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Facial Recognition

The good, the bad, and the regulated.

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Today's journey

- What technology?
- For what purpose?
- By whom?
- Where?
- Facial recognition, by public entity, in Washington
- Biometrics, by private entity, in Washington

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What technology?

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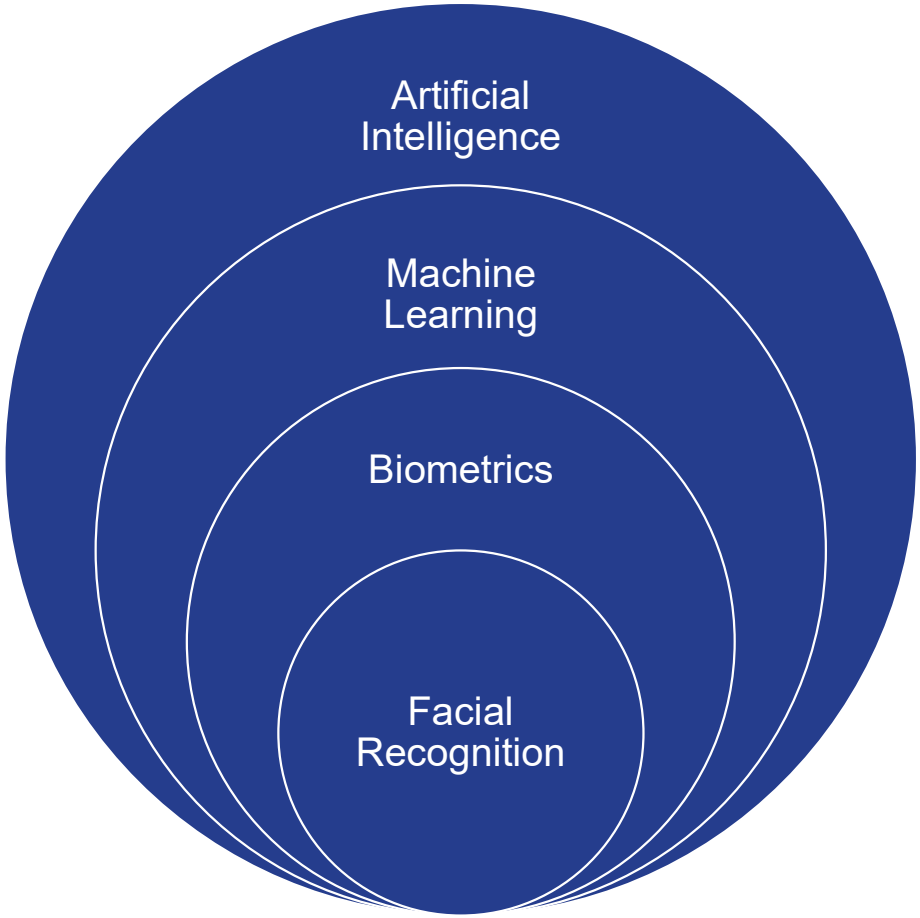

Automated Decision-making?

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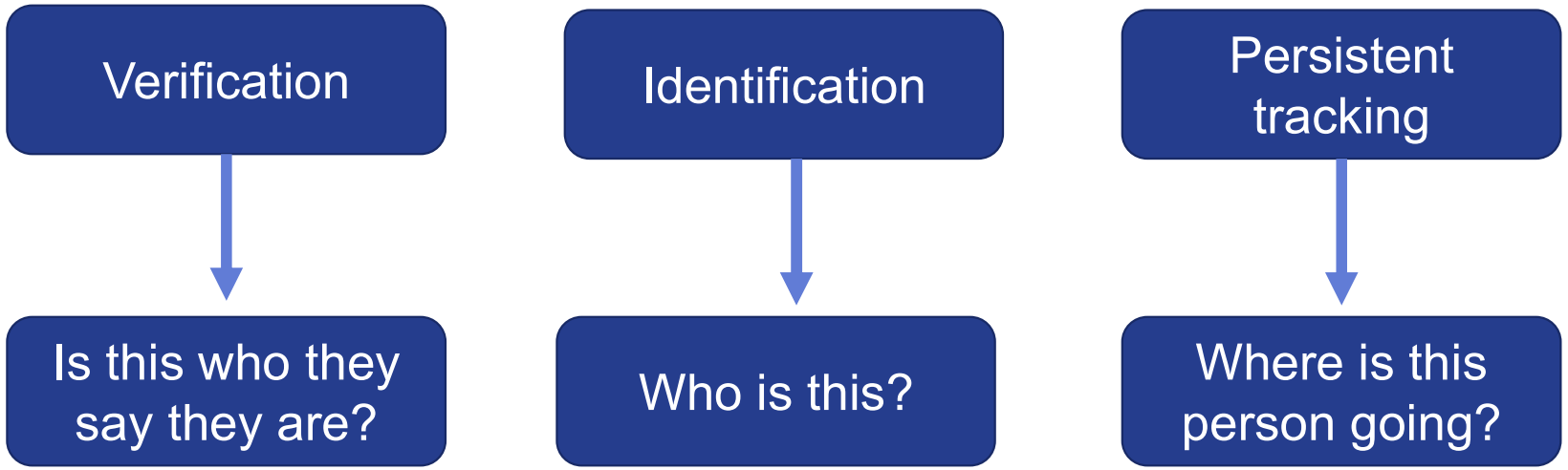
Definitions break*

- Artificial intelligence – The ability of computers to perform tasks that would typically require human intelligence, such as problem solving or perception.
- Biometrics – Body measurements related to human characteristics.
- Facial recognition – Verifying or identifying a person's identity using their face.
- Automated decision-making system – An algorithm used to make or support decisions, judgments, or conclusions.

*All definitions approximate

Types of Facial Recognition



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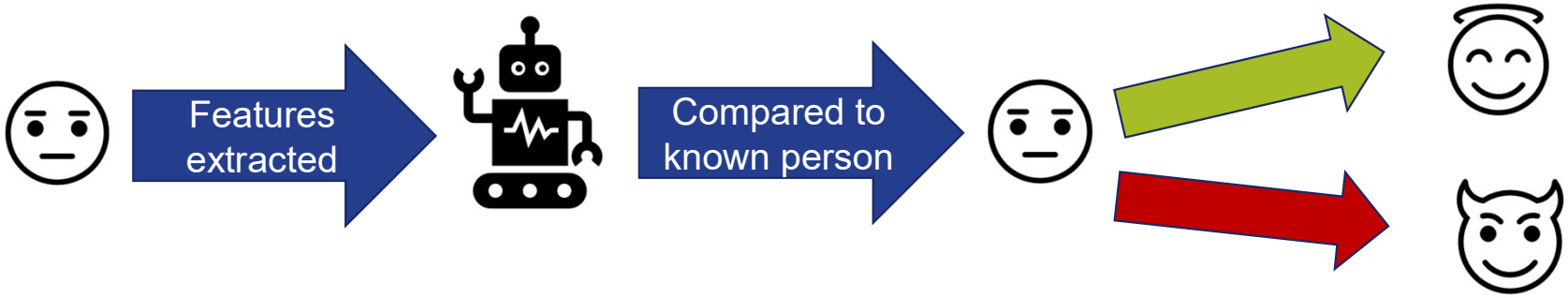
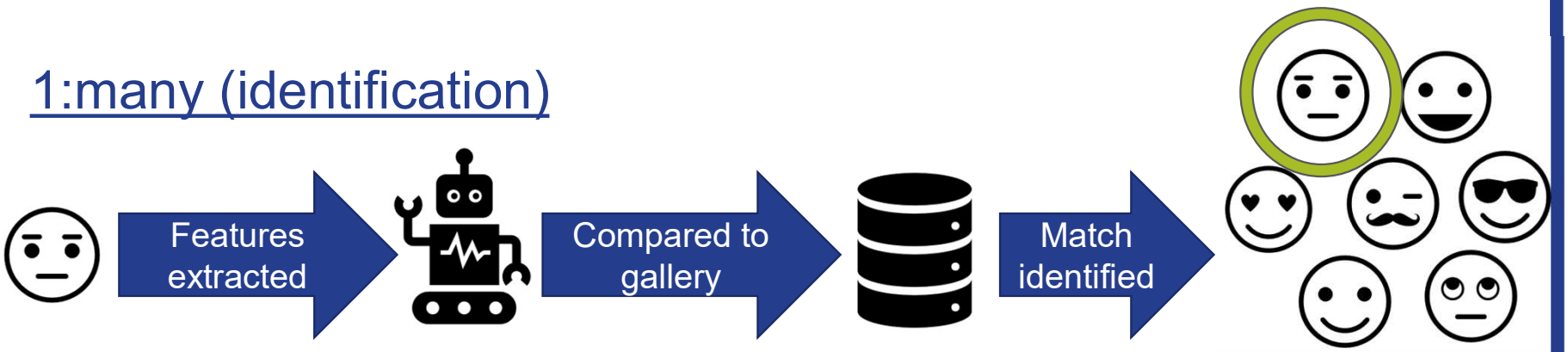
1:1 (verification)



1:many (identification)



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Other related biometrics

- Facial detection
- Facial characterization
- Emotion or sentiment analysis
- Predictive analytics

Image by Freepik

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What purpose?

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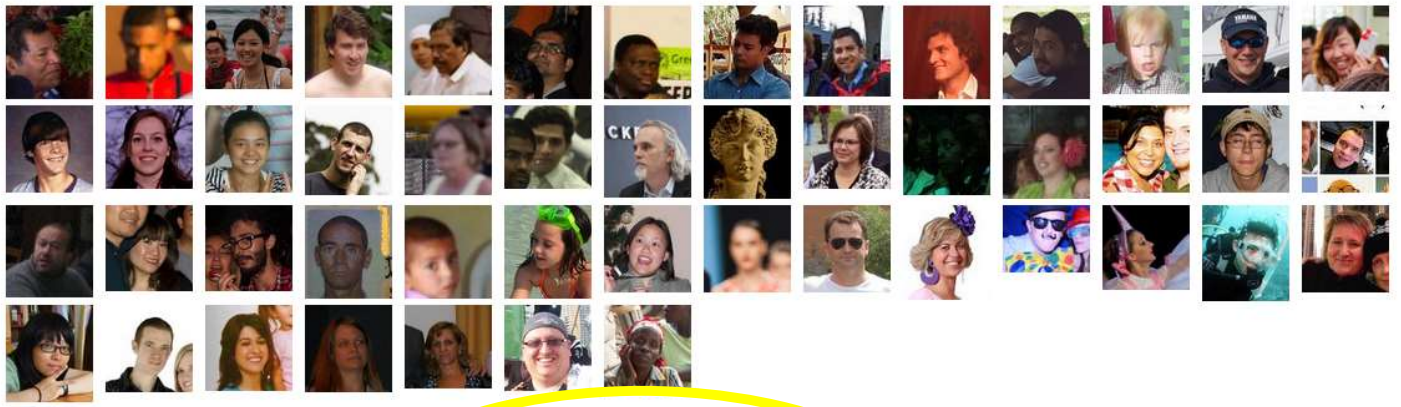
Service Development

MegaFace and MF2: Million-Scale Face Recognition

The MegaFace challenge has concluded, reaching a benchmark performance of over 99%. Because its goals have been met, and ongoing maintenance of this platform would require considerable administrative effort, MegaFace is being decommissioned and MegaFace data are no longer being distributed. ››



Distractors

1 Million Photos

690,572 Unique Users

Training Set

4.7 Million Photos

672,057 Unique Identities

7 Mean photos / person (3 min, 2469 max)

Test Sets

FaceScrub Celebrities

FGNet Age-invariant non-celebrities

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Service development

Business Insider

Clearview AI scraped 30 billion images from Facebook to share with police

Clearview AI scraped 30 billion photos from social media to build its facial recognition database. US police have used the database nearly a...

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Facial Recognition – Uses and Potential Benefits

Verification

Identification

Persistent tracking

1:1 verification on a local device

1:1 verification using existing proof of identity

1:many de-duplication

1:many for forensics or surveillance

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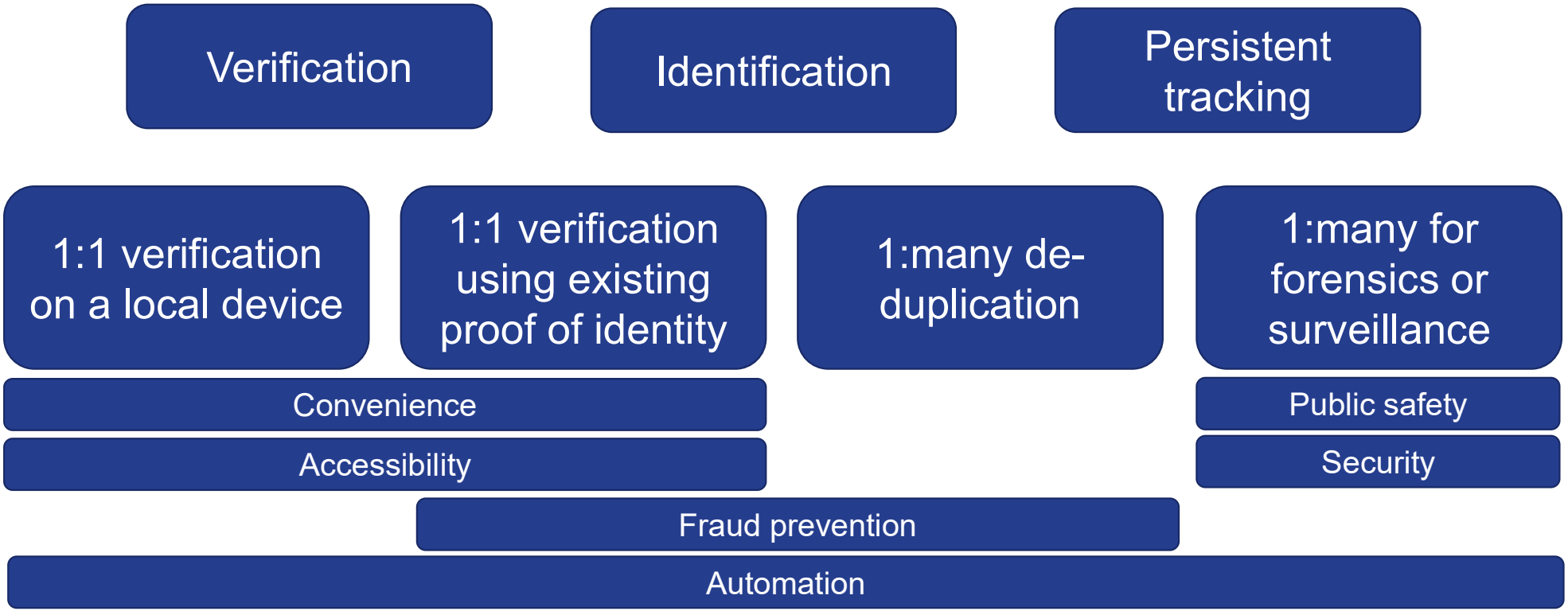
Facial Recognition – Potential Benefits



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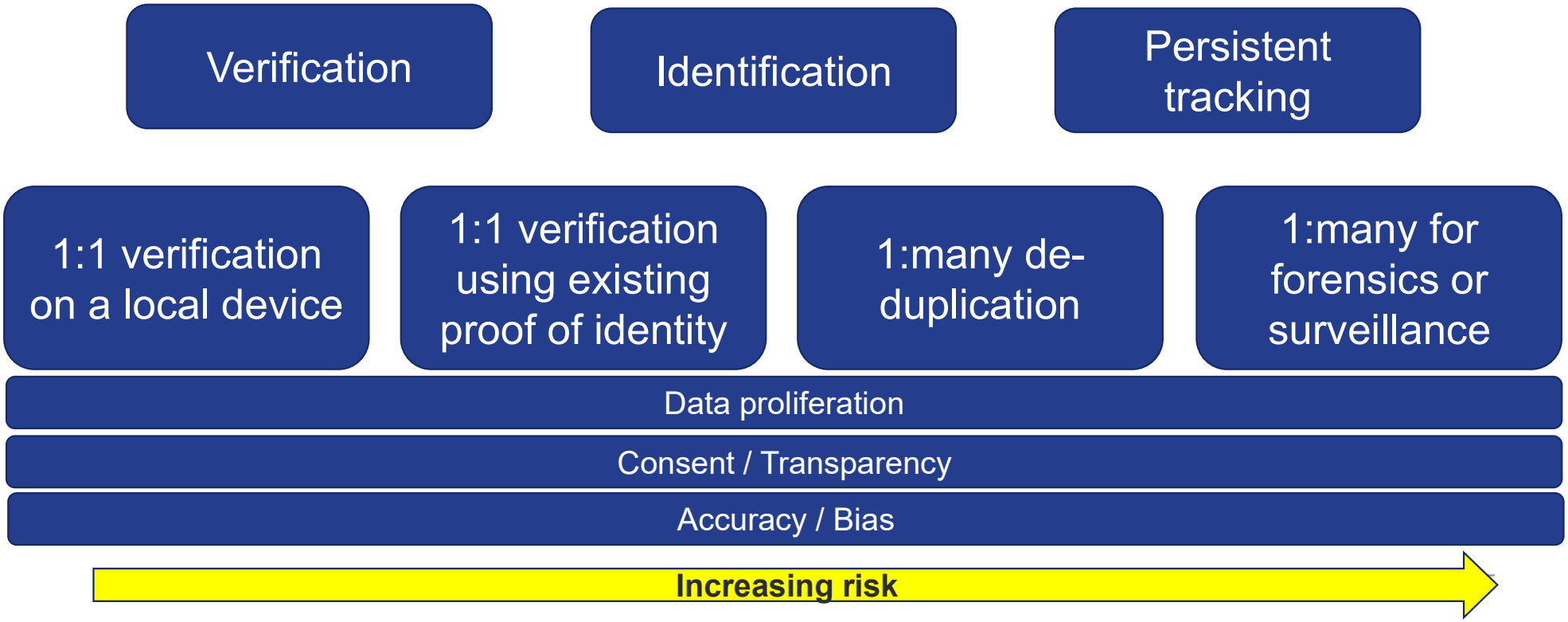
Facial Recognition – Potential Risks



ACLU

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DeepFace

- Trained using ~4 million user photos
- > 1 billion templates
- Photo tagging discontinued in 2021
- Software maintained

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Monitoring protests

By Veggies - Own work

Automated ethnic discrimination

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Facial Recognition – Applicable Laws & Regulations

Verification

Identification

Persistent tracking

1:1 verification on a local device

1:1 verification using existing proof of identity

1:many de-duplication

1:many for forensics or surveillance

Often out of scope

Facial recognition does not include "the analysis of facial features to grant or deny access to an electronic device. . . " RCW 43.386.010(3)(b).

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Facial Recognition – Applicable Laws & Regulations

Verification

Identification

Persistent tracking

1:1 verification on a local device

1:1 verification using existing proof of identity

1:many de-duplication

1:many for forensics or surveillance

Often out of scope

"Nothing in this section requires an entity to provide notice and obtain consent to collect, capture, or enroll a biometric identifier and store it in a biometric system, or otherwise, in furtherance of a security purpose." RCW 19.375.020(7).

Often out of scope

Often *very* in scope

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By Whom and Where?

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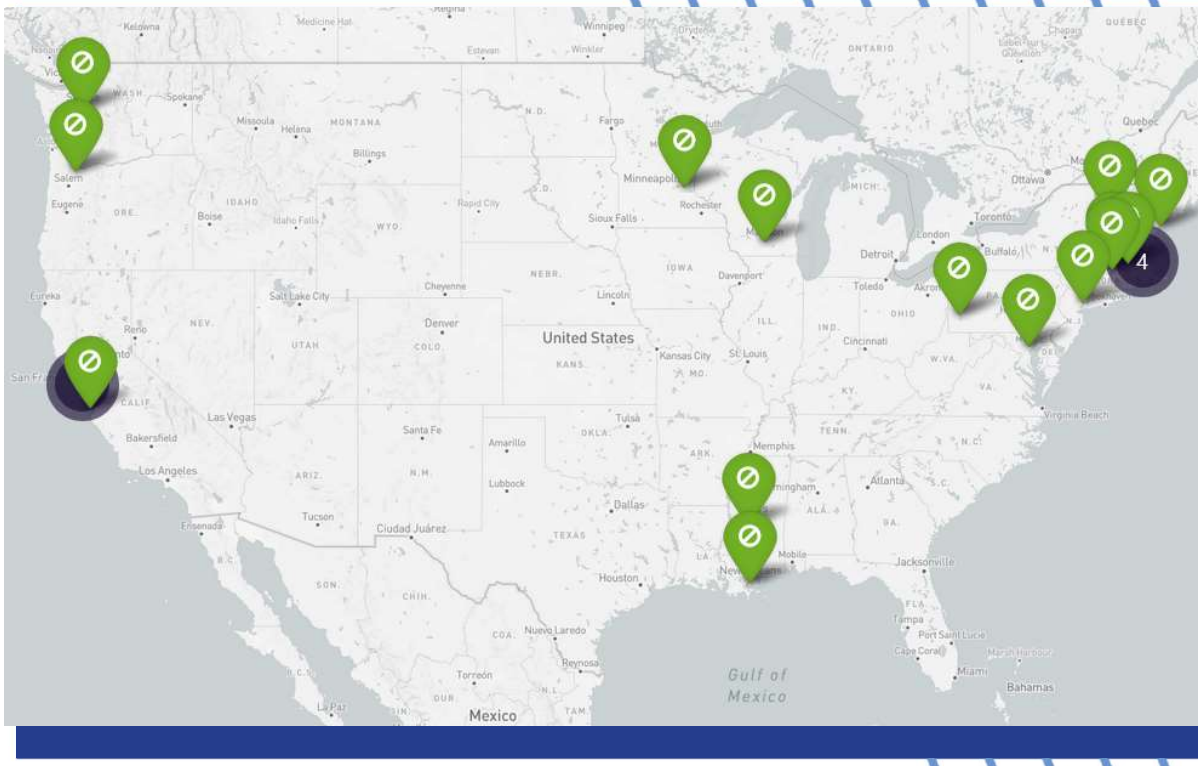
>20 facial recognition bans at the city, county or state level



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Madison Square Garden

"MSG instituted a straightforward policy that precludes attorneys from firms pursuing active litigation against the Company from attending events at our venues until that litigation has been resolved. . . . [W]e cannot ignore the fact that litigation creates an inherently adversarial environment."

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Illinois Biometric Information Privacy Act (BIPA)

- Informed consent prior to collection
- Handling and retention requirements
- Prohibits profiting from biometric data
- Private right of action
  - Statutory damages up to $1k for each negligent violation, up to $5k for each intentional or reckless violation

BIPA Timeline

2008 – BIPA enacted

2015 – Multiple class actions filed, first class settlement approved in 2016

2019 - *Rosenbach v. Six Flags Entertainment Co.*, 2019 IL 123186

- No actual injury or adverse effect required to seek liquidated damages and injunctive relief

2023 - *Cothron v. White Castle System, Inc.*, 2023 IL 128004

- Each biometric scan considered a separate violation

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Facial recognition, by public entity, in Washington

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Chapter 40.26 RCW

"Unless authorized by law, an agency may not collect, capture, purchase, or otherwise obtain a biometric identifier without first providing notice and obtaining the individual's consent."

Biometric identifier "means any information, regardless of how it is captured, converted, stored, or shared, based on an individual's retina or iris scan, fingerprint, voiceprint, DNA, or scan of hand or face geometry."

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Chapter 43.386 RCW

Washington State OKs Facial Recognition Law Seen as National Model

Microsoft-backed bill sets limits but doesn't ban the technology

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Scope

Facial recognition service – Technology that analyzes facial features and is used by a state or local government agency for the identification, verification, or persistent tracking of individuals in still or video images

- Does not include facial analysis to grant access to devices

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Key components

Guardrails for use

Transparency and accountability

Testing and training

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Guardrails – prohibited uses (any agency)

Facial recognition can never be based on:

- Religious, political, or social views or activities
- Participation in a noncriminal organization or lawful event
- Actual or perceived race, ethnicity, citizenship, place of origin, immigration status, age, disability, gender, gender identity, sexual orientation, or other protected characteristic

Facial recognition can never be used to create a record that describes a person's exercise of their freedom of speech, freedom of religion, freedom of assembly, or freedom of the press

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Guardrails – prohibited uses (law enforcement)

Law enforcement cannot use facial recognition as the sole basis to establish probable cause in a criminal investigation

Law enforcement cannot use facial recognition to identify a person based on a sketch or similar image

Law enforcement cannot “substantively manipulate” an image when inconsistent with intended use and training

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Guardrails – court orders required

An agency may only use facial recognition to perform ongoing surveillance, real-time or near real-time identification, or persistent tracking, if:

- It gets a warrant,
- It gets a court order (only applies when the sole purpose is locating or identifying a missing person, or identifying a deceased person), or
- There are exigent circumstances

An agency must give a criminal defendant timely notice that the agency used facial recognition

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Guardrails – meaningful human review

- Before using facial recognition to make decisions that produce legal or similarly significant effects, an agency must ensure decisions are subject to meaningful human review
  - Review or oversight by at least one person who is appropriately trained and has the authority to change a decision

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Accountability & Transparency

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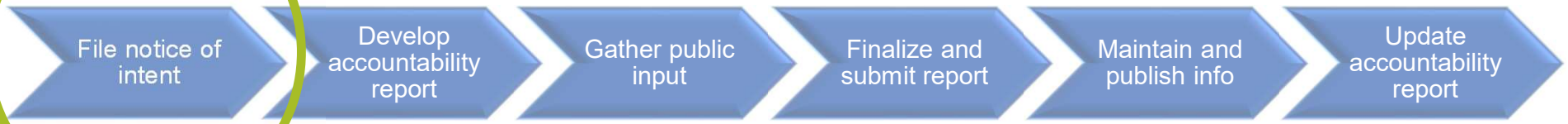
Accountability & Transparency



- Agencies must file notice of intent to develop, procure, or use facial recognition service
- Specifies purpose of using the technology
- Filed with legislative authority
  - The council, commission, or other body with legislative powers, including port commission or airport board
  - For state agencies, the technology services board

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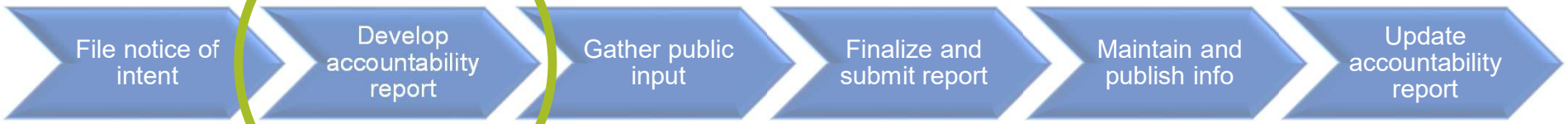
Accountability & Transparency



Service identification	Data description	Proposed use
Name of service, vendor & version	Types of data inputs	Decisions it will make or support
General description of capabilities and limitations	How data is generated, collected, and processed	Whether it will make or only support decisions
“Reasonably foreseeable” capabilities outside intended use	Types of data generated	Intended benefits (including data or research if available)

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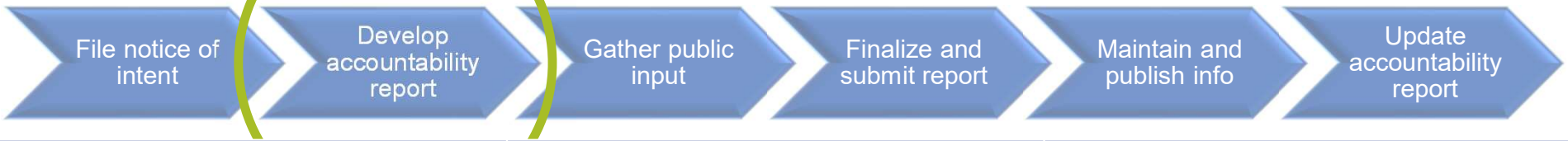
Accountability & Transparency



Accuracy	Impacts	Feedback
Testing procedures, including processes for periodic operational tests	Privacy impacts, impacts on protected subpopulations, and disparate impacts on marginalized communities (must require vendors to disclose complaints or reports of bias)	Procedures for receiving feedback from impacted individuals
Rate of false matches	Impacts on civil rights and liberties	Procedures for receiving feedback from community
How agency will address error rates independently determined to be >1%	Steps agency will take to mitigate impacts and prevent unauthorized use	Procedures for responding to feedback

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Accountability & Transparency

Data management policy		
How and when service will be used	Data minimization measures	Data security and access standards
Who will use it	How records will be maintained and updated	If and why other entities will have access to service or related data
Factors to determine where, when, and how it will be used	Retention policies and deletion processes	Procedures for ensuring third parties comply with data management policy
Will service be used continuously or in specific circumstances	Any other rules governing use, including processes prior to each use	Process to fulfill state breach notification requirements
Access standards and protocols for any entity acting on behalf of agency		

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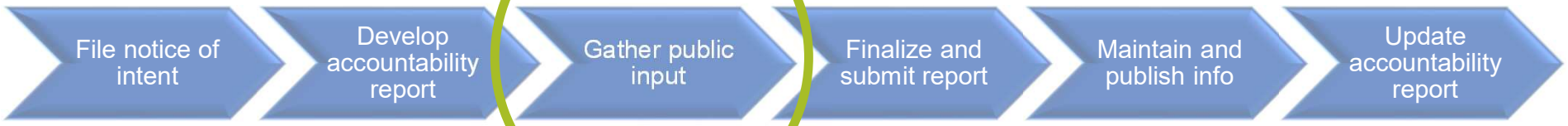

- Public review and comment on draft accountability report
- At least three community consultation meetings
- “Consider the issues raised by the public”

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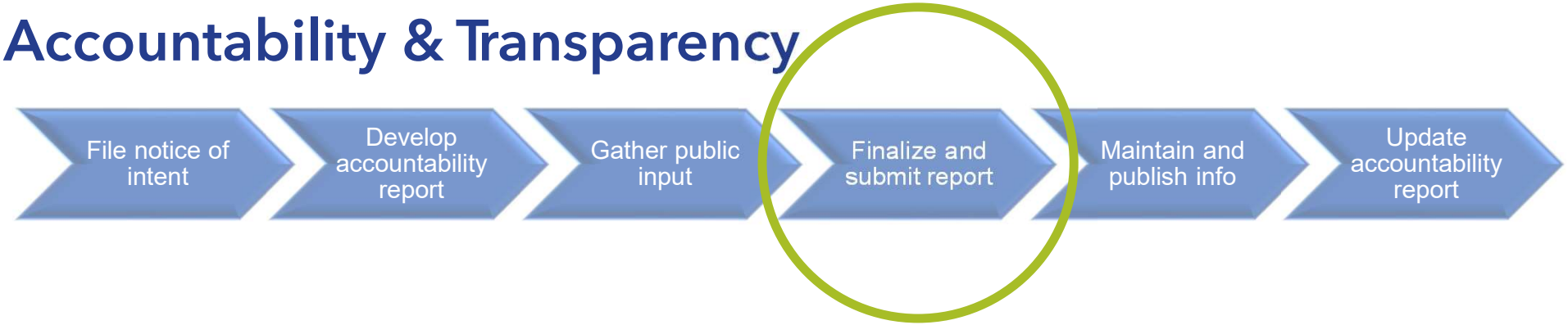

- At least 90 days prior to using new facial recognition services, final report must be:
  - Clearly communicated to the public
  - Posted on the agency's web site
  - Submitted to a legislative authority
- Legislative authority must post reports on its web site

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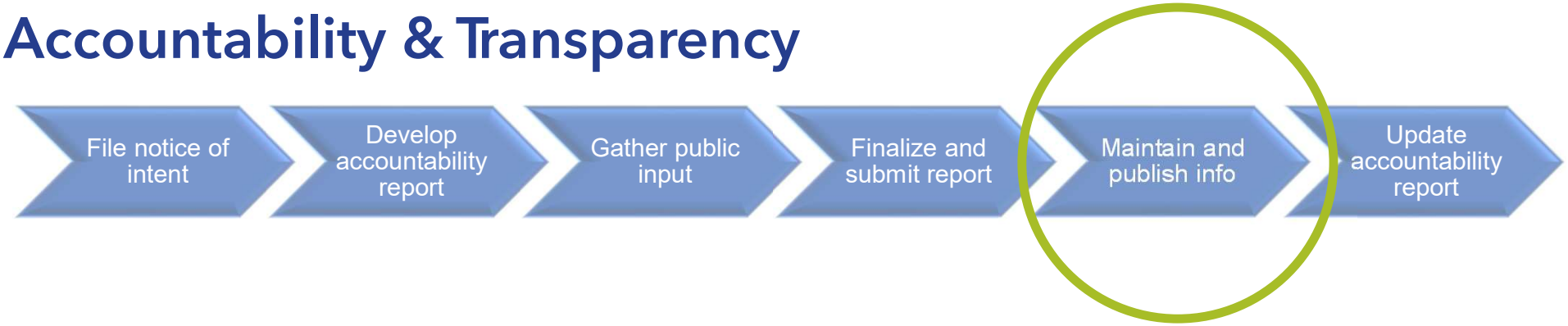

- Agencies must maintain records of its uses that facilitate public reporting and audits to measure compliance with facial recognition policies

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Accountability & Transparency

- Any agency that applied for a warrant (or extension of warrant) to use facial recognition for surveillance must file annual report
  - Filed each January
  - With legislative authority
  - Must summarize “nonidentifying demographic data” of the surveillance subjects

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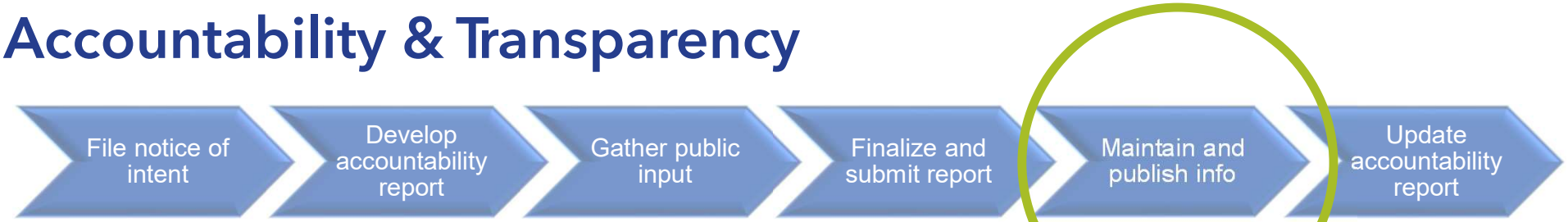
Accountability & Transparency



- Any judge that considered a warrant (or extension of warrant) to use facial recognition for surveillance must file annual report
  - Filed each January with administrator for the courts
- Report must include:
  - The fact that application was considered
  - The result (granted, modified, or denied)
  - The period of surveillance, including the number and duration of any extensions
  - Who applied and who authorized the application
  - The types of public spaces where surveillance occurred

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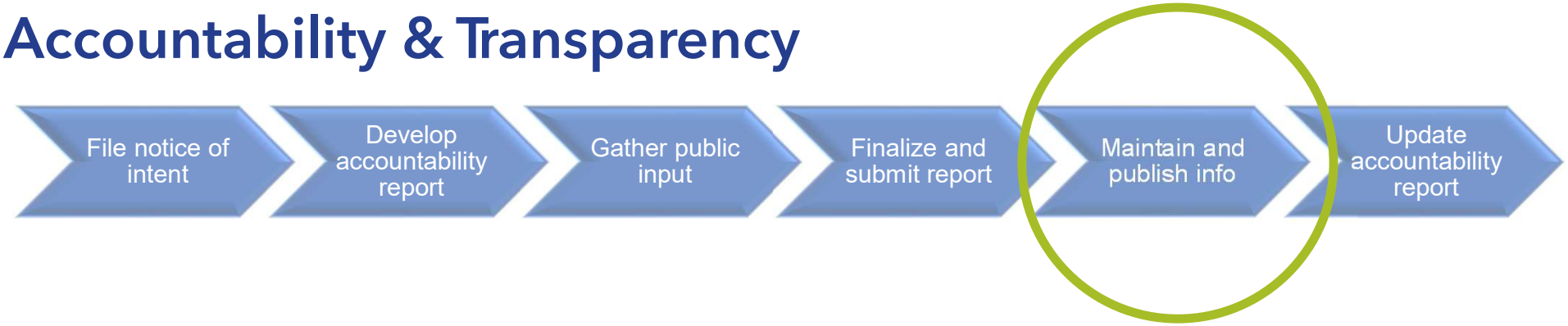

- Report must be updated every two years
- Agency must seek public comment and community consultation for any new use and update accountability report

Testing and Training

Agencies must provide periodic training for all people who operate facial recognition service or process data from the service on at least:

- The capabilities and limitations of the service
- Procedures to interpret and act on the output

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Testing and Training

- Agencies must require facial recognition service providers to make available:
  - An application programming interface (API) or similar technology
  - Chosen by the provider
  - That enables independent tests
  - For accuracy and unfair performance
  - Across distinct subpopulations
- Distinct subpopulations include visual characteristics, such as:
  - Race, skin tone, ethnicity, gender, age, disability status; or
  - Other protected characteristics that are “objectively determinable or self-identified” by the people in the testing dataset
- When independent testing reveals “material unfair performance differences,” the provider must implement a plan to mitigate the differences within 90 days of receiving the results

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Testing and Training

Before using facial recognition to make decisions that produce legal or similarly significant effects:

- The agency must test the service in operational conditions and take reasonable steps to ensure quality results (must follow all guidance from the facial recognition service developer)
- Ensure decisions are subject to meaningful human review
  - Review or oversight by at least one person who is appropriately trained and has the authority to change a decision
- Provide training on the meaningful human review requirement

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Biometrics, by private sector, in Washington

Chapter 19.375 RCW

- Biometric identifiers "means data generated by automatic measurements of an individual's biological characteristics, such as fingerprint, voiceprint, eye retinas, irises, or other unique biological patterns or characteristics that is used to identify a specific individual"
  - Does not include "a physical or digital photograph, video or audio recording or data generated therefrom, or information collected, used, or stored for health care treatment, payment, or operations under [HIPAA]"

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My Health My Data Act

- Consumer health data "means personal information that is linked or reasonably linkable to a consumer and that identifies the consumer's past, present, or future physical or mental health status."
  - Physical or mental health status includes "biometric data"
  - Biometric data "means data that is generated from the measurement or technological processing of an individual's physiological, biological, or behavioral characteristics and that identifies a consumer whether individually or in combination with other data. Biometric data includes, but is not limited to:
    - Imagery of the iris, retina, fingerprint, face, hand, palm, vein patterns, and voice recordings, from which an identifier template can be extracted; or
    - Keystroke patterns or rhythms and gait patterns or rhythms that contain identifying information.

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My Health My Data Act

	Chapter 19.375 RCW	MHMD
Requires actual identification	Yes	No
Excludes images	Yes	No
Includes employee data	Yes	No
Consent required	Yes, “the exact notice and type of consent required . . . is context-dependent.”	Yes, freely-given, specific, informed, opt-in, voluntary, and unambiguous
Individual participation	Limited to consent	Access and deletion
Private right of action	No	Yes

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FTC Policy Statement – May 2023

- "The increasing use of consumers' biometric information . . . raises significant concerns with respect to consumer privacy, data security, and the potential for bias and discrimination."
  - FTC will continue to enforce under Section 5 for unfair or deceptive acts or practices, including about the collection, use or accuracy of biometric information
  - Biometric information defined broadly

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Enforcement Considerations

Failing to assess foreseeable harms **before collecting** biometric information

Failing to **promptly address** known or foreseeable risks and identify and implement tools for reducing or eliminating those risks

Engaging in **surreptitious and unexpected** collection or use of biometric information

Failing to **evaluate the practices and capabilities of third parties** who access biometric information or operate biometric information technologies

Failing to provide **appropriate training** for employees and contractors whose job duties involve interacting with biometric information or technologies that use such information

Failing to conduct **ongoing monitoring** of technologies that the business develops, offers for sale, or uses, in connection with biometric information to ensure that the technologies are functioning as anticipated and that the technologies are not likely to harm consumers

Recap

Understand the technology in use and how it will be used.

Proactively evaluate entire scope of risks.

Mitigate risks.

- Apply privacy principles, especially transparency and meaningful choice.

Act early when considering any biometric solution, but especially facial recognition.

Stay current! Technology and legal requirements are changing rapidly.

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Thank you!

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www.watech.wa.gov/privacy