

FACIAL RECOGNITION TECHNOLOGY

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Economic Affairs Interim Committee

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MONTANA STATE LEGISLATURE

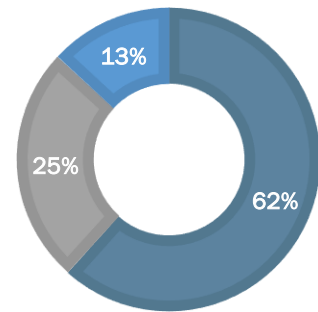
FACIAL RECOGNITION TECHNOLOGY

The Economic Affairs Interim Committee was assigned HJR 48, the study on facial recognition technology, which is a way of identifying or confirming an individual's identity through technology from photos, video, or real-time surveillance of their face.

As part of its study tasks, the EAIC was asked to look at how the technology is used in Montana by agencies, the security of the data collected, and how it is shared. The study resolution noted that while the technology becomes more accurate as it advances, it can be used without the individual's knowledge, can still be prone to error, can be an invasion of privacy, and creates a risk of data theft. Other states and local governments have enacted protective measures and limitations on the use of facial recognition technology; however, no limitations currently exist in Montana.

AWARENESS OF FACIAL RECOGNITION TECHNOLOGY ACCORDING TO ADULTS IN THE UNITED STATES

Source: Pew Research Center; Statista 2020



- Have little awareness of facial recognition technology
- Very familiar with facial recognition technology
- Knows nothing at all about facial recognition technology

AS THE TECHNOLOGY GROWS, SO DO THE APPLICATIONS FOR USE, IN BOTH THE PUBLIC AND PRIVATE SECTOR:

Commercial

- Paying for services without cash
- Home security – Amazon Ring, Google Nest
- Unlocking mobile phones
- Authorizing purchases & payments
- Health care – protecting patients & staff with facial recognition for access to records & charts
- Employers – track employee's time using facial recognition timeclocks
- Boarding an airplane without a boarding pass
- Home security – Amazon Ring, Google Nest

Government

- Airport security & traveler verification
- Protecting identity theft & fraud
- Fighting human trafficking
- Counterterrorism
- Law enforcement investigations of violent crimes, credit card and identity fraud, missing persons, bank robberies
- Investigations related to civil unrest, riots, and protests
- Surveillance and area access at secure governmental sites
- Response to Covid-19 – identity verification via smart phone for court-ordered supervision

FACIAL RECOGNITION THROUGH THE YEARS

Facial recognition technology as we know it today is far more advanced than its original roots from the 1960's, but the idea of facial recognition goes back even further, to the 1850's, when the Pinkerton National Detective Agency began photographing people it apprehended, and England introduced prison photography to assist with escapees and record-sharing. As technology advanced, so did the ideas for applying the technology, and by the turn of the 20th century, a criminal database was well established, photographs were printed on reward posters, and ordinary people began taking photographs of themselves and others in public - sometimes without their subjects' consent.

In 1967, Woodrow W. Bledsoe, a pioneer in artificial intelligence, developed a system that classified photos of faces through a graphical computer input device called a RAND tablet. While a rudimentary process 50 years ago, the technology advanced through the decades from 2-D to 3-D technology, and now involves complex algorithms, artificial intelligence, biometrics, neural networks, and machine learning to process, identify, and classify images with a high degree of accuracy.

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