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What is Biometrics?

Biometrics authentication is the automatic recognition of a living being using suitable body characteristics. By measuring an individual's physical features in an authentication inquiry and comparing this data with stored biometric reference data, the identity of a specific user is determined. There are many different biometric features that can be used for authentication purposes these include finger image, signature, iris, retina, DNA or any other unique characteristic. Once a characteristic has been chosen the next stage in the Biometric process is authentication. A biometric feature is saved on to a database. Once the data has been stored, a new scanning of the biometric feature is taken. If the comparison is positive, access to the appropriate application is granted.

The history of biometrics

Once the domain of the local constabulary, biometric technology is now being used at many locations around the country. Banks, supermarkets and now even schools and colleges are adopting this increasingly popular technology. Biometrics are not new, their roots have been traced back to ancient Egyptian times. The use of biometric images as a security device started with Chinese officials using them to seal documents in the second century BC. Over the last few years the technology has begun to find favour commercially.

Whilst the use of Biometrics has been steadily growing over the last ten years, the past couple of years have seen an explosion in development, interest and vendor involvement.

Impact Biometrics is coming to

The Bourne Academy

Biometrics and Security

Students, parents and staff can rest assured that the biometric images cannot be used by any other source for identification purposes. The system uses a biometric input to create a mathematical algorithm and then discards the biometric image; only the numbers remain and these cannot be reinterpreted back into a biometric image.

The future is in your hands!

Frequently Asked Questions

Why do you need to take my child's biometrics?
By taking an image of your child's biometric we can turn this information into a digital signature.

Can biometrics be used by any other agency?
No, the software we use turns your child's biometric image in to a mathematical algorithm. The image of the biometric is then discarded. The information that is stored cannot be used to recreate an image of the child's biometric.

What happens when my child leaves the School?
When a student leaves school all data can be deleted very easily.

How does it work?
When the child places their biometric input on the scanner, the software matches their biometric image with the unique digital signature held in the database.

The only UK provider with their own identity management, cashless catering, and online payment solutions, supported by a national service and support team.

FAQ Sheet - Biometrics

Who are CRB Cunninghams?

We are the only UK provider with our own identity management, cashless catering, and online payment solutions, supported by a national service and support team.

Are you based across the entire UK?

Our education solutions are used in over 2,400 schools across England, Scotland, Wales and Ireland to help them run efficient and effective meal and nutritional programs as well as providing cashless catering solutions, identity management, online payment provisions, access control, electronic registration, visitor management and much more, offering completely integrated solutions to UK schools.

What is Biometrics?

All of our solutions use some methods of user identification. We use magnetic stripe cards, PINs, proximity cards or fingerprint biometrics. Our biometrics identification is simply another way of quickly and uniquely recognising our users in a way that can't be forgotten or lost. It only needs the user to register once for all systems across the entire school.

What happens to the fingerprint?

When a pupil registers to the biometric system, their finger is placed on to a fingerprint scanner. The fingerprint is then converted into a collection of data points via a mathematical algorithm. This data is then encrypted and stored on the pupil's account to be used as their unique identifier.

So the fingerprint is never stored?

Exactly! The fingerprint is only used to generate a collection of data points which is then encrypted. The fingerprint reader looks for specific patterns and unique identifiers on the finger, assigning specific data to each point - the fingerprint is never actually recorded.

Can the secure data be reversed to produce a fingerprint?

Not at all. The data points produced by the algorithm can't be reversed to produce a full fingerprint. The data is fully encrypted to military grade standards and even if this was to be broken, trying to reproduce a fingerprint from the data points could never produce anything usable.

Is my child's data secure?

Our database is stored within the school on a secure server system. The database is fully password protected and cannot be accessed by the copying of the physical data files. The fingerprint data itself is encrypted within this database.

Can the police use the fingerprint data?

Our solutions only store encrypted data points from a fingerprint. Even if we were to decrypt and reverse the algorithm for the police, the image produced would not be accurate enough for forensic matching and would not be admissible in court. The police also would not be able to use the data points for their databases as the algorithms don't match.

I have identical twins, won't they have the same fingerprint?

Identical twins share many physical similarities but will have different fingerprints, so there would not be any mistakes made when the CRB Cunninghams system identifies them.

What about cuts, or other injuries?

Unless the injury resulted in a severe disfigurement to the finger, then our biometric solution will have no problem identifying the user. Alternatively, we can register a pupils alternate finger for identification.

I don't want my child to be entered in to the biometric database, what alternatives are there?

Not a problem. Any pupil who wishes to opt out of our biometric database can utilise one of our alternative identification methods, which includes PIN numbers, smartcards, and passwords.