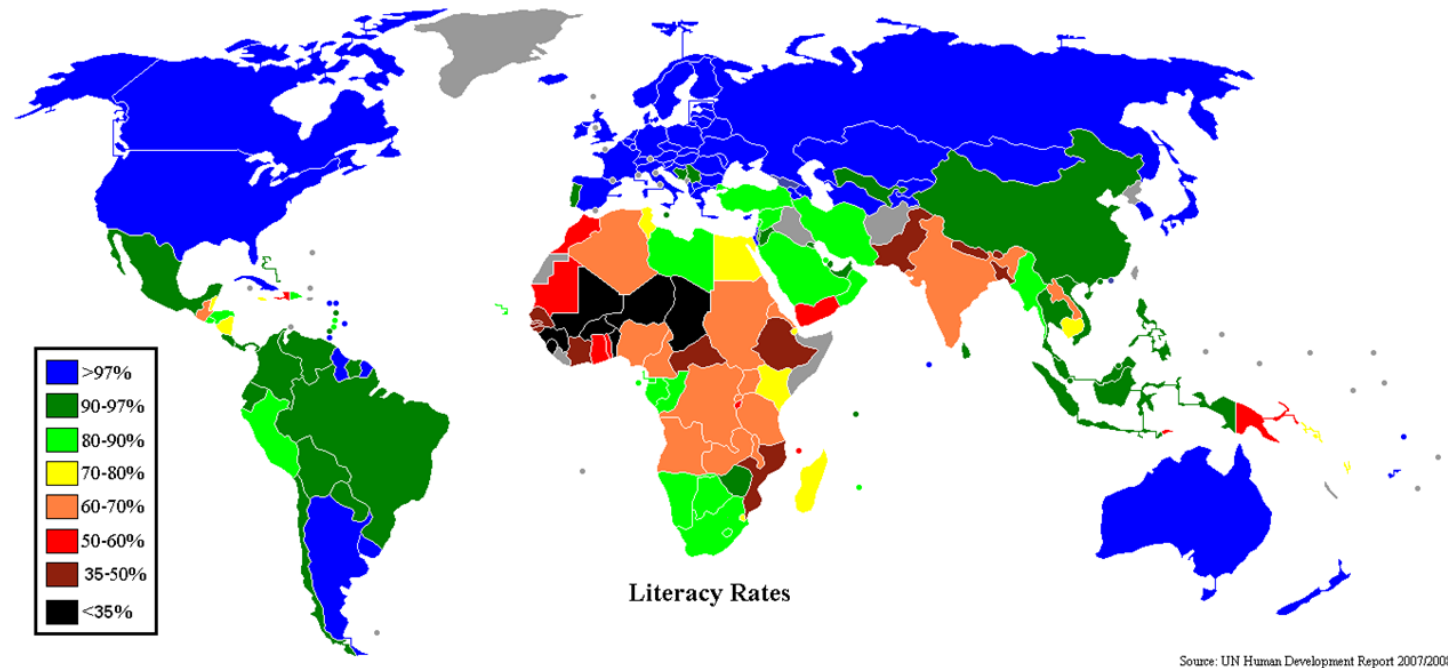


# LARGE-Scale Patterns in Global Communication & Culture



**Harold Adams Innis**

The Development and Evolution of Global  
Media & Communication

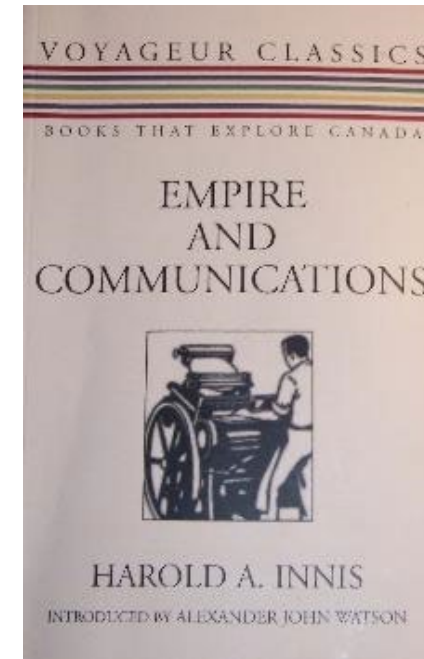
## ***SP2024 Electives in DMC***

- ✓ **Intro to Digital Marketing 1:30 MWF**
- ✓ **Gender in Marketing 11:00 MWF**
- ✓ **Social Media Marketing 9:45 MWF**
- ✓ **Podcasting: Topics in Audio T/TH 5:15**
- ✓ **PhotoJournalism**

# Harold Innis (1894-1950) Background

## Global Communication Scholar

- Canadian Social Historian--really a **sociologist/economist**
  - A **non-conformist** scholar— interdisciplinary
  - The University of Chicago, School of Sociology (under Lewis Mumford, Robert Park, George Herbert Meade – economics combined with symbolic interactionism)
  - Completed his PhD. at the University of Chicago in 2 years. Innis' dissertation focused on the **history of TECHNOLOGY**. Specifically, the impact of the railway (as a technology) in creating Canadian Society (economics, culture, communication).
  - A **structuralist**. He looked at the underlying structures (foundational pillars) that shaped culture.
  - One of the original "founders" of **GLOBAL Media and Communication** as an academic discipline.  
Innis→Marshall McLuhan→ American/European Media, Comm, Cultural Studies, etc
- **Books by Innis:**
  - Minerva's Owl (1938) Looks at how the mass print media made "culture" a sellable commodity.
  - The Bias of Communication (1950)
  - Empire and Communications (1952)
  - A World History of Communication (**unpublished** 1,200 pages long)



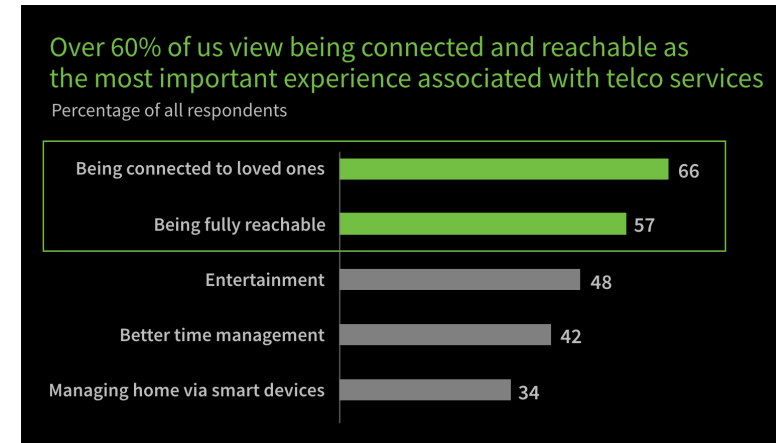
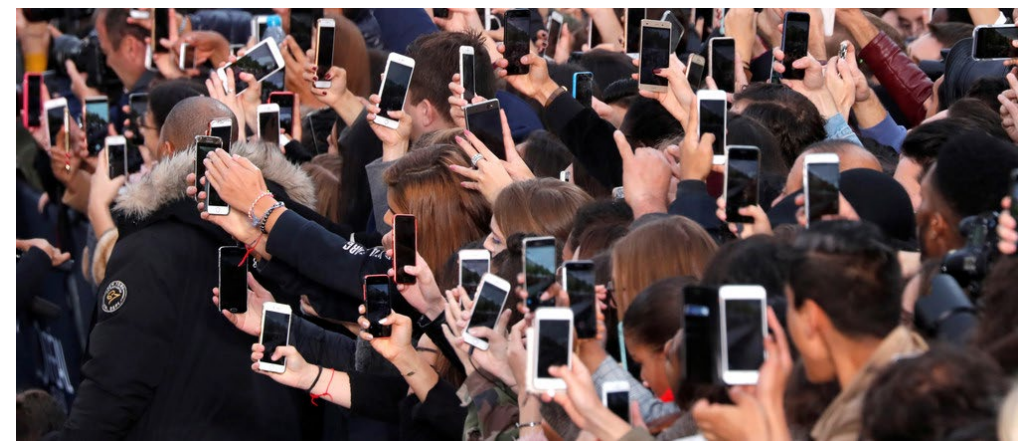
# Harold Innis

## MAJOR ARGUMENTS

→ **FOUNDATIONAL ARGUMENT #1**: Media & Communication Techniques and Technologies serve as one of the most culturally **TRANSFORMATIVE** (and under-examined) forces of historical change for ALL cultures.

→ **FOUNDATIONAL ARGUMENT #2**: If you want to truly understand the transformation of human society and civilizations **ON A GLOBAL SCALE**, then you must examine the **FOLLOWING**:

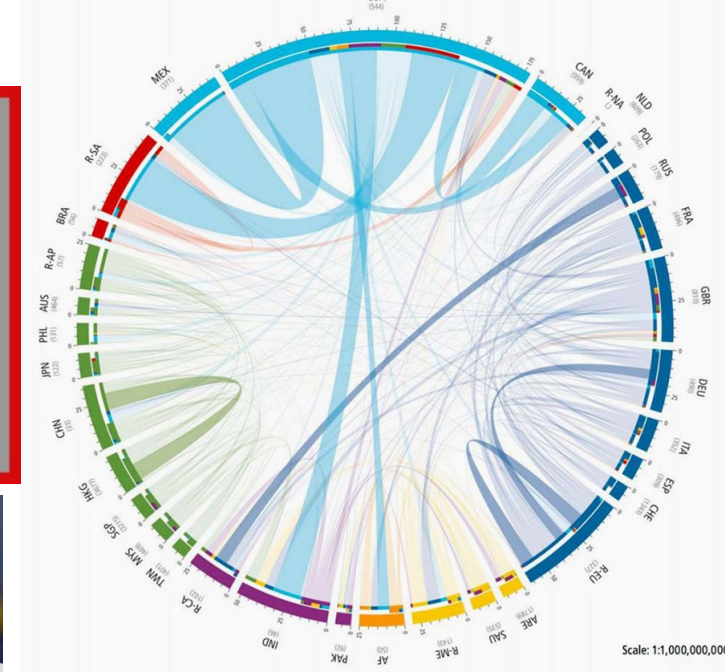
1. **ECOLOGY/MIX** of **media technologies**,
2. The **INHERENT BIASES** that they **HAVE**
3. Dominant **MEDIA** & **POWER** (Knowledge Monopolies...)
4. **MEDIA AS FILTERS**





# Key Idea: *GROWING* Symbolic Environments/Ecologies

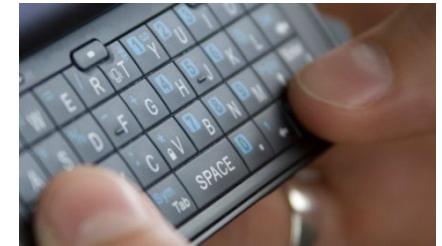
Map of international phone calls



- ➡ Humans are “hard-wired” for symbol/meaning making. **CONNECTEDNESS**→ Symbols & Story production and consumption.
- ➡ The Ecology of Symbols, Techniques (of communication), and Technologies. We live in a **Petri Dish** of evolving symbols/systems. **DYNAMIC/FLUX** (fads, trends, fusions, evolutions)
- ➡ We are engaged/engulfed in **SYMBOLIZING more and MORE** aspects of our lives... Why?
- ➡ YOU can't completely predict **HOW** a person will INTERPRET, INTERNALIZE, or UTILIZE the media (and symbols) which they consume.

# Key Idea: The inherent "BIAS" of an information technology (Its MEDIA BIAS)

- **TECHNOLOGIES ARE NEVER NEUTRAL!** Every technology was created by humans (with biases) who built them with specific intents and intended uses.
  - Every information technology has an 'inherent' bias in HOW or WHAT (content) it communicates. That is, the technology itself is PREDISPOSED to be used in only certain ways and communicate only certain kinds of information in certain ways. Tech censorship or framing.
  - Important Question: What is it BEST at doing or communicating? And HOW? (Specific types of content? Ideas? Personalities? Types of stories?, etc.)
  - **AUDIENCE USE???** How is it easily, habitually, and routinely USED (and by WHOM)?  
This is based on...
    1. **Sensory Focus**: Eyes? Touch? Ears? Smell? MIND???
    2. **REQUIREMENTS for ACCESS**: \$\$-income/economics, Location-Geography, Education, Other technologies
    3. The **range of SKILLS** (intellectual, physical, perceptual, technical) it requires to use it and **create** and **comprehend** (understand) information carried by it
    4. **Types of thoughts/ideas** it will easily/efficiently communicate
    5. **Speed, volume, efficiency** of its communication





# MEDIA work as FILTERS

HAROLD INNIS - Key Idea/Argument:

Our media techniques & technologies constantly **FILTER & SHAPE** both our **INFORMATIONAL DIETS** and our **BEHAVIORAL LIVES** in largely “invisible” ways.

1. **“Normalization”** → most mainstream media devices become quickly “normalized.” That is the more they are used or promoted, the more they appear “normal,” “common-place,” and largely **UNQUESTIONED**.

2. **HABITUAL-Ritualistic MEDIA USE** → **“Invisibility”**

- a. We are largely **UNCONSCIOUS** of our DAILY/YEARLY media consuming habits!
- b. People **DO NOT** tend to question their communication devices, habits, or the people who control such devices or media technologies.
- c. **MEDIA INFLUENCE** often goes unnoticed by the general populace at both an individual level and a mass level.

3. **HABITS OF MIND** → **INFORMATION CONFIRMATION BIAS:**

- People tend to rely on sources of information which simply confirm what they already believe. We tend to create information “bubbles.”

**SUMMATION: NEW COM TECH DEVELOPED → EARLY ADOPTION → NORMALIZED → INVISIBLE RITUALIZED USE → HABITS OF MIND/PERCEPTION**



# Filter Bubbles

- [Eli Pariser Filter Bubbles](#)



## Key Questions:

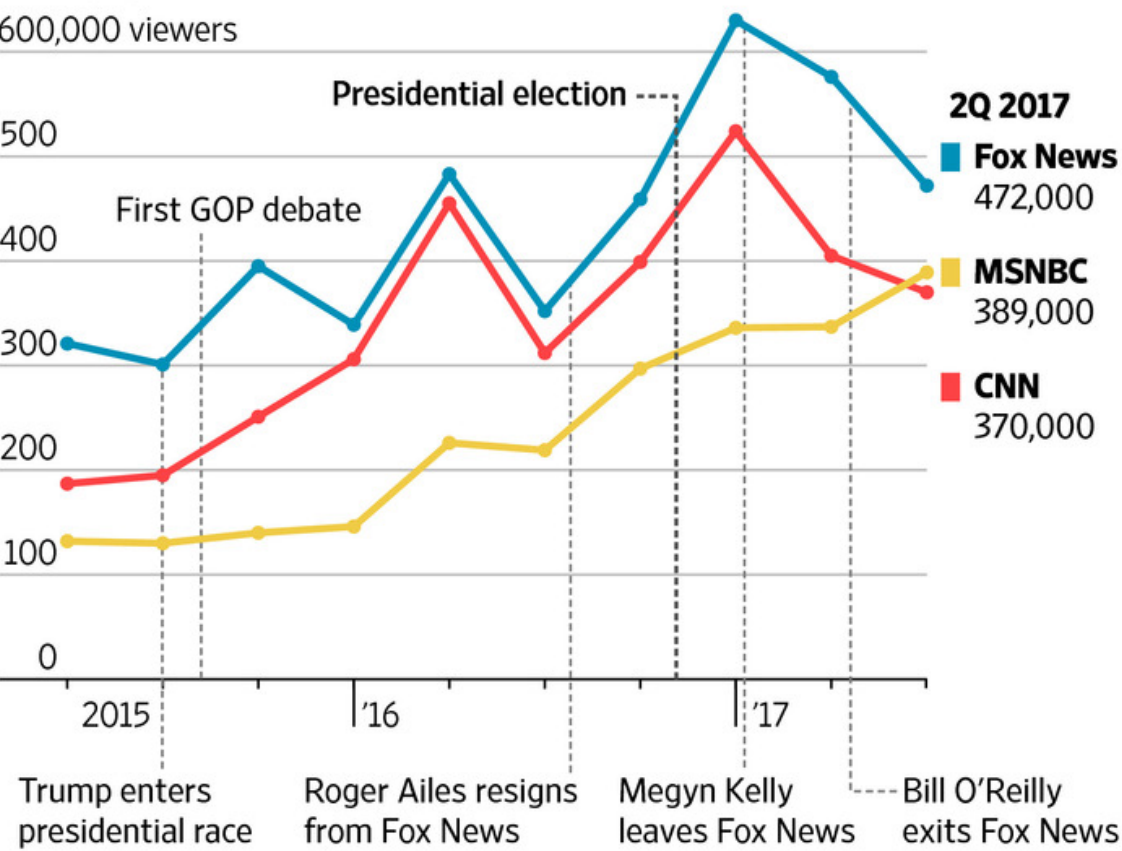
1. What is a “**Filter Bubble**”?
2. How do they operate?
3. What is an “**algorithm**”?
4. What’s the difference between **filter bubbles** and **corporate CENSORSHIP**?



# Cable News Ratings Race Tightens

Fox News is still No. 1, but after turmoil at the network and a fading election boost, MSNBC has crept up and narrowed the gap.

Average primetime viewers, adults 25 to 54



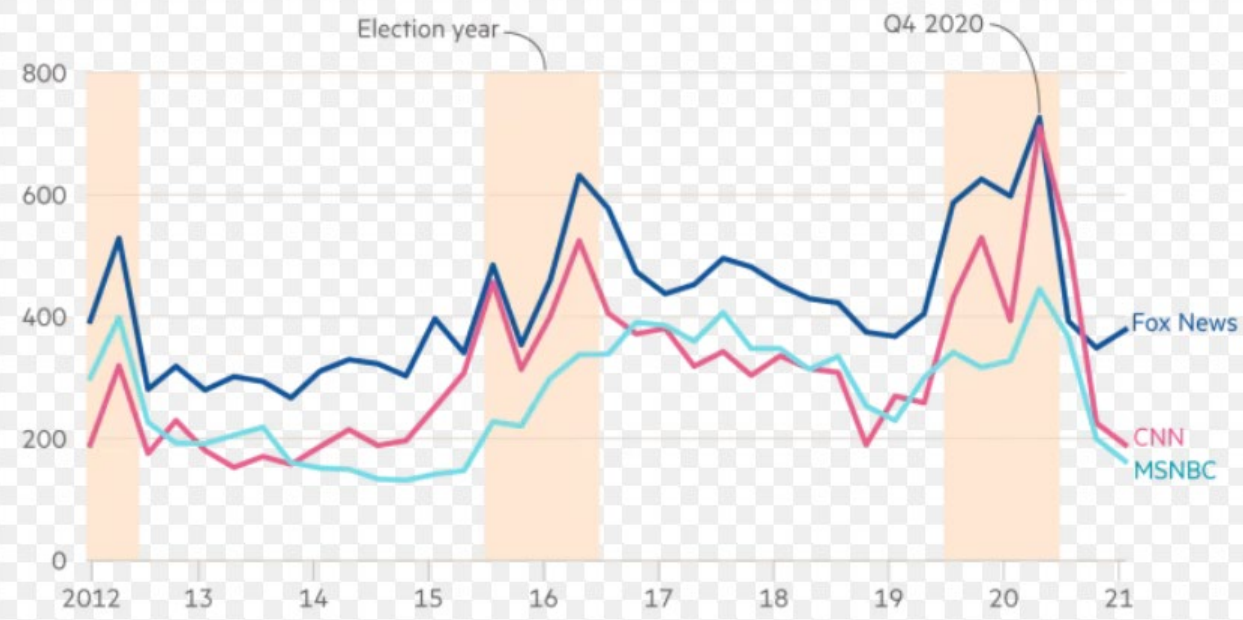
Source: Nielsen THE WALL STREET JOURNAL.

Financial Times

< > ⋮

## Primetime cable news ratings fall over the past year

Number of 25- to 54-year-old viewers ('000s) of primetime programming in each quarter

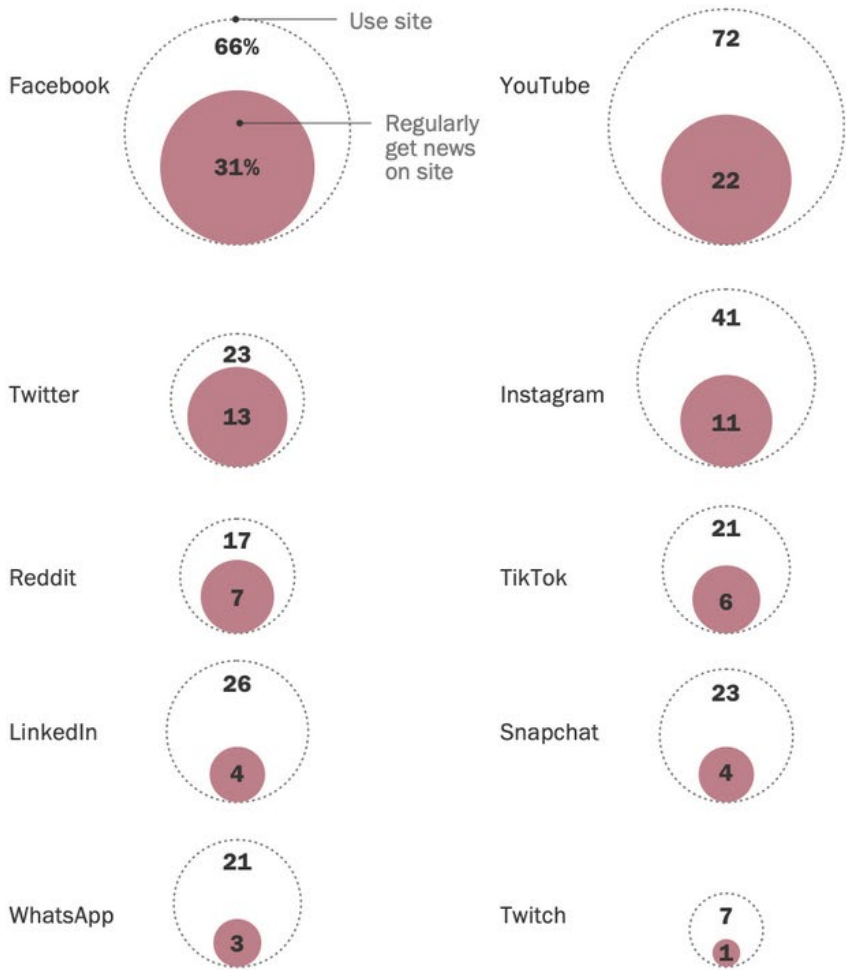


Sources: Nielsen, Adweek  
Notes: primetime from 8-11pm, quarterly data from Q3 2012-Q3 2021  
FT Graphic: Caitlin Gilbert / @caitlinsgilbert  
© FT



## Nearly a third of Americans regularly get news on Facebook

% of U.S. adults who ...



Source: Survey of U.S. adults conducted July 26-Aug. 8, 2021.  
“News Consumption Across Social Media in 2021”

PEW RESEARCH CENTER

## Demographic profiles and party identification of regular social media news consumers in the U.S.

% of each social media site’s **regular** news consumers who are ...

	Facebook	YouTube	Twitter	Instagram	Reddit	TikTok	LinkedIn	Snapchat
Men	35%	56	56	36	67	30	54	40
Women	64%	43	43	63	31	68	44	59
Ages 18-29	23	27	43	44	44	52	25	63
30-49	41	40	38	37	47	34	46	32
50-64	22	22	14	13	8	12	20	3
65+	14	11	5	5	1	2	8	1
High school or less	41	37	25	33	26	42	18	50
Some college	31	35	31	36	33	40	24	35
College+	28	28	43	30	41	17	57	14
White	60	46	51	36	54	38	45	31
Black	11	16	14	20	7	18	18	21
Hispanic	20	24	22	33	21	34	20	37
Asian*	5	10	9	7	15	8	13	7
Rep/Lean Rep	44	41	30	33	23	32	41	32
Dem/Lean Dem	52	54	67	62	74	63	54	61

\*Asian adults were interviewed in English only.  
Note: Twitch and WhatsApp not shown due to small sample size. White, Black and Asian adults include those who report being only one race and are not Hispanic; Hispanics are of any race.  
Source: Survey of U.S. adults conducted July 26-Aug. 8, 2021.  
“News Consumption Across Social Media in 2021”

PEW RESEARCH CENTER

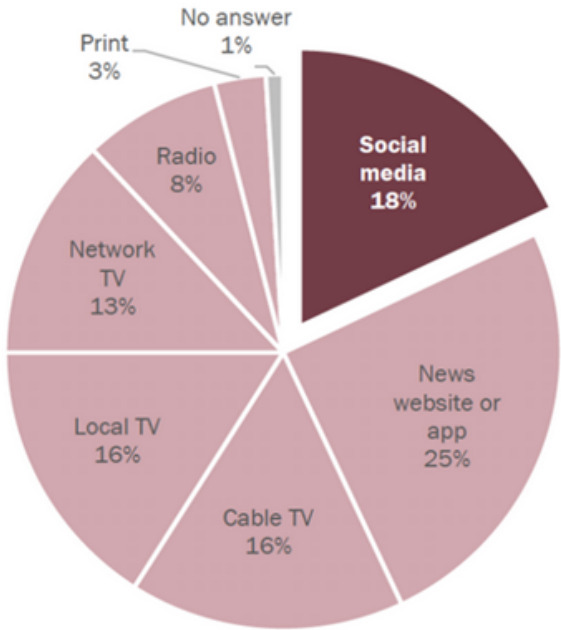
# Americans Who Mainly Get Their News on Social Media Are Less Engaged, Less Knowledgeable

*Those who rely on social media for news are less likely to get the facts right about the coronavirus and politics and more likely to hear some unproven claims*

BY AMY MITCHELL, MARK JURKOWITZ, J. BAXTER OLIPHANT AND ELISA SHEARER

## About one-in-five U.S. adults say they get their political news primarily through social media

% of U.S. adults who say the most common way they get political and election news is ...



Source: Survey of U.S. adults conducted Oct. 29-Nov. 11, 2019. "Americans Who Mainly Get Their News on Social Media Are Less Engaged, Less Knowledgeable"

### Americans Who Mainly Get Their News on Social Media Are Less Engaged, Less Knowledgeable

- 1. Demographics of Americans who get most of their political news from social media
- 2. U.S. adults who mostly get news through social media lag behind others in attention to election and pandemic news
- 3. U.S. adults who mostly rely on social media for political news are often less knowledgeable about current events
- 4. In addition to lower awareness of current events, social media news users hear more about some unproven claims

Appendix: Knowledge questions used for average correct responses

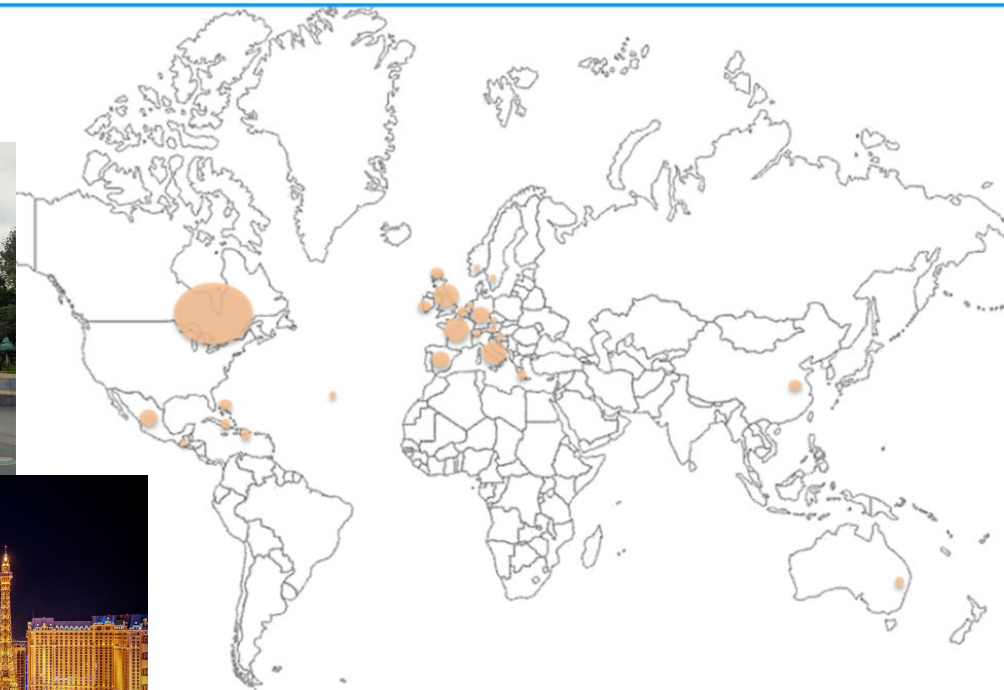
Acknowledgments

Methodology

# Invisible Norms/Habits and Cultural FILTERS

## • Facts:

- ✓ **ONLY ~25-30%** of Americans have a 4-YEAR college degree.
- ✓ **Less than 20%** of Americans have a passport.
- ✓ **LESS than 10%** of Americans have travelled to places other than Europe, Canada, and the Caribbean.
- ✓ **Top 3 Travel Destinations** for Americans
  - Disneyland/World
  - Las Vegas
  - NYC (Times Square)





# Microsoft and Google Replace Journalists with Bots

- [Microsoft and Google Replace Journalists with Bots](#)

## Microsoft 'to replace journalists with robots'

© 30 May 2020



PA MEDIA

Microsoft is to replace dozens of contract journalists on its MSN website and use automated systems to select news stories, US and UK media report.

The curating of stories from news organisations and selection of headlines and pictures for the MSN site is currently done by journalists.

Artificial intelligence will perform these news production tasks, sources told the [Seattle Times](#).

Microsoft said it was part of an evaluation of its business.

The US tech giant said in a statement: "Like all companies, we evaluate our business on a regular basis. This can result in increased investment in some places and, from time to time, redeployment in others. These decisions are not the result of the current pandemic."

Microsoft, like some other tech companies, pays news organisations to use their content on its website.

Read more by registering for a BBC account.

Register

But it employs journalists to decide which stories to display and how they are presented.

Around 50 contract news producers will lose their jobs at the end of June, the [Seattle Times](#) reports, but a team of full-time journalists will remain.

## Google funds automated news project

© 6 July 2017



GETTY IMAGES

Local newspapers have struggled to make a profit in recent years

Google is funding a robot journalism project in which computers will write 30,000 stories a month for local media.

The Press Association (PA) news agency received £622,000 for its Reporters and Data and Robots (Radar) scheme.

Radar will benefit "established media outlets", independent publishers and local bloggers, PA said.

One expert said it was unlikely to replace traditional reporting, although the project, which launches in 2018, will also use human journalists.

Five people will use official open data sources to automate reports about health, crime, employment and other subjects.

"Skilled human journalists will still be vital in the process, but Radar allows us to harness artificial intelligence to scale up to a volume of local stories that would be impossible to provide manually," said PA editor Pete Clifton.

He added that the news media was in need of "cost-effective" ways to produce local stories.

# China: Xinhua News Agency Unveils AI News Anchor

- [China: Xinhua News unveils AI news anchor](#)

## China's Xinhua agency unveils AI news presenter

By Chris Baraniuk  
Technology reporter

🕒 8 November 2018



China's state news agency has unveiled a virtual newsreader sporting a sharp suit and a somewhat robotic voice.

Xinhua News claims the presenter "can read texts as naturally as a professional news anchor", though not everyone may agree.

"Hello, you are watching English news programme," says the English-speaking presenter at the start of his first report.

Sogou, a Chinese search engine, was involved in the system's development.

"I will work tirelessly to keep you informed as texts will be typed into my system uninterrupted," says the presenter in an introductory video.

"I look forward to bringing you the brand new news experiences."



# South Korea: LG and Samsung Reveal AI announcers

- South Korea: Korean TV AI News Anchors
- LG and Samsung AI influencers



# MEDIA NORMING + FILTERS + HABITS + SHAPING BEHAVIORS GLOBALLY

## “Interactive” Toys

### Barbie doll will be internet connected to chat to kids

🕒 17 February 2015 | Technology



The Hello Barbie will remember what children have said and mention it at a later date

**Barbie is having a digital makeover, with the release of an internet-connected version of the iconic doll.**

Toy maker Mattel is partnering with US start-up ToyTalk to develop Hello Barbie, which will have two-way conversations with children.

The Barbie will use a speech-recognition platform developed by ToyTalk.

A prototype of the doll was at the New York Toy Fair on 14 February, where a glut of smart toys were on display.

"The number one request we hear from girls around the world is that they want to have a conversation with Barbie. Now, for the first time ever, Barbie can have a two-way conversation," said a spokeswoman for Mattel.

The Hello Barbie will be able to play interactive games and tell stories and jokes.

# Global Repercussions!

## MAJOR Take Home Points: Innis

1. Lack of **"organic"** face-to-face interaction which is more biologically and psychologically meaningful for humans AND Increasing disparity between **Techno-haves** and **Techno-have NOTs**.
2. Lack of **QUALITY** communication → The MYTH of the Information Revolution
  - a. **Quality** = Information which stimulates new wisdom and can help a person/community and stimulate UNDERSTANDING and EMPOWERMENT
  - b. MORE INFO → INFO OVERLOAD → **INFORMATION GARBAGE!**
  - c. SPEED-EFFICIENCY-CONVENIENCE is NOT QUALITY INFORMATION
3. Lack of a communication **"Common ground"** and binding narratives → Cultural Backlash (violent?)





# MEDIA NORMING + FILTERS + HABITS + SHAPING BEHAVIORS GLOBALLY



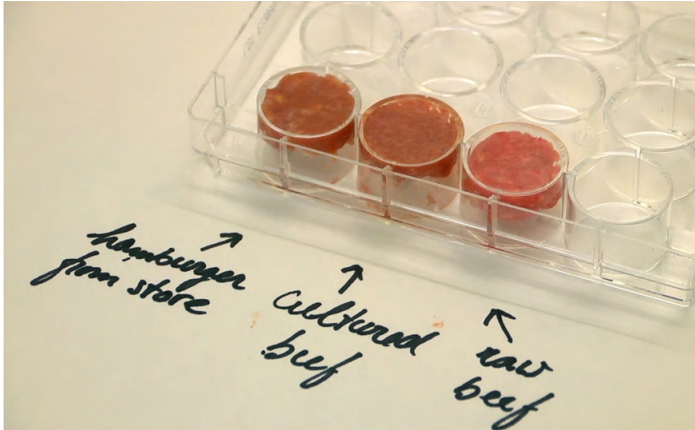
Mutant Super Cows Engineered For Maximum Meat



Health & Science

## Lab-grown meat is in your future, and it may be healthier than the real stuff

By Marta Zaraska May 2, 2016



Samples of beef including hamburger from a store, left, cultured beef, center, and raw beef. (Maastricht University via Bloomberg)

Scientists and businesses working full steam to produce lab-created meat claim it will be healthier than conventional meat and more environmentally friendly. But how much can they improve on old-school beef?

In August 2013, a team of Dutch scientists showed off their [lab-grown burger](#) (cost: \$330,000) and provided a taste test. Two months ago, the American company Memphis Meats fried the first-ever meatball (cost: \$18,000 per pound). Those who have tasted these items say they barely differ from the real deal.



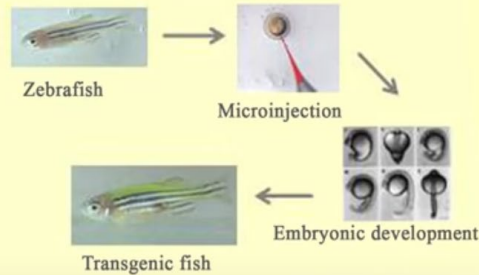
# MEDIA NORMING + FILTERS + HABITS + SHAPING BEHAVIORS GLOBALLY

## Fluorescent Transgenic Zebrafish

Fluorescent transgenic zebrafish were developed by a research team led by Dr. Z Gong, in Department of Biological Sciences, National University of Singapore.

**Fig. 1.** The basic procedure to produce transgenic fish. Briefly fluorescent color genes, originally isolated from a jellyfish and a sea anemone, were microinjected into zebrafish eggs and these foreign genes later become a part of the genetic make-up of injected zebrafish. Thus the fluorescent color acquired by these transgenic zebrafish can be stably transmitted to all future generations. This technology can also be applied to other ornamental fish species.

General Procedure of Generation of Transgenic fish



## Sudden-Death Mosquito





# MEDIA NORMING + FILTERS + HABITS + SHAPING BEHAVIORS GLOBALLY

## Elon Musk's Neuralink Company



[#neuralink](#) [#mindpong](#) [#elonmusk](#)

Brain-Chipped Monkey Playing Video Game Pong with the Mind. Neuralink: Elon Musk

# The Internet of Things: FILTER BUBBLES EXTENDED

## ▷ **iOT** → the Internet of Things

- Chip/Wifi enabled “smart objects”

- ☐ Car
- ☐ Tattoo
- ☐ Eye
- ☐ Phone
- ☐ House
- ☐ Refrigerator
- ☐ Thermostat
- ☐ Washer/Dryer
- ☐ Bed

## ▷ **Beta- Cyborgs** → “**BetaBorgs**”: Technological Addiction & Dependence

## ▷ **Full Cyborgs** → Tech inside and connected to human tissue



# Technological Norming and Ecological Change

## Getting “Chipped”

- [Chip Implants in Sweden](#)

## NEWS

[Home](#) | [Video](#) | [World](#) | [US & Canada](#) | [UK](#) | [Business](#) | [Tech](#) | [Science](#) | [Magazine](#) | [Enter](#)

### Technology

## Office puts chips under staff's skin



Rory Cellan-Jones  
Technology correspondent

🕒 29 January 2015 | [Technology](#) | 🗨️





# Under your skin?

- <https://www.npr.org/2023/04/03/1167818891/first-cell-phone-call-martin-cooper-inventor-50-years-bell-motorola-history-ai>

The father of the cellphone predicts we'll have devices embedded in our skin next

April 3, 2023 · 5:14 PM ET



Manuela López Restrepo



2-Minute Listen

+ PLAYLIST



Martin Cooper with the fruits of his labor.

Valerie Macon/AFP via Getty Images

# “Smart” Doorbells?

## Amazon Ring: Phantom smart doorbell chimes alarm owners

© 1 October 2020



The Ring doorbells use both cameras and motion sensors to detect when someone approaches.

Owners of Amazon's Ring smart doorbells have been reporting "phantom" visitors, with the bell chiming but no-one being at their door.

Amazon has blamed the issue on "infrastructure delays" - making real doorbell presses arrive later.

It said its "processing infrastructure was running behind", which caused delays in people receiving the notifications.

The issue was now resolved, it said, apologising for any inconvenience.

Amazon did not say how many people had been affected or what caused the delay, but users across the UK, Europe and US reported the random rings throughout the day on 30 September.

Some took to Twitter to describe how they were getting a succession of rings, with others saying their devices were going off every 10 minutes.

Others said that the phantom rings were unnerving, with children scared when the doorbell sounded and no-one was there.

"Very unnerving for my elderly mother who lives alone," said one Twitter user.

In March, the BBC revealed that Amazon keeps records of every motion detected by its Ring doorbell, something privacy experts said gives its huge insights into customers' lives.

## Amazon's Ring video doorbells catch fire because wrong screw used

© 11 November 2020



The video doorbells use a screw to keep the faceplate and battery in place.

Dozens of Amazon's Ring smart doorbells have caught fire or burned their owners after being fitted with the wrong screw.

The problem has prompted US and Canadian product safety officials to issue a formal notice, and Amazon to provide a revised instruction manual.

The issue is that if a longer, sharper screw is used at the device's base, it can damage the battery pack.

This causes it to overheat, which has led to property damage and injuries.

However, despite a "recall notice" having been issued, users are not actually being asked to send the devices back.

Instead, they are simply being urged to follow the new guidance.

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## Smart doorbells 'easy target for hackers' study finds

© 23 November 2020



Which said the Victure VD300 transmitted its owner's wi-fi name and password unencrypted.

Major security flaws in popular smart doorbells are putting consumers at risk of being targeted by hackers inside their homes, according to Which.

The consumer group says devices being sold on marketplaces such as Amazon and eBay, could easily be hacked or switched off by criminals.

It is asking the government for new legislation to safeguard consumers.

Amazon has removed at least seven product listings in response to the findings.

- 'He used our smart doorbell camera to track me'
- Ring logs every doorbell press and app action

The watchdog tested 11 devices which were purchased from popular online marketplaces in the UK. Brands included Qihoo, Ctronics and Victure.

It found that among the most common flaws were weak password policies, and a lack of data encryption.

Two of the devices in the test could be manipulated to steal network passwords and then hack other smart devices within the home.

Amazon UK's current number one bestseller in smart doorbells, the Victure Smart Video Doorbell, was found to send users' home network names and passwords unencrypted to servers in China.

The BBC has asked Victure for comment.

## AWS: Amazon web outage breaks vacuums and doorbells

© 26 November 2020



An outage with Amazon's web infrastructure left smart-home enthusiasts unable to use basic household items.

Amazon Web Services is a huge part of the company's business and the backbone of the internet's most popular sites and services.

A widespread US outage late on Wednesday disrupted many of those services.

Robot vacuums and smart doorbells suddenly stopped working in people's homes.

### Widespread problem

"I... can't vacuum... because US-east-1 [region] is down," read one popular tweet, from LinkedIn's top information security official, Geoff Belknap.

"Welcome to the future," replied another user.

The iRobot company, makers of the popular Roomba robot vacuum, acknowledged the widespread problem.

"An Amazon AWS outage is currently impacting our iRobot Home App," it said.

"Please know that our team is aware and monitoring the situation and hope to get the app back online soon."



# MEDIA NORMING + FILTERS + HABITS + SHAPING BEHAVIORS GLOBALLY

## Corporate Fitness Trackers

### Do you want your company to know how fit you are?

By Emily Young  
BBC News

17 July 2015 | Business



"I'm a big fan of finding reasons to get up once in a while and walk around a bit," says Blake Menezes.

He works as a social media strategist at the US software firm Autodesk and is taking part in a company-led health challenge.

Staff teams equipped with pedometers are competing to see who can achieve the most steps over 100 days.

"Having that pedometer does illustrate quite clearly how active you are... and it makes you walk," Blake says.

And the benefits are immediate, says colleague Clay Helm, the firm's PR director: "I'm a lot more productive and less stressed. Sometimes your best

#### Technology of Business

Could Vietnam become the next Silicon Valley?

The tech giving people power to deal with disability

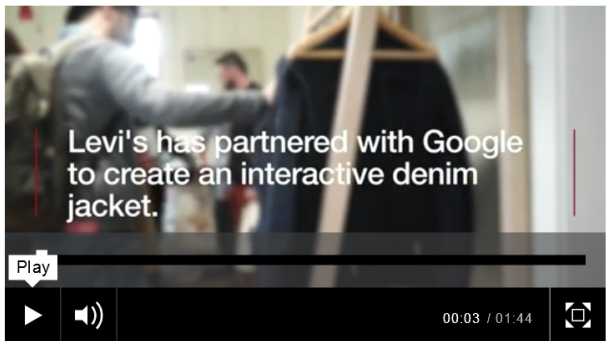
Toilet tech proves that where there's muck there's brass

How blockchain tech could change the way we do business

- ### Businesses in Taiwan tackles weight

## NEWS

Home | Video | World | US & Canada | UK | Business | Tech | Science



### Hands-on with the jacket with Google woven in

14 March 2017 Last updated at 01:00 GMT

A partnership between Levi's and Google has yielded the Jacquard, a denim jacket with technology woven into the fabric.

Once paired to a smartphone via Bluetooth, the jacket allows the wearer to control key functions with just a brush or tap of the cuff. A double tap with two fingers, for example, starts or stops music.

The BBC's North America technology reporter Dave Lee tried it on for size.

Follow Dave Lee on Twitter [@DaveLeeBBC](#)

### IBM and Apple want to share how you are with others

By Dan Simmons  
Technology reporter

14 April 2015 | Technology



Watson Health tries to make sense of health data from smartphones and fitness trackers

IBM has launched a health unit to make sense of the wealth of data created by the boom in fitness trackers and apps.

Watson Health aims to create "a secure, cloud-based data sharing hub" that can feed analytic technologies, it said.

It could provide diagnoses or health alerts which could also be sent to doctors, carers, or insurers for example, with the user's permission.

IBM has teamed up with Apple and wants to launch "new employee health and wellness management solutions".

The company says it is buying two firms to help with its goal: **Explorys** which has one of the largest healthcare databases in the world and **Phytel** that works with

# “Smart” watches?

## Fitbit recalls Ionic watch following skin burns

🕒 4 days ago



REUTERS

| Fitbit said the battery in its Ionic watch could overheat

**Fitbit has recalled one of its fitness-tracking smartwatches due to the risk of it overheating and burning people.**

The company, now owned by Google, said it had issued a voluntary recall of the Fitbit Ionic watch.

# MEDIA NORMING + FILTERS + HABITS + SHAPING BEHAVIORS GLOBALLY

Health

## Millennials 'set to be fattest generation'

🕒 26 February 2018

f t m e Share



**UK millennials are on track to be the most overweight generation since records began, health experts say.**

Based on population trends, more than seven in every 10 people born between the early 1980s and mid-90s will be too fat by the time they reach middle age.

In comparison, about half of the "baby boomer" generation, born just after World War Two, were fat at that age.

Being fat as an adult is linked to 13 different types of cancer, says Cancer Research UK, who did the analysis.

## Smartphone use falls among young for first time

By Rebecca Marston  
Business reporter, BBC News

🕒 30 October 2017

f t m e Share



June King is in almost constant contact with her phone

### Are we seeing the start of peak phone?

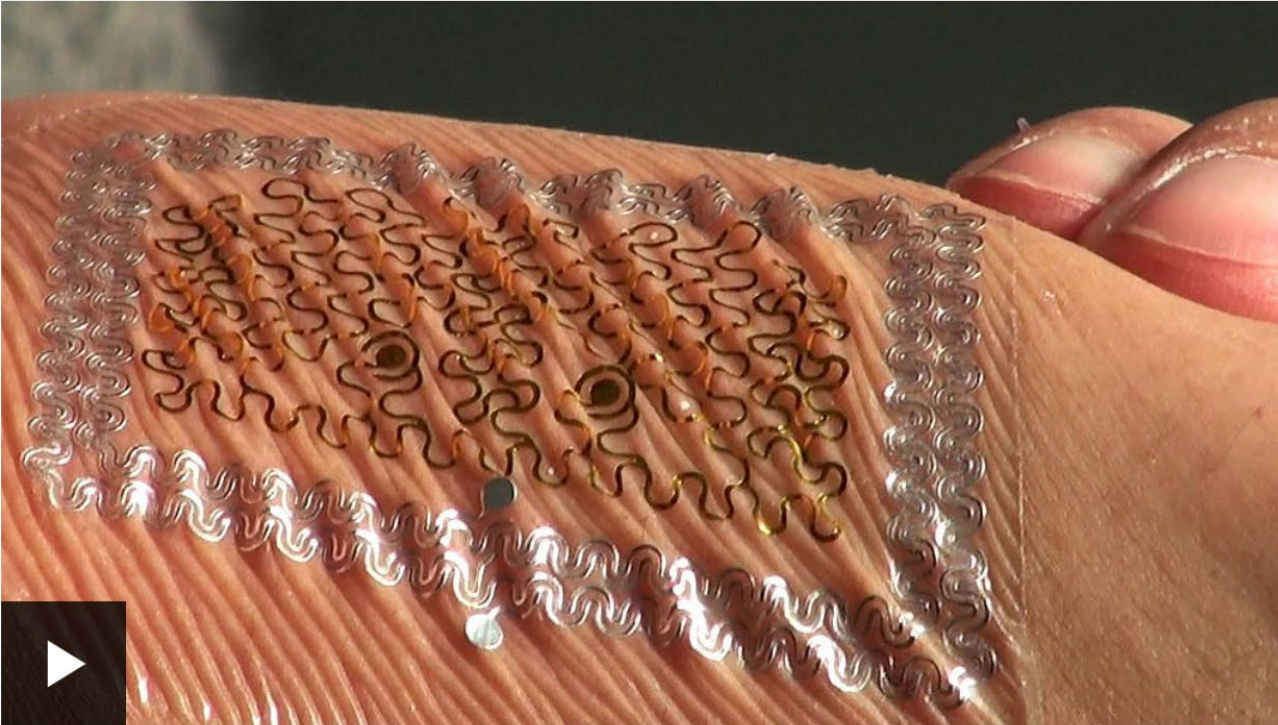
For the first time, young people in the UK aged between 16 to 24 are spending slightly less time on their smart devices, according to a report.

**Market researcher Kantar TNS** found that those within that group now spent an average of 3.8 hours on their phones a day down from 3.9 hours last year.



# Growing & Norming New Media/Symbol Technologies

## Graphene Tattoo and YOUR Health?



### How a graphene tattoo could monitor your health

A graphene-based tattoo that could function as a wearable electronic device to monitor health has been developed at the University of Texas.

Gold is often used in electronic components, but graphene is more conductive, can be hundreds of times thinner and allows the tattoo to wrinkle naturally with skin.

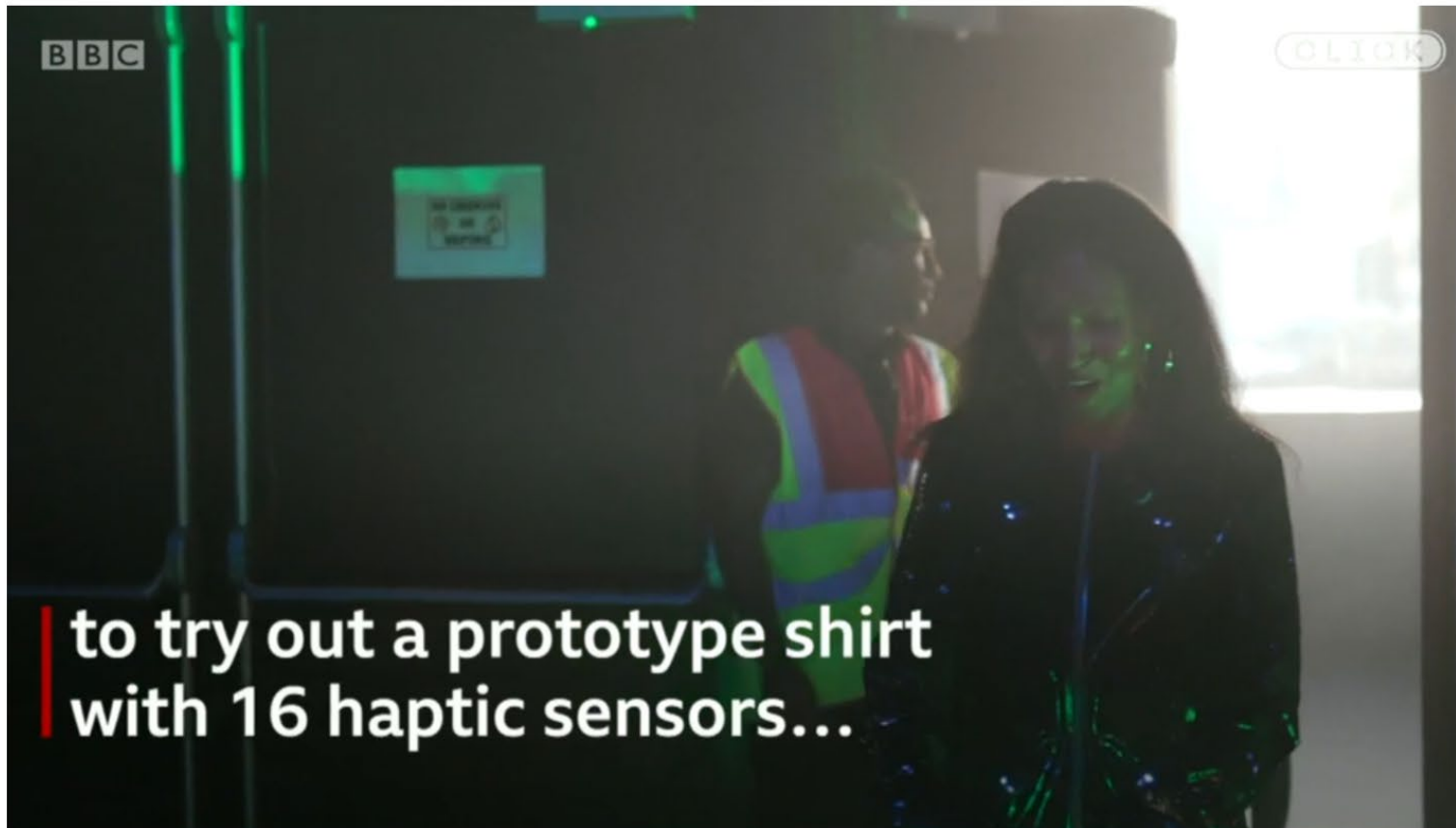
It is hoped that as the cost of graphene falls, such tattoos will become affordable for medical use.

See more at [Click's website](#) and [@BBCClick](#).

🕒 25 Oct 2017

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# Fashion that lets you feel music



## The fashion that lets you feel music

Twin bloggers Hermon and Heroda lost their hearing when they were children but new clothing using haptic sensors means they can enjoy a night out dancing to music.

Special software captures the music, interprets it and then transforms it into touch data which is sent wirelessly to their shirts.

BBC Click finds out more.

See more at [Click's website](#) and [@BBCClick](#)

🕒 03 Oct 2019

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# Growing & Norming New Media/Symbol Technologies

## BodyHack Conference - Austin Texas



### The bodyhackers enhancing the human form

Would you add new body parts or change what your limbs were capable of doing, if you were given the choice?

The BBC's Dave Lee visited Austin, Texas to meet the biohackers determined to push the human body - and the law - into new territory.

🕒 08 Feb 2018 | Technology



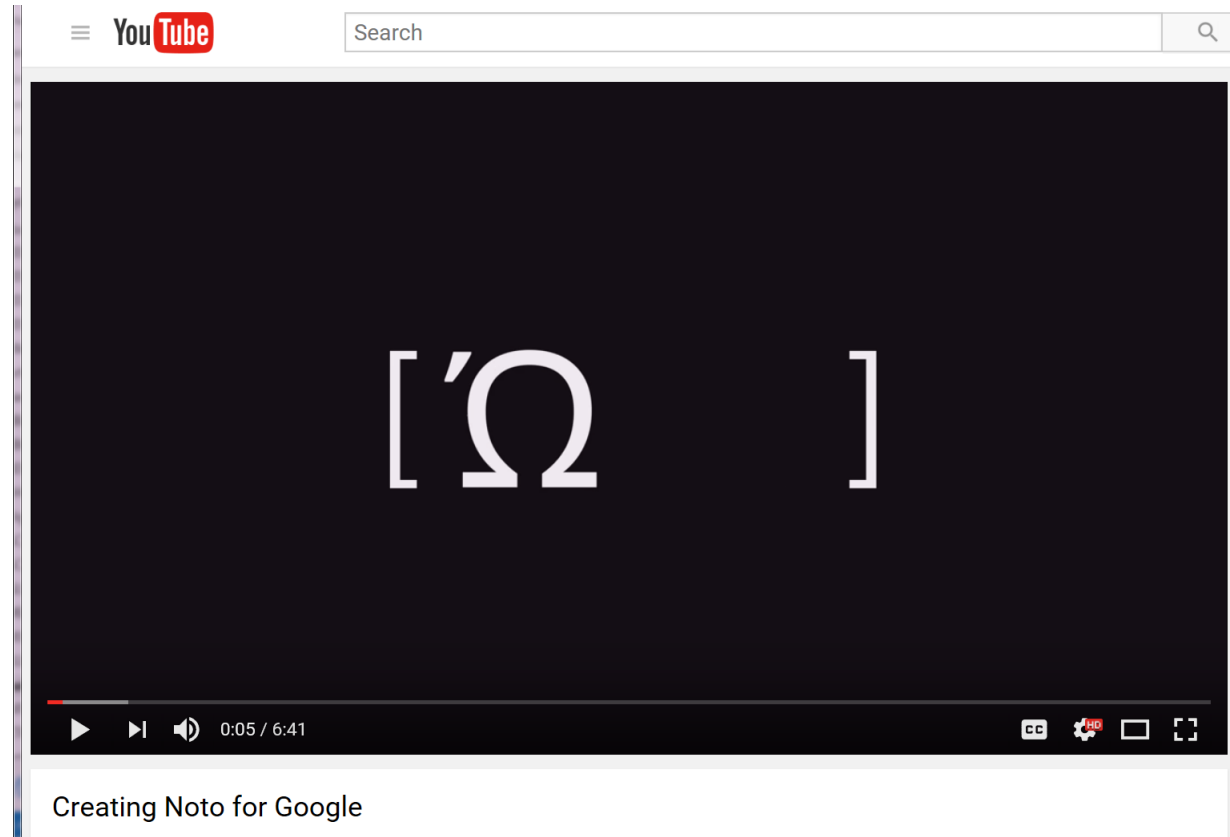
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# STAGES OF NEW MEDIA/COMMUNICATION TECHNOLOGY as “NORMED FILTERS”

1. NEW COM TECH DEVELOPED →
2. EARLY ADOPTION →
3. MASS USE →
4. NORMALIZED →
5. RITUALIZED USE ACROSS ASPECTS OF LIFE (INVISIBLE & LARGELY UNQUESTIONED) →
6. HABITS OF MIND/PERCEPTUAL DOGMA (“IT JUST IS HOW I/WE LIVE OUR LIVES.” (FILTER BUBBLES)
7. IMMOBILITY and INABILITY TO SEE ANYTHING DIFFERENT

# Google's Noto



[https://www.youtube.com/watch?v=16\\_NYHUZ1kM](https://www.youtube.com/watch?v=16_NYHUZ1kM)



# Key Idea: Dominant Media TECHNOLOGIES (DMTs) within a Society

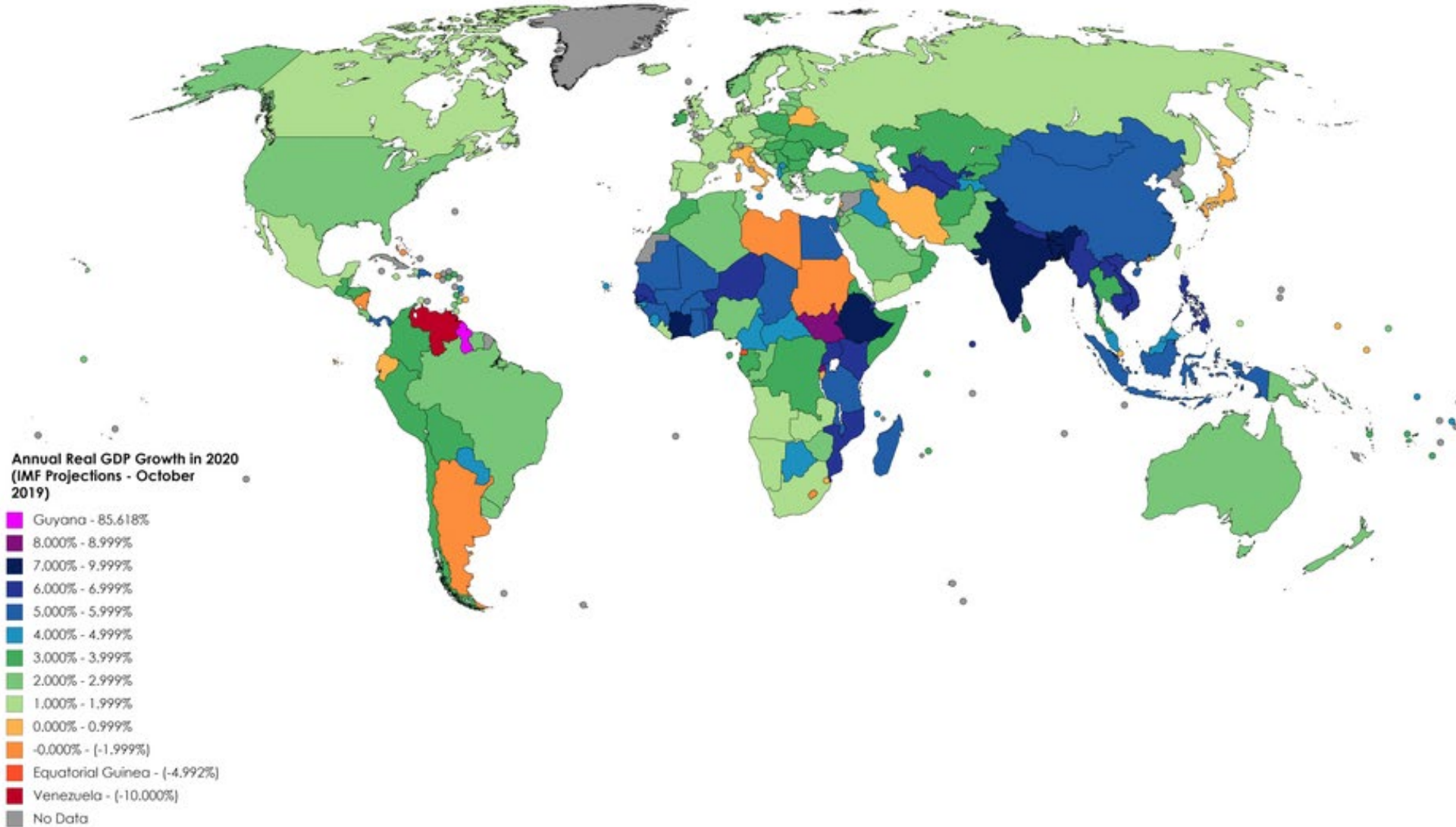
Every culture, nation, or empire relies upon a small set of **DOMINANT MEDIA Techniques** and/or **INFORMATION TECHNOLOGIES (DMTs)** through which essential elements of information are communicated to that culture.

- ✓ **The Dominant Media/Information TECHNOLOGY (DMT)** = Is one that **the MAJORITY** of mainstream people in a society uses and/or **relies upon** regularly to **stay “CONNECTED”** to their dominant culture.
- ✓ **The DMT** is the media source that the MAJOR messages (political, economic, social) must conform to in order to reach a critical portion of a society's mass audience.
- ✓ The DMTs are the MAJOR **culture PRODUCERS or PROVIDERS** in a society. (Trends, Info, Identity, Knowledge, Fashion, Politics, etc.)
- ✓ **Cultural/Political/Economic POWER.** Those who control and/or best manipulate a DMT are the groups which control informational power in a society.
  - ✓ The **DMT** can **vary widely** between cultures (Japan vs. Mali) and within cultures (**Urban vs. Rural**).
  - ✓ **Competition vs. Change**-There is a constant **competition between media** forms going on all of the time in every society over which will deliver important information to the masses. However. the DMT in a culture does NOT shift very quickly.

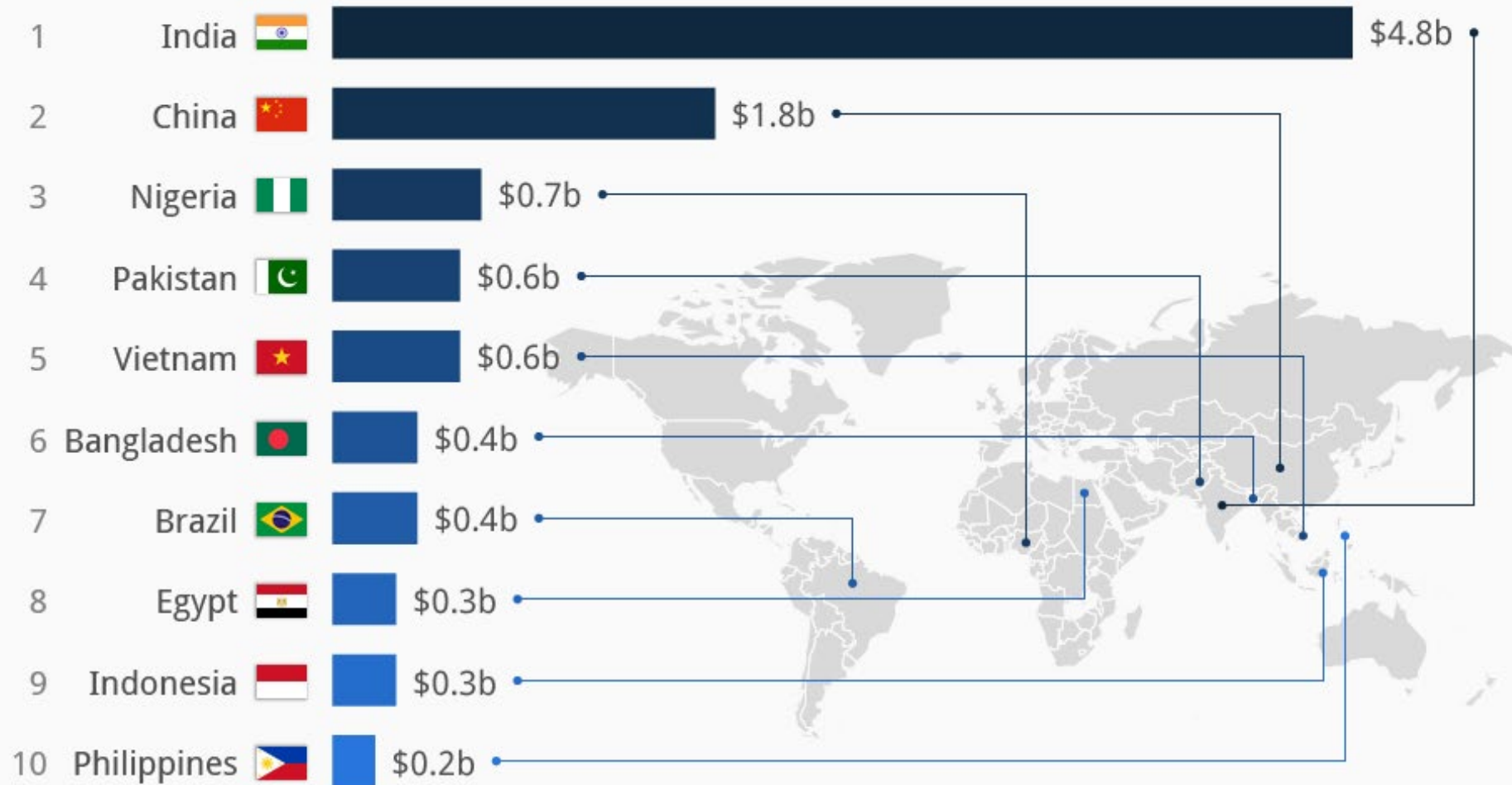


# Emerging Markets 2020+

## GDP Economic growth rates



# Global Media Technology Growth




# THE NEW DRONES... AND THE NEW PARADIGM (ZIPLINE - MARK ROBER)

- [Amazing Invention](#)  
[This Drone Will Change Everything](#)  
– [YouTube](#)


YouTube

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2:38 / 21:31

Amazing Invention- This Drone Will Change Everything

Mark Rober  23.6M subscribers

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758K

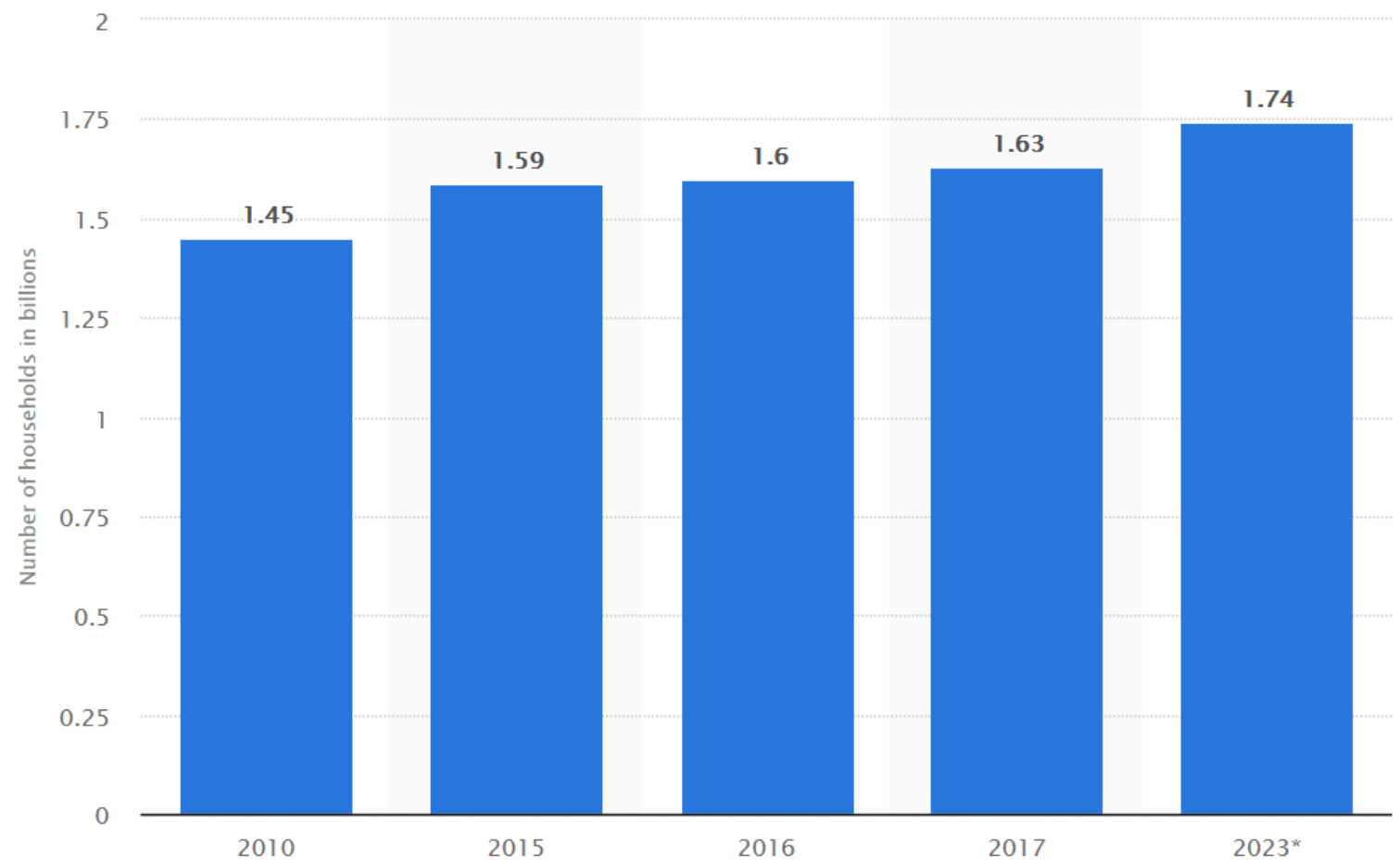
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Thanks



# Number of TV households worldwide from 2010 to 2023 (in billions)



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SETTING



PNG



PDF

CITATION [\(FAQ\)](#)

Select citation

DESCRIPTION

SOURCE

The timeline presents households worldwide in 2017, as well as a forecast for 2023, up from 1.63 billion in 2017. In 2017, there were 119.6 million TV households in the United States in the 2017 to 2023 period.

# Netflix & YouTube

## Global Bandwidth Use

- Netflix = 15% of ALL global internet Traffic!
- YouTube = 11.4% of ALL global internet Traffic!
- TOTAL = 26%
- All other web browsing = 7.8%

Technology

## Netflix viewing eats up world's data

By Jane Wakefield  
Technology reporter

🕒 4 October 2018 | 📄 98

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Video streaming service Netflix is the world's most data-hungry application, consuming 15% of global net traffic, according to research from bandwidth management company Sandvine.

Video in general accounts for more than half of net traffic, it suggests.

Other media streaming such as embedded video on websites accounts for 13.1%, YouTube, 11.4% and web browsing, 7.8%.

The report also found that gaming and file-sharing are becoming a significant force in traffic volume.

# Netflix Goes Global

- **2015/16/17** NETFLIX becomes “available” WORLDWIDE!

- ▷ The FIRST LEGITIMATE GLOBAL TV PROVIDER
- ▷ “Available” in 190 countries (not China, Syria)
- ▷ Streaming BANDWIDTH
- ▷ Mostly Cities and wealthy urban areas
- ▷ Tourist Centers and Hotel Districts

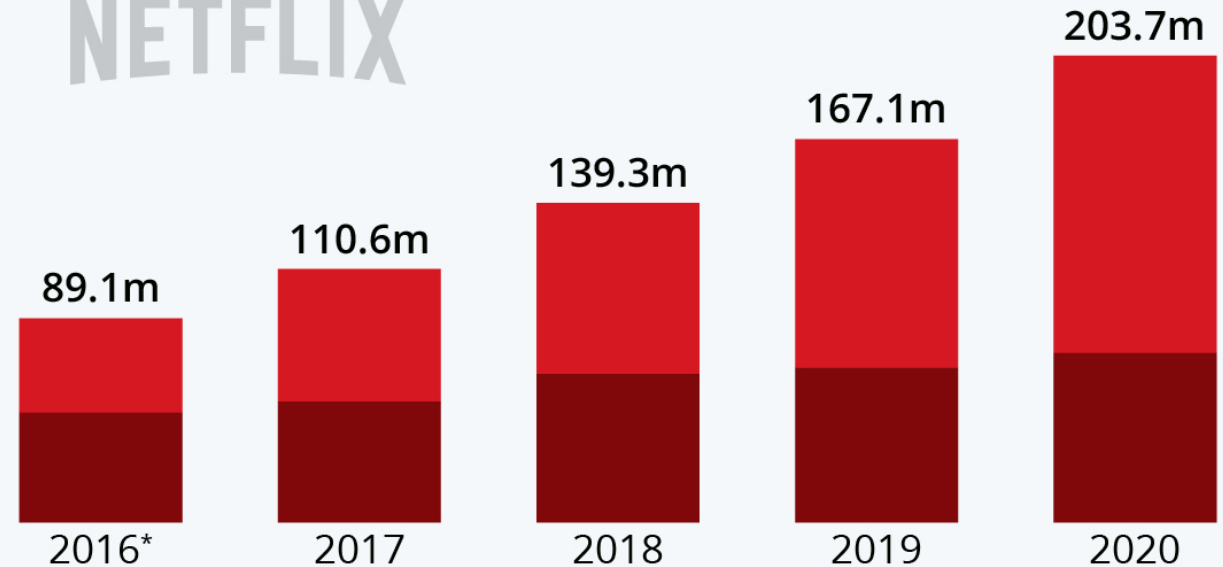


## Netflix Passes 200 Million Milestone

Number of paid Netflix subscribers worldwide at the end of the respective year

■ U.S. & Canada ■ International

NETFLIX



\* Until 2016, Canadian subscribers were included in the international segment

Source: Netflix





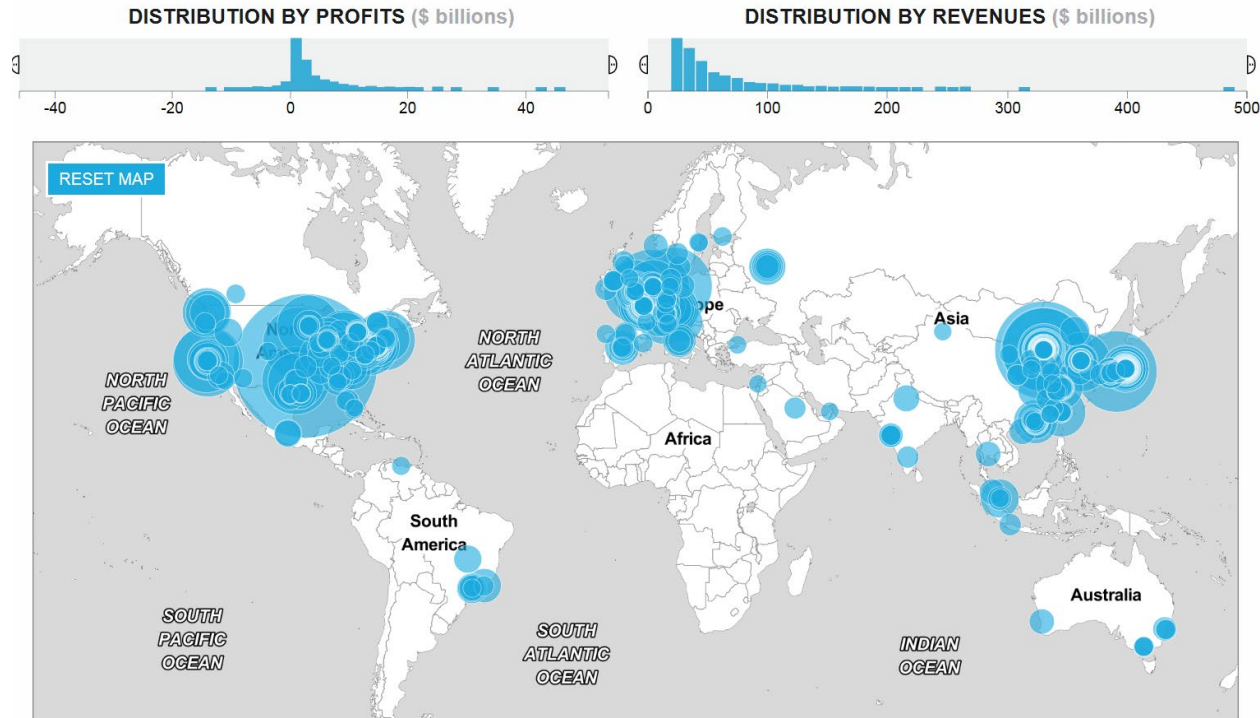
# Innis - Key Idea: Knowledge MONOPOLIES

- Every culture or nation develops an elite set of **KNOWLEDGE MONOPOLIES** which have **TREMENDOUS POWER** over **ALL information flows**, technology development/adoption, and **CULTURE EVOLUTION**.

- **Knowledge Monopolies** = Usually a small group of people who have harnessed the **SKILLS** and have the **ECONOMIC clout** necessary to use and gain **EXCLUSIVE CONTROL** over the development and evolution of a society's dominant communication or information technologies/systems.
- **Agenda Setting**: Those knowledge monopolies continually try to shape at least three areas in your life:
  - What you do with your time! How you think about time.
  - Your **prioritization** of self, society, and others.
  - What kinds of information you do **or don't** receive (filters), and
  - **EPISTEMOLOGICAL**. HOW you think about events, people, places, LIFE itself.
- **Culture Creators/Shapers**: Knowledge Monopolies are the primary creators and communicators of culture as a “product.” They tell us about what our culture is and then sell us the products/ideas associated with that cultural notion.
- **CURRENT KNOWLEDGE MONOPOLIES?**

## Mapping the Global 500

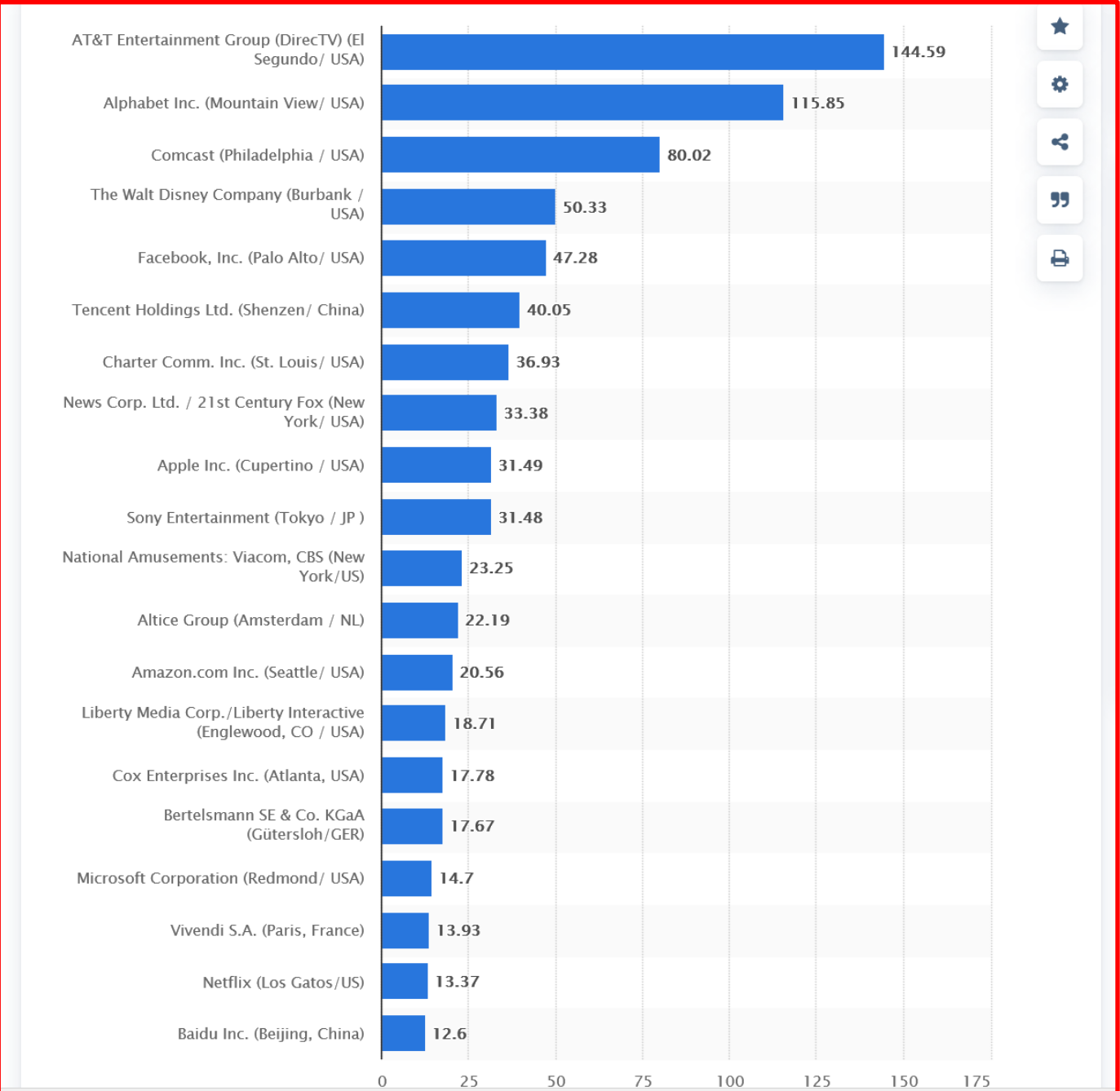
Each circle on the map points to the location of a company headquarters; and the circle's size represents company revenue. Zoom in by double-clicking on the map to explore company locations and hover over the circles for more information.



500 COMPANIES DISPLAYED

Map tiles by Stamen - Design by Nicolas Rapp for Fortune

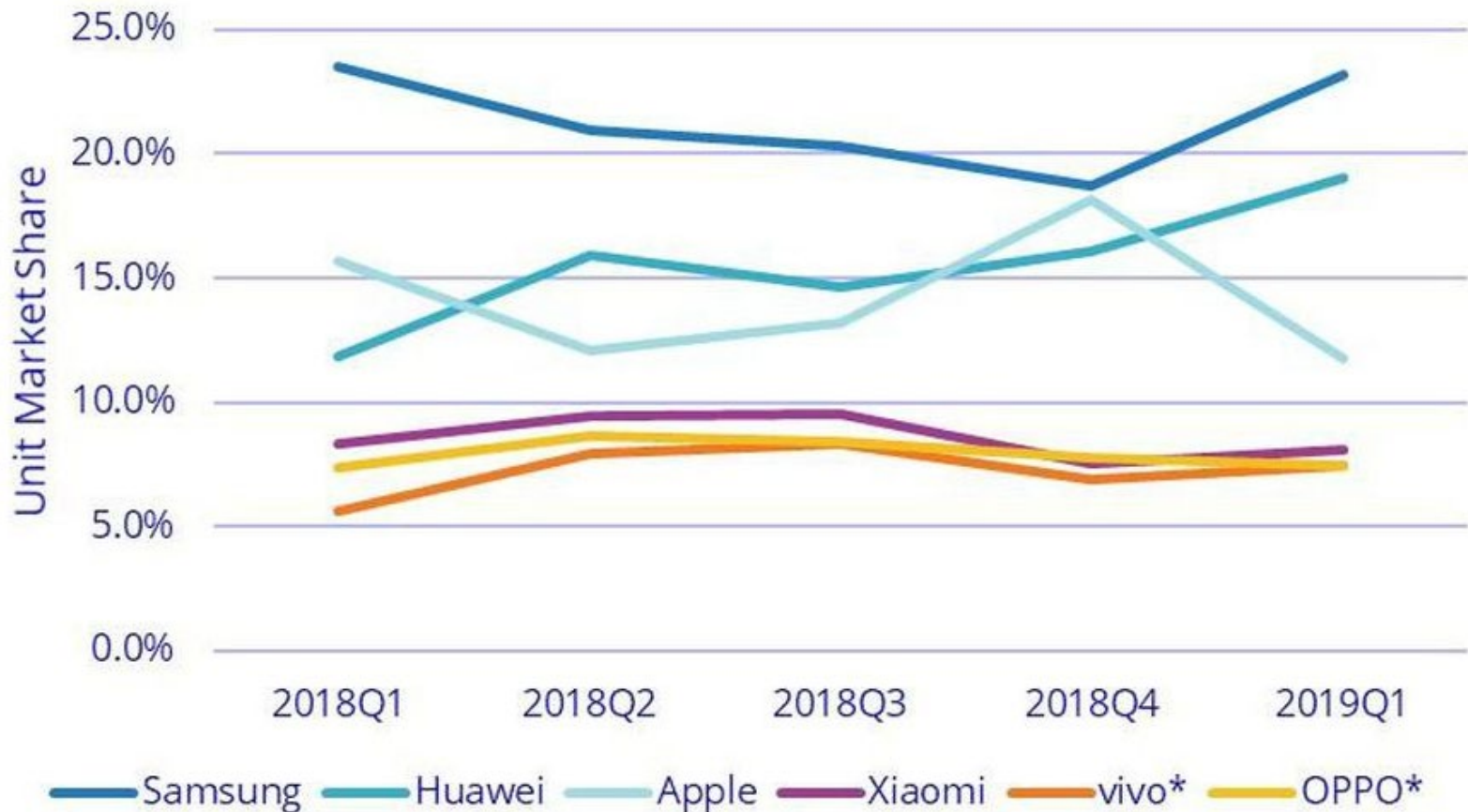
# Worlds Largest Media Corporations



# Global Smartphone Market

Worldwide Top 5 Smartphone Companies,  
2019Q1 Unit Market Share

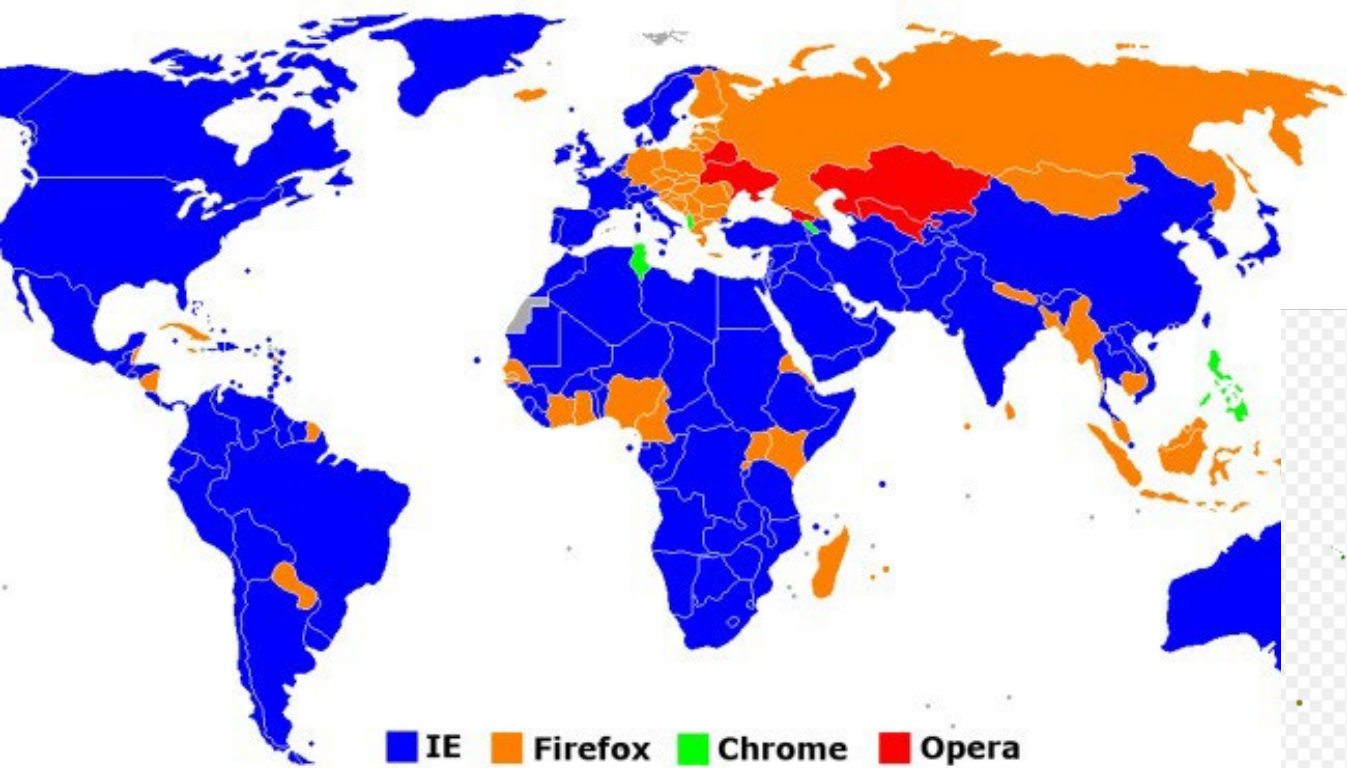
**Samsung –Korean**  
**Apple- U.S.**  
**Huawei- Chinese**  
**Oppo-Chinese**  
**Vivo-Chinese**  
**Xiaomi-Chinese**  
**LG-South Korea**



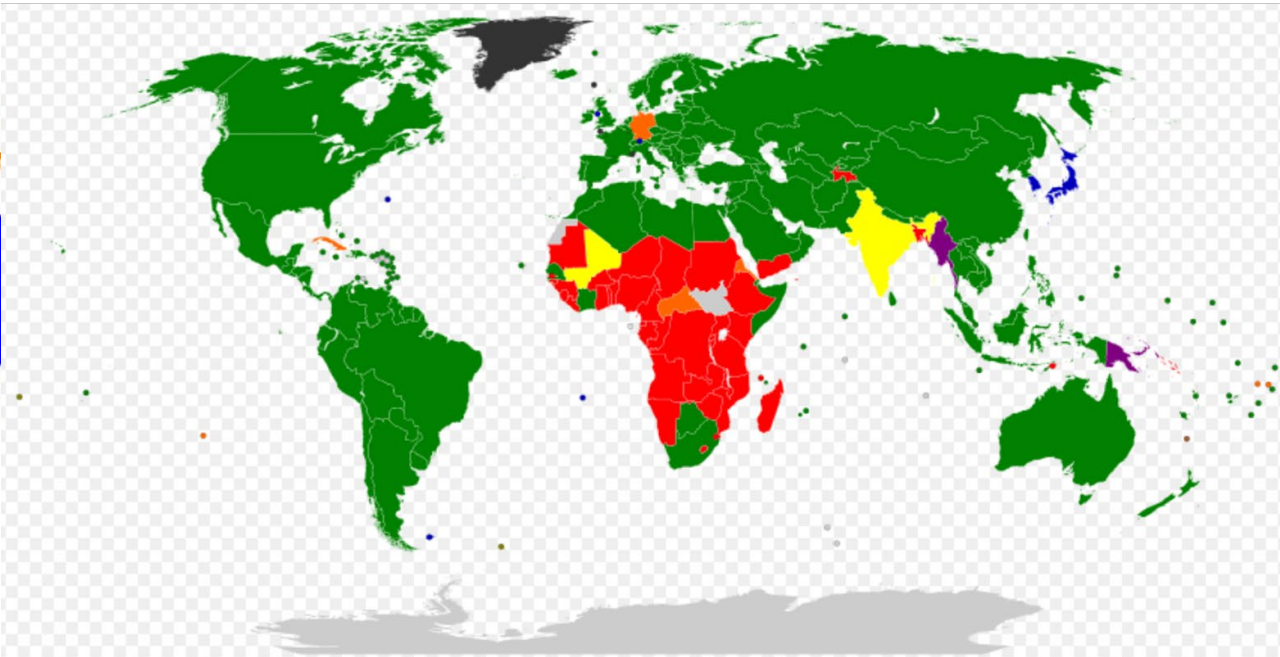


MEDIA NORMING + FILTERS + HABITS + SHAPING BEHAVIORS GLOBALLY

BROWSER DOMINANCE ~2009

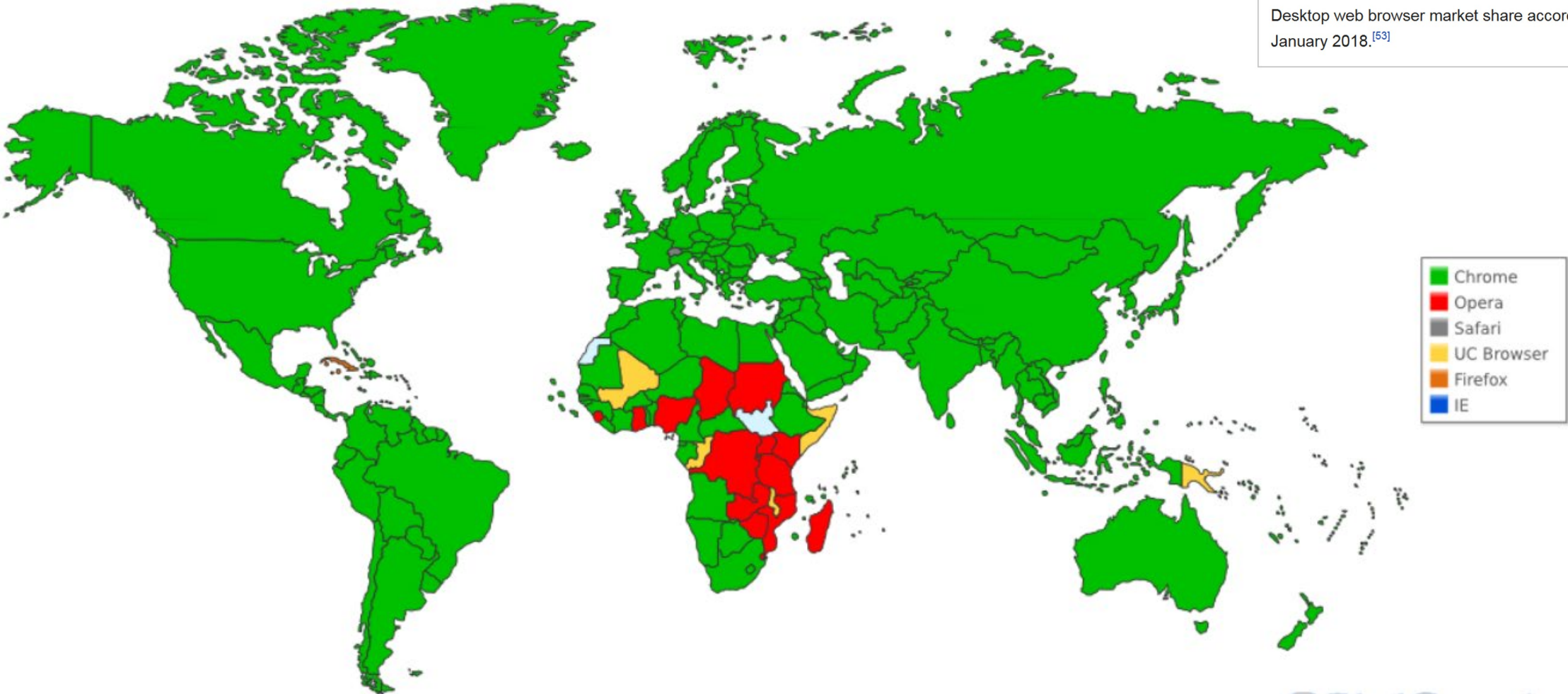
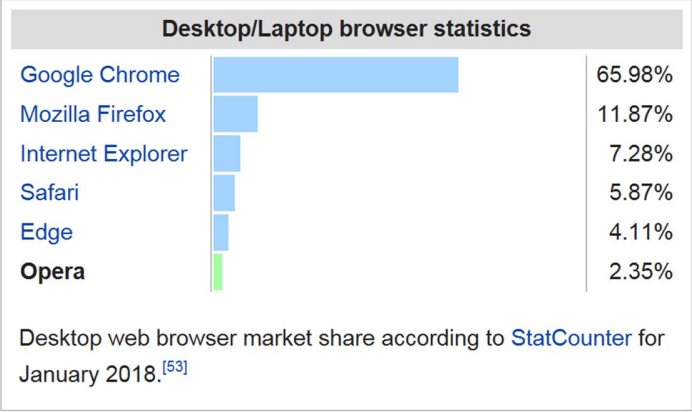


BROWSER DOMINANCE 2015

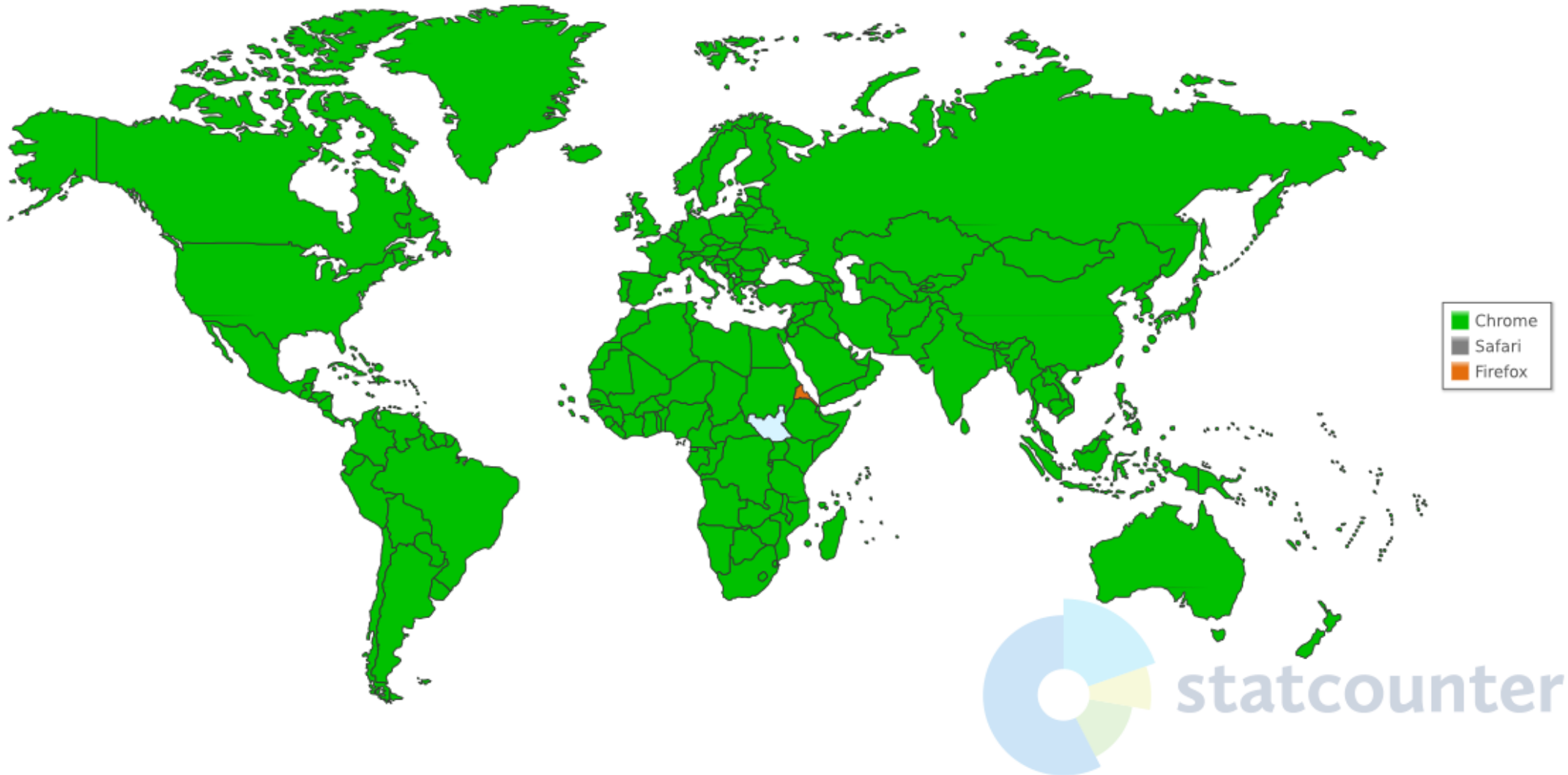


Most used web browser by country as of June 2015, before the launch of Microsoft Edge.[1] Google Chrome Firefox Safari UC Browser Iron Internet Explorer Opera Android Browser Phantom

# Browser Dominance July 2018



# Browser Dominance SEPT 2020

StatCounter Global Stats  
Browser Market Share Worldwide, Sept 2020



# Innis' Fears -- Generalizing his historical ideas to "modern" society.

→ **Major Historical Trend #1:** Modern society has become **technologically obsessed** and reliant upon technologies to communicate to such a degree that we are becoming increasingly **TECHNOLOGICALLY DETERMINED**. We equate human progress with Technological Progress. ([chat bots article](#))



→ **Major Historical Trend #2:** Modern civilizations have increasingly developed and have become **addicted to** more and more **SPACE-BIASED MEDIA**.

- With these space biased media, nearly all of our CULTURAL VALUES have changed accordingly--with **SPEED of communication** over QUALITY of communication, and **EFFICIENCY** over depth or meaning.



→ **Major Historical Trend #3:** **Myth of the Information Revolution** (Speed, Efficiency, and Volume over Quality of communication) --We tend to concentrate on how much information (Volume) we get **RATHER** than whether it is meaningful, useful, or QUALITY information which will help us make a difference in how we can act/interact with others.



