ACCOUNTABILITY, ETHICS AND OVER THE TOP PROCESSING

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What Is Over-the-Top Processing?

- Processing that goes beyond the common understanding of reasonable people
- Examples might include:
  - The logic necessary to determine whether the human driver will stop a car
  - The balancing of health devices and pharmaceuticals
  - The linking of the devices I use to be a frequent flyer

Over the Top Processing Has Value For Us because

- Our phones should keep us from getting lost
- Medical devices must work seamlessly with our medicines
- Emergency braking in cars need to protect people
- The free cyber world needs to be paid for

And we want everything to work better tomorrow than it does today

It is Important to Companies Because

- The most successful businesses anticipate our needs and build products and services that meet those needs
- The best digital successes have a foundation in over-the-top processing
  - Who here truly understands how a smart phone works?

It is Important to Agencies

- Anticipate citizen needs
- Improve the quality of services
- Meet fundamental needs such prolonged quality life

People Want to Be in Control

- We want freedom in our most controversial thoughts
- We want seclusion in our own homes
- We want to create our own community of friends
- We want to define ourselves for the world

People Spin Off More Data

- We wear smart watches
  - Vitals every six seconds
- We send out DNA to consumer genomic services
- We consent to our location being used
- We allow our phone to monitor what we watch on TV

The Data Lake By Its Nature is Sensitive

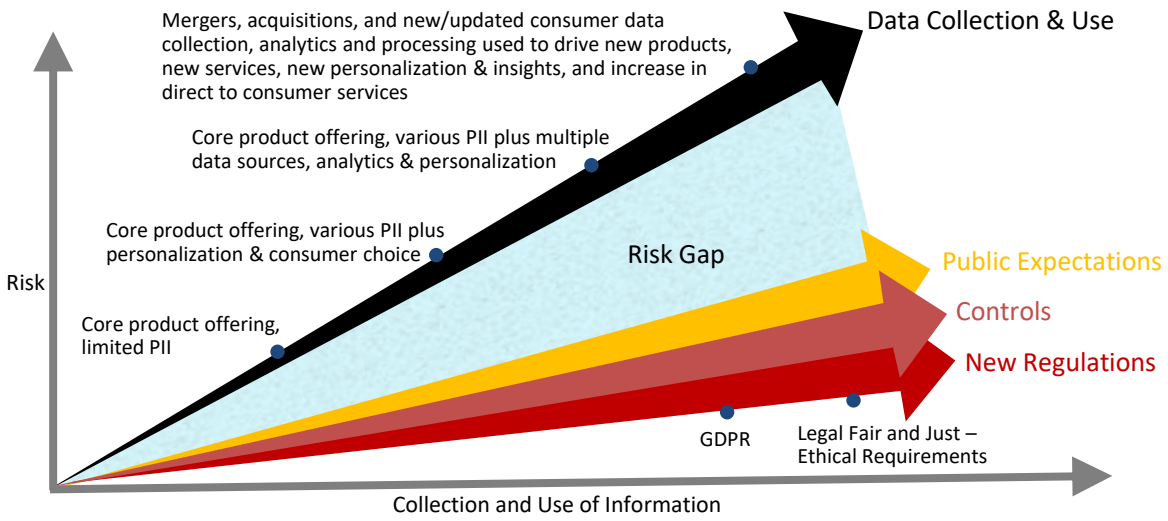
- Where we have been
- Who we were with
- Others' vitals at specific times
  - Two smart watches are together for 45 minutes with accelerating vitals
- Our attention span when driving
- The inferences from the data lake that become new data
  - Our likely future behavior

Fixed Rules No Longer Define Sensitive

- Our religion, union membership, sexual preference, financial standing, medical information can be sensitive data
- Yet insights that might predict the same knowledge may be more sensitive
- And non-sensitive pieces of data tied together may be even more sensitive
  - Accelerated vitals of two people might be interesting to a divorce lawyer

explosion of data collection & use creates greater risk. Regulatory trends are Changing faster than the controls in place to manage these risks.

Business Drivers Expanding the Risk Gap for Organizations



As compliance obligations and regulatory scrutiny for privacy become more challenging for organizations, it's increasingly important to promote and align the development of effective, scalable and practical public policy to data privacy & governance obligations

Increasing business complexity & data use

- Increased focus on deriving new insights & opportunities through data
- New revenue streams based on data expand the business
- Expansion of use from PI to "all" data
- Expansion into new lines of regulated business sectors
- Growing risk profile associated with growing privacy-sensitive capabilities (IoT, Analytics, etc.)

Domestic/international regulatory & cultural changes

- Rapid changes in laws/standards across the world challenge pose compliance challenges
- Expansion of Regulatory approach and expectations into "fair and just" processing and use of data – broad range of rights and interests
- Public opinion is increasingly aware of privacy as a business issue
- Regulator scrutiny, skepticism and authority is growing

We Need to Make Sense of the Chaos

So Privacy Is Much Harder

- For people
  - What will make my life better?
    - Smart phone?
    - Smart car?
    - Genomic mapping?
  - What makes me feel uncomfortable
    - Who is tracking me?
    - Who knows my genome?
  - How do I manage this complexity
    - Hide under a blanket

Policymakers

- Legislators
  - Digital growth?
  - National security?
  - Individual control?
  - How to legislate in a holistic manner?
- Regulators
  - Police consumer empowerment?
  - Police fair data use?
  - Encourage?
  - Enforce?

Organizations (both public and private)

- Do I free data to drive innovation?
- Do I mechanically comply with laws?
- Do I respond to competitors' initiatives?
- Do I get frozen by reticence risk?
- Which is worse:
  - Being labeled as a gravy sucking pig?
  - Having my lunch eaten by a more aggressive competitor?

Basic Rights and Interests

- People have a right to:
  - A space where they may explore their own mind through interactions with others with minimal risk
  - Data be processes in a manner that is legal, fair and just
  - The broad benefits of an information age, including
    - Education
    - Healthcare
    - Economic opportunity
    - Ability to form a community
- Information policy must deal with all of this

So How Matters Come Together?

- Observational world and advanced analytics are not going away
- Fairness is about impact
  - Benefits, potential harms, concern about potential harms
  - The law (as a non-lawyer) is increasingly pushing for robust fairness to counter-balance loss of autonomy
- Thinking with data and acting with data have different impacts
  - Thinking with data is research (maybe not scientific research)
  - Accountability sets the formula for robust fairness analysis

Accountability Essential Elements

1. Organization commitment to accountability and adoption of internal policies consistent with external criteria.
2. Mechanisms to put privacy policies into effect, including tools, training and education.
3. Systems for internal ongoing oversight and assurance reviews and external verification.
4. Transparency and mechanisms for individual participation.
5. Means for remediation and external enforcement.

Responsible

Answerable

Advanced Analytics is a Dilemma for Canada

- The first pillar of Canadian law is individual consent
  - Advanced analytics often go beyond the plain understanding of processing
- Accountability, the second pillar, takes us beyond consent to fair processing
- Can accountability be used to strengthen one pillar to assure innovation takes place while putting people first?

Canadian Project

- IAF received a grant from Office of the Privacy Commissioner to explore the concept of ethical assessments in Canada
- Recruited 20 Canadian companies and a lead lawyer, Adam Kardash (Osler), to work with us
- Through 3 meetings the group became comfortable with, and customized, a framework for big data assessments
- Took the Canadian framework to a multi-stakeholder group that included regulators, academics and advocates
- End product is a framework that includes a legal and ethical discussion and an assessment

Key Findings

- There is a link between Canadian law and assessments for advanced analytics
- Assessing stakeholder benefits and risks was a break through for companies
- This methodology is useful everywhere (including Europe)
- Legal, fair and just - which puts people first - is a great proxy for ethics
- However, trust was an issue

The case for updating accountability guidance:

Data Source **Data Control** **Data Use**

Specific use data

Observational data

Legacy privacy controls

Interim ethical assessments

Use application

Insight application

Artificial Intelligence & Machine Learning

Updated essential elements:

1. As a matter of organisational commitment, organisations should build specific, defined values or guiding principles for legal, fair and just processing and translate these into organizational policies and processes. The values should be organisationally derived and made public, and are not defined by law or regulation. These policies and processes should be anchored with clearly defined, accountable individuals within the organisation.

2. Organisations should have the mechanisms to translate their core values and principles into a data analytics system design process so that individuals, not just the organizations, gain value from the AI process.

3. There should be an internal review process that checks to assure CDIAs are conducted with integrity and competency, the issues raised as part of the CDIA have been resolved, and the AI systems are preforming as planned.

4. Processes should be transparent and where possible should enhance individual interests. The values that underpin decisions should be communicated widely. Furthermore, all reasonable stakeholder concerns should be considered.

5. Organisations should stand ready demonstrate the soundness of internal processes to the regulatory agencies

Governance is the key

- Governance requires one to fully understand what one is doing, determine it is fair, and communicate why it is fair
- Governance relies on a value system
  - Core to the organization
  - Sensible to others

Assessment are Essential to Governance

- European law requires Data Protection Impact Assessments
  - Lists the risk factors that would lead to the requirement for assessments
  - Consent use limited
  - Instead, in many setting, a balancing of stakeholder interests is required
    - Requires one to balance against the full range of fundamental rights and interest
    - This means looking at benefits as well as the risk of harm
- These key concepts will be adopted in other regions
- What about the U.S.

Using the Ethical Worksheet: Decision making scheme that is legitimate and defensible

***Please refer to Handout**

Ethic (Ethos)	Set of cultural norms - sum total of communal values and guiding beliefs (often unspoken)
Values	**Core beliefs and ideals** that individuals and communities **hold dear and use to help define the meaning of their lives or objectives in a business sense**
Core Principles	**Expression of Values**
Guiding Principles	**Normative** guidelines by which we express or pursue our **Values**

In a Business context, would lead to Policies and Guidelines

Implementation	**Polices, Procedures, Assessments, Training and Tools**

Values Guide Assessment

- Data controllers are using information first to predict the future and then make decisions
  - The first is thinking with data
  - The second is acting with data
- That means controllers' data stewardship role is evolving up the responsibility curve
- This means a controller needs to demonstrate how decisions are made in a responsible manner
- This requires values that takes one beyond technical compliance – legal - to fair and just as well

Values to assist in Defining Legal, Fair and Just

1. Beneficial: Stakeholders are defined, along with the benefits and risks associated with the processing
2. Progressive: The data driven analysis and decision making is significantly more effective than less data driven processes
3. Sustainable: Data from thinking with data will be available for acting with data, and one understands half-life of insights
4. Respectful: Data is understood, and all obligations associated with the data are honored
5. Fair: The processing is fair to the stakeholders, and benefits to individuals and/or society out weigh risks related to the processing

Why Trust?

The gap for many was how could company assessments be trusted

- The process is dependent on companies putting the interests of others at least co-equal to those of the company
- The process requires a competency in doing assessments that might not be present
- It requires organizations to conduct assessments with integrity and not game the process

How could the process be overseen to assure people came first?

Thanks

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