In-The-Wild Face Angle Dataset Consent

You are being asked to take part in a research study. Your participation is voluntary, without any negative consequences if you do not participate. Before you make a decision you will need to know the purpose of the study, the possible risks and benefits of being in the study and what you will have to do if you decide to participate. If you volunteer to be in this study, you may withdraw your consent at any time without consequences of any kind.

If you do not understand what you are reading, do not sign it. Please ask the researcher to explain anything you do not understand, including any language contained in this form. If you decide to participate, you will be asked to sign this form.

Purpose of this study

The goal of the Christian Doppler Laboratory for Private Digital Authentication in the Physical World (digidow.eu) is to authenticate people in the physical world without compromising user privacy. The most convenient authentication form uses biometrics, as this allows for device-free authentication. Therefore, the lab works with state-of-the-art face recognition networks. One of the core challenges is, that every individual should be in charge of who stores their data. Therefore, minimizing hardware and network requirements as much as possible supports diversification. For face recognition, this means that there is no large, powerful server to compare many reference images. Instead, a template is pre-computed based on many images, and then this single template is used for comparisons. Using the data collected in this dataset, the first use is to find out how to best aggregate different images, and thus move to a more decentralized world without a large server storing all your potentially highly-sensitive data.

Before a system can authenticate a specific individual, the person must be enrolled in the system. In order to increase usability, this enrollment process should be fast and easy. Ideally, recordings from a single session provide enough information. The second use of the collected data is to test, how different types of enrollment-images affect face recognition accuracy.

Furthermore, as these images are not collected centrally, we have the additional benefit of being able to simulate real-world enrollment processes.

To perform this research, we need to collect images of your face, recorded in a single session. Additionally, sending us images of yourself in as different situations as possible allows to evaluate the effect of having images in different settings. For statistical reasons, you will also be asked to provide your year of birth, race, and gender.

Requirements

You must be 18 years of age or older.

What we need from you

- 1. A roughly 3-second video of your face, starting from the left edge and continuously moving right until the camera captures your right face profile. Please make sure your face is clearly visible, and no other face is in the picture. There are no other constraints, e.g. you can have a neutral expression or smile, whatever you feel most comfortable with.
- 2. 10 images of yourself in situations as different as possible, e.g. with(out) make-up, during sport activities, different age, with(out) glasses/scarfs/facemasks/beard....

What will happen to the information collected

Evaluation of the effects of combining images for face recognition

As explained in *Purpose of this study*, the images collected in this dataset will be used to research how images can be best aggregated, check if a single setting provides enough information for face recognition, and analyze real-world template enrollment. Aggregated findings are planned to be published in a peer-reviewed academic paper. In this paper, no personal identifying information can be found. Data is only published in an aggregated form (e.g. percentage increase of face recognition accuracy). If specific examples are needed, the researchers' own faces will be used.

After the experiment, the data is securely stored on a server of our institute in Linz. The data is encrypted, the password is printed on paper and stored in a physical safe. If 3 years in a row no researcher successfully requested the dataset (see next section), we assume that the data is not relevant anymore. In this case, all data is deleted.

Sharing your pictures with outside researchers

Using the same data to independently confirm results and test different architectures (from different researchers) is crucial to objectively compare results. Therefore, once this project is complete, we intend to offer the set of face images to other researchers in a restricted form. No information other than your image and aggregated statistics about the dataset will be released. This does not contain any information about a single individual (including name, race, year of birth, and gender). The data will not be publicly available. Researchers can apply for access. This access is only granted if they are committing to have at least as restrictive measures as explained in the previous subsection. Specifically, these are the requirements:

- Prevent unauthorized access to the data by storing them encrypted.
- No further distribution to anyone if other researchers want access, they have to contact us directly and thus commit to the same requirements
- No publication of data which can identify a person in any medium
- Data is only used for scientific research

Information collected or created in the European Union might be transferred out of the European Union to other researchers.

Potential risks

Even if some pictures in the final dataset should be inadvertently disclosed, as we do not store any personal information in a digital form, no other data can be disclosed. However, since the images are of your face, if any researcher inadvertently release the pictures, you may be identified. If you are uncomfortable with this (unlikely though) possible occurrence, please do not sign this consent form or participate in the research.

Even if the demographic information was also inadvertently disclosed, the information (gender, race, and approximate age) is already clear from the photographs in most cases. Any unauthorized person who came into possession of the data would only be able to verify this information. They would not know your name or any other identifying information.

However, we will do all we can to prevent the information from being inadvertently disclosed, and we do not expect that this will happen.

Your rights

You may withdraw your consent at any time in the future and discontinue participation without penalty. We will not use your data from then on. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, or if you want to withdraw your consent, please contact:

Institute of Networks and Security Johannes Kepler University Linz Altenbergerstraße 69, 4040 Linz office@ins.jku.at

You may also contact the Institute of Networks and Security for any questions/requests regarding personal data protections/security related to this topic. You have the right to request access to, a copy of, rectification, restriction in the use of, or erasure of your information in accordance with all applicable laws.

Your Personal Information will be destroyed upon your request, unless applicable law or University policy requires destruction after the expiration of an applicable retention period.

If you think your rights have been infringed, you can complain to the data protection authority:

Austrian Data Protection Authority Wickenburggasse 8, 1080 Vienna Phone: +43 152 15 20 Mail: dsb@dsb.gv.at

* White, Black, Asian, Indian, Other (such as Hispanic, Latino, Middle Eastern)

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Race*

If you have any questions about the conduct of this study or your rights as a research subject, contact:

Office of Data Protection Johannes Kepler University Linz Altenbergerstraße 69, 4040 Linz datenschutz@jku.at

Consent

I have read the above document and I agree to participate in the study.

Name

Location, Date

Institute of Networks and Security Johannes Kepler University Linz Altenbergerstraße 69, 4040 Linz office@ins.jku.at

Responsible person

If you have any questions about this study, please contact:

Year of birth

Gender [m/f]

Signature