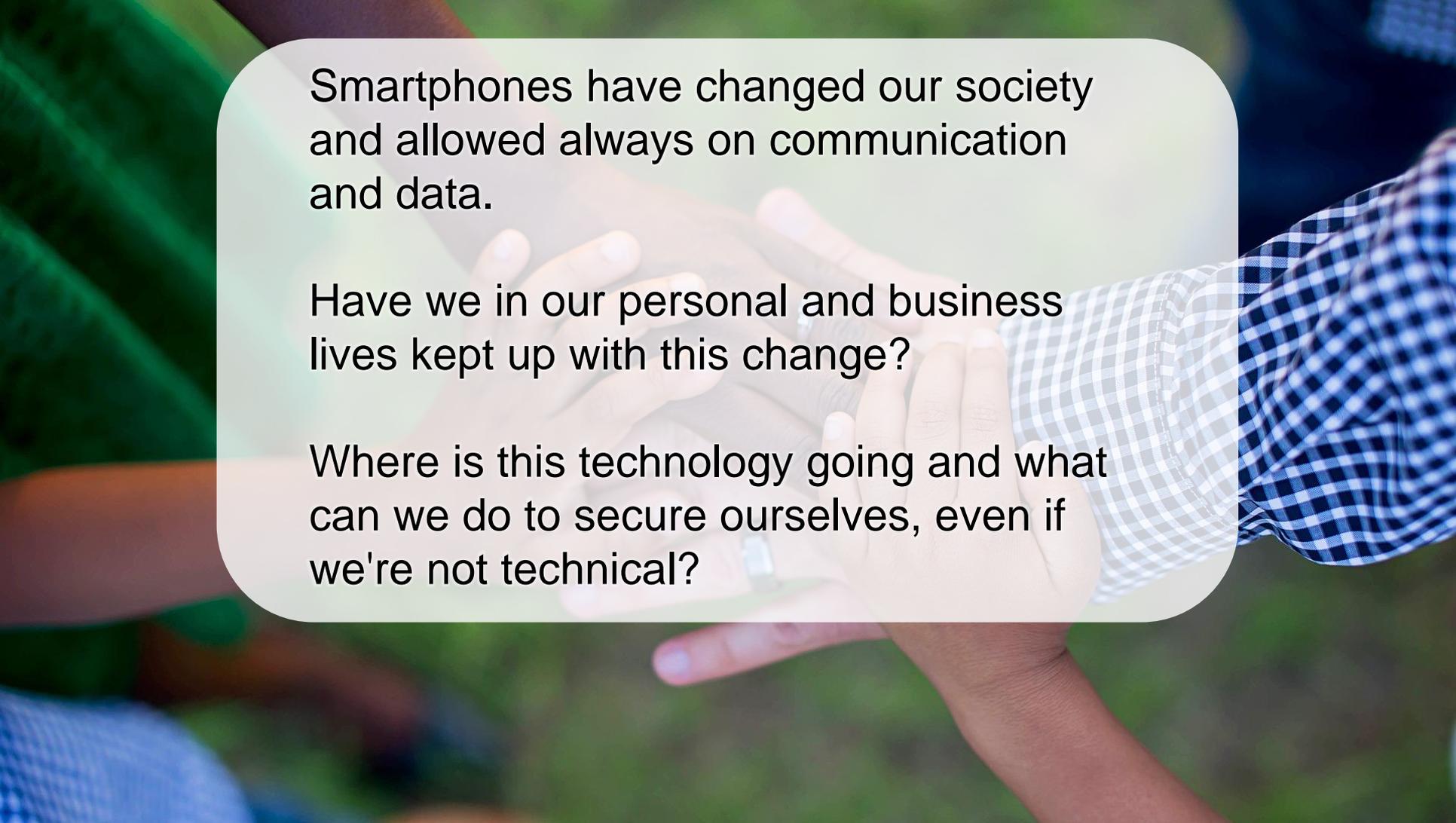


A person is shown from the back, holding a smartphone. The background is a soft, out-of-focus scene with warm, golden light, possibly from a sunset or sunrise. The person's hair is visible, and they are wearing a dark-colored top. The overall mood is calm and focused on the device.

# Smartphone Security What & Why

MJ Cook

A group of people are shown from the chest up, holding their hands together in a circle. They are wearing various colored shirts, including green, blue, and white. The background is a blurred green, suggesting an outdoor setting. The text is overlaid on a semi-transparent white rounded rectangle in the center of the image.

Smartphones have changed our society and allowed always on communication and data.

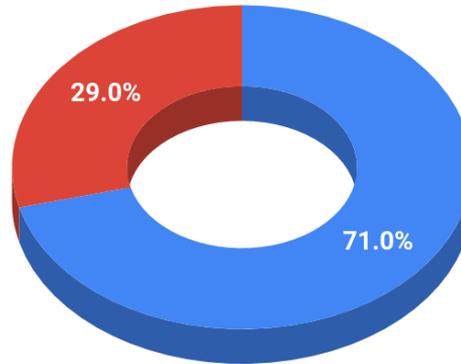
Have we in our personal and business lives kept up with this change?

Where is this technology going and what can we do to secure ourselves, even if we're not technical?

# Ubiquitous & Personal

## 2018 Smart Phone Use in Canada

Pew research centre



Source: Citrus Bits

● Adults in Canada Owning a Smartphone ● Dinosaur still roaming the earth

# Ubiquitous & Personal

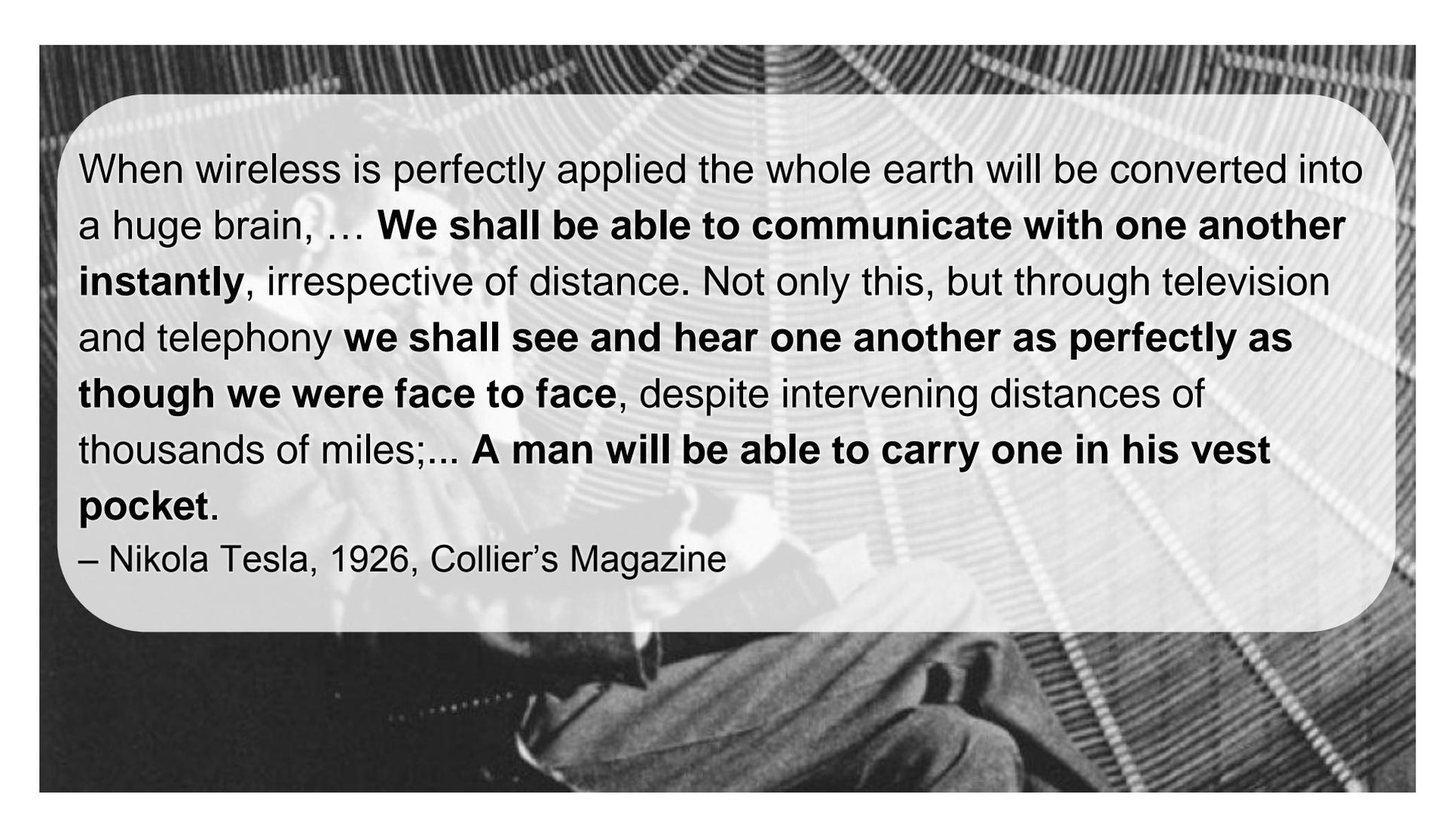
## 2018 Smart Phone Use in Canada

Pew research centre



● Adults in Canada Own a Mobile Phone

Source: Citrus Bits  
Dinosaurs still roaming the earth



When wireless is perfectly applied the whole earth will be converted into a huge brain, ... **We shall be able to communicate with one another instantly**, irrespective of distance. Not only this, but through television and telephony **we shall see and hear one another as perfectly as though we were face to face**, despite intervening distances of thousands of miles;... **A man will be able to carry one in his vest pocket.**

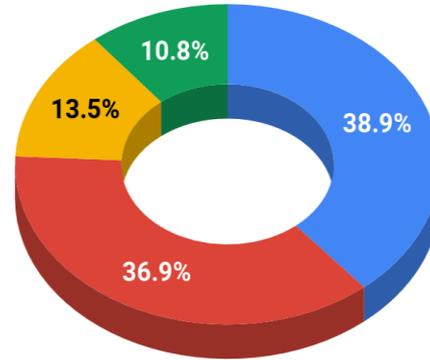
– Nikola Tesla, 1926, Collier's Magazine

Google Android has **38.9%** of the worldwide operating system market share

Microsoft Windows has **36.9%**

Apple has **13.45%**

Source: Marketingland, 2017



● Google ● Microsoft ● Apple ● Other

JAN  
2018

# SHARE OF WEB TRAFFIC BY DEVICE

BASED ON EACH DEVICE'S SHARE OF ALL WEB PAGES SERVED TO WEB BROWSERS

LAPTOPS &  
DESKTOPS



**43%**

YEAR-ON-YEAR CHANGE:

**-3%**

MOBILE  
PHONES



**52%**

YEAR-ON-YEAR CHANGE:

**+4%**

TABLET  
DEVICES



**4%**

YEAR-ON-YEAR CHANGE:

**-13%**

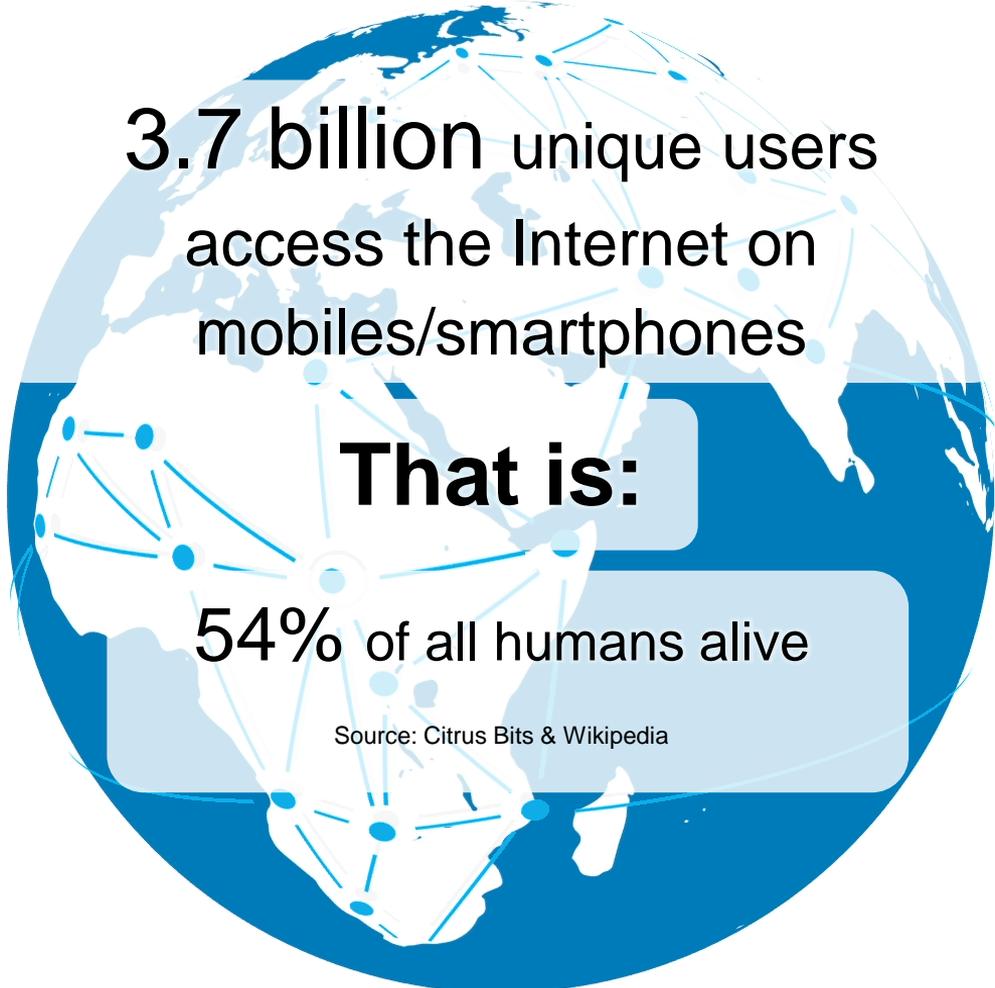
OTHER  
DEVICES



**0.14%**

YEAR-ON-YEAR CHANGE:

**+17%**



**3.7 billion** unique users  
access the Internet on  
mobiles/smartphones

**That is:**

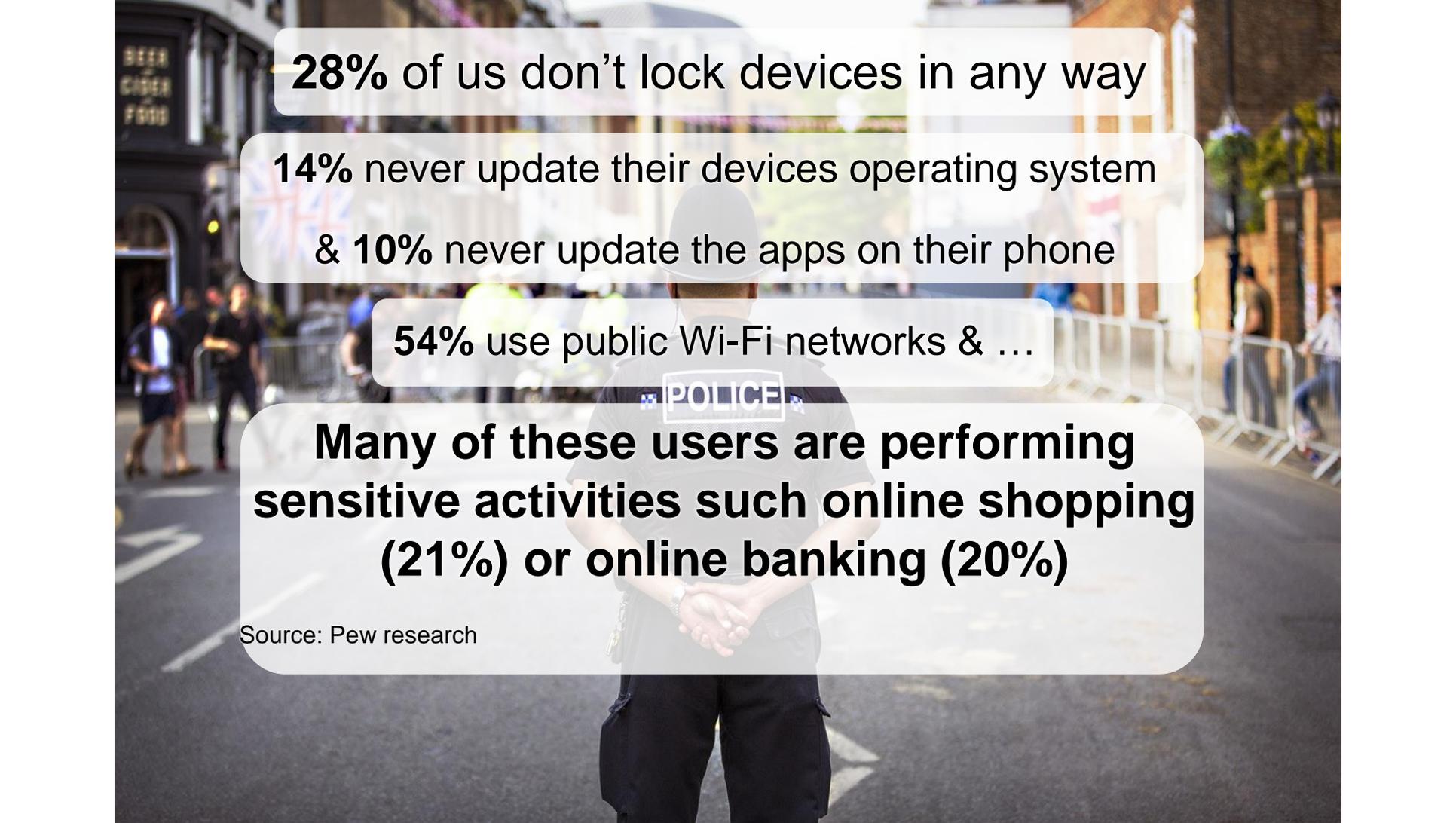
**54%** of all humans alive

Source: Citrus Bits & Wikipedia



We don't care enough about security on smartphones

- We don't use good enough authentication
- We don't configure devices to be secure
- We don't apply OS or App updates
- We happily connect to networks we don't know or trust



28% of us don't lock devices in any way

14% never update their devices operating system  
& 10% never update the apps on their phone

54% use public Wi-Fi networks & ...

**Many of these users are performing sensitive activities such online shopping (21%) or online banking (20%)**

Source: Pew research



**More than 1,300 apps per day are added to the Google Play Store** (Business of Apps, 2018)

**Global app downloads topped 175 billion in 2017**  
(TechCrunch, 2017)

**At least 70% of US users download at least one app per month** (TechCrunch, 2016)

**Consumer spend in app stores has more than doubled over the past two years, topping \$86 billion in 2017**

**Consumer spending worldwide is projected to top \$110 billion in 2018** (TechCrunch, 2018)



**Gathering privacy-sensitive information**

**Surreptitious eavesdropping, photo or video recording**

**Exploiting access to sensitive enterprise networks or data**

**Ransomware infections**

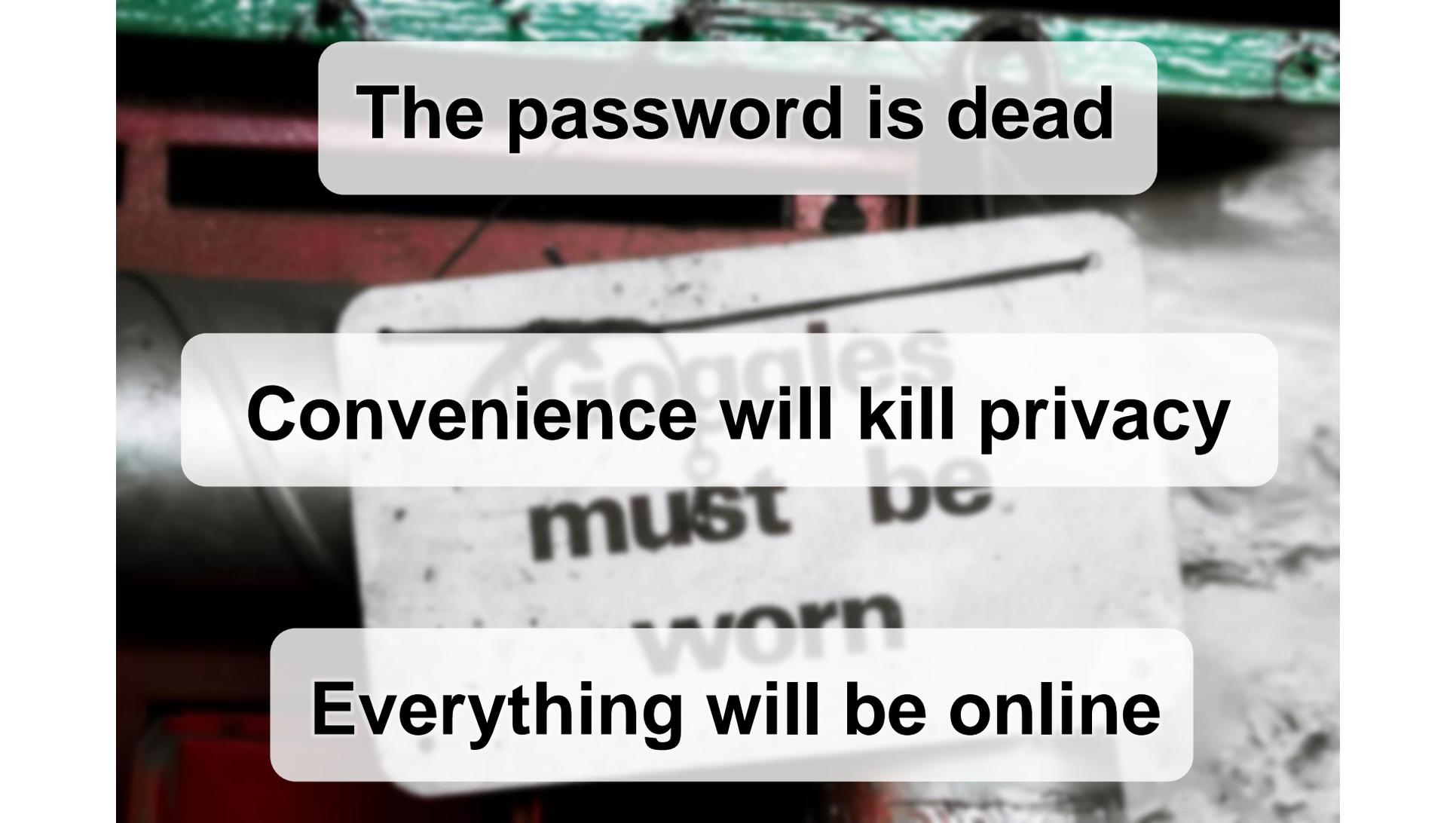
Source: US Dept. Homeland Security, 2017

A world map with a network of blue and red lines connecting various points across the globe, representing a global network or infrastructure. The map is light gray with white outlines for continents and countries. The network lines are dense in some areas, particularly in Europe and North America, and sparser in others.

**53 Thousand**

**2,216**

**65 countries**



**The password is dead**

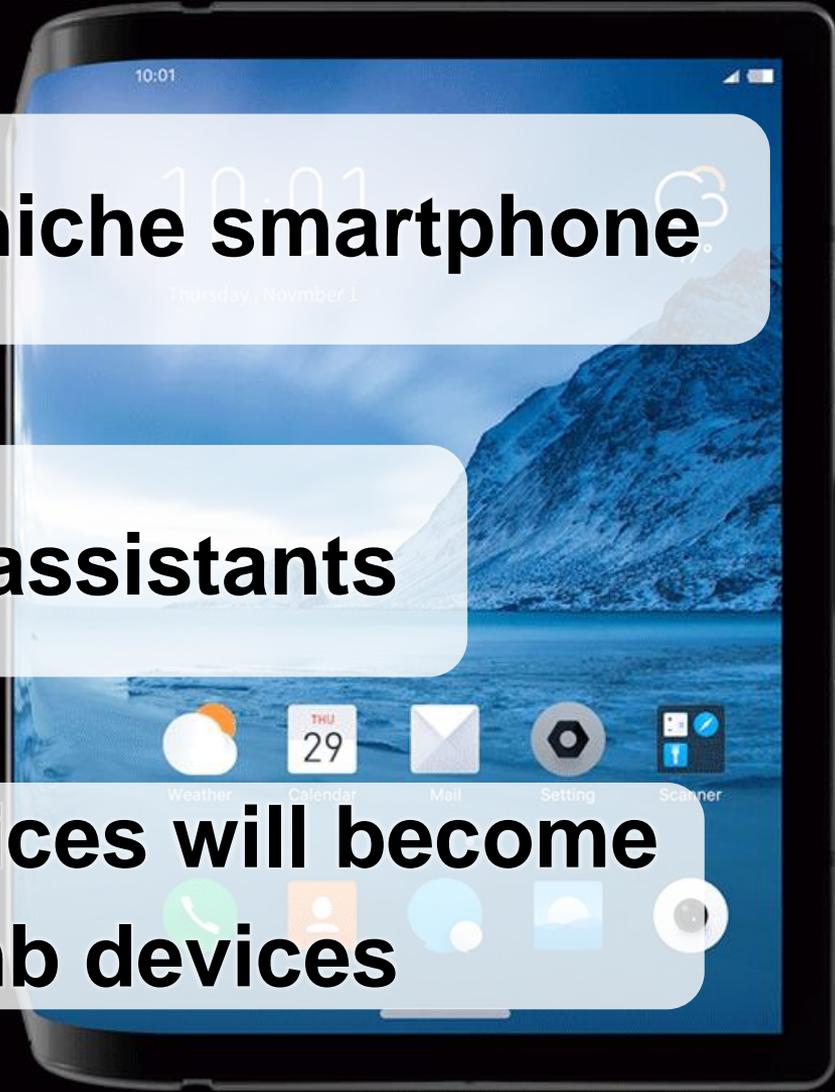
**Convenience will kill privacy**

**Everything will be online**

**Rise of the niche smartphone**

**AI assistants**

**Smart devices will become  
dumb devices**





PLEASE DESTROY CELL  
PHONES BEFORE ENTERING

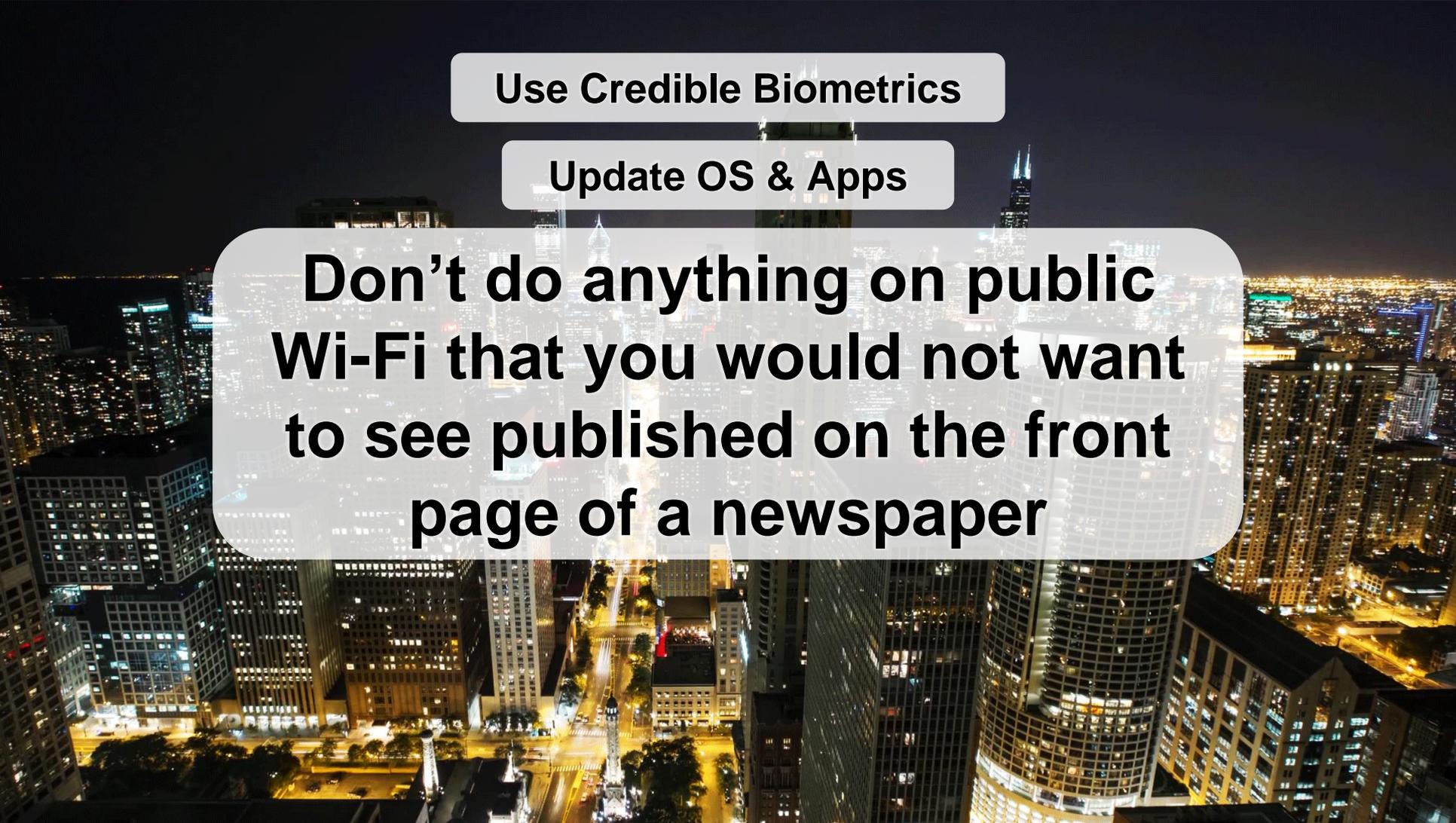
# Smartphone Security 101



**“Best solution for organizations is the same as with other sources of end-user risk ...**

**a combination of technical tools and a commitment to cybersecurity education”**

Source: Dept. Homeland Security, 2017



**Use Credible Biometrics**

**Update OS & Apps**

**Don't do anything on public  
Wi-Fi that you would not want  
to see published on the front  
page of a newspaper**



**Am I downloading  
this app from either  
Google Play or the  
Apple App Store?**

# Use the '30 second check' to think about at what you are downloading & why

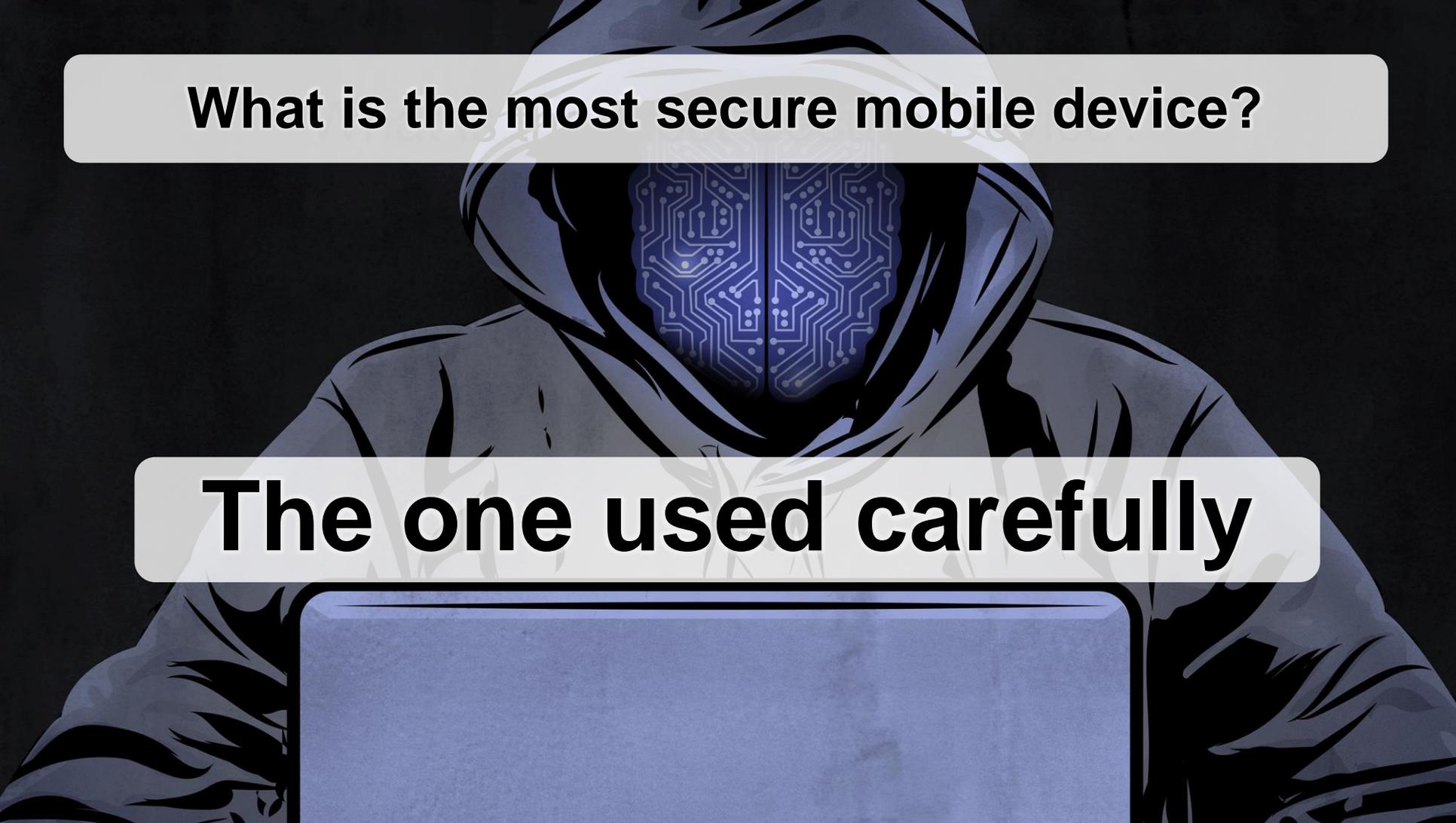


- a.** Is this from a known company with a lot of apps available?
- b.** How many others have downloaded this & when was it last updated?
- c.** What have others said about this app and what's its rating?

# Review the permissions when installing an app



- a. Are the permissions reasonable for the app to perform what it's supposed to do?
- b. On android you can revoke requested permissions after installing but before using the app

A stylized illustration of a person in a dark hoodie, with their face obscured by a glowing blue circuit board pattern. They are sitting at a computer, with a large, blank blue screen in front of them. The background is dark, and the overall aesthetic is futuristic and digital.

**What is the most secure mobile device?**

**The one used carefully**

# Thank you



**Marceline Cook**  
**[marceline.cook@gov.bc.ca](mailto:marceline.cook@gov.bc.ca)**