Recognising people

Prosopagnosia, also known as face blindness, means you cannot recognise people's faces. Face blindness often affects people from birth and is usually a problem a person has for most or all of their life. It can have a severe impact on everyday life. Many people with prosopagnosia are not able to recognise family members, partners or friends. They may cope by using alternative strategies to recognise people, such as remembering the way they walk or their hairstyle, voice or clothing. But these types of strategies do not always work – for example, when a person with prosopagnosia meets someone in an unfamiliar location.
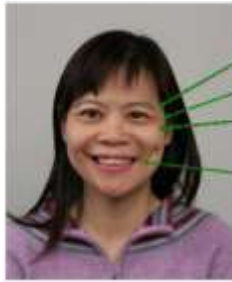
Video: https://www.youtube.com/watch?v=tKUWKnJsSJc

Reading emotions: the 7 universal facial expressions

Darwin (1872) was the first to suggest that they were universal; his ideas about emotions were a centerpiece of his theory of evolution, suggesting that emotions and their expressions were biologically innate and evolutionarily adaptive.

Basic emotions are emotions that have been scientifically proven to have a certain facial expression associated with it.

For example, the basic emotion of "Anger" can be recognized by this picture all around the world, no matter what age, religion or gender you are, or what language you speak. Can you mime theses emotions? And describe them.

Anger
- Eyebrows pulled down
- Upper lids pulled up
- Lower lids pulled up
- Margins of lips rolled in
- Lips may be tightened

Joy
- Muscle around the eyes tightened
- "Crows Feet" wrinkles around eyes
- Cheeks raised
- Lip corners raised diagonally

Disgust
- Eyebrows pulled down
- Nose wrinkled
- Upper lip pulled up
- Lips loose

Surprise
- Entire eyebrow pulled up
- Eyelids pulled up
- Mouth hangs open

Contempt	**Fear**
Sadness	

Source : https://www.humintell.com/macroexpressions/

There have been over 75 studies that have demonstrated that these very same facial expressions are produced when emotions are elicited spontaneously (Matsumoto, Keltner, Shiota, Frank, & O'Sullivan, 2008). These findings are impressive given that they have been produced by different researchers around the world in different laboratories using different methodologies with participants from many different cultures but all converging on the same set of results. Thus there is strong evidence for the universal facial expressions of seven emotions – anger, contempt, disgust, fear, joy, sadness, and surprise.

==Could you recognize these facial emotions? Write it down!==

Source: https://www.apa.org/science/about/psa/2011/05/facial-expressions

Scientists can use Wi-Fi to read your emotions:

CSAIL (**Computer Science and Artificial Intelligence Laboratory**) researchers have created a device that uses changes in heartbeat and breathing to detect emotions. The heart of the system is the algorithm that extracts the heartbeat from the RF (radiofrequenced) signal. It's an impressive achievement that solves a difficult problem.

Source: http://news.mit.edu/2016/detecting-emotions-with-wireless-signals-0920

Microexpressions

A second important discovery [made by Charles Darwin] concerns the existence of microexpressions. When single emotions occur and there is no reason for them to be modified or concealed, expressions typically last between 0.5 to 4 seconds and involve the entire face (Ekman, 2003). We call these macroexpressions; they occur whenever we are alone or with family and close friends. Macroexpressions are relatively easy to see if one knows what to look for. Microexpressions, however, are expressions that go on and off the face in a fraction of a second, sometimes as fast as 1/30 of a second. They are so fast that if you blink you would miss them.

Microexpressions are likely signs of concealed emotions. (They may also be signs of rapidly processed but unconcealed emotional states.) They occur so fast that most people cannot see or recognize them in real time. The idea that microexpressions exist has its roots in Darwin's (1872) inhibition hypothesis that suggested that

facial actions that cannot be controlled voluntarily may be produced involuntarily even if the individual is trying to control his or her expressions.

Teachers can read the emotions of their students to obtain cues about the progress of their lesson plans so they can adjust accordingly and deliver them more effectively. School administrators who read the emotions of their teachers can reduce burnout and maintain and improve teacher effectiveness. Businesspersons and negotiators who can read the emotions of others can nurture mutually beneficial collaborations. Product researchers can improve the qualitative data they obtain from consumers by reading consumer's emotions when evaluating products, giving hints as to what they truly feel despite what they say about it. Parents, spouses, friends, and everyone with an interest in building strong and constructive relationships can benefit from improving their ability to read emotions.

Did it already happen to you? In what circumstances? Share with your classmate some experience.

China: facial recognition and state control.

China is the world leader in facial recognition technology. Discover how the country is using it to develop a vast hyper-surveillance system able to monitor and target its ethnic minorities, including the Muslim Uighur population.

Improving lives, increasing connectivity across the world, that's the great promise offered by data-driven technology - but in China it also promises greater state control and abuse of power. This is the next groundbreaking development in data-driven technology, facial recognition. And in China you can already withdraw cash, check in at airports, and pay for goods using just your face. The country is the world's leader in the use of this emerging technology, and China's many artificial intelligence startups are determined to keep it that way in the future. Companies like Yitu. Yitu is creating the building blocks for a smart city of the future, where facial recognition is part of everyday life. This could even extend to detecting what people are thinking. But the Chinese government has plans to use this new biometric technology to cement its authoritarian rule.

The country has ambitious plans to develop a vast national surveillance system based on facial recognition. It'll be used to monitor it's 1.4 billion citizens in unprecedented ways. With the capability of tracking everything from their emotions to their sexuality. The primary means will be a vast network of CCTV cameras. 170 million are already in place and an estimated 400 million new ones will be installed over the next three years. The authorities insist this program will allow them to improve security for citizens, and if you have nothing to hide you have nothing to fear. But not everyone is convinced. Hong Zhenkuai is a former magazine editor who was ousted by the government. He feels like he's under constant surveillance. Already the authorities are using facial recognition to name and shame citizens, even for minor offenses like jaywalking. In Beijing they're using the technology to prevent people stealing rolls of loo paper from public toilets, and across China police officers are now trialing sunglasses and body cameras loaded with facial and gesture recognition technology - it's helping them to identify wanted suspects in real-time. What worries some people here is that as the technology develops, so too does the capacity for it to be abused. Some of those most at risk in this hyper surveillance future are the ethnic minorities in China.

In Xinjiang province, the Chinese government is wary of the separatist threat posed by the Muslim Uighur population. According to local NGOs, an estimated 1 million Uighurs are being detained indefinitely in secretive internment camps, where some are being subject to abuse. It's been called the largest mass incarceration of a minority population in the world today. The authorities are using facial recognition cameras to scan people's faces before they enter markets. The system alerts authorities if targeted individuals stray 300 meters beyond their home. In the future the government plans to aggregate even more data and build a predictive policing program that imposes even tighter controls here. Without checks and balances, China will keep finding new ways to violate the human rights of its citizens. What's already happening in Xinjiang is a warning the rest of the world must heed. What are the forces shaping how people live and work and how power is wielded in the modern age? NOW AND NEXT reveals the pressures, the plans and the likely tipping points for enduring global change. Understand what is really transforming the world today – and discover what may lie in store tomorrow.

For more from Economist Films visit: http://films.economist.com/
Source : https://www.youtube.com/watch?v=lH2gMNrUuEY

Polygraph, lie detector

A polygraph, popularly referred to as a lie detector test, is a device or procedure that measures and records several physiological indicators such as blood pressure, pulse, respiration, and skin conductivity while a person is asked and answers a series of questions.

US law enforcement and federal government agencies such as the FBI, NSA and the CIA and many police departments such as the LAPD and the Virginia State Police use polygraph examinations to interrogate suspects and screen new employees.

Source: https://en.wikipedia.org/wiki/Polygraph

Also: https://www.thebalancecareers.com/lie-detector-tests-for-employment-2060487 Lie detectors tests for employment