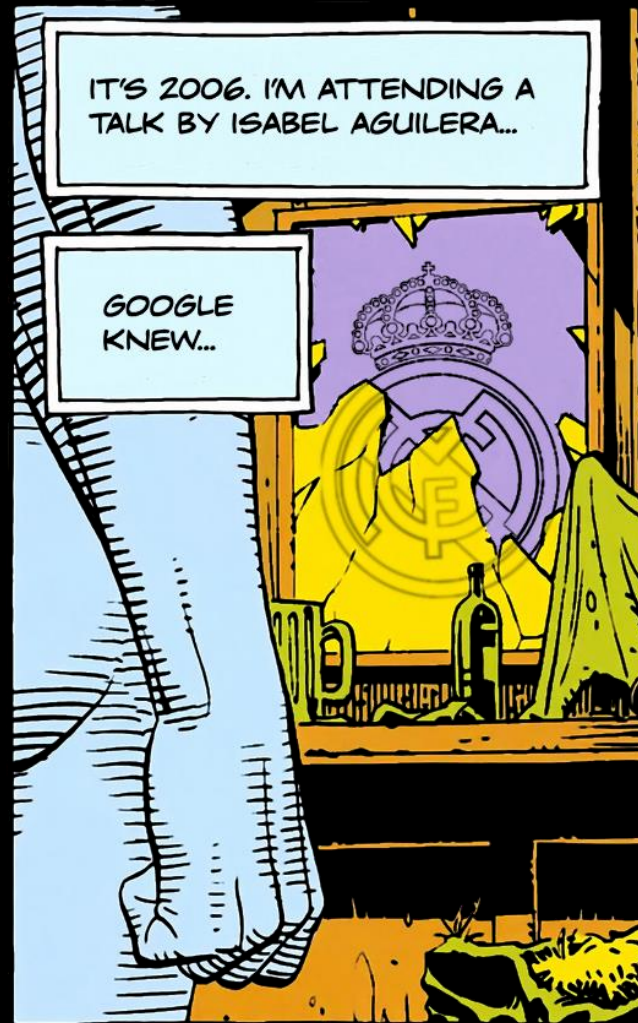
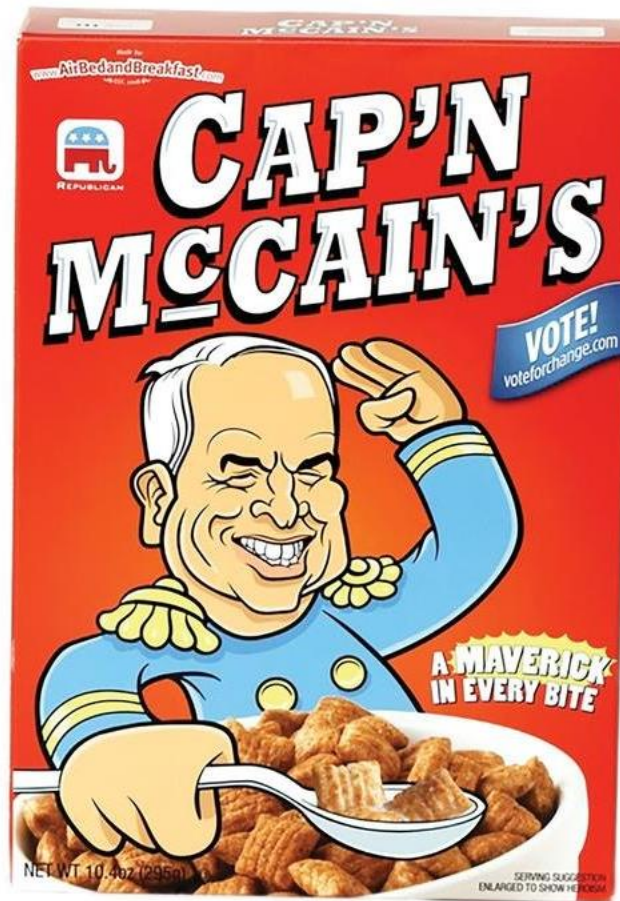
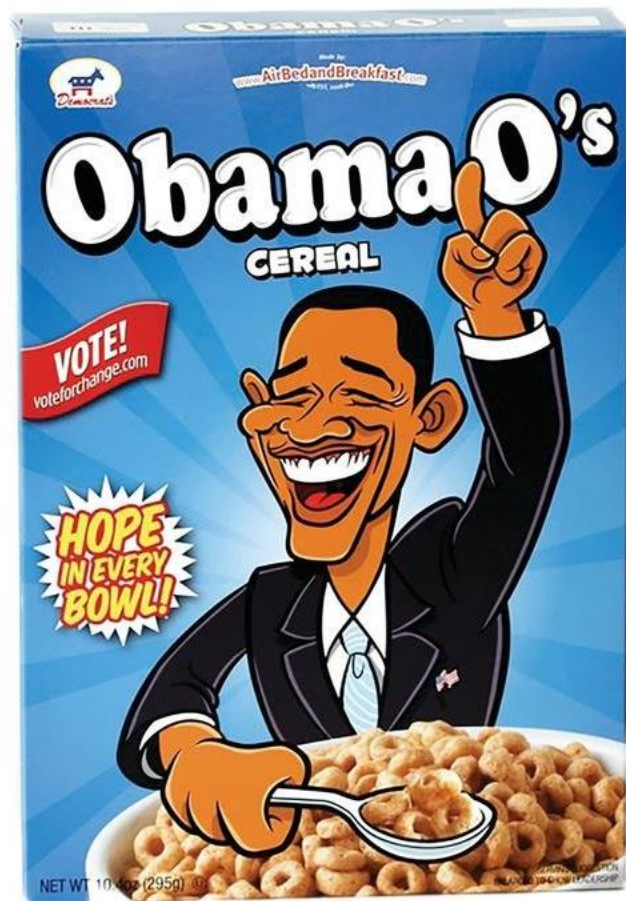


# **social media democracy democratization**

Daniel Gayo-Avello @pfcgayo



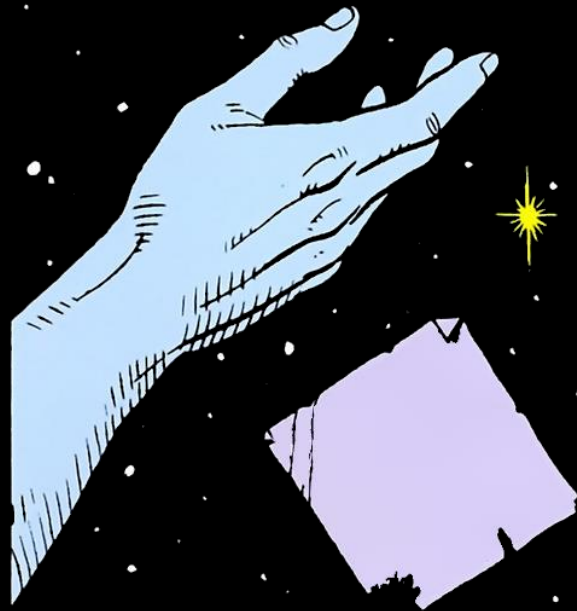
IT'S 2008...



IT'S 2008...

OBAMA WINS EVERYWHERE...

I PUT MY RESEARCH  
INTO A DRAWER.





IT'S 2010...

## Predicting the Future With S

Sitaram Asur  
Social Computing Lab  
HP Labs  
Palo Alto, California  
Email: sitaram.asur@hp.com

Bernard  
Social  
Palo A  
Email: bernar

**Abstract**—In recent years, social media has become ubiquitous and important for social networking and content sharing. And yet, the content that is generated from these websites remains largely untapped. In this paper, we demonstrate how social media content can be used to predict real-world outcomes. In particular, we use the chatter from Twitter.com to forecast box-office revenues for movies. We show that a simple model built from the rate at which tweets are created about particular topics can outperform market-based predictors. We further demonstrate how sentiments extracted from Twitter can be utilized to improve the forecasting power of social media.

### I. INTRODUCTION

Social media has exploded as a category of online discourse where people create content, share it, bookmark it, and so on at a prodigious rate. Examples include Digg, Twitter and JISC lists of its ease of

This paper reports the task of predicting the chatter from networks in the Internet has experienced a huge user-base of users who actively of content. We have focused on the following reasons.

- The topic

Proceedings of the Fourth International AAAI Conference on Weblogs and Social Media

## Predicting Elections with Twitter: What 140 Characters Reveal about Political Sentiment

Andranik Tumasjan, Timm O. Sprenger, Philipp G. Sandner, Isabell M. Welpe

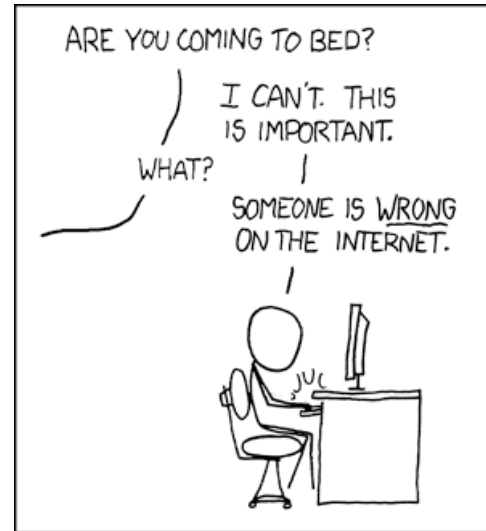
Technische Universität München  
Lehrstuhl für Betriebswirtschaftslehre Strategie und Organisation  
Leopoldstraße 139, 80804 Munich, Germany

### Abstract

Twitter is a microblogging website where users read and write millions of short messages on a variety of topics every day. This study uses the context of the German federal election to investigate whether Twitter is used as a forum for political deliberation and whether online messages on Twitter validly mirror offline political sentiment. Using LIWC text analysis software, we conducted a content analysis of over 100,000 messages containing a reference to either a political party or a politician. Our results show that Twitter is indeed used extensively for political deliberation. We find that the mere number of messages mentioning a party reflects the election result. Moreover, joint mentions of two parties are in line with real world political ties and coalitions. An analysis of the tweets' political sentiment demonstrates close correspondence to the positions of politicians' political positions indicating that the content of Twitter messages plausibly

Twitter is a novel microblogging service launched in 2006 with more than 20 million unique monthly visitors. On Twitter, every user can publish short messages with up to 140 characters, so-called "tweets", which are visible on a public message board of the website or through third-party applications. The public timeline conveying the tweets of all users worldwide is an extensive real-time information stream of more than one million messages per hour. The original idea behind microblogging was to provide a personal status updates. However, it has since covered every imaginable service to product information.

IT'S 2010...



IT'S 2011...

# contributed articles

**The power to predict outcomes based on  
Twitter data is greatly exaggerated, especially  
for political elections.**

DOI:10.1145/2001269.2001297

BY DANIEL GAYO-AVELLO

## Don't Turn Social Media Into Another 'Literary Di...

Many Twitter users do not protect their tweets, which then appear in the so-called public timeline. They are accessible through Twitter's own API, so are easily accessed and collected.

Twitter's original slogan—"What are you doing?"—encouraged users to share updates about the minutia of their daily activities with their friends. Twitter has since evolved into a complex information-dissemination platform, especially during situations of mass convergence.<sup>8</sup> Under certain circumstances, Twitter users not only provide information about themselves but also real-time updates of current events.<sup>9</sup>

Today Twitter is a source of information on such events as the lion...

IT'S 2011...



Art by snow-white-kt

# contributed articles

DOI:10.1145/2001269.2001297

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Today Twitter is a source of information on such a large scale that it is

IT'S 2013...

## 2

### Political Opinion

*Daniel Gayo-Avello*

Despite being a fairly recent phenomenon, microblogging has attracted a number of researchers and practitioners who consider it a valuable source of data to ascertain public opinion. In this chapter, we will explore how we may find the fact that one of the most common uses of microblogging is for users; the chapter will also discuss the challenges of using microblogging for research.



IT'S 2015...

## Multimedia Impact

Hayley Hung  
Delft University of Technology

### Social Media, Democracy, and Democratization

Daniel  
Gayo-Avello  
University of Oviedo

**#S**OTU. Those five characters have become a shared space where citizens join together to participate in the State of the Union Address, one of the key political events of the US. The State of the Union Address is broadcasted and commented on in traditional media, but social media, such as Twitter, lets the President offer not only a speech but also an enhanced multimedia experience, where politicians, pundits, and citizens alike can react to and comment on his words. In 2015, #SOTU spurred approximately 2.6 million tweets,<sup>1</sup> painting a detailed picture of Twittersphere's reaction to the address by President Obama.

are not only accepted but encouraged, and that the main goal is to achieve "rationally motivated consensus."<sup>3</sup> Unfortunately, there are strong arguments against social media discussions being deliberations of this kind. To start with, not all social media users are equal; indeed, political, corporate, and media elites have colonized social media.<sup>4,5</sup> Such are central actors in political interaction, mostly interacting mostly with non-

IT'S 2015...



Photo by Yeray Menéndez

## Impact

Hayley Hung  
Delft University of Technology

# Social Media, Democracy, and Democratization

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IT'S 2021...



 **WARNING!** LOUD MUSIC 









Photo by  
kobanica



Photo by  
AnisMili



Photo by  
Amr Abdallah Dalsh



Photo by  
Luca Piergiovanni



Photo by  
GameOwer74



Photo by  
Pasu AuYeung



Photo by  
Seth Wenig









# US confirms it asked Twitter to stay open to help Iran protesters

Obama administration asked Twitter website to postpone temporary shutdown

**Ewen MacAskill, Washington**

Wed 17 Jun 2009

The Obama administration, while insisting it yesterday confirmed it had asked the government protesters



*The* CHRISTIAN SCIENCE  
**MONITOR**

— OPINION —

# A Nobel Peace Prize for Twitter?

The free social-messaging utility uniquely documented and personalized the story of hope, heroism, and horror in Iran.

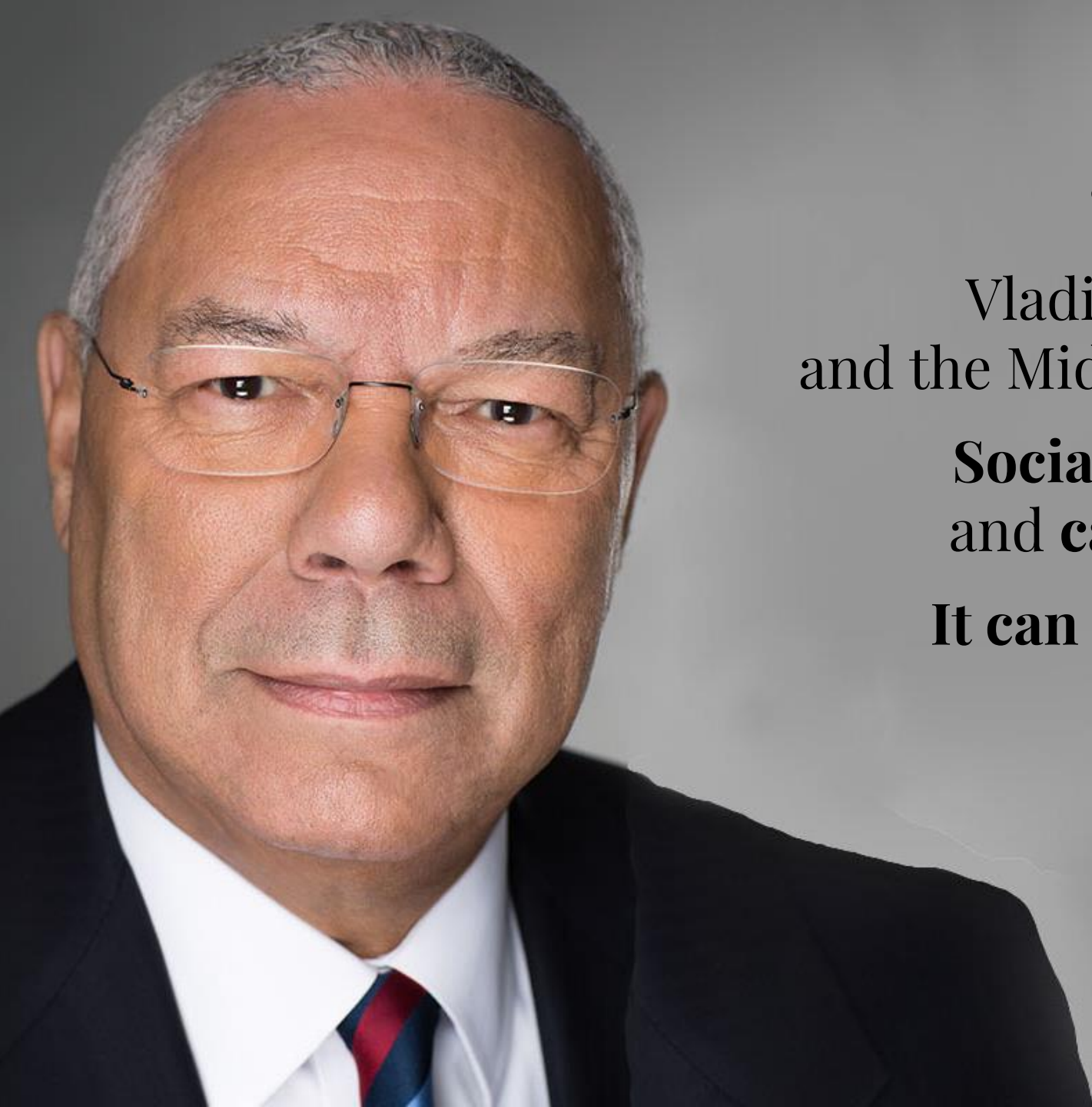
July 6, 2009

By Mark Pfeifle

WASHINGTON

**T**he video gave substance to what seemed so far away. We saw the look in her eyes as they went lifeless. We heard the sounds of her friends and family as they begged her to hold on. We saw the personification of the struggle for democracy as the freedoms of freedom are quelled.



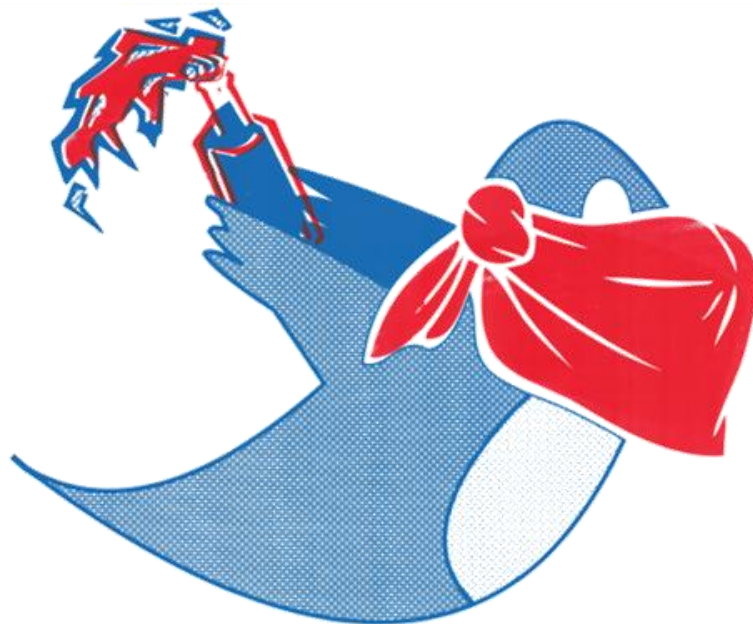


**“You can’t stop it.**

**Vladimir Putin can’t stop it,  
and the Middle East leaders can’t stop it.**

**Social media is tied to youth  
and cannot be slowed down.**

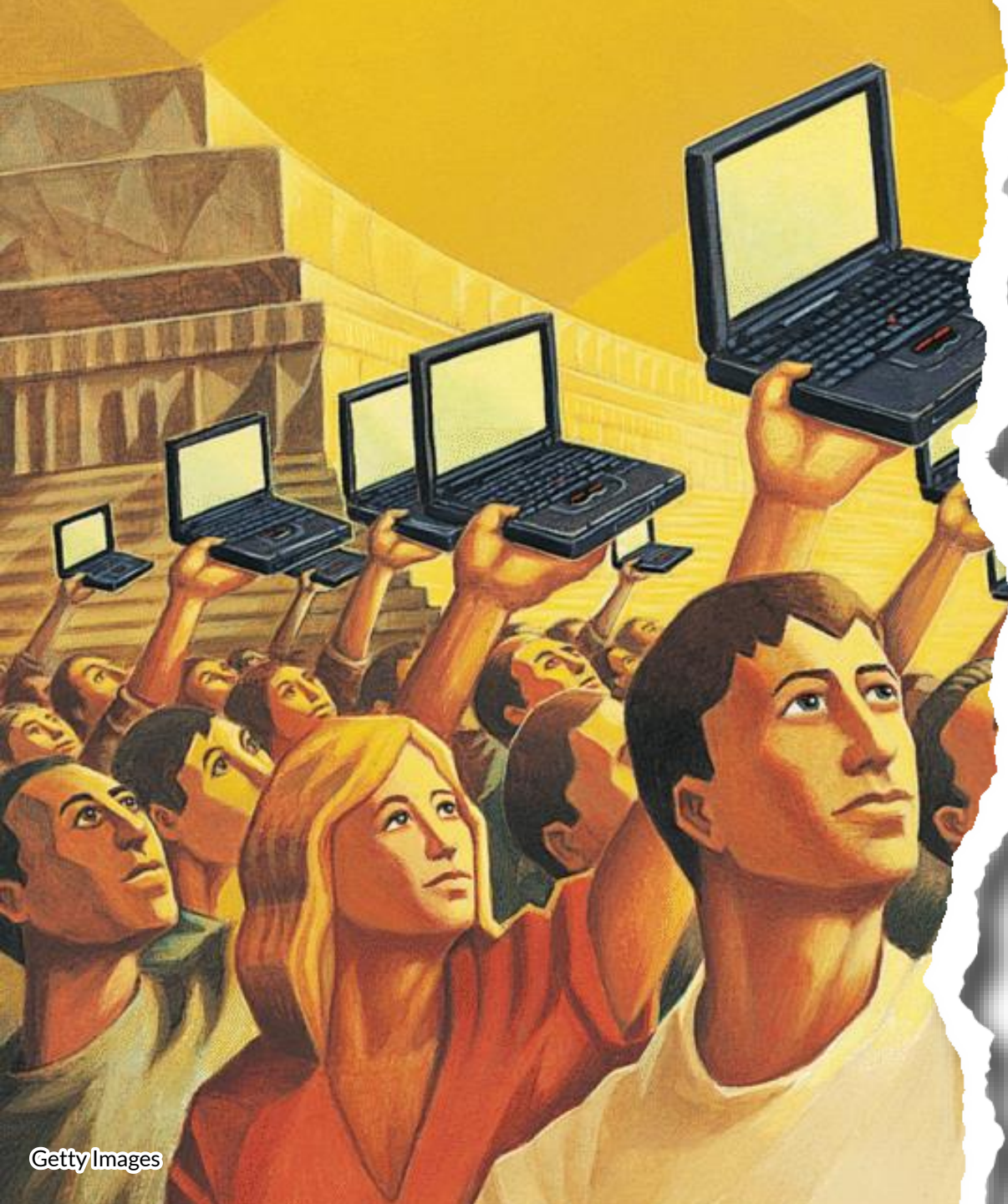
**It can help bring democracy.”**



**THE REVOLUTION  
WILL NOT BE  
tweeted**







*it's*  
Complicated









# *Signs of Russian Meddling in Brexit Referendum*



A dark, industrial illustration depicting a 'hate factory'. In the center is a large, rusted, mechanical machine with a large wheel and various dials. To its left, a conveyor belt carries several white thumbs-up icons. To its right, a network of pipes and valves connects to various industrial structures, including smokestacks and buildings. The pipes are adorned with symbols of anger (red devil faces) and skulls. Smoke and steam rise from the various structures, creating a hazy, dark atmosphere. The background is a solid dark red color.

# Inside the hate factory: how Facebook fuels far-right profit

Art by Oliver Holmes

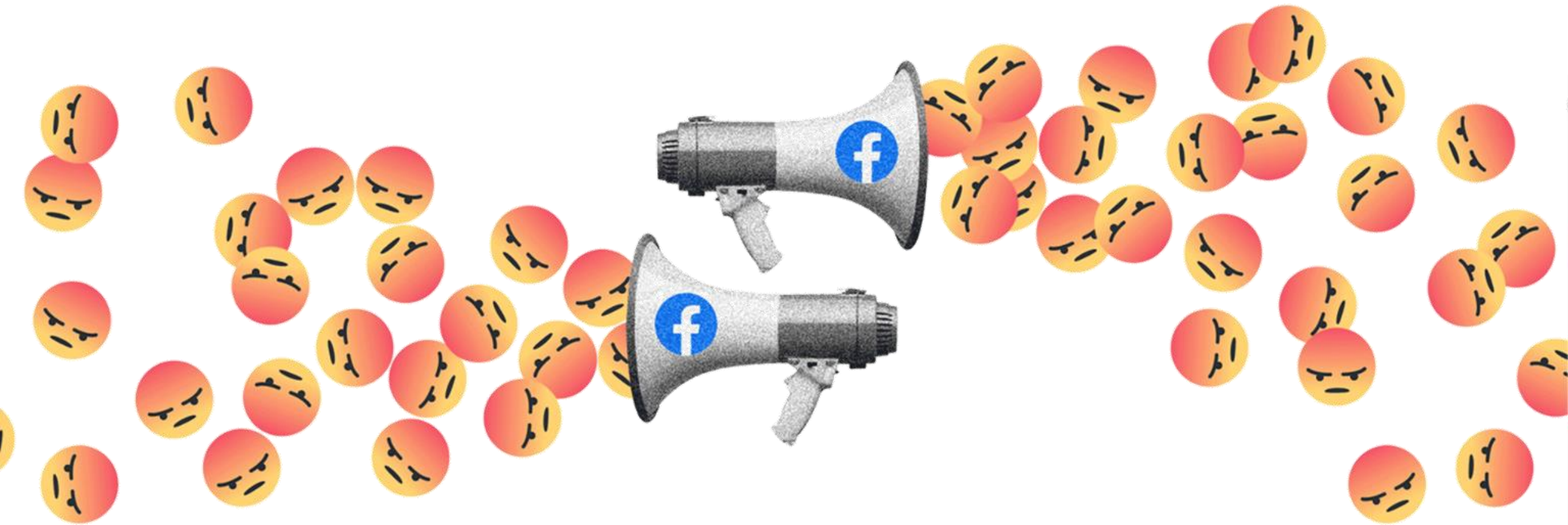


A close-up portrait of a woman with dark brown hair pulled back, wearing bright red lipstick and gold hoop earrings. She is looking slightly to her left with a serious expression. The background is a blurred, warm-toned wall.

# Fresh Cambridge Analytica leak 'shows global manipulation is out of control'

Photo by Leon Neal





# Facebook Executives Shut Down Efforts to Make the Site Less Divisive



A nighttime photograph of the Moscow Kremlin and St. Basil's Cathedral. The Kremlin's white walls are illuminated with blue and white lights, and the Russian flag is visible on a tall pole. St. Basil's Cathedral, with its colorful onion domes, is also lit up. In the foreground, a wet street reflects the lights, and a car is partially visible. A large, ornate street lamp stands on the right. The Russian flag is also visible on the walls of the Kremlin in the background.

Russian disinformation operation relied on forgeries,  
fake posts on 300 platforms, new report says

Photo by Maxim Shemetov





# *Facebook Struggles to Balance Civility and Growth*

Art by Álvaro Domínguez





**Facebook Stopped Employees From Reading An Internal Report About Its Role In The Insurrection. You Can Read It Here.**

A woman with short, wavy grey hair and glasses, wearing a black top and a necklace, stands in front of a wooden bookshelf filled with books. The bookshelf has several shelves, and the books are of various colors and sizes. The woman is looking directly at the camera with a slight smile.

**Shoshana Zuboff: We Can Have Facebook or Democracy  
in the Age of Surveillance Capitalism. Not Both.**





# **Social media making political polarization worse: report**



A woman with long blonde hair and blue eyes is speaking into a microphone. She is wearing a dark blazer and has her hand raised in a gesture. The background is blurred, showing what appears to be a hearing room with wood paneling.

Facebook is a harmful presence in our lives. It's not too late to pull the plug on it







Photo by rangizzz





Photo by Jessica Scranton



Photo by Jessica Scranton



TED





Photo by Jessica Scranton



TED



Pixabay





Photo by Jessica Scranton



TED



The New York Times



Good  
times  
NEVER  
Seemed  
So Good



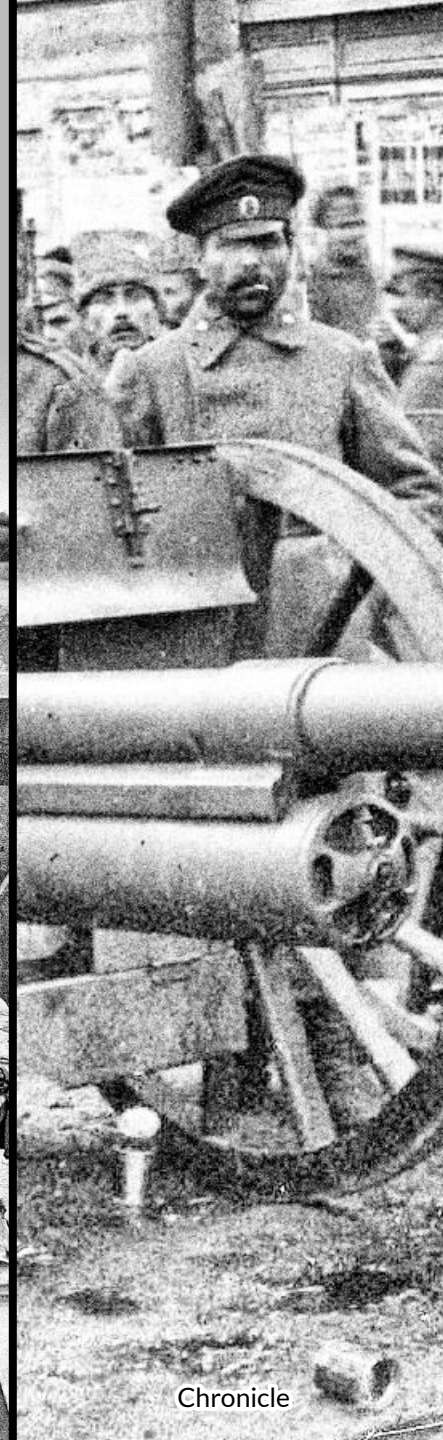
USArmy



Everett Collection Inc



mauritius images



Chronicle



Photo by Clara Padovan



Photo 12











POOL Reuters



POOL Reuters

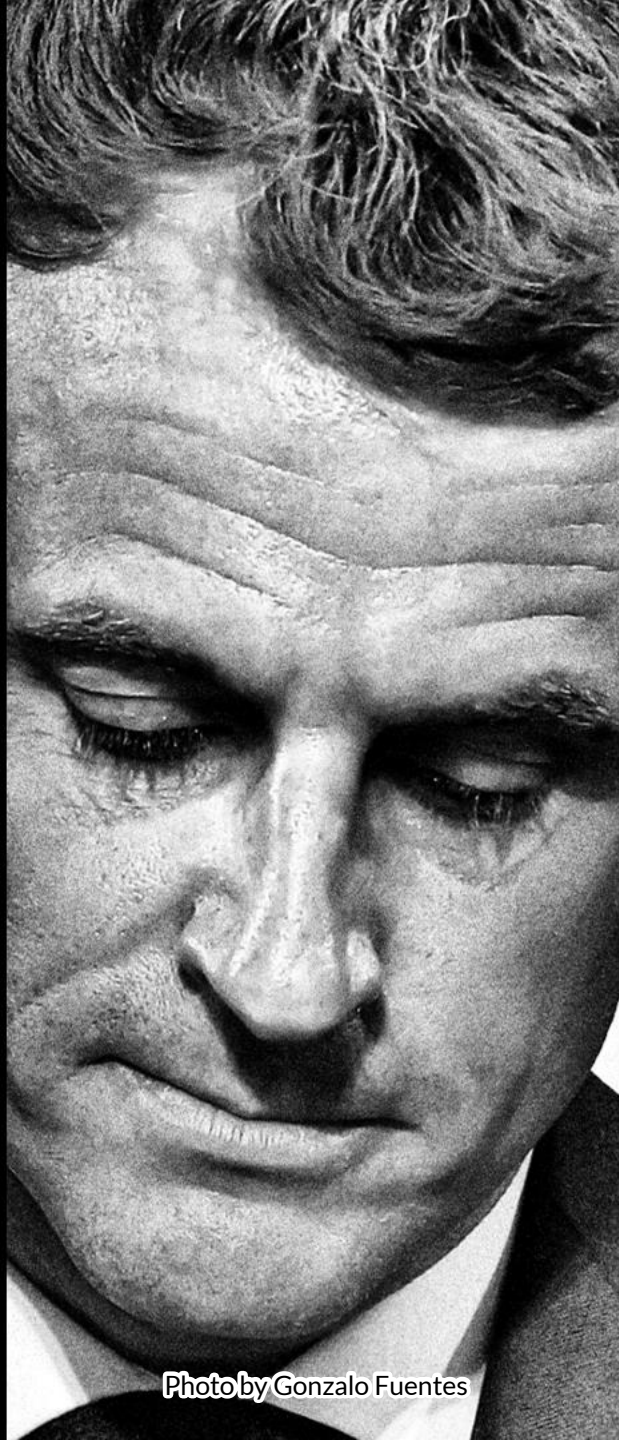


Photo by Gonzalo Fuentes





POOL Reuters

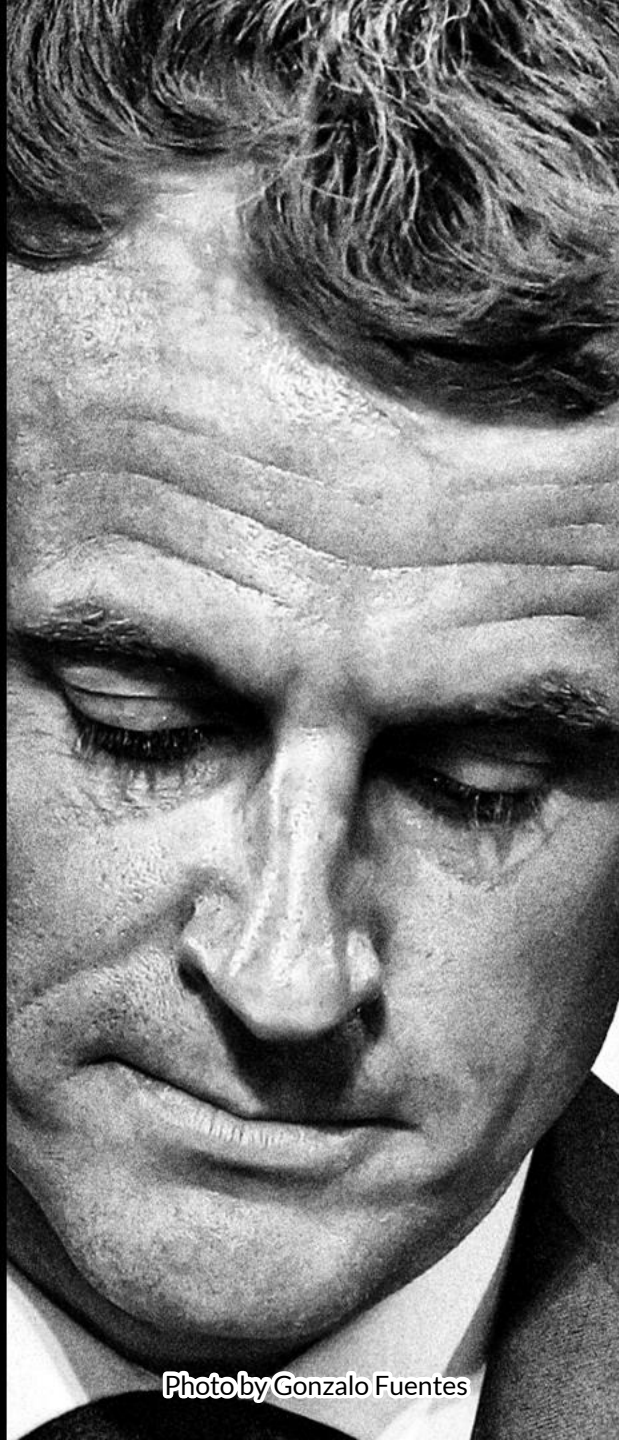


Photo by Gonzalo Fuentes



dpa picture alliance



POOL Reuters

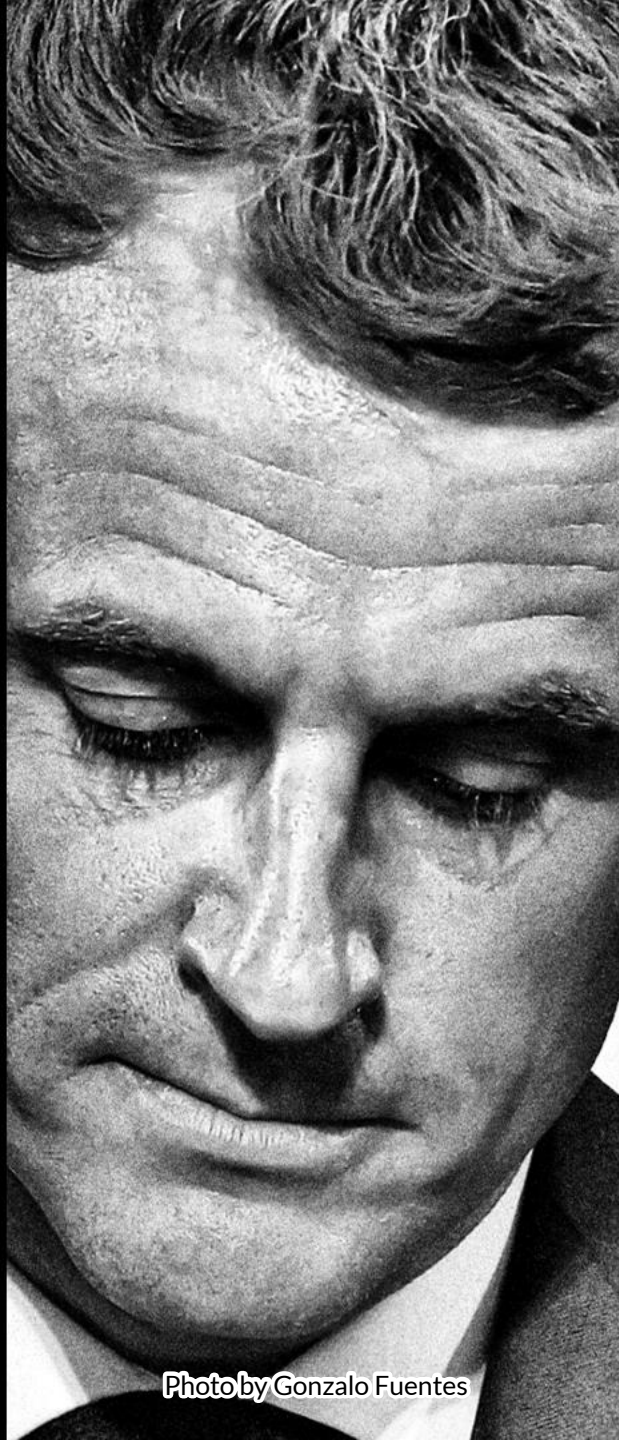


Photo by Gonzalo Fuentes



dpa picture alliance



The Canadian Press











*Article 26*  
*Risk assessment*

1. Very large online platforms shall identify, analyse and assess, from the date of application referred to in the second subparagraph of Article 25(4), at least once a year thereafter, any significant systemic risks stemming from the functioning and use made of their services in the Union. This risk assessment shall be specific to their services and shall include the following systemic risks:
  - (a) the dissemination of illegal content through their services;
  - (b) any negative effects for the exercise of the fundamental rights to respect for private and family life, freedom of expression and information, the prohibition of discrimination and the rights of the child, as enshrined in Articles 7, 11, 21 and 24 of the Charter respectively;
  - (c) intentional manipulation of their service, including by means of inauthentic use or automated exploitation of the service, with an actual or foreseeable negative effect on the protection of public health, minors, civic discourse, or actual or foreseeable effects related to electoral processes and public security.

2. When conducting risk assessments, very large online platforms shall take into account, in particular, how their content moderation systems, recommender systems and systems for selecting and displaying advertisement influence any of the systemic risks referred to in paragraph 1, including the potentially rapid dissemination of illegal content and of information that is in breach of the terms and conditions.

117TH CONGRESS  
1ST SESSION

**H. R.**

To amend section 230 of the Communications Act of 1934 to limit the liability protection provided by such section when a provider of an interactive computer service knew or should have known such provider was making a personalized recommendation of third-party information or recklessly made a personalized recommendation of such information, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

M. \_\_\_\_\_ introduced the following bill; which was referred to the  
Committee on \_\_\_\_\_

**A BILL**

To amend section 230 of the Communications Act of 1934 to limit the liability protection provided by such section when a provider of an interactive computer service knew or should have known such provider was making a personalized recommendation of third-party information or recklessly made a personalized recommendation of such information, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,







Mr. Mark Zuckerberg





# /the social dilemma\_

# What ‘The Social Dilemma’ Gets Wrong

We should have conversations about the impact of social media on our lives. But ‘The Social Dilemma’ buries the substance in sensationalism.

Rather than offer a nuanced look at technology, it gives a distorted view of how social media platforms work to create a convenient scapegoat for what are difficult and complex societal problems. The film’s creators do not include insights from those *currently* working at the companies or any experts that take a different view to the narrative put forward by the film. They also don’t acknowledge—critically or otherwise—the efforts already taken by companies to address many of the issues they raise. Instead, they rely on commentary from those who haven’t been on the inside for many years.

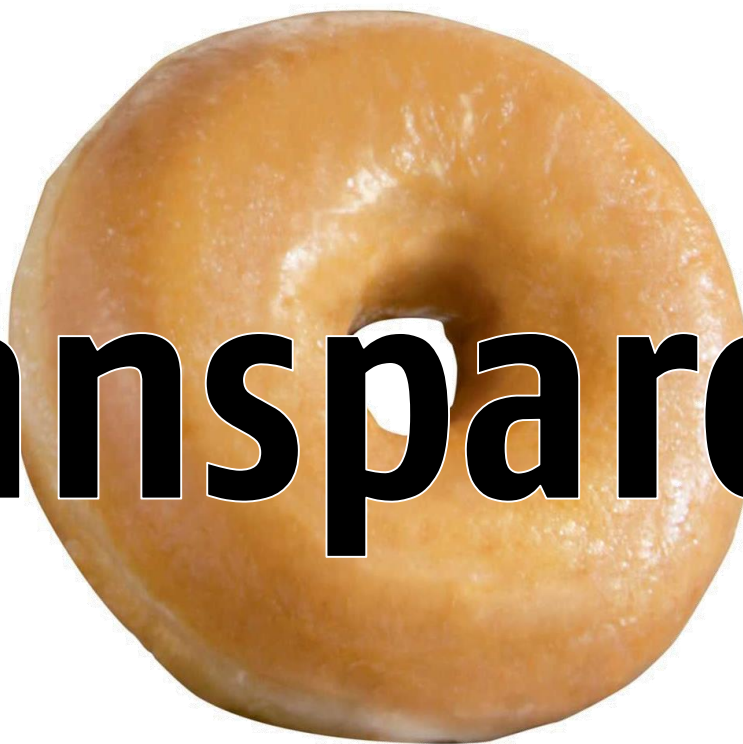








**#transparency**



**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**  
**OOPS!...I DID IT AGAIN**



A full-page background image featuring Tom Cruise in a high-rise office. He is wearing a white dress shirt and a patterned tie, sitting at a desk cluttered with papers and office equipment. He is holding a mobile phone to his ear with his right hand and has a wide-eyed, open-mouthed expression of intense anger or frustration. The office has large windows overlooking a city skyline with various skyscrapers under a clear blue sky. On the desk, there are several framed sports memorabilia items, including footballs and a small statue. A large, multi-tiered office printer is visible on the right side of the desk.

**Show me the data!**

And your algorithms...

HOW TO  
**LOSE FRIENDS**  
& **ALIENATE PEOPLE**



*it's*  
Complicated







Sinan Aral

“The U.S. Congress has **blamed Facebook for the erosion of American democracy**. Experts have testified that bots are responsible for the rise of fake news. But **this perspective confers too much power on technology and lets each of us off the hook too easily**. It de-emphasizes the role of human agency in shaping our relationship with social media.

The Hype Loop describes a cyclical pattern of action and reaction, of cause, effect, and evolution that frames technology and human behavior. Although the Hype Machine helps to create our reality, we are the ones who ultimately appropriate and act on this technology. **Human agency shapes the inputs that our machines analyze to suggest new alternatives.**”



Jen Schradie

**“Neither Trump nor Zuckerberg built the dominant right-wing social media ecosystem.** It goes deeper. Thousands of hyper-local influencers connected to grassroots groups are often more effective than a political celebrity.

**Social media does not recruit people** to far-right militias or conspiracy theories—**people do**—whether grassroots organizers or corporate/political operatives.

**Yes, platforms can make this faster, easier, and more efficient...”**





W. Lance Bennett



Steven Livingston

“Most observers and researchers emphasize the role of social technologies [because they] provide an algorithmically curated social space for misleading content. [However] where authoritative institutions are in crisis, resulting epistemological voids are colonized by ‘alternative facts’.

To be effective, **disinformation campaigns on social media platforms require particular political circumstances. When trust in government, media, and science declines, disinformation thrives, because many people seek ‘alternate facts.’** As a result, public resistance to rumor, conspiracy, hate, and lies weakens.”



Kate Starbird

**“Pervasive disinformation erodes the foundations of democratic societies; it diminishes our trust in information, in government, in the democratic processes themselves, and in each other.”**





Siva Vaidhyanathan

“The autocrat, the deterritorialized terrorist organization, the insurgent group, the prankster, and the internet troll **share a relationship to the truth: they see it as beside the point.**

If they can get the rest of us scrambling to find our balance, they have achieved their goals.

**Those who oppose or dismiss democracy** and the deliberation and debate that make democracy possible **do not care whether claims are true or false,** or even how widely they are accepted as true.

**What matters is that a loud voice disrupts the flow of discourse,** and that all further argument will be centered on the truth of the claim itself rather than on a substantive engagement with facts.

**Power is all that matters when trust and truth crumble.”**



Zeynep Tufekci

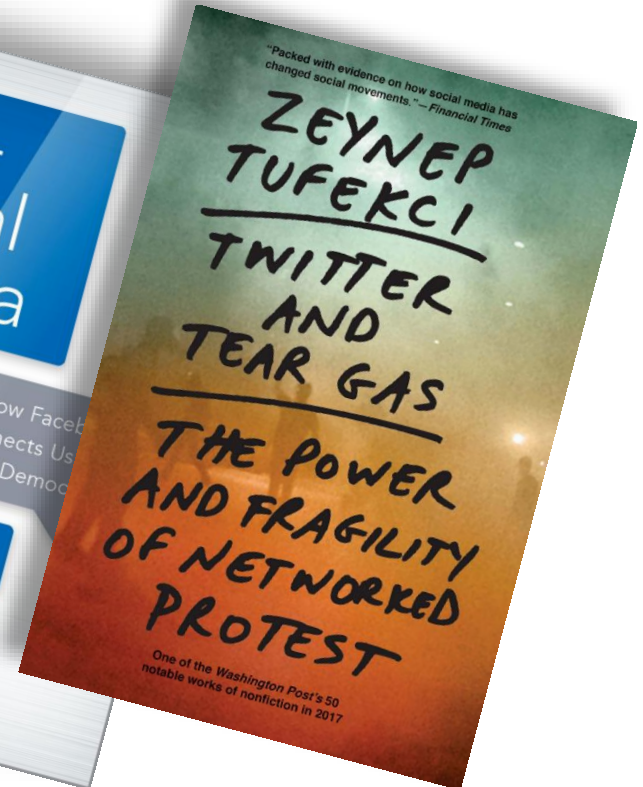
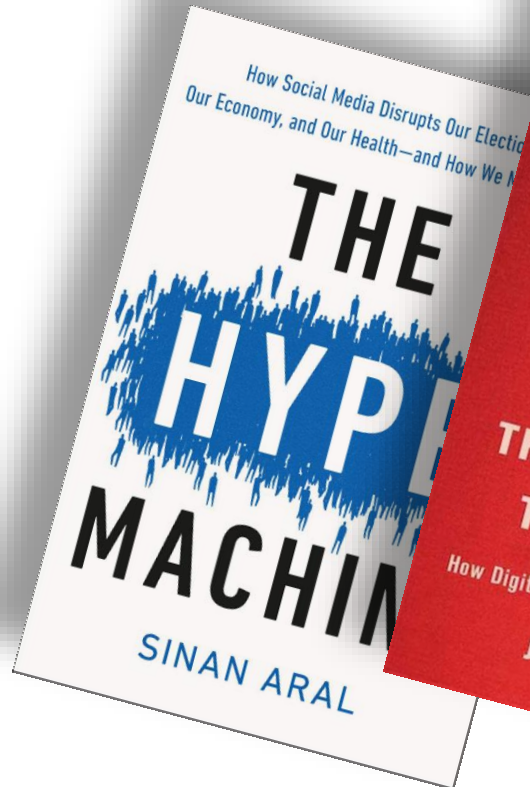
“The weakening of old-style information gatekeepers while empowering the underdogs, has also, in another way, deeply disempowered underdogs.

Dissidents can more easily circumvent censorship, but **the public sphere** they can now reach is often **too noisy and confusing** for them to have an impact.

**Authoritarians and extremists**, on the other hand, **often merely have to muddy the waters and weaken trust in general so that everyone is too fractured and paralyzed to act.**

**Algorithmic gatekeepers aren’t merely neutral conduits for both truth and falsehood.** They make their **money** by keeping people on their sites and apps; that aligns their **incentives** closely with those who **stoke outrage, spread misinformation, and appeal to people’s existing biases and preferences.”**





**Is social media helping or hindering democracy?**

Probably both.

**Are we the baddies?**

Without a doubt.



“The trouble with the zealots of technology as an instrument of democratic liberation is not that they misconceive technology but that they fail to understand democracy.

Technology can help democracy, but only if programmed to do so. Left to the market, it is likely only to reproduce the vices of politics as usual.”









**Data and algorithmic transparency**

**Accountability**

**Auditing**

**ASK ME ANYTHING**