach current and developing issues around digital citizenship.²

GAPS IN CIVIC LITERACY: DENTIFYING THE PREMIER

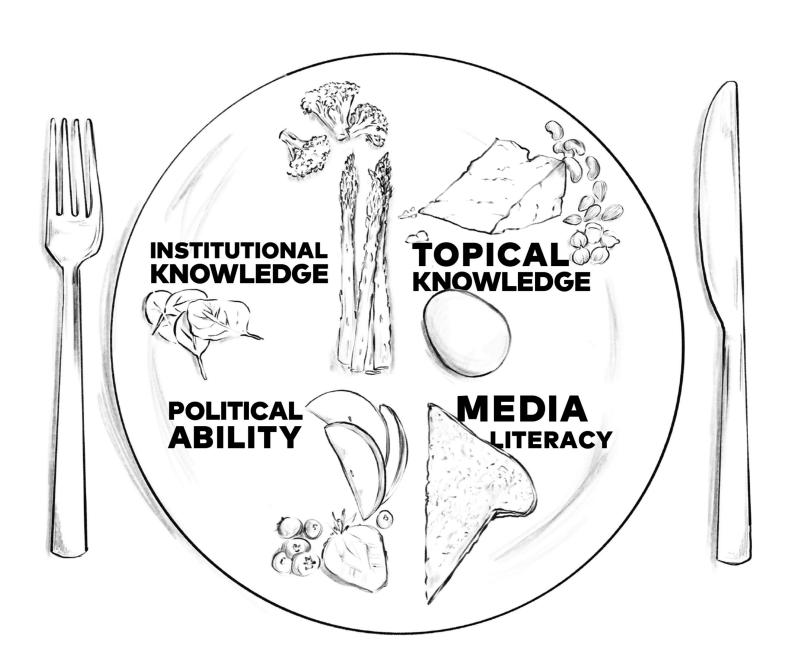


PREMIER WHO?

One study found that in 1984, 90% of Canadians surveyed could identify their premier, while in 2015, only 60% of Canadians could identify their premier.

This is one example of a decline in civic literacy.³

A BALANCED DIET AND A HEALTHY DEMOCRACY



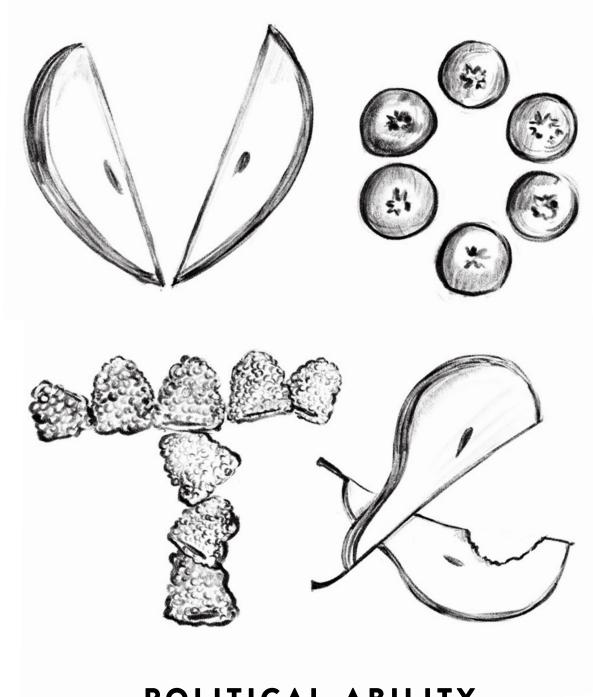
FOUR TYPES OF CIVIC LITERACY

Just as a balanced diet is made up of four food groups, there are four areas of civic literacy that make up a balanced understanding of citizenship. The Samara Centre for Democracy has identified them as Institutional Knowledge, Topical Knowledge, Political Ability, and Media Literacy.³

A BALANCED DIET AND A HEALTHY DEMOCRACY: FOUR AREAS OF CIVIC LITERACY



A BALANCED DIET AND A HEALTHY DEMOCRACY: FOUR AREAS OF CIVIC LITERACY



POLITICAL ABILITY

A person who possess political ability has an understanding of how to participate, both at election time as well as in everyday life. They might take political actions such as writing to elected leaders, protesting or expressing their opinions on a particular issue or cause through social media.³

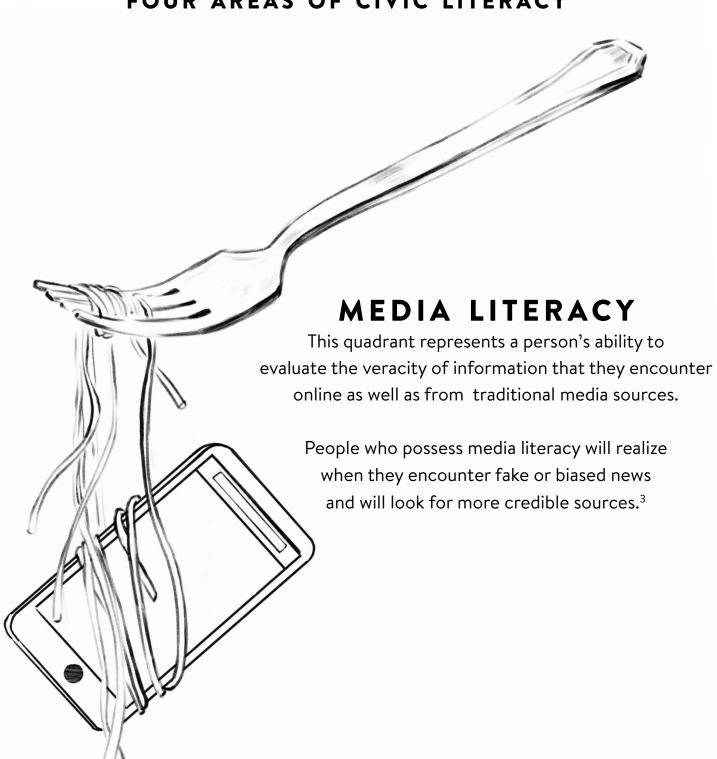
A BALANCED DIET AND A HEALTHY DEMOCRACY: FOUR AREAS OF CIVIC LITERACY



TOPICAL KNOWLEDGE

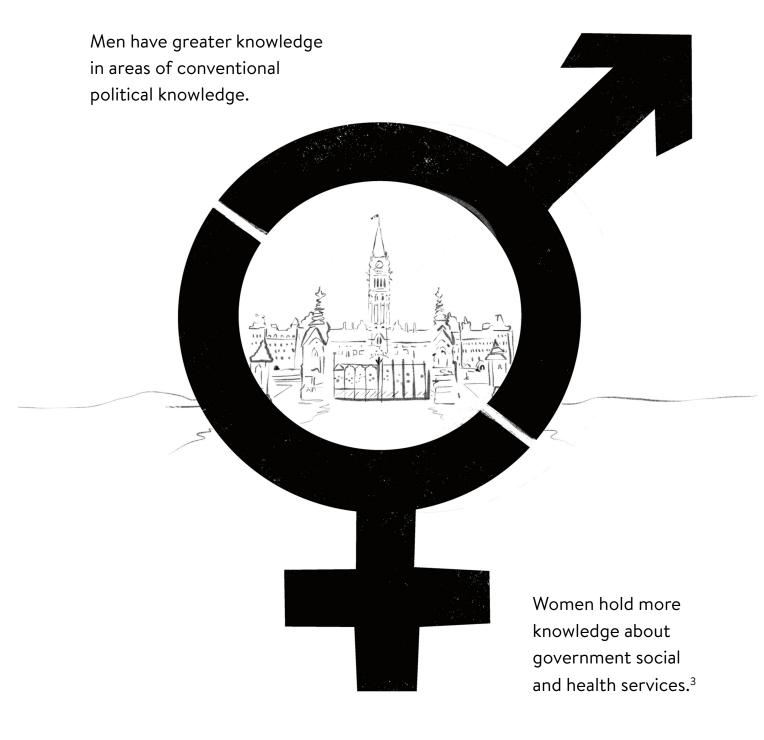
A person who has strength in this quadrant knows who their elected leaders are, follows current issues and events, and is informed about policy decisions.³

A BALANCED DIET AND A HEALTHY DEMOCRACY: FOUR AREAS OF CIVIC LITERACY



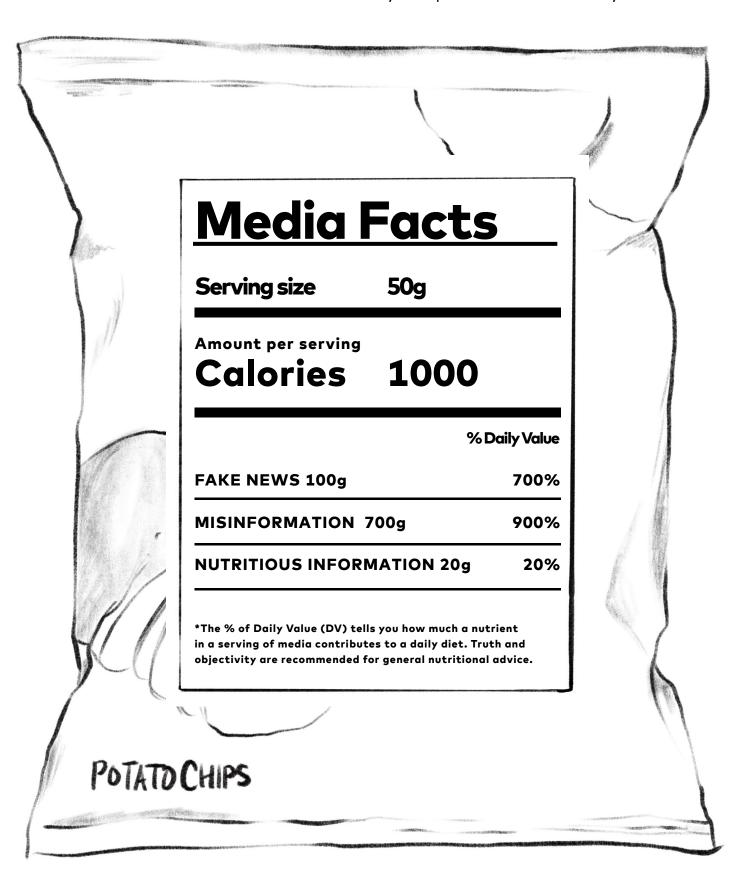
GENDER DIFFERENCES IN CIVIC LITERACY

According to Canadian researchers, there are gender gaps in civic literacy.



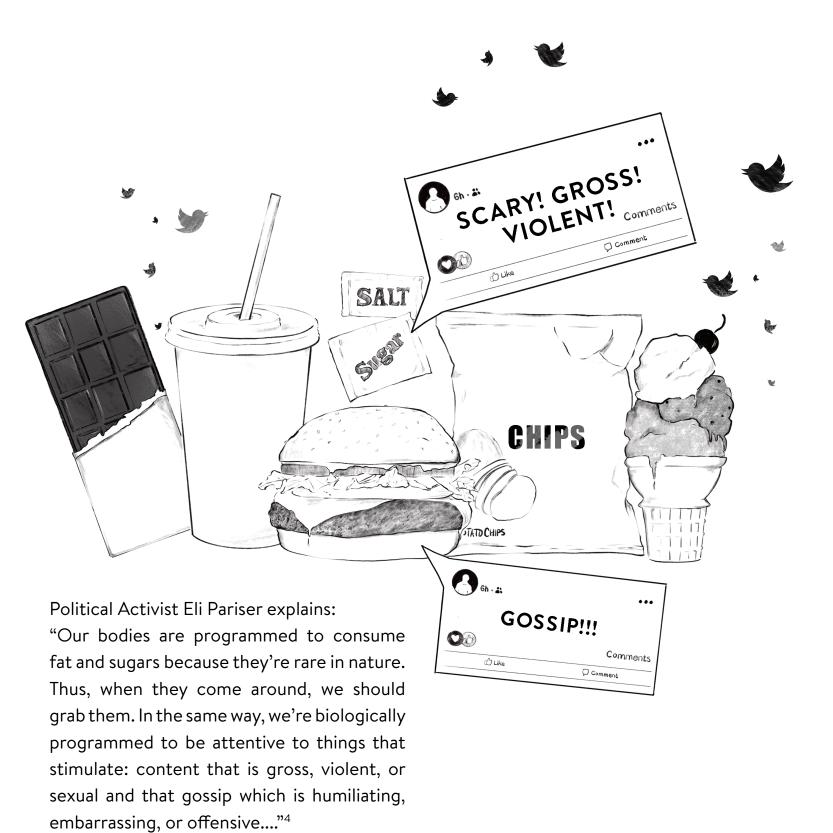
MEDIA CONSUMPTION AND LITERACY

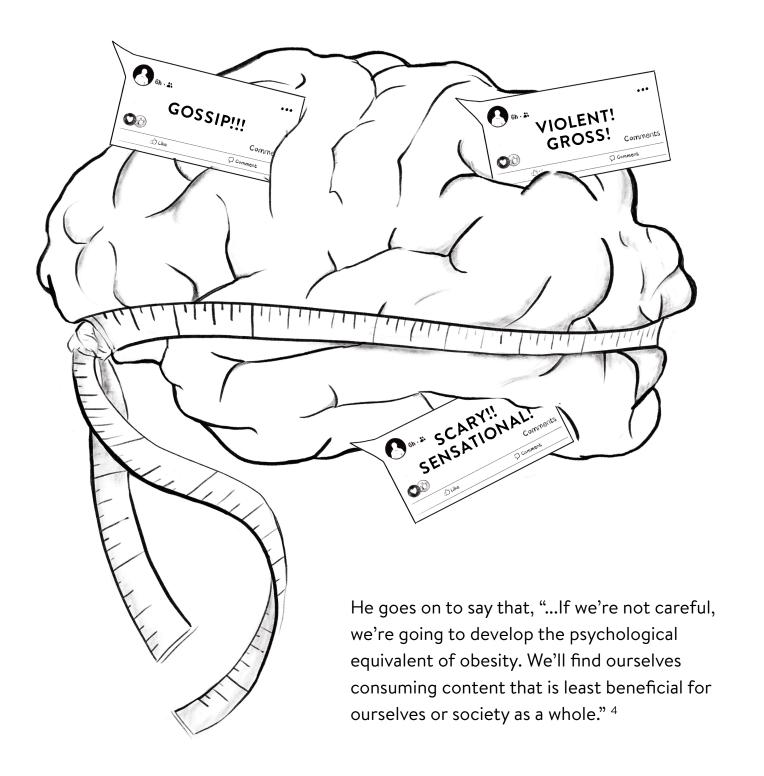
The new and emerging media landscape demands an increased focus and education on the media literacy component of civic literacy.



RISKS OF PASSIVE MEDIA CONSUMPTION

PASSIVE MASSIVE CONSUMPTION AND THE MIND





EVERYTHING MEDIA IN MODERATION



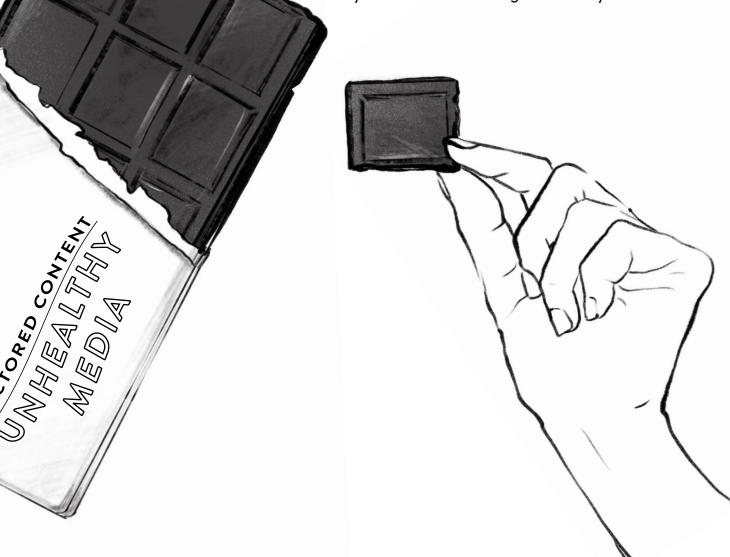
KEY INGREDIENTS

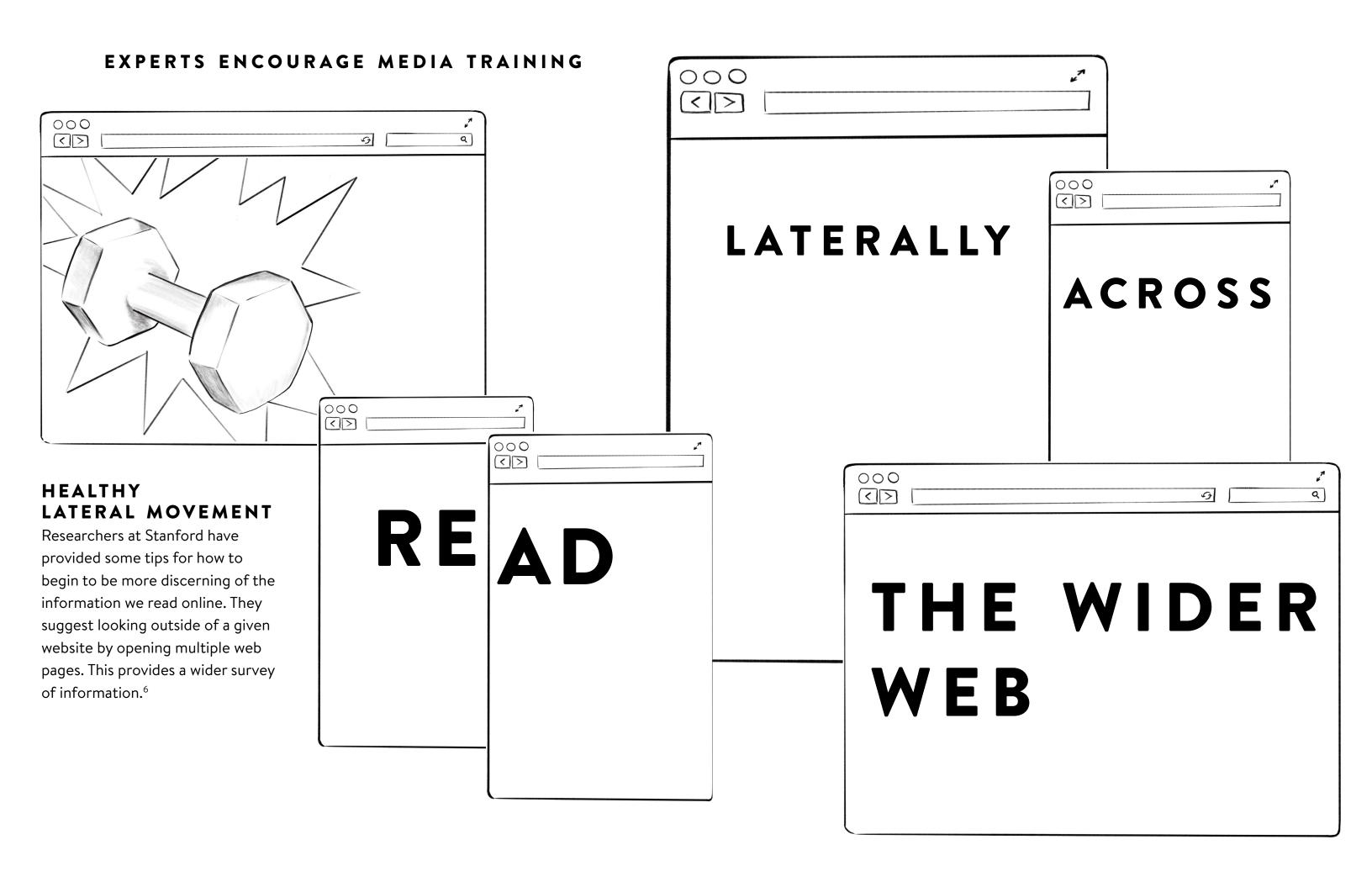
We are only just learning what it means to be a good digital citizen, but experts agree that we need media training for young people and adults alike. Political scientist, Larry Diamond identifies three key ingredients to improving our media literacy: cultural reorientation stressing skepticism, embrace of the critical method and active consumption of the Internet.¹



Other experts assert that since the impact of digital media is unavoidable, we need to expose ourselves to harmful or manipulated content in a controlled environment and in moderation, just like we might with unhealthy food.

These experts suggest that students should be trained in how to use image manipulation software and should be exposed to fake headlines so that they can learn to distinguish reality from fiction.⁵





WORKS CITED:

- 1. Diamond, Larry. III Winds, Saving Democracy From Russian Rage, Chinese Ambition, and American Complacency. Penguin Press, New York, 2019
- 2. Ontario Ministry of Education. "Ontario Curriculum Grades 9 and 10, Canadian and World Studies." *Ontario Ministry of Education*, 2013, www.edu.gov.on.ca/. 2013. Accessed 2 December 2020.
- 3. Morden, Michael et al. "Investing in Canadians' Civic Literacy: An answer to fake news and disinformation" *The Samara Centre for Democracy*. Toronto, January 2019.
- 4. Pariser, Eli. The Filter Bubble: How the New Personalized Web is Changing What We Read and How We Think. Penguin Books, 2011.
- 5. Singer, P.W. and Emerson T. Brooking. *Like War: The Weaponization of Social Media*. Houghton Mifflin Harcourt Publishing Company, 2018.
- 6. Wineburg, Sam et al. "Students' Civic Online Reasoning, A National Portrait." *The Stanford History Education Group.* 14 Nov. 2019, https://sheg.stanford.edu/students-civic-online-reasoning. Accessed 20 October 2020.

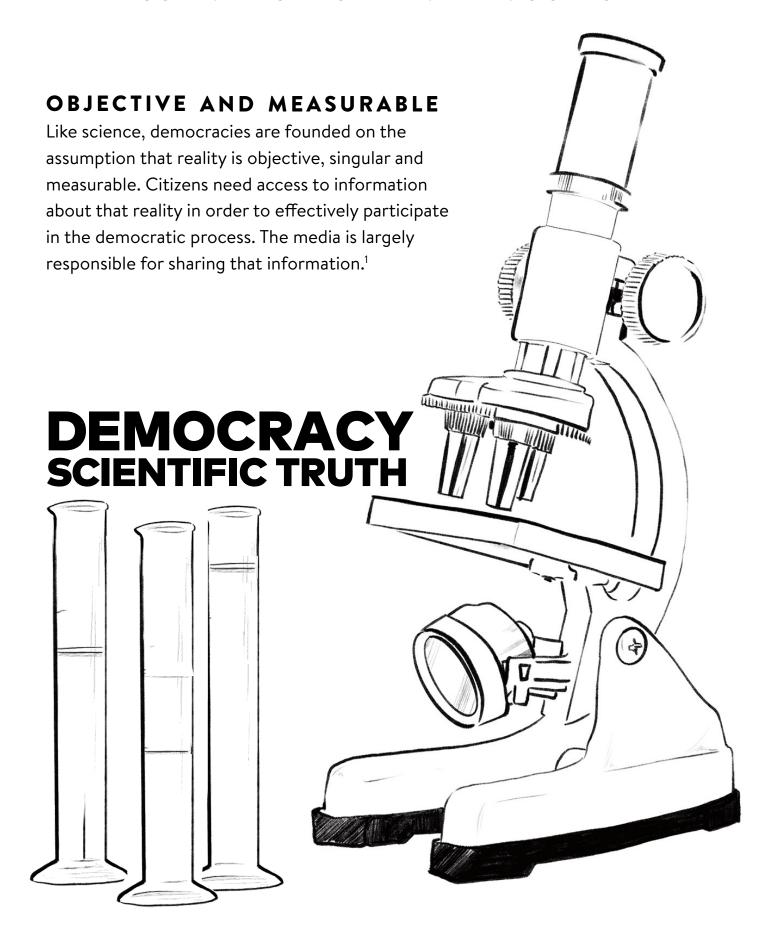


EXERCISE BOOK CAHIER D'EXERCICES

NAME/NOM alex perli SUBJECT/ SUBJET Scrence

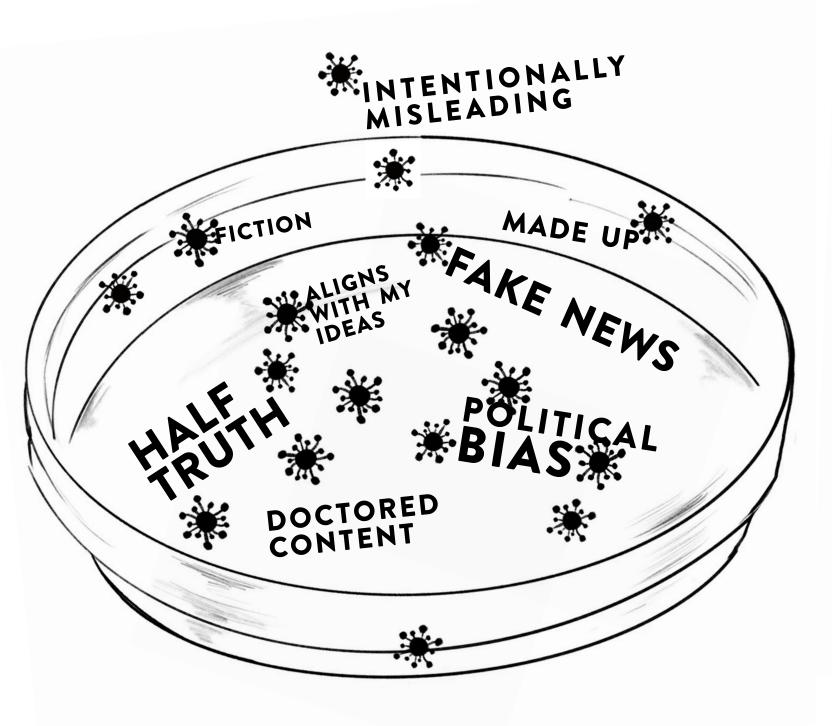


SCIENTIFIC TRUTH AND DEMOCRACY



THE VIRUS OF FALSE INFORMATION

FAKE NEWS AND ITS SPEEDY SPREAD



Today, with widespread use of the Internet both real and false information can travel more rapidly and can reach more people than ever before. False information can spread like a virus, having devastating consequences for democracies, rattling citizen's confidence in their elected leaders and institutions or sowing conflict among citizens.²



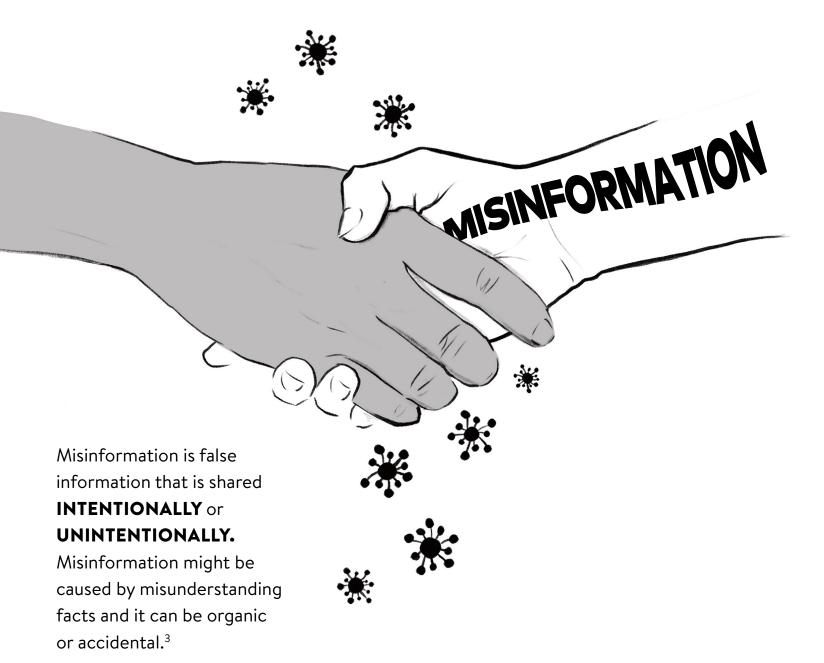
In fact, scientists at the Massachusetts Institute of Technology found that false or misleading news stories reached more people and traveled up to six times faster than real news stories.²

MISINFORMATION AND UNINTENTIONAL SPREAD

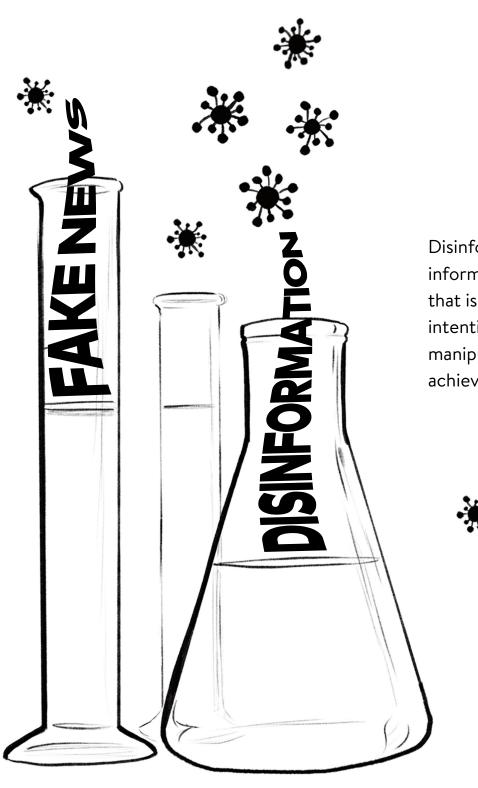


Regardless of whether it is entertaining, outrageous or mundane, false information is dangerous. The two main forms of false information are

MISINFORMATION and DISINFORMATION.



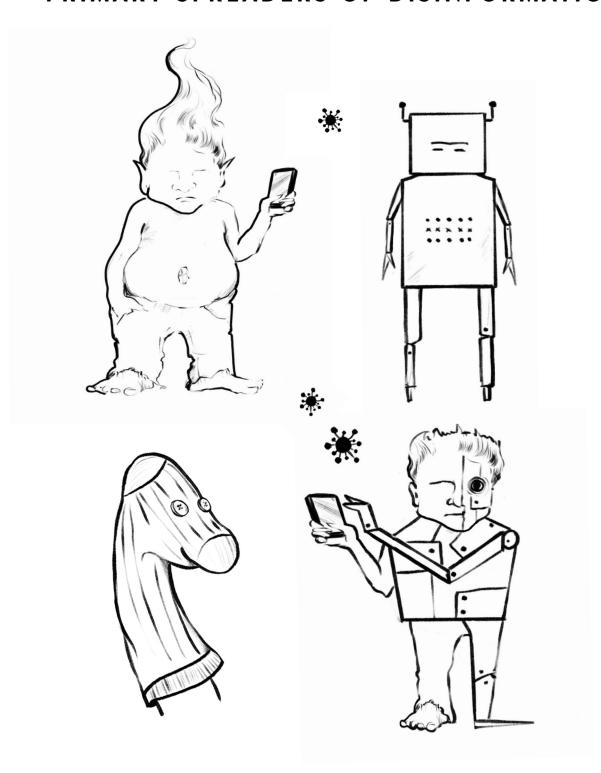
DISINFORMATION AND INTENTIONAL SPREAD



Disinformation is false information that is shared that is **DESIGNED** to intentionally mislead and manipulate a population to achieve political objectives.³



PRIMARY SPREADERS OF DISINFORMATION

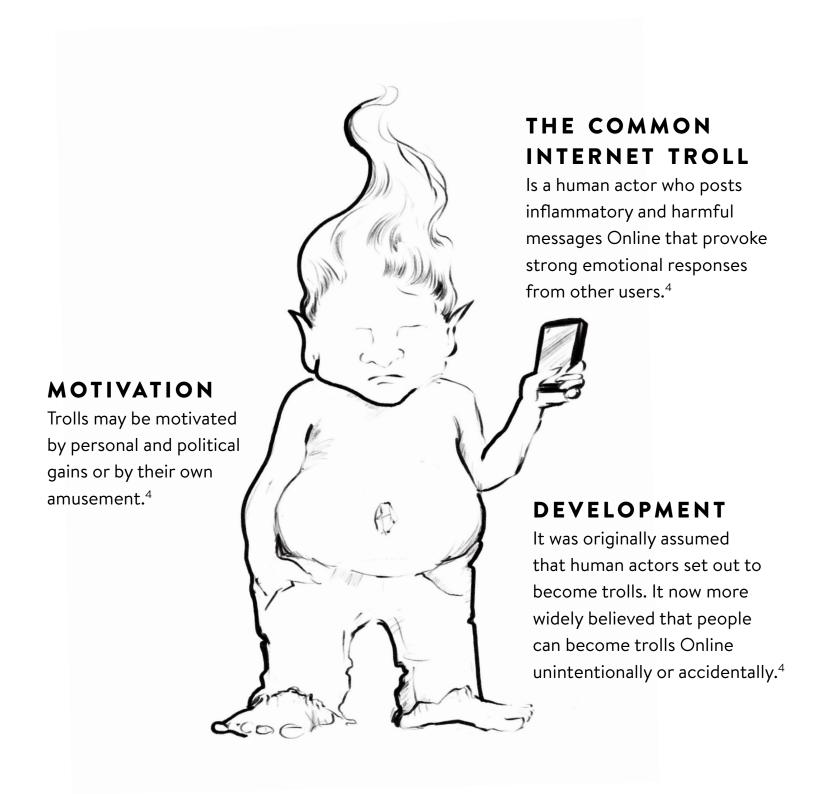


SPREADER SPECIES

There are several species of creatures that spread disinformation Online.

The following section outlines the anatomy of these creatures and how you might avoid or combat them, when required.

ANATOMY OF A COMMON INTERNET TROLL



IF YOU ENCOUNTER AN INTERNET TROLL



DO NOT FEED THE TROLLS

If you encounter an Internet troll, do not engage. Engaging with trolls can encourage and intensify their bad behaviour.⁴

AVOID BECOMING A TROLL Studies show that we are less civil on mobile devices, due to the nature and brevity of mobile messaging. We can avoid conflict by practicing 'slow politics' and by not engaging in reactionary political conversations on our phones.⁴

ANATOMY OF A COMMON DIGITAL BOT

WHAT IS IT

Web robots or bots are software applications that automate or run structurally repetitive tasks Online.⁴



Bots serve several purposes. They can be helpful in automating processes or they can be harmful in posting inflammatory messages acting to suppress certain voices.⁴

POLITICAL BOTS

In a political context, we think of bots as fake social media accounts that are sometimes automated and sometimes operated in part by a person or organization.⁴

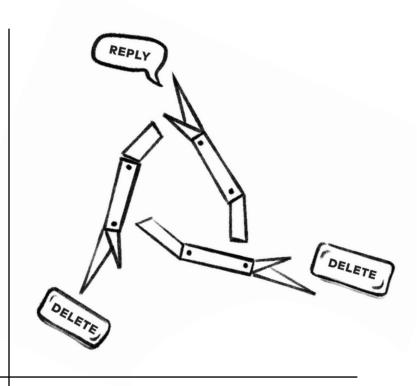


ANATOMY OF BOTS - SUBSPECIES

E

BOT SUBSPECIES DEFINITIONS





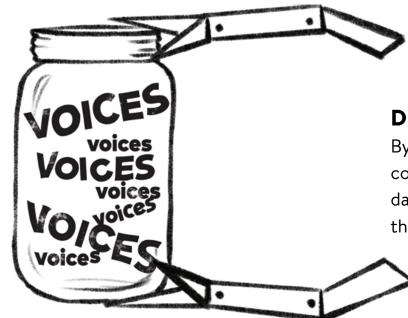




SUBSPECIES OF BOTS

Different bots are designed to perform different tasks.

The following section will outline several subspecies of bots as described by researchers Elizabeth Dubois and Fenwick McKelvey.⁵



DAMPENING BOTS

By automating aggressive or negative commenting, bots can be used to dampen or suppress certain voices in the political sphere.⁴



TRANSPARENCY BOTS

Bots can be used by organizations to hold government accountable or to generate useful information Online.⁴



1 IN 5 TWEETS A BOT

In a study of election related tweets in September and October of 2016, the University of Southern California found that 1 out of 5 were sent by bots.²

BOT SUBSPECIES DEFINITIONS

Political actors and organizations may use bots in this context to help control the types of messages that appear on

AMPLIFYING BOTS

BOT SERVANTS

their accounts.4

Bots can be used to reply or delete

information on existing accounts.

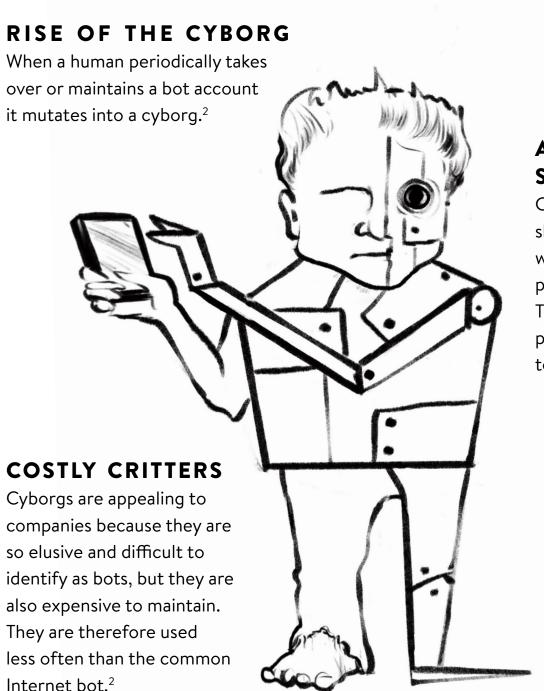
Through actions like sharing or automatically reposting certain content or messages, bots can be used to amplify certain voices or agendas.4



TRAFFIC BOTS

A 2018 study by The Pew Research Centre found that bots may generate up to twothirds of all tweets that redirect traffic to popular web pages.²

ANATOMY OF AN INTERNET CYBORG



A UNIQUE **SPECIES**

Cyborgs merge the soft skills of human actors with a bot's impressive production capacity. This can make cyborgs particularly difficult to catch.²

ANATOMY OF A SOCK PUPPET

ORIGINS

Sock puppets are impostor accounts. An important component of the sock puppet account is that it remains

A PUPPET NAMED PIERRE

Sock puppets are highly focused on maintaining their anonymity, but some sock puppets have been revealed to the great surprise of the public. For example, Sen. Mitt Romney was revealed to have been operating a sock puppet account called 'Pierre Delecto', who defended Romney when he faced criticism.²

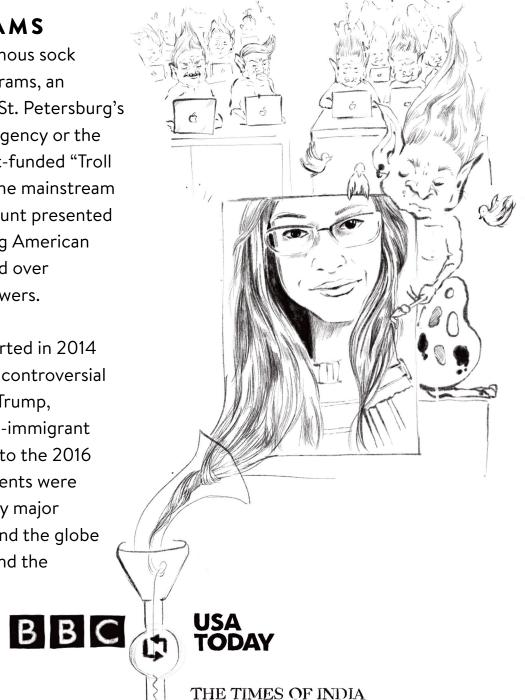


ANATOMY OF A VERY FAMOUS SOCK PUPPET

JENNA ABRAMS

One of the most famous sock puppets is Jenna Abrams, an account created by St. Petersburg's Internet Research Agency or the Russian government-funded "Troll Farm" that tricked the mainstream media. Abrams account presented the image of a young American women, and amassed over 70 000 twitter followers.

The account was started in 2014 and began tweeting controversial content promoting Trump, xenophobic and anti-immigrant views in the lead up to the 2016 election. Her comments were featured in stories by major news networks around the globe including the BBC and the New York Times.⁷

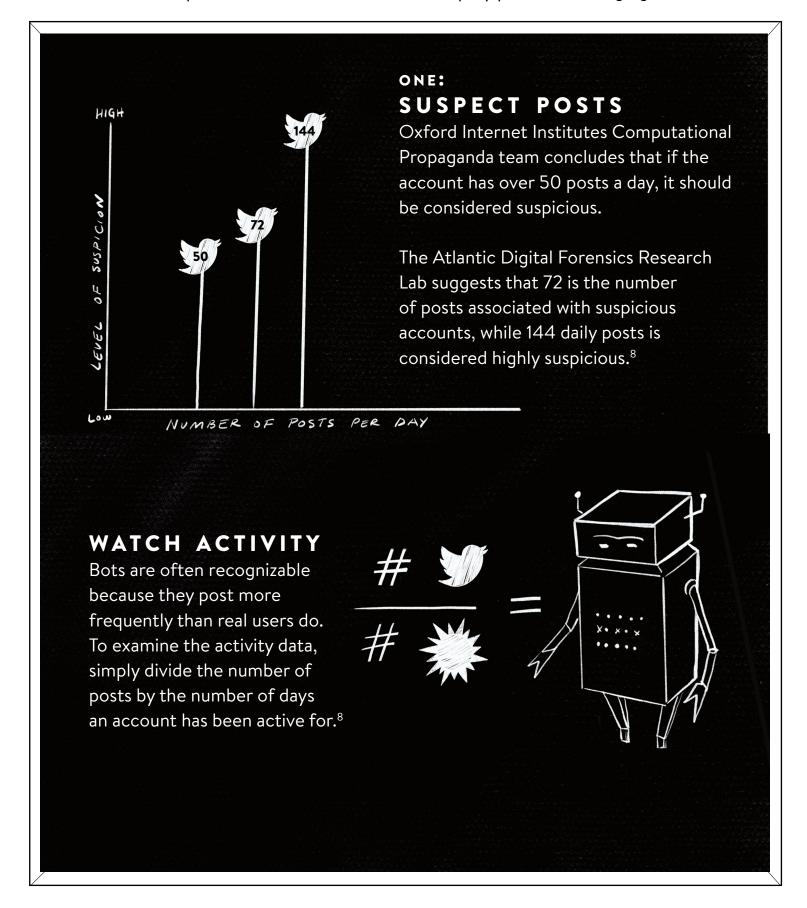


CLOSELY RELATED SPECIES: CATFISH + ASTROTURFERS

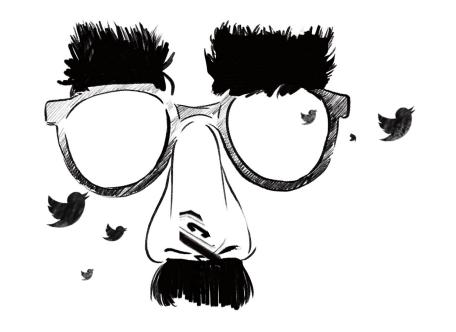
These terms are also used to describe fake personas and social media accounts.⁶

FIVE BOT SPOTTING FORMULAS

There are many types of bots, but here are some tips on how to identify the type of bots that pose as human actors and that amplify political messaging.8



FIVE BOT SPOTTING FORMULAS



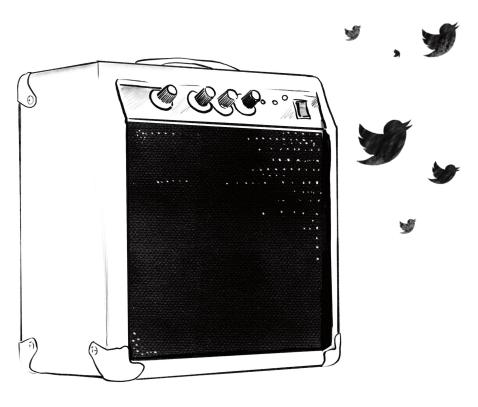
TWO: ACCOUNT ANONYMITY

Very little personal information or generic avatar images on an account may indicate that it belongs to a bot.⁸

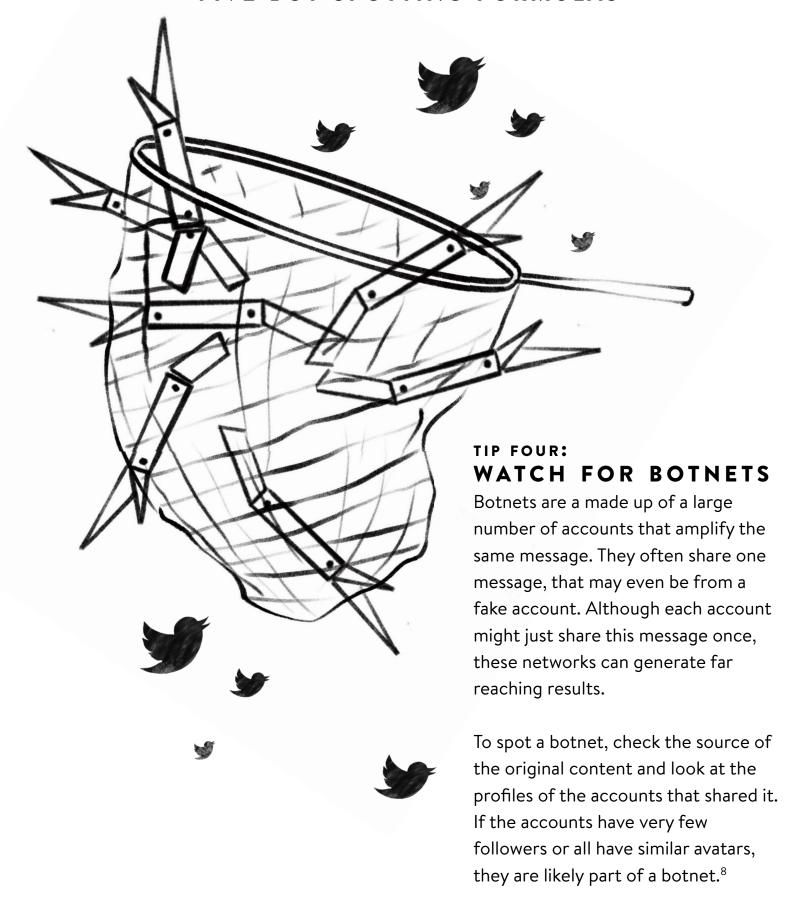
THREE: ACCOUNT AMPLIFICATION

Another sign of a bot account is when the account shares mainly quotes or retweets. In other words, it has very little original content.

Professional tools known as machine scans can be used to analyze the content of a user's tweets, but you can also review an account's "tweets and replies" tab take a look at the content of a user's recent posts. Experts suggest looking at trends across an account's last 200 posts to determine how often the account shares original content.8



FIVE BOT SPOTTING FORMULAS



FIVE BOT SPOTTING FORMULAS



WORKS CITED:

- 1. Ladd, Chris. "Jenna Abrams Is Not Real and That Matters More Than You Think." Forbes, 20 Nov. 2017, https://www.forbes.com/sites/chrisladd/2017/11/20/jenna-abrams-is-not-real-and-that-matters-more-than-you-think/#dc927fa3b5a0. Accessed 16 April 2020.
- 2. Associated Press. "Cyborgs, Trolls and Bots: A Guide to Online Misinformation." Voice of America, 8 Feb. 2020, www.voanews. com/silicon-valley-technology/cyborgs-trolls-and-bots-guide-online-misinformation. Accessed 27 November 2020.
- 3. Benkler, Yochai et al. *Network propaganda*: manipulation, disinformation, and radicalization in American politics. Oxford University Press, New York, 2018.
- 4. Morden, Michael. "The Samara Centre's Field Guide to Online Political Conversations". The Samara Centre for Democracy. Toronto, September 2019.
- 5. McKelvey, Fenwick and Elizabeth Dubois. "Computational Propaganda in Canada: The Use of Political Bots." Oxford Internet Institute Work Paper No. 2017.6. 2017, http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/06/Comprop-Canada.pdf. Accessed 27 November 2020.
- 6. Wikipedia. "Sock Puppet Account." Wikipedia, Wikimedia Foundation, 3 Dec. 2020, en.wikipedia.org/wiki/Sock_puppet_account. Accessed 27 November 2020.
- 7. Singer, P.W. and Emerson T. Brooking. *Like War: The Weaponization of Social Media*. Houghton Mifflin Harcourt Publishing Company, 2018.
- 8. DFR Lab. "#BotSpot: Twelve Ways to Spot a Bot." Medium, Atlantic Council Digital Forensics Research Lab, 15 Sept. 2017, medium.com/dfrlab/botspot-twelve-ways-to-spot-a-bot-aedc7d9c110c. Accessed 12 November 2020.

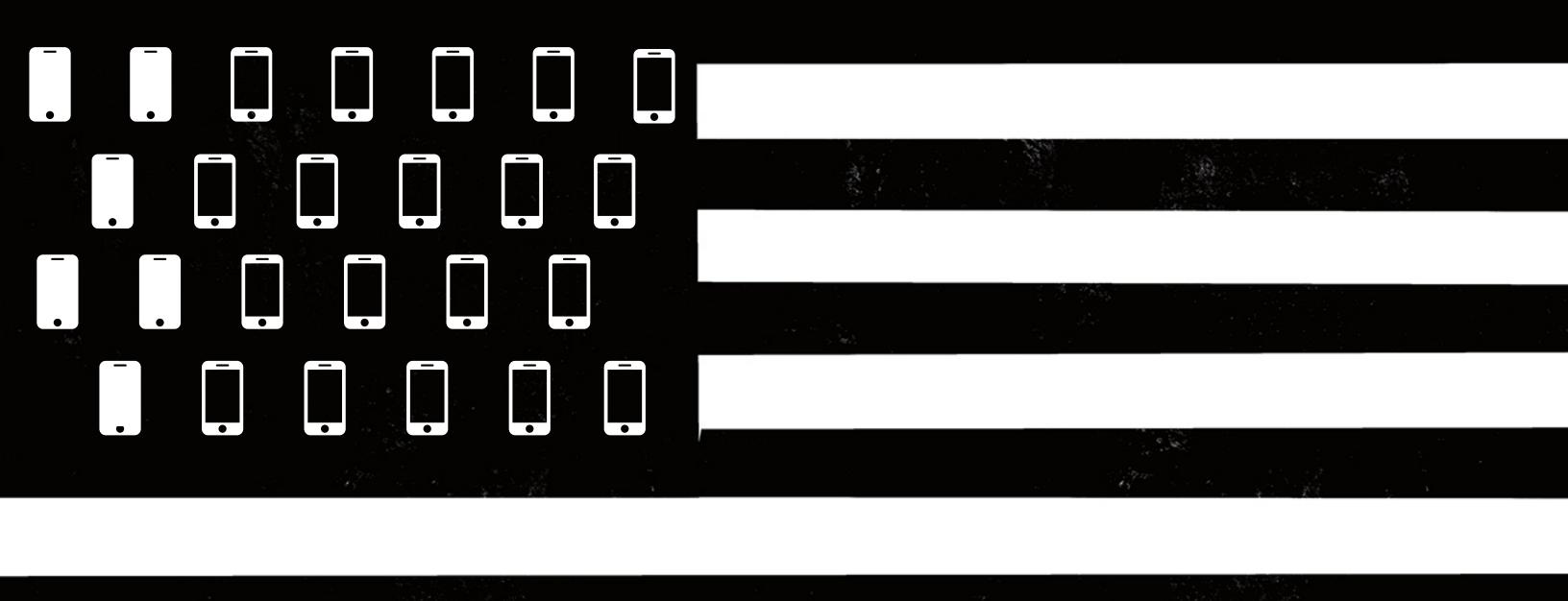


EXERCISE BOOK CAHIER D'EXERCICES

NAME/NOM alex perlin SUBJECT/ SUBJET Social Strokes

SOCIAL STUDIES AND SOCIAL IMPLICATIONS





In the United States, one-fifth of Americans say that they "essentially never stop being online"²

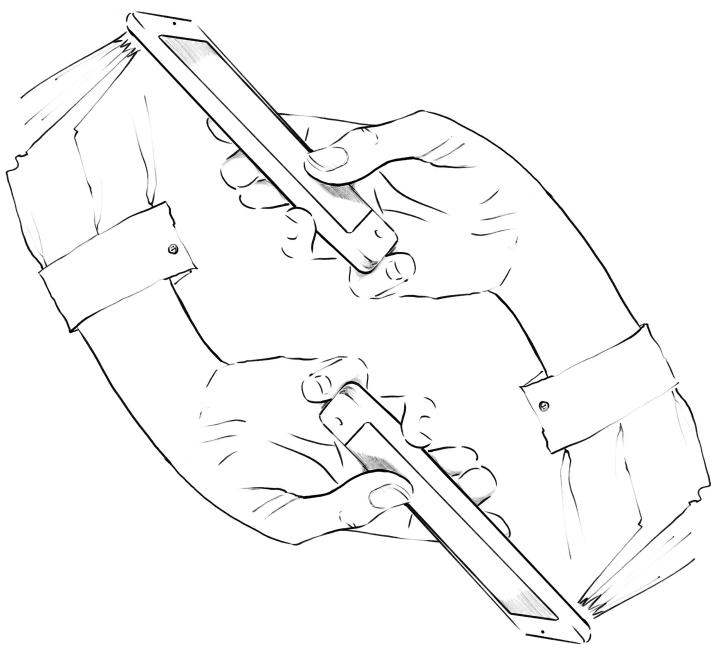
ALWAYS ONLINE

Because digital tools are relatively new, we are only just beginning to understand how their use affects us, both as citizens and on a social and psychological level.

77 WE SHAPE OUR TOOLS AND THEREAFTER THEY SHAPE US

JOHN CULKIN

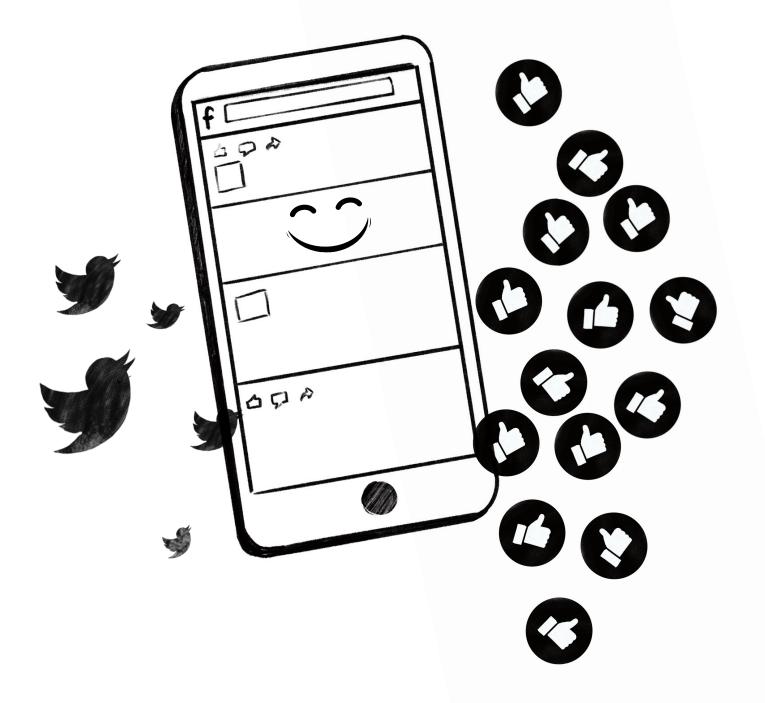
SHAPED BY OUR TOOLS



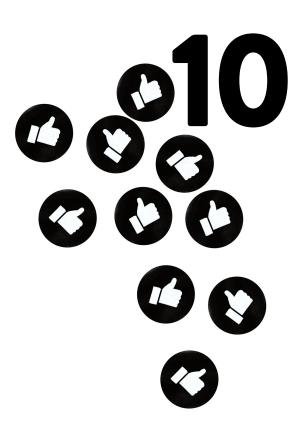
As digital tools change, so too do we. Digital technology has changed the way we learn, play, communicate, and navigate the world around us. It's important to recognize some of the risks associated with using digital technology, so that we can begin to seek out ways to protect ourselves from some of its more harmful elements.

AN INVENTORY OF INTERNET EFFECTS

Some of these elements have developed on their own, as consequences of our reliance on technology. But some of these effects have been knowingly driven by big tech companies. The following pages outline just a few of the ways in which technology is changing us emotionally and socially.²



THE POSITIVE VS NEGATIVE NEWS FEED EFFECT

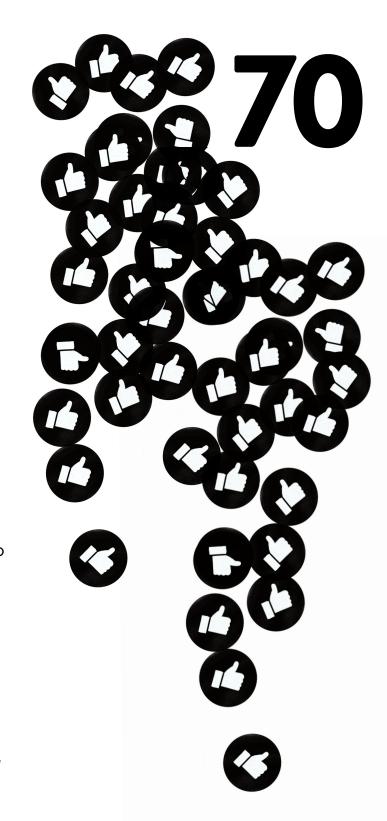


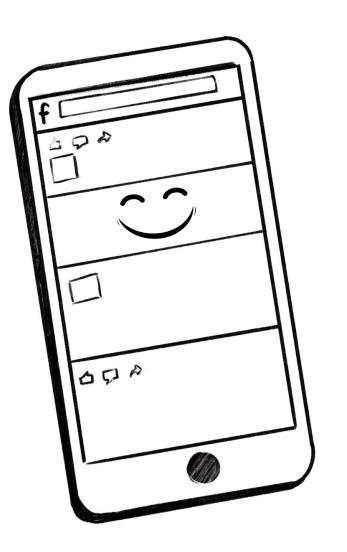
PSYCHOMETRICS

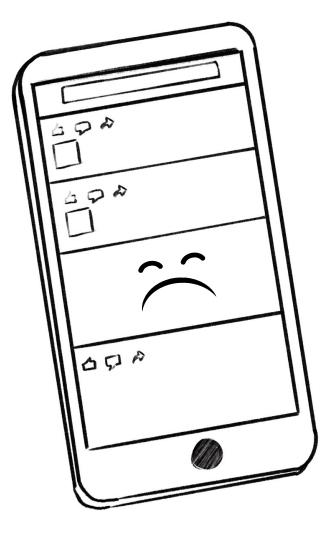
During the 2016 US election, the political consulting firm Cambridge Analytica used psychometric analysis to look at data collected from 220 million American's Facebook accounts.

By analyzing just 10 Facebook "likes" they could know more about a person than their work colleagues knew.

By analyzing 70 "likes" they could know more about a person than their real life friends knew.²



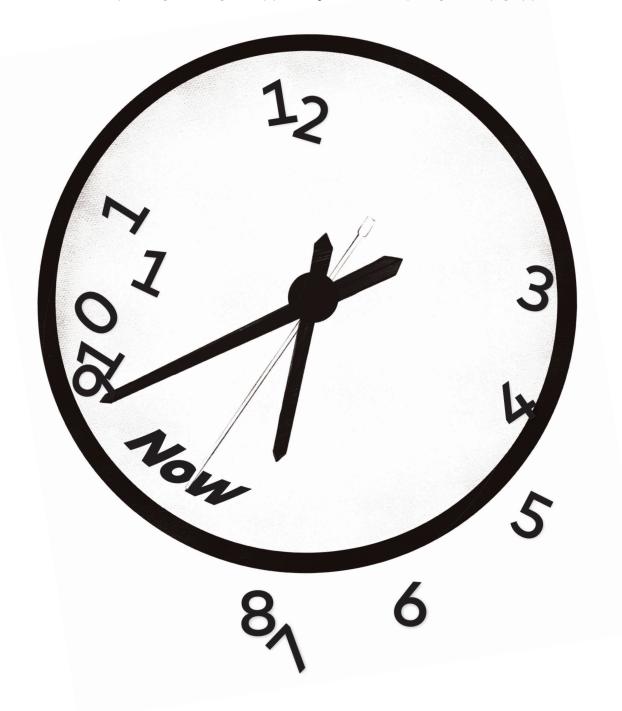




EMOTIONAL CONTAGION

Facebook conducted a controversial study on 689 000 user's news feeds to determine whether they could influence users' moods. By filtering news feed to show either positive or negative content, Facebook determined that emotions are contagious. Users with the positive news feed reacted by posting more positive news of their own, while users with negative emotional content in their feeds responded with negative content.³

TIME SLIPS AWAY: THE VAST NOW



PRESENTISM

Presentism takes place when we find ourselves caught in an endless scroll or constantly refreshing our Instagram feeds or Facebook timelines. When we experience presentism, we lose our grasp on the significance of the past or future, focusing instead on an all-encompassing sense of now. Singer and Brooking write that, "Serious reflection on the past is hijacked by the urgency of the current moment; serious planning for the future is derailed by never-ending distraction." 2

ALL AT ONCE AND AROUND THE GLOBE



MEDIA CONSUMPTION: ADDITIONAL CHALLENGES



FILTER BUBBLES

There are many other social and psychological side effects to our current patterns of media use. One example is an echo chamber or highly partisan filter bubble that provides customized search results and content for Internet users. In filtering content, these tools also reinforce the user's biases and limit access to certain types of information.⁵

MEDIA CONSUMPTION: ADDITIONAL CHALLENGES

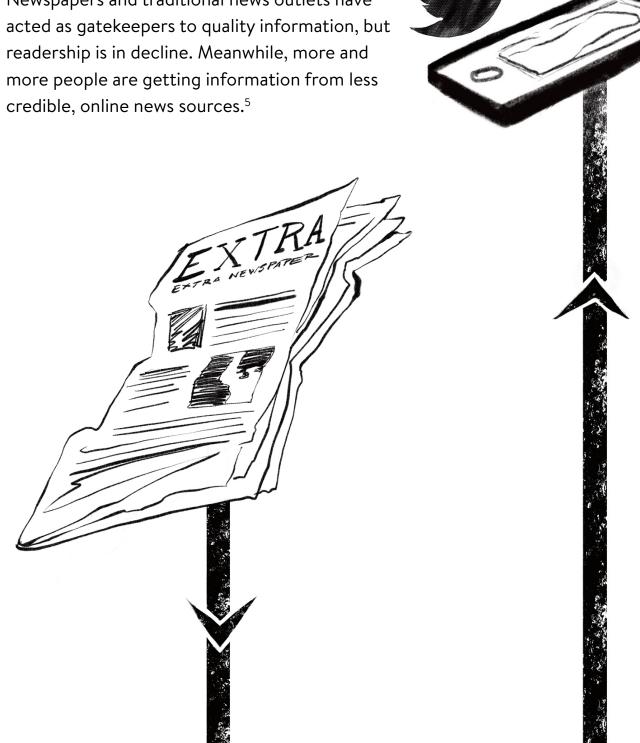


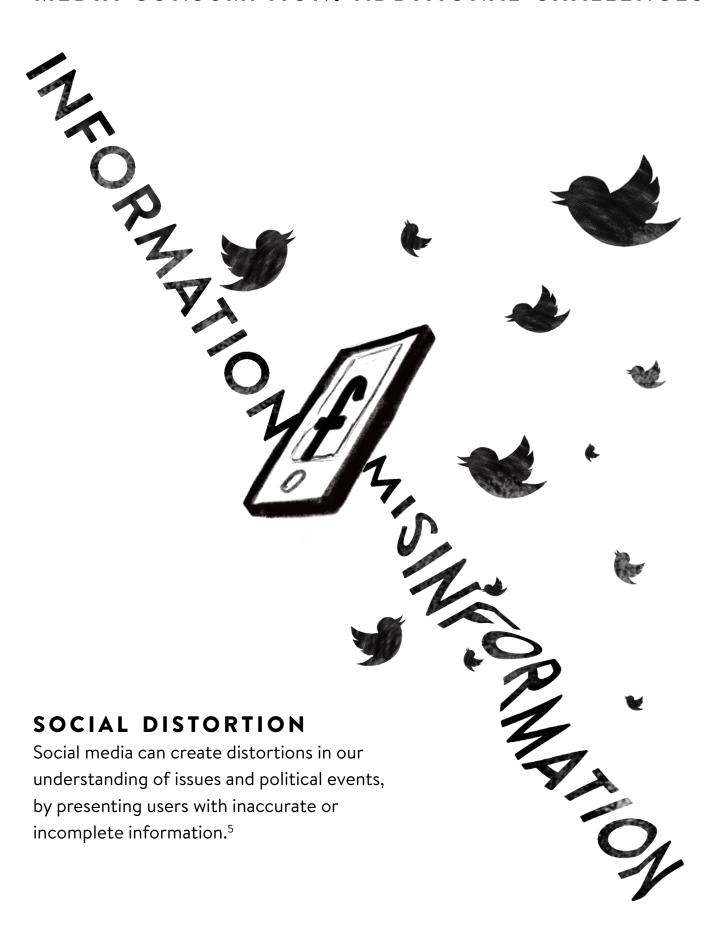
MEDIA CONSUMPTION: ADDITIONAL CHALLENGES

MEDIA CONSUMPTION: ADDITIONAL CHALLENGES

NEWSPAPERS IN DECLINE

Newspapers and traditional news outlets have

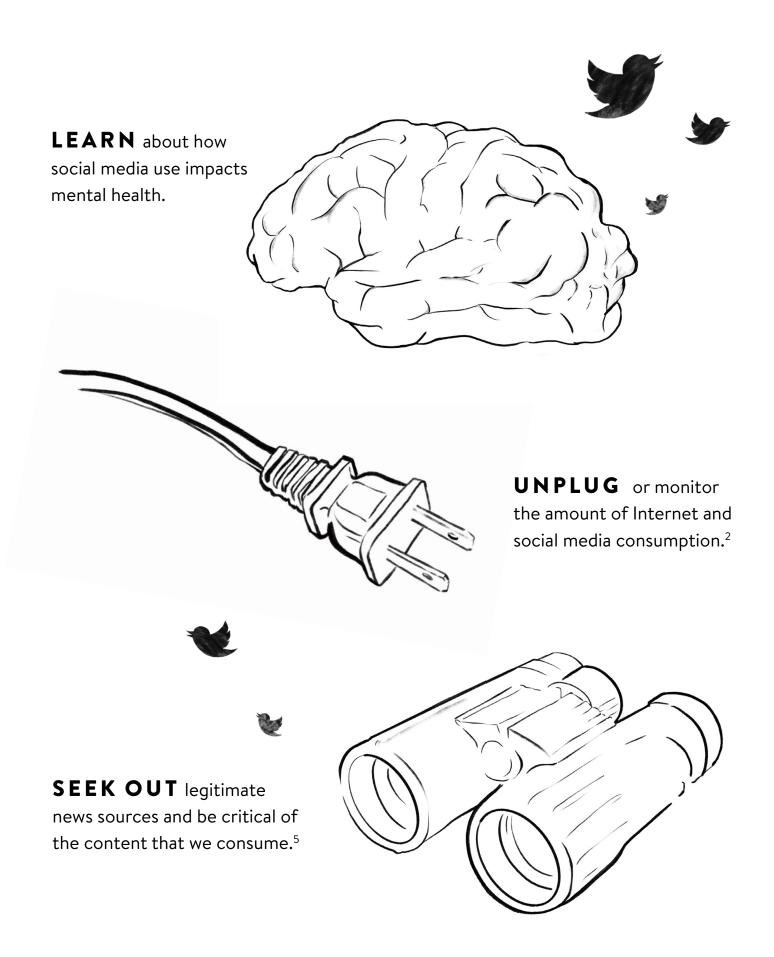




MEDIA CONSUMPTION: ADDITIONAL CHALLENGES

BAD ACTORS There is an increase in the spread of intentionally misleading information online, created by trolls, international agents, and profit-driven media companies.

HOW DO WE COMBAT THESE ISSUES?



WORKS CITED:

- 1. Ladd, Chris. "Jenna Abrams Is Not Real and That Matters More Than You Think." Forbes, 20 Nov. 2017, https://www.forbes.com/sites/chrisladd/2017/11/20/jenna-abrams-is-not-real-and-that-matters-more-than-you-think/#dc927fa3b5a0. Accessed 16 April 2020.
- 2. Associated Press. "Cyborgs, Trolls and Bots: A Guide to Online Misinformation." Voice of America, 8 Feb. 2020, www.voanews. com/silicon-valley-technology/cyborgs-trolls-and-bots-guide-online-misinformation. Accessed 27 November 2020.
- 3. Benkler, Yochai et al. *Network propaganda: manipulation, disinformation, and radicalization in American politics.* Oxford University Press, New York, 2018.
- 4. Morden, Michael. "The Samara Centre's Field Guide to Online Political Conversations". The Samara Centre for Democracy. Toronto, September 2019.
- 5. McKelvey, Fenwick and Elizabeth Dubois. "Computational Propaganda in Canada: The Use of Political Bots." Oxford Internet Institute Work Paper No. 2017.6. 2017, http://comprop.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/06/Comprop-Canada.pdf. Accessed 27 November 2020.
- 6. Wikipedia. "Sock Puppet Account." Wikipedia, Wikimedia Foundation, 3 Dec. 2020, en.wikipedia.org/wiki/Sock_puppet_account. Accessed 27 November 2020.
- 7. Singer, P.W. and Emerson T. Brooking. *Like War: The Weaponization of Social Media*. Houghton Mifflin Harcourt Publishing Company, 2018.
- 8. DFR Lab. "#BotSpot: Twelve Ways to Spot a Bot." Medium, Atlantic Council Digital Forensics Research Lab, 15 Sept. 2017, medium.com/dfrlab/botspot-twelve-ways-to-spot-a-bot-aedc7d9c110c. Accessed 12 November 2020.

