Why Your Privacy Matters

Brad Kelso & Steve Kerler,
Co-Founders & Managing Partners
Who Are We?

Privageo is Data Privacy solutions firm:

- Addressing the full scope of the Privacy ecosystem
- Executing meaningful solutions for our clients (versus strategy binders that sit on a shelf)
- Delivering Data Privacy consulting and solutions
  - A repeatable set of Privacy IP for consultants and clients
- Founders of PrivacyOC Community in SOCAL
  - Building an online education and networking community
  - Sponsor and organizer of in-person conferences

Brad Kelso  
Co-Founder & Managing Partner

Steve Kerler  
Co-Founder & Managing Partner
Agenda

• What data privacy means to YOU?
  • Why YOU should care!

• The latest issues in Privacy and Security?
  • Data Use, New Technologies and their impact

• Your Data - Legal Protections
  • Highlights from the new California Privacy Rights Act (CPRA)

• The NEW Commercial Landscape of Privacy
  • The responses from consumers and companies
What Privacy Means to YOU
... and why YOU should care!
PRIVACY = FREEDOM
Panopticon – Jeremy Bentham
PRIVACY = A Human Right
PRIVACY = Personal Choice
Technology adoption by Millennials is just... 'water.'
...social media, photos, texts, shopping, communications, chat, memes, entertainment, news, streaming media, health, gaming, food delivery, collaboration, work from home, education, geo-location, investing...

What don’t they know? They’ve created a lasting...

**Digital Identity**

Today?: This footprint’s use is limited to their **digital and virtual interactions with people**.

Next 10 yrs?: This digital ID (personal psychographic) will mature and directly influence live in real world.
Privacy’s even *Longer Term* Impact – Teens!

“Teens are way too comfortable sharing data; they’ve never known a world otherwise.

**Downside?**
Depression -- Addiction -- Anxiety -- Bullying -- Feeling Inadequate -- Suicide

**Warning?**
Long-term damage from unethical data use, privacy violations and algorithmic biases.

Hacks, identity theft, disinformation, misinformation and deep fakes are only going to increase in the coming decade. All users need to minimize the risks to protect our generation and future generations.”

Ari Lighthouse, January 2021, Carnegie Mellon, Center for Machine Learning and Health
Latest Issues in Data Privacy & Security
Your Data is Being “Borrowed”!
... or is it being **TAKEN?**

**Services**
- ancestry
- MyHeritage DNA
- 23andMe
- DRIVE SAFE & SAVE
- GEOPENCING

**Healthcare**
- Flo
- Ovia pregnancy

**Products**
- Amazon Echo
- Samsung SMART TV
- NVIDIA SHIELD
- chromecast

*What Your Period Tracker App Knows About You*

These apps are popular, but they raise concerns about what happens to the very personal data they collect.
How Your Data Is Being USED!
In Your NEIGHBORHOOD

License Plate Scanning

Stanton Plans to Install License Plate Reading Cameras on Major Roadways In and Out of City

By Brandon Pho, Jan. 26, 2021

Politics & Government

Lake Forest Residents Invited To Learn About Police Technology

Lake Forest Police Chief Chad Taylor and others will answer public questions about helicopters, drones, and license plate reading technology.

Drones

License Plate Scanning
Amazon Doubles Down on Ring Partnerships With Law Enforcement
The company's top hardware executive told WIRED he's "proud" of the controversial program and hinted at a future with more facial recognition.

LAPD Requested Ring Footage of Black Lives Matter Protests
BY MATTHEW GUARIGLIA AND DAVE MAASS
FEBRUARY 16, 2021

TikToker catches boyfriend cheating through Ring doorbell
"When you find out your boyfriend's been cheating through Ring doorbell."
March 15, 2021, 10:10 am
Internet Culture
Alexandra Samuels

In Your HOME
Ring Doorbells - Privacy Invasion or Worthwhile?

Somebody's Watching: Hackers Breach Ring Home Security Cameras
Using Your FACIAL IMAGE

Facial Recognition Technologies:
Clearview AI Case

The Secretive Company
That Might End Privacy as
We Know It

A little-known start-up helps law enforcement match photos of
unknown people to their online images — and “might lead to a
dystopian future or something,” a backer says.

“Thousands of local police
officers and federal agents,
including ICE agents, can pull
up Clearview on their
phones, take your photo, and
know everything about you.”
— Jacinta Gonzalez, Mijente

Clearview AI’s Misconduct Opens Larger Discussion
Around Privacy and Use of Technology in Canadian
Retail Locations

ACLU sues facial recognition firm Clearview AI,
calling it a ‘nightmare scenario’ for privacy

RCMP used Clearview AI facial recognition tool in
15 child exploitation cases, helped rescue 2 kids

Suit: Company built ‘most
dangerous’ facial recognition AI
database in nation
Using Your PERSONALITY!

**Artificial Intelligence**

**Cambridge Analytica Case**

- 87 million Facebook users
- 5000 data points each!
- Personality quiz to determine personality profiles
  - Results from user’s friends captured also
- RESULT? $5 Billion penalty!
  - What Facebook makes in about 3 months!

**EXAMPLE:**

Someone who is “Conscientious” may get this compelling ad. Dictionary is a source or order and a conscientious person is deferential to order

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IBM Watson personality prediction
Now ‘Who’ Are You?

- **Old YOU - Entrenched Scores:**
  - “Fair Isaac” plus each of 3 bureaus
  - “Income” (now+/−15% accuracy)
  - “Psychographics” (propensity to buy)
  - “Lifestyles” 66 per Experian
  - “Rank” GPAs, SAT’s, Class, DMV, BBB
  - Chinese? Social Credit Score

- **New YOU - New subjective**
  - Sift: “Can you be trusted?” (Airbnb, OK Cupid)
  - Zeta: Do you have $ to spend? (BMW)
  - Retailer Equation: Will you return purchases?
  - My Life: Personal Reputation? (employment, dating)
  - OCEAN: How ‘persuadable’ are you? (Politics)
  - Riskified: How ‘crooked’ are you? (fraud)
Your Data Has Been STOLEN!
Are “You” for Sale?

Yes, your data is being bought and sold by nefarious actors in the dark web.

- **Credit Cards**
- **Payment Processing accounts**
- **Social Media Hacks**
- **Forged Documents**
- **User Names / Passwords**
- **Email Databases**
- **Malware on Endpoints**

<table>
<thead>
<tr>
<th>Product</th>
<th>Avg.Price (US$)</th>
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<tbody>
<tr>
<td><strong>Cards</strong></td>
<td></td>
</tr>
<tr>
<td>Cloned Mastercard with PIN</td>
<td>$25</td>
</tr>
<tr>
<td>Cloned American Express with PIN</td>
<td>$35</td>
</tr>
<tr>
<td>Cloned VISA with PIN</td>
<td>$25</td>
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<tr>
<td>Credit card details, account balance up to $5,000</td>
<td>$240</td>
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<tr>
<td>Stolen online banking logins, minimum $100 on account</td>
<td>$40</td>
</tr>
<tr>
<td>Stolen online banking logins, minimum $2,000 on account</td>
<td>$120</td>
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<tr>
<td>Israel hacked credit card details with CVV</td>
<td>$65</td>
</tr>
<tr>
<td><strong>Payment</strong></td>
<td></td>
</tr>
<tr>
<td>Stolen PayPal account details, minimum $1,000</td>
<td>$120</td>
</tr>
<tr>
<td><strong>Social Med</strong></td>
<td></td>
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<tr>
<td>Hacked Facebook account</td>
<td>$65</td>
</tr>
<tr>
<td>Hacked Gmail account</td>
<td>$80</td>
</tr>
<tr>
<td>LinkedIn company page followers x 1000</td>
<td>$12</td>
</tr>
<tr>
<td><strong>Hacked</strong></td>
<td></td>
</tr>
<tr>
<td>Netflix account – 1 year subscription</td>
<td>$44</td>
</tr>
<tr>
<td>Adobe Creative Cloud 1 year</td>
<td>$160</td>
</tr>
<tr>
<td>eBay account with good reputation (1,000+ feedback)</td>
<td>$1,000</td>
</tr>
<tr>
<td><strong>Forged</strong></td>
<td></td>
</tr>
<tr>
<td>US valid social security number</td>
<td>$2</td>
</tr>
<tr>
<td>Fake US Green Card</td>
<td>$150</td>
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<tr>
<td>AAA emergency road service membership card</td>
<td>$70</td>
</tr>
<tr>
<td>Wells Fargo bank statement</td>
<td>$25</td>
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<tr>
<td>Wells Fargo bank statement with transactions</td>
<td>$80</td>
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<tr>
<td>US driver’s license</td>
<td>$100</td>
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<tr>
<td>US, Canada, or Europe passport</td>
<td>$1,500</td>
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<tr>
<td><strong>Email DB’s</strong></td>
<td></td>
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<tr>
<td>Private USA dentists database 122k</td>
<td>$50</td>
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<tr>
<td>USA Voter Database (various states)</td>
<td>$100</td>
</tr>
<tr>
<td><strong>Malware</strong></td>
<td></td>
</tr>
<tr>
<td>Global low quality, slow speed, low success rate x 1000</td>
<td>$50</td>
</tr>
<tr>
<td>USA, CA, UK, AU low quality, slow speed, low success rate x 1000</td>
<td>$900</td>
</tr>
<tr>
<td>USA high quality x 1000</td>
<td>$1,900</td>
</tr>
<tr>
<td>CA high quality x 1000</td>
<td>$1,400</td>
</tr>
<tr>
<td>Premium x 1000</td>
<td>$5,000</td>
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</tbody>
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Ransomed 2020!

Your Files are Encrypted. You have 5 DAYS to

700% increase in Ransomware Attacks since 2018

- Increasingly patient (7-9 months)
- Smarter: they’re corrupting your back-ups
- Exfiltrating data/interrupting Ops
- They often return to ransom using side-doors

Insurance is Paying – Est’d $20B in 2020
Top Causes of Loss

Preventing Loss tactics:

1. Segregate and encrypted offline back ups
2. Create, maintain and practice a Cyber Incidence Response plan
3. Scan for vulnerabilities regularly
4. Patch and update software
5. Enable security on devices
6. Use Multi-factor Authentication
7. Train Employees…continuously
8. Disable Server Message Block

Source: Net Diligence Cyber Claims Study 2020

Source: Cybersecurity and Infrastructure Security Agency
Your Data - Legal Protections
The **LEGAL** Response

**In the U.S.**
(by sector or state)

**Globally!**
(by country)

- Europe (GDPR)
- Brazil
- Privacy Shield
- Canada
- South Africa
- ... and More!
Data Privacy Regulation Timeline

- CCPA is Passed: 2018
- GDPR Takes Effect: 2018
- CCPA Takes Effect: 2020
- CCPA Enforcement Begins: 2020
- AG clarifies CCPA Regulations: 2020
- CPRA Passes Ballot Initiative: 2020
- CPRA Enforcement Agency Forms: 2021
- CPRA Data Responsibility Begins: 2022
- Full CPRA Goes into effect: 2023
- Today

- Brazil Passes LGPD: 2020
- Schrems II Decision: 2020

State Comprehensive-Privacy Law Comparison

- 5 CCPA Revisions Passed
- 21 CPRA Regulations to Draft
New Consumer Rights

1. To Know what personal data the business has collected about them
2. To Delete & Correct their personal data used by the business
3. To Disclosure of their personal data in a “portable format”
4. To Opt-out of the SALE of their data
5. To Seek Damages
6. To Equal Service (consumer can’t be offered different pricing, quality, features, etc.)
Business Requirements

1. Ability to Access a consumer’s personal information
2. Ability to Provide a consumer with the personal information you have
3. Ability to Delete & Modify a consumer’s personal information
4. Process to manage consumer Consent
5. Process to ensure there is No Discrimination / preferred treatment
6. Ensure proper use by Third Parties
7. New Notice Obligations (collection, privacy policy, etc.)
8. Data Minimization requirements
9. Demonstrated Compliance – (audit, response)

New Funded Enforcement Agency Begins July 1\textsuperscript{st} 2021
With $10 million in annual funding!
The New Commercial Landscape
Consumers’ Attitudes toward Privacy

The Data Trade?
• “81% say the potential risks from data collection by companies outweighs the benefits and yet they don’t believe it’s possible to go through daily life without companies collecting data on them (Pew Research Center)
• 46% feel they’ve lost control over their own data (Salesforce)

Churn?
• 48% have stopped buying from a company over privacy concerns (Tableau)
• 39% would likely walk away if asked to provide highly personal data (akamai)
• 53% would get their information back if afforded the option (PwC)

Trust?
• 64% blame the company - not the hacker - for a loss of personal data (RSA)
• 45% say the federal government should be responsible for protecting data privacy (Cisco)
• 88% say their willingness to share personal information is based on how much they trust a company (PwC)
The Business Response

Privacy?
- Most U.S. companies are now actively working to comply with multiple privacy laws. *(TrustArc)* yet
- 77% of IT professionals say they don’t have an enterprise-wide cybersecurity incident response plan. *(IBM)*

Risk?
- The average company has 534,465 files of sensitive data
- 53% of companies have over 1,000 sensitive files open to every employee. *(Varonis)*

Breach?
- 45% of Americans had their personal information compromised by a data breach in the last five years. *(RSA),
- Average cost of a breach $150 per record lost with average total per breach costs $3.92 million. *(IBM)*

ROI?
- 40%+ of companies see benefits at least 2X of their privacy spend with overall returns $2.70 for each $1 spent *(Cisco)*
- 97% of companies have seen benefits like a competitive advantage or investor appeal from investing in privacy. *(Cisco)*
- 42% of companies say that investing in privacy has enabled agility and innovation in their organizations. *(Cisco)*
Taking Back Your Data Trade

- **Data for Dough – Today’s ‘Trades’**
  - Car Insurance trackers - $100-300/yr.
  - Fitness data to Insurers - $200-350/yr.
  - Facebook: $45-190/mo. per user
  - Google: $5000/user yr.

- **Emerging Private Data Marketplace: “Opiria”**
  - Uses Blockchain Ethereum
  - Creates a ‘PDATA’ token…Benefits:
    - You choose data to share ➔ Sell
    - Secure sales platform ➔ Consumer control
    - Validated ➔ Buyers get Quality Data
    - Removes middleman ➔ Transparent
    - Value ➔ Consumer gets $100-5000/year
The Cookie-less Browser?

- Google seeks to replace ‘cookies’ tracing that today;
  - Tracks individual browser histories
    - Pixel images, embedded codes, IP address
    - Can turn-off cookies – but most don’t
    - Drives the $77B in Ad-tech space today (eMarketer)

- A “Federated Learning of Cohorts” (FLoC)
  - Anonymized ‘groups’ labeled by similar browsing
    - ‘e.g. Refinance shopper’
    - Re-calcs (defines) weekly
    - Each person has a unique ID
    - AI driven – unsupervised algorithm
  - No consumer control – can’t opt out.

- Issues
  - Monarchy control and definition – Sensitive ‘Cohorts’ -- Opt-out control.

Who are YOU specifically to an Advertiser?
What’s Privacy by Design (PbD)

Seven Founding Principles

▪ Extends ‘Fair Information Practices’
  • Raises bar in defining best practices to imbed Privacy
  • Addresses 10 key Privacy principles (FIP)
    • Consent, Accountability, Purpose, Collection
    • Use Disclosure, Accuracy, Security
    • Openness, Access, Compliance

Privacy is made “Proactive”
1. High level management commitment
2. Culturalized through the enterprise
3. Cognizant awareness of ‘Poor’ Privacy Design

Privacy as “Default”
1. Rights are automatic
2. Day 1 - privacy protected
3. Specific and limited use

“Embedded in Design”
1. Not a Bolt-on
2. Integrated as core without core functional loss

“Positive Sum”
1. No trade-offs (zero-sum)
2. Committed to optimized

“Protected End to End”
1. Data’s lifecycle
2. Security responsibility
3. Core Security practices

“Transparent and Managed”
1. Assured to all stakeholders
2. Open Policy and Procedures
3. ‘Managed’ compliance

“User Centric”
1. Real Respect for individual’s PI
2. Empowers user to take an active role
Privageo’s Privacy Framework

1. Consumer Trust And Consent
2. Legal and Risk Mgt
3. Third Parties
4. Data Management
5. Data Protection
6. Leadership and Control
7. Communication and Training

Emerging Approaches
Privacy = Good Business!

“The companies that do the best job on managing a user's privacy will be the companies that ultimately are the most successful – Fred Wilson
THANK YOU

We welcome the opportunity to partner with you.