Introducing facial recognition using computer vision. Facial Recognition identifies and confirms a person’s identity as security. For example, to unlock your phone and even for marketing. Facial recognition usually relies on one sole owner to identify because it is looking for a specific person so it does not have to go into millions of photos to find a match. The match is already given to this type of technology and confirming or denying what is being presented to it. In order to successfully complete its task, this technology goes through a series of tasks where the computer looks for specific factors to help expedite the analysis. Firstly, it captures a face and then the software reads the geometry of the face including the distance of your eyes, socket depth, forehead to chin distance, the contour of the person’s features. This is what makes a person’s face unique. The facial recognition feature then converts the images and features found into data to where this computer technology can read it and now what was once a picture of a face is converted into a numerical code. This is similar to a fingerprint but instead it is a faceprint. After this it compares and contrasts the analysis of this faceprint with other prints in the database to determine the conclusion if it is a match or not. This helps target an individual whether it is to market items specifically to that person or identify a person when entering and exiting a workplace. This makes it faster to identify a person because computer vision technology turns images into numbers making it precise with little to no error in successfully identifying a person. A human identifying another person is different and could take longer because people can think two individuals look alike but we go based off memory and likeliness rather than how deep a person’s eye socket is. Humans are more prone to make mistakes than computers that read images with numbers which take seconds to identify and match. People have to process and decide based on an opinion from what they know and only see. Computer and human processing are two different speeds. Face recognition using Artificial Intelligence implements deep learning algorithms to process live images. This software is trained to see, analyze, and store them into the database to later compare when the time comes. Face recognition uses image processing and machine learning learn to recognize objects like a person’s face but differentiates it to a statue. Potential challenges with facial recognition would be the lighting, facial expressions, facial features, and makeup. Throughout our lifetime we may use more makeup, age, and even have facial hair which is out of the control of the software to realize time passes by therefore humans change everyday because they just have specific pictures from one time period. Unless the AI facial recognition is updating a person’s image which they need to identify it is the person in charge of that software to keep it up to date and evolve the facial recognition software to specific deep learning areas. Although this could be a problem, it could take months to years for a person to completely change their look and until that occurs the AI face recognition will then be updated.

The computer vision facial recognition gives people convenience on both sides of the spectrum. These biometrics opens a new world of digital identities, securing physical and virtual spaces. This is the most non-invasive identity check to date; imagine going to work and just walking right in without having to physically scan anything or confirm your identity which could potentially make you late. This development would process you the moment you walk or are near the building to the point a person will not even remember they are being processed by AI. Check-ins and outs would be a breeze unless the identity is not in the database which would then trigger security. The only downside would be depending on where the facial recognition is placed for a building it could be too late before a security warning is triggered and the person is in the building area. Face recognition practices are the future of planet earth.

Work Cited Page

“Facial Recognition Technology - Innovatrics - How It Works.” *Innovatrics*, www.innovatrics.com/facial-recognition-technology/.

‌Kaspersky. “What Is Facial Recognition – Definition and Explanation.” *Usa.kaspersky.com*, 19 Apr. 2023, usa.kaspersky.com/resource-center/definitions/what-is-facial-recognition.

Garg, Shreya. “Face Recognition Using Artificial Intelligence.” *GeeksforGeeks*, 25 Nov. 2020, [www.geeksforgeeks.org/face-recognition-using-artificial-intelligence/](http://www.geeksforgeeks.org/face-recognition-using-artificial-intelligence/).

D’Agostin, Tina. “Council Post: Five Ways the Future of Facial Recognition Will Become More Prevalent in Business and Life in 2022.” *Forbes*, 12 Aug. 2024, www.forbes.com/councils/forbestechcouncil/2022/05/03/five-ways-the-future-of-facial-recognition-will-become-more-prevalent-in-business-and-life-in-2022/. Accessed 29 Aug. 2024.

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