

Gladstone Education

Biometric Fingerprint Recognition Guidelines



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1. Introduction

Gladstone Education offers biometric fingerprinting technology as one type of identification Solution to be used in conjunction with the OnRecord Cashless Catering and e-Registration systems.

If your school is considering introducing a biometric fingerprint recognition solution, please first refer to the Betca “[Guidance on Biometrics in Schools](#)” (2007), which clarifies the current legal and political position on the use of biometrics in schools.

2. About Biometrics

The biometric fingerprint recognition solution captures and stores a “snapshot” of the user’s fingerprint image, for identification purposes, when used with the OnRecord Cashless Catering or e-Registration system.

Rather than capturing and storing a complete image of a user’s fingerprint, biometric technology captures only a random number of distinctive points on a fingerprint (approximately 120 points), when a user is first enrolled onto the system.

These points are then converted into a digital representation of the image, which is essentially a unique string of numbers.

This numerical value is stored as a biometric “template” in the facility’s OnRecord database.

Each time a user subsequently places his or her fingertip to the biometric reader, the database searches through all of the saved templates until it finds a match to uniquely identify the user.



Full fingerprint images are **not** stored and it is technically impossible to recreate a pupil’s actual fingerprint image from this string of numbers.

3. How it Works: Biometrics and Cashless Catering

3.1. Fingerprint Enrolment

The user must first have their fingerprint enrolled on to the facility’s OnRecord system.

- The user’s fingerprint image is scanned into the Fingerprint Enrolment software using a biometric reader
- A distinctive pattern of the fingerprint is plotted by the OnRecord system
- A unique biometric pattern of numbers is stored against the user’s record

3.2. Fingerprint Identification

Once enrolled, the user can access their Cashless Catering account using their fingerprint in one of two ways:

1. At the Money Loader machines in order to check and top up their account balance
2. At the EPOS (Electronic Point of Sale) till in order to process transactions in the canteen
 - Each pupil is uniquely identified by placing their fingertip on the reader at the EPOS till. The cost of their lunch is then automatically deducted from their Cashless Catering account.

In both cases, the user is identified in the following way:

- When the fingertip is presented to the reader, the system runs a comparison check against the biometric templates stored in the database
- The system then finds a match to bring up the user’s account details

4. How it Works: Biometrics and e-Registration

4.1. Fingerprint Enrolment

The user must first have their fingerprint enrolled on to the facility's OnRecord system.

- The user's fingerprint image is scanned into the Fingerprint Enrolment software using a biometric reader
- A distinctive pattern of the fingerprint is plotted by the OnRecord system
- A unique biometric pattern of numbers is stored against the user's record

4.2. Fingerprint Identification

Once enrolled, the user can electronically register themselves for AM and PM registration by presenting their fingerprint to biometric readers attached to the walls in classrooms and corridors.

Each pupil is assigned to the relevant tutor group in the system, which is scheduled to take place in a particular location at a particular time.

- When the fingertip is presented to the reader, the system runs a comparison check against the biometric templates stored in the database
- The system then finds a match and updates the pupil's attendance record according to the time that they register (for example **Present**, if they are on time, **Late**, if they are late for the registration period)

5. Recommendations and Guidance

Whilst consent is not a legal obligation when introducing biometric technology into a school environment, Gladstone Education recognises that some parents and children may have concerns about the new technology.

Therefore, Gladstone Education recommends that parents and pupils are kept informed and reassured of the school's intention to implement the new system. This could involve ensuring that parents and pupils are made aware of the following in accordance with the Data Protection Act 1998:

- What biometric technology is and how it works
- What data will be collected and stored and what it will be used for
- Why the data is required
- How the data will be kept secure
- The data will not be passed on to any outside organisation and cannot be accessed by third parties
- Pupils' biometric data will be deleted when children have left the school

Gladstone Education believes that choice is essential, and that parents and children who choose to opt out should be able to do so without stigma.

All of Gladstone's solutions have a manual look-up facility which can be used as an alternative for students who choose to opt out.

6. Document History

| Version | Date | Author | Sections Modified | Amendments |
|---------|------------|-------------------|-------------------|------------|
| 1.0 | 03.11.2008 | Debra Weatherston | N/A | N/A |