# Technology Trends (Cyber) Crime, Security & Warfare

Center for Learning in Retirement

CLR Fall 2020

Glen Maxson & Alan Freedman

Week 5

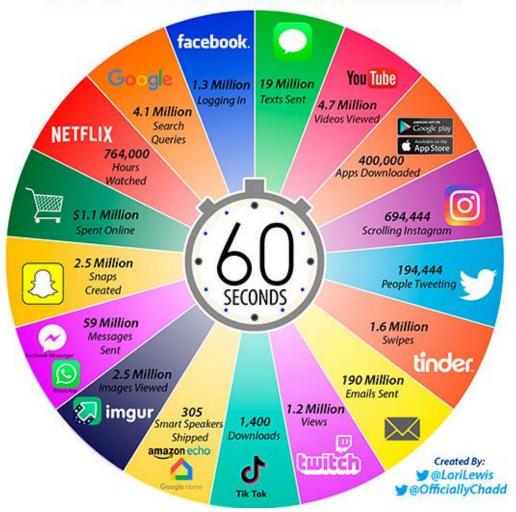
## The What

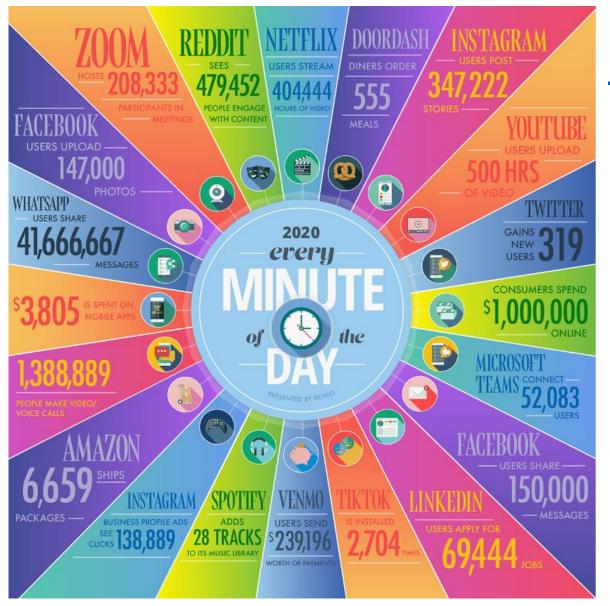
- Artificial Intelligence & Machine Learning
- Robots & Drones
- Autonomous Transportation Systems
- Surveillance
- (Cyber) Crime, Security & Warfare
- Medical Tech
- Media (incl. Social Media)
- (Virtual) Money & Blockchain
- Communication
- Earth & Sky
- Space

## 60 Seconds

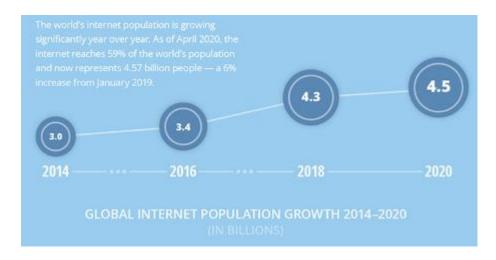
# 2020 This Is What Happens In An Internet Minute

## Source



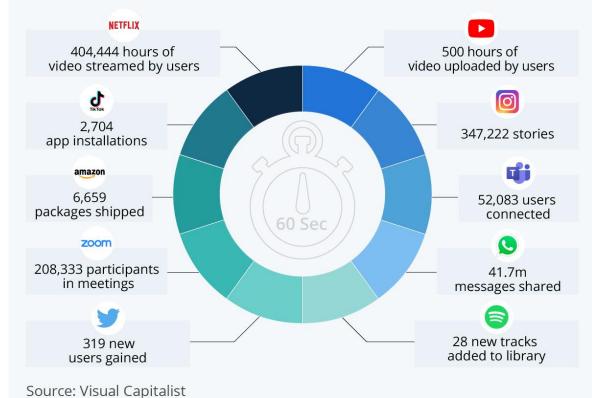


## Source



# A Minute on the Internet in 2020 Source

Estimated amount of data created on the internet in one minute













# A New Documentary...



# Governments don't understand cyber warfare. - Rodrigo Bijou, TED Talks (9.5 min)



# Governments don't understand cyber warfare. - Rodrigo Bijou, TED Talks

- Conflict is borderless individuals, private organizations have advantage over military and intelligence agencies
- Global threat landscape 2013-14 Cyber as top threat
- Image weaponized 6 days to deploy a global malware campaign
  - Offline attacks appropriated for online hacks
  - Online recruitment for offline attacks
- What can individuals, organizations, and governments do?
  - Peer to peer security individuals have more power than ever before
  - Organizations can act across boarders more effectively than governments
  - Governments inability to adapt and learn, but mission to 'keep us safe'
- "Governments need to give up power and control to make us secure"

# Cyberwar | Amy Zegart | TEDxStanford (9.5 min)



# Cyberwar | Amy Zegart | TEDxStanford

- Sony attack by N. Korea response to pending movie release
- National Security and Cyber Threats
  - Today's threat environment complicated and changing quickly
  - Cyber threat now at the top of the list, including
    - Theft of intellectual property economic competitiveness
    - Massive disruption of our way of life
    - Degrade/disable/destroy our nation's military ability to defend itself
  - Cyber threats today
    - US is most powerful and most vulnerable (most connected)
    - Government cannot go it alone (85% of infrastructure operated by private actors)
    - Huge attack surface (no safe neighborhoods, by design) growth, IoT, code vulnerabilities
    - Victims don't know that they're victims hard to detect, DoD not immune
    - Warning and decision warning time before and response after attack

## Discussion

- Does this 'emerging' technology' have the potential to benefit everyone equally?
- What are its risks and rewards?
- Does it promote autonomy (self-determination) or dependence?

#### **Election fraud**

- Political campaigning in the digital age: Lucian Despoiu at ... YouTube
- Now the Internet is changing politics Vinay Nayak
- How the Network destroyed democracy Lawrence Lessig

#### Global implications - elections

- The impact of Russian interference on Germany's 2017 elections video
- How Russia hacked the French election
- This Is What It Looks Like When Russia Really Wants to Mess With Your Election
- How Russia Hacks Elections in the US and Around the World | WIRED
- Russian hacking and the US election: Why it matters, what it means ...
- Stealing Elections Is All in the Game Foreign Policy
- Russia, Trump, and the 2016 U.S. Election
- FAQs on Russian Hacking and the American Election The Atlantic
- The key findings from the US intelligence report on the Russia hack ...
- Why would Russia interfere in the U.S. election? Because it ...
- Russian Hacking and Influence in the US Election The New York Times
- CIA: Russia will try to influence US midterm elections | News | Al Jazeera

### Global implications - hacking

- Cyber crime is a threat to global economy, says researcher
- The economic implications of cyberattacks | Global Risk Insights
- globalEDGE Blog: The Effects of Cybercrime on the Global Economy ...
- ETHICAL HACKING: AN IMPACT ON SOCIETY (PDF Download ...
- A Hacker's Guide to Destroying the Global Economy | Institutional ...
- Hacking; dangerous effects on the society UK Essays (good outline)
- Study: Hackers Cost More Than \$445 Billion Annually | National News ...
- Hacking | Economist World News, Politics, Economics, Business ...
- The Donald's dirty linen

### Global implications – cybercrime

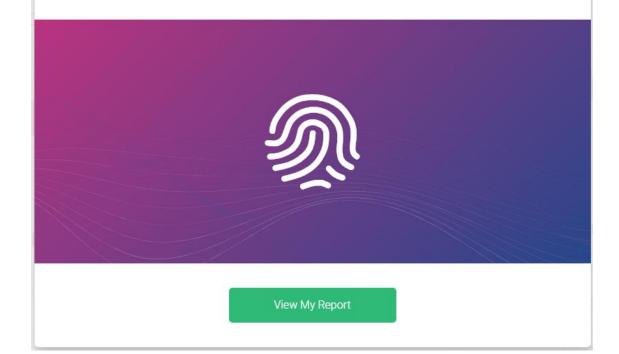
- Infographic: The Global Impact of Cyber Crime | CyberScout
- globalEDGE Blog: The Effects of Cybercrime on the Global Economy ...
- How International Cyber Crime Affects Global Relations (good)
- [PDF]The Economic Impact of Cybercrime and Cyber ... Amazon AWS
- The cultural impact of cyber crime | Blouin News
- The global impact of huge cyber security events Help Net Security
- [PDF]The Growing Global Threat of Economic and Cyber Crime
- Cybercrime An emergent global phenomenon with implications for ...
- Defining the Cybersecurity Challenge of the 21st Century NBC News (video)

# Cyberwarfare Resources

- Governments don't understand cyber warfare. We need ... TED Talks (good)
- Chris Domas: The 1s and 0s behind cyber warfare | TED Talk
- Cyberwar | Amy Zegart | TEDxStanford YouTube (outline good)
- Defining cyberwarfare...in hopes of preventing it Daniel Garrie ...
- Businesses Face Alarming Cybersecurity Skills Shortage
- Everything You Want to Know About Ransomware (But Are Afraid to Ask)

#### Your Dark Web Scan Report Is Ready

You can now review it to see if we found your info on the Dark Web



#### Free Dark Web Internet Surveillance Report

We looked back to 2006 and found 4 records exposed on the Dark Web.

What is Dark Web Internet Surveillance? <

#### Expand All

| Email Address | ▲ Compromised | ~ |
|---------------|---------------|---|
| Email Address | ▲ Compromised | ~ |
| Email Address | ▲ Compromised | ~ |
| Email Address | ▲ Compromised | ~ |
| Phone Number  | ✔ All Clear   | ~ |

Your email address has been found online. This may indicate possible identity theft.

Email Address: g\*\*\*\*\*\*\*\*@gmail.com

Password: \*\*\*\*\*\*\*\*\*\*\* ①

Potential Site: www.adobe.com

#### What is the risk?

Identity thieves can use your email address, or take it over for fraudulent purposes. This information can be used to create a false identity to "prove" who they are and access your accounts that use email as the User ID. Email accounts can be taken over by resetting your password via email. It is also another piece of information to help them build a false identity that can be used to establish new accounts and purchase merchandise online.

#### What should you do now?

#### 1. Change Your Passwords

If you reuse a password on multiple sites, your online accounts may be more vulnerable to identity thieves. Create unique and strong passwords for your accounts utilizing a mix of special characters, upper and lower case letters and numbers.

#### 2. Activate Daily Dark Web Internet Surveillance

Your primary information was scanned but could be compromised in the future along with your other information, such as your driver's license, bank accounts and credit cards. We can help safeguard your identity with daily scans and more.

Upgrade Your Account Now

# Cybercrime

- Jamie Bartlett: How the mysterious dark net is going ... TED Talks
- The Dark Net isn't what you think. It's actually key to our **privacy** Alex ...

- Where is cybercrime really coming from? | Caleb Barlow
- <u>James Lyne: Everyday cybercrime -- and what you can do ... TED Talks</u>
- Mikko Hypponen: Three types of online attack | TED Talk
- Governments don't understand cyber warfare. We need hackers | Rodrigo Bijou
- Planning Responses and Defining Attacks in Cyberspace