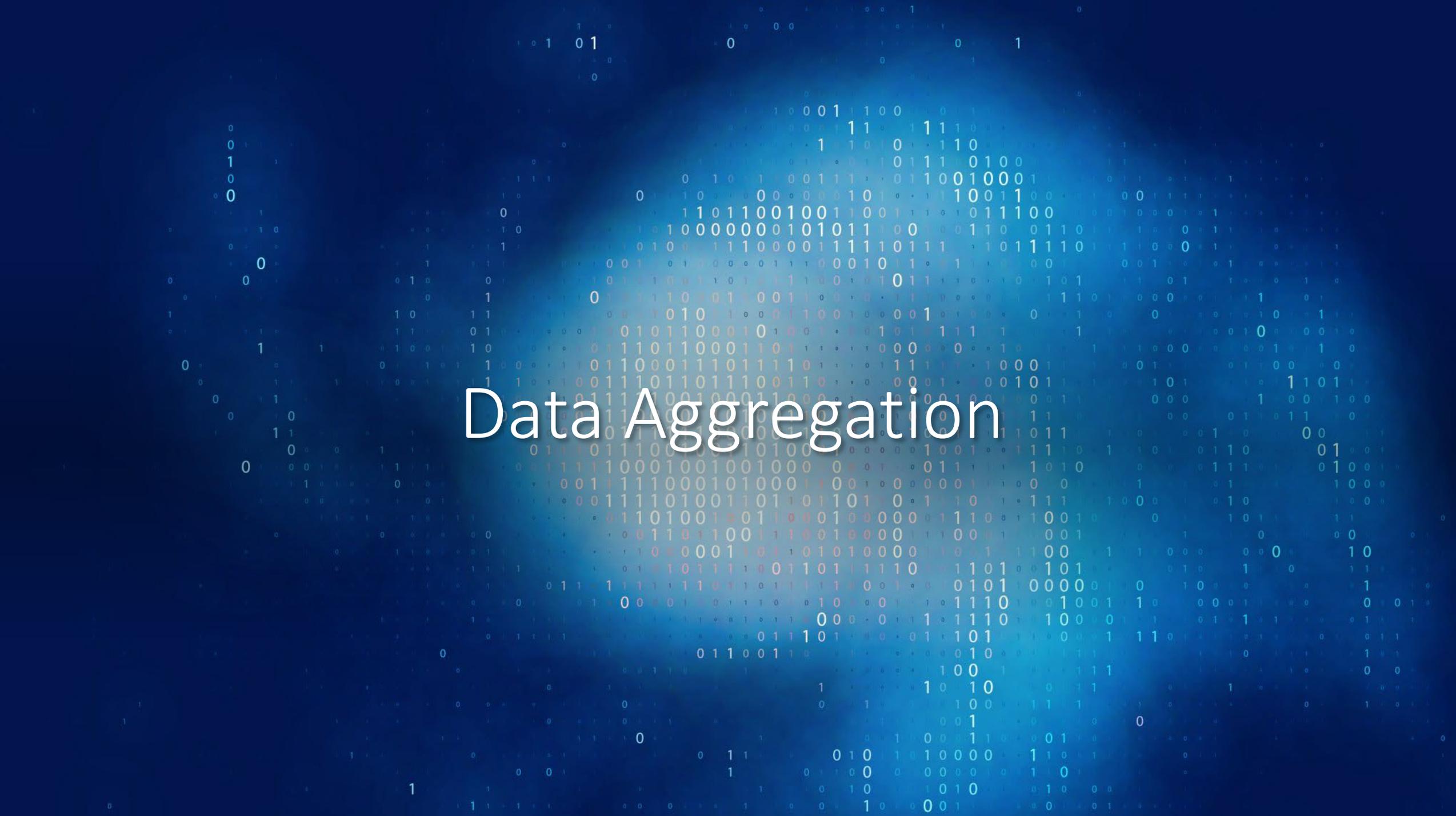


Data Aggregation and Threats to Privacy

Impact of our “New Normal”

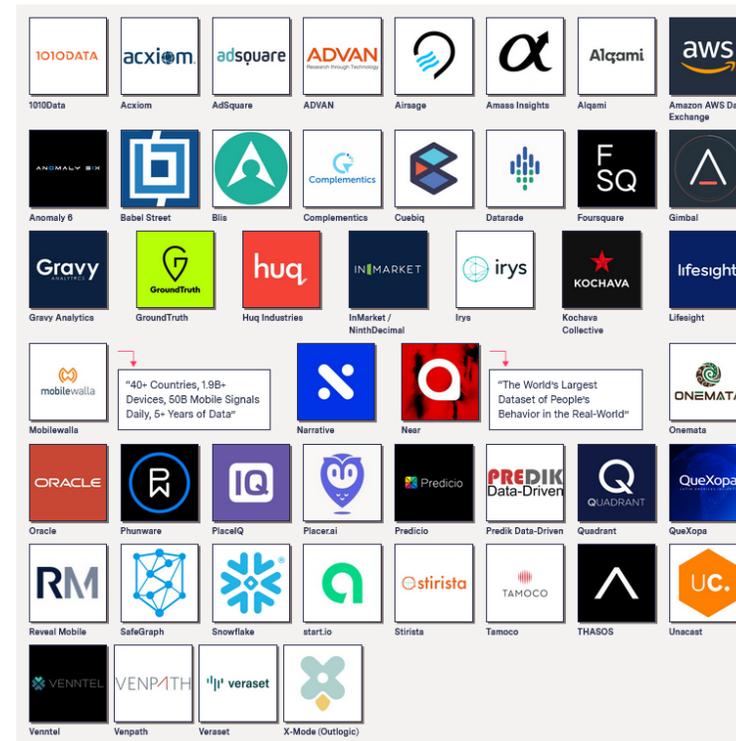
Dr. Margaret Leary, CIPP/G, CISSP, CE|H, CRISC



Data Aggregation

Data Aggregation/Analytic Market Continues to Grow

- The global big data & business analytics market size was valued at **USD 198.08 Billion** in 2020 and is projected to reach USD 684.12 Billion by 2030.
- 12 Billion of that is a new industry player – aggregators of your mobile phone's location history.
 - 47 companies presently harvest, sell, or trade in mobile phone location history across 1.9 billion devices worldwide.



Examples of Use of Location History

- X-Mode – collected data from Muslim prayer apps to sell to military contractors.
- WSJ reported in 2020 that Venntel was selling location information to federal agencies for immigration enforcement purposes.
- Tracking priests who frequent gay bars.
- Tracking who attends political rallies.
- Targeted marketing
- IRS, Customs, and other Federal Agencies

<https://themarkup.org/privacy/2021/09/30/theres-a-multibillion-dollar-market-for-your-phones-location-data>



<https://www.maxpixel.net/Technology-Mobile-Phone-Cellphone-Smartphone-1458565>



Who Else Collects Your Data?

Retail store owners
who sell sales
records

Smart TVs

Utility companies

Warranty
Registrations

Location data with
Fitbits and other
devices

Barbies (Hello
Barbie)

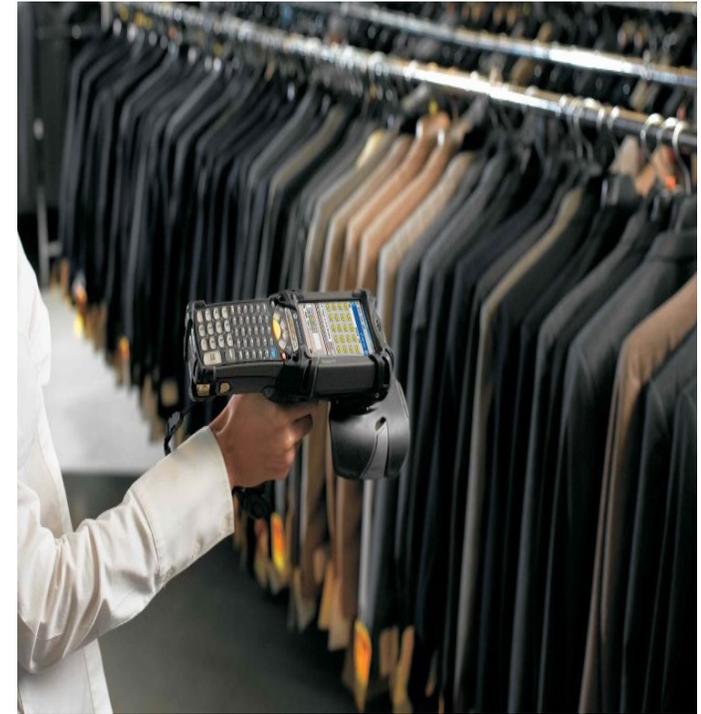
Smart Phones

Tik Tok!!!!

Your clothes
(formerly
"spychips", now
inventory tags)

RFID Chips in
people?

Flat Orb advertises that
it tracks your product
AND your staff



It is estimated there is more than 1.7 mb of data collected on every individual on the planet – every second.

You Get What You Pay For



“All users of email must necessarily expect that their emails will be subject to automated processing. Just as a sender of a letter to a business colleague cannot be surprised that the recipient’s assistant opens the letter, people who use web-based email today cannot be surprised if their emails are processed by the recipient’s [email provider] in the course of delivery. Indeed, “a person has no legitimate expectation of privacy in information he voluntarily turns over to third parties.”

Google Court Filing August 2013 - Mick, Jason, 2013. “Google: Yes, we “Read” Your Gmail”

- **Feeling glad that you aren’t one of the 425 million Gmail users? Don’t be – have you sent an email to a Gmail user?**

Social Media



- Facebook's Terms of Use specifies that, while you "own" all content and information you post, you grant them a nonexclusive, transferable, sub-licensable, **worldwide** license to use all IP content that you post on or in connection with Facebook.
- U.S. courts have confirmed that if the data is voluntarily shared with another then it can be posted publicly.
- Even privatized information on Facebook is collected and sold by Facebook to their business partners and to Federal Agencies

Problem with Aggregation

- Very little regulation with these companies.
- No transparency.
- Often used by Federal Agencies to circumvent U.S. Privacy Act Requirements, requiring agencies to notify citizens when collecting information on them.
- No requirements for assessing the security of the systems collecting this information.



Government as a Consumer of Aggregated Data

- Used for direct marketing, marketing analytics, identify verification, fraud detection, people search. Specific examples include:
 - Used for criminal investigations or who may commit a crime (threats on social media)
 - Security clearances
 - Identity authentication
 - Employment considerations
- Predictive analytics:
 - Fraud predictions: scoring individuals based on public and private databases and social media, based on their “risk for fraud”, negatively impacting nursing home residents waiting for Social Security, Medicaid, Children’s Health Insurance Programs, Supplemental Nutrition Assistance programs, and other Federal or State government benefits.

Data Aggregation's Impact on Citizens

- Impose marketplace disparities on gender and POC (Consumer Federation of America) as they “categorize” by gender, ethnicity, and income levels
- Impose auto insurance surcharges on blue-collar workers and those without college degrees (Consumer Reports)
- Impose higher health insurance rates if social media isn't consistent with desired lifestyle
- Impact ability to rent an apartment
- Impact employability

STATE REGULATION

Oregon Women Charged \$100 More Than Men for Basic Auto Insurance; Drivers with Poor Credit Scores See Rates Double, According to New Research

Consumer Group Calls on Oregon Legislature to Reform Auto Insurance Rates, Help Safe Drivers

February 24, 2021 | Press Release

Consumer Federation of America at <https://consumerfed.org>

What Can We Expect In 2022 and Beyond?

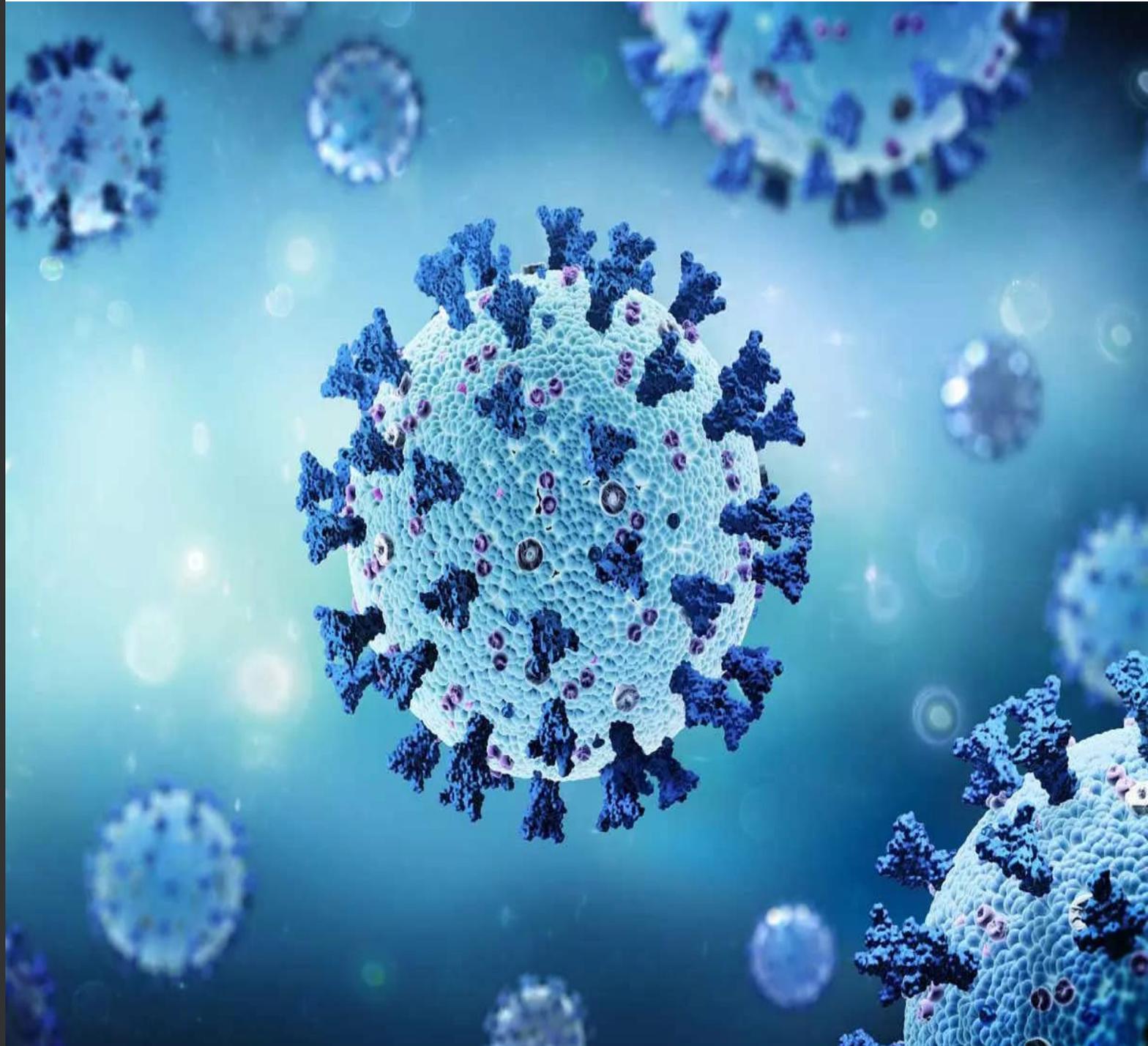
- Expansion of FTC's Policy Statement (Sept. 2021) now covers health apps (glucose monitors, fitness trackers, anything that draws information from a device, wearable, or calendar). Violations are \$43,792 per violation
- In the absence of Federal Legislation, states will continue to pass additional privacy regulations, such as Virginia did with the Virginia Consumer Data Protection Act.
 - Complicates interstate commerce and compliance for businesses
 - Offers limited protections to the consumer



Virginia Consumer Data Protection Act

- Goes into effect Jan 1, 2023
- Based on, but broader, than the California Act (CCPA)
- Impacts VA companies, and external companies marketing to VA citizens
- The VCDPA will grant Virginia residents the rights to access, correct, delete, know, and opt-out of the sale and processing for targeted advertising purposes of their personal information, similar to the CCPA and CPRA
- No right of public action
- Applies only to for-profit and B2B on a large-scale – Over 100,000 VA residents, or those who derive more than 50% of gross revenue from the sale of personal data and control or process at least 25K VA citizen data.
- Exemptions exclude Financial institutions or those subject to GLBA, HIPAA/HITECH

COVID and the Rise of Telework



Tattleware

- Availability of employee monitoring tools has significantly increased (up 243% from April 2020 to April 2021), tracking work habits, email content, GPS location, even keystroke logging.
- Sneek – takes a photo of you every minute and makes it available to your supervisor (and we were worried about the NSA?!)
- Legal implications are significant.
 - Enabled during off-hours on work PCs?
 - Capturing spouse and kids in these photos?



International Conflict



Cyber Crime will Increase

- Ransomware will become even more prevalent – both for businesses and individuals
 - Unsecured businesses will likely pay more in state and agency fines than they will with the extortion payment.
 - Critical infrastructure will be targets as well (hospitals, transportation).
 - Phishing attacks are the conduit to these types of other attacks





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