FACIAL RECOGNITION

introduce of Facial Recognition

Facial recognition is a way of recognizing a human face through technology. A facial recognition system uses biometrics to map facial features from a photograph or video. It compares the information with a database of known faces to find a match. Facial recognition can help verify personal identity, but it also raises privacy issues.

Definition of Deep Learning

Deep learning is an artificial intelligence function that imitates the workings of the human brain in processing data and creating patterns for use in decision making. Deep learning is a subset of machine learning in artificial intelligence (AI) that has networks capable of learning unsupervised from data that is unstructured or unlabeled. Also known as deep neural learning or deep neural network.

How to Make Fcial Recognition

A. The Over View

Step 1. A picture of a face is captured from a photo or video. The face might appear alone or in a crowd so image may showed was looking straight ahead or nearly in profile.

Step 2. Facial recognition software reads the geometry of a face. Key factors include the distance between eyes and the distance from forehead to chin. The software identifies facial landmarks — one system identifies 68 of them — that are key to distinguishing the face and the result is a facial signature.

Step 3.Facial signature — a mathematical formula — is compared to a database of known faces. And consider this: at least 117 million Americans have images of their faces in one or more police databases. According to a May 2018 report, the FBI has had access to 412 million facial images for searches.

Step 4. A determination is made. The faceprint may match that of an image in a facial recognition system database.

B. Deep face Recognition Using Imperfect facial Data

Raw face >>> face extraction and croping>>face partioning >>> CNNs-VGGF >>> feature set

Humans and Alghorithms for Facial Recognition

   These experiments investigated how the candidate list displayed to facial reviewers affects of the experiments performance in a one-to-many unfamiliar face matching task. Automated facial recognition systems present the results of a database search and require selection of an image that matches the target. Few studies investigate how humans in combination with facial recognition algorithms perform within different operational contexts. These experiments investigated how the candidate list displayed to facial reviewers affects their performance in a one-to-many unfamiliar face matching task. We tested candidate list length with inexperienced (Experiment 1) and experienced (Experiment 2) facial reviewers. Candidate list length had a large impact on performance, varying with the operational context. However, response-time analyses show that the accurate responses were resolved quickly, with an error-prone guess process implemented after failed search. Long candidate lists (100 images) produced more false alarms, fewer hits, lower decision confidence, and increased response latencies among both inexperienced and experienced facial reviewers.

Uses of Facial Recognition
   A. U.S. government at airports
   B. Mobile phone makers in products
   C. Colleges in the classroom.
   D. Social media companies on websites
   E. Businesses at entrances and restricted areas.
   F. Religious groups at places of worship.
   G. Retailers in stores.
   H. Airlines at departure gates.
   I. Marketers and advertisers in campaigns.

The Dark Side of Facial Recognition
   A. losing The Right of Privacy
   B. Abuse by Law Enforcement
   C. Corporation Spying On Everybody
   D. Anybody Can Find You
   E. There Is a Thin Line Between Security and Disaster

Principel of Artificial Intelegence

A. Sources and process : The process of developing the set of Principles commenced with the postulation of Themes.

B. The Themes and Principels : The status of the Principles enunciated here is important to appreciate. The purpose is to provide practical suggestions for organisations that are seeking to deal with AI responsibly, in particular by means of multi-stakeholder risk assessment and risk management. Each Theme and each Principle has been expressed in imperative mode, i.e. in the form of an instruction. This approach was adopted in order to convey that their purpose is to guide actions. They are not merely desirable characteristics, factors to be considered, or issues to be debated – although they can be used for those purposes as well.

C. Observations About The Principels : This sub-section contains a meta-discussion about several important aspects of the Principles. A first consideration is *whether the Principles address the threats* that were articulated in s.4 of the previous article in the series. In each case, this is achieved by means of a web of interlocking Principles.

Proper Limits on Police use of Facial Recognition

Ensuring that facial recognition is only used after the fact would also allow for third-party review. For example, lawmakers could require a judge or magistrate to review the proposed use of facial recognition in each case, similar to the approval process for search warrants. Additionally, to prevent the use of facial recognition for minor offenses like lawmakers could identify which offenses rise to a level of seriousness that would warrant the privacy intrusion the technology creates. Strong restrictions on the individuals included in facial recognition datasets can also prevent people with parking violations from being swept up in a police dragnet. Ideally, only those with an active arrest warrant should be included in the dataset.
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