http://facefield.org/SynthFace.aspx?ukey=20205

FACE CLOUD

This project reverses face detection and recognition narratives. Instead of singling out, it joins.

An interactive installation, Face Cloud presents an infinite field of haunting, unique, artificial faces that are generated from a hidden research database of scanned real faces.

You, the users may scan your own faces to be added to that database - the vault. The diversity, nuance and complexity of the Face Cloud that draws from it visibly increases with each entry.

Spanning 60 dimensions, the cloud is produced by subverting standard face recognition algorithms.

The terms Face Detection and Face Recognition are often used interchangeably but to be precise, Face Detection picks out faces from an image, whereas Face Recognition takes a new image of a face and matches it with one it has previously seen.

Our research into multi-dimensional visual spaces draws upon algorithms used in Face Recognition.

Eigenfaces analysis is a statistical face recognition technique. It uses Principal Component Analysis to calculate a set of Eigenvectors, or Eigenfaces. These Eigenfaces can be thought of as 'face ingredients'.

To calibrate the model, we calculated 60 Eigenfaces on a training set of over one thousand faces. Thereafter, whenever a new face is uploaded, it is subjected to a subspace projection that reconstitutes it as a linear combination of these Eigenfaces.

Normally at this point, a face recognition algorithm would look for the closest match in this 60-dimensional Eigenface space. We are not interested in surveillance technologies but in exploring this 60-dimensional field of faces.

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