Wyke 6th Form College: Biometric recognition - improving the responsiveness of the library

Summary

Due to the time involved in creating student library cards and problems caused by lost and forgotten cards, Wyke 6th Form College integrated biometric (fingerprint) scanning technology into its library processes. This change has significantly improved account generation and response times, enabling resources to be borrowed immediately, and reduced the potential financial and time impact caused by lost and forgotten cards.

About Wyke 6th Form College

Based in west Hull, Wyke 6th Form College opened in 1988 and offers a range of courses, mainly for 16-19 year-olds.

The challenge

The start of term is always a busy time in a college and the library is no exception. Prior to the introduction of biometric scanning the library team used to spend two to three weeks making student library cards manually, which involved waiting for students to remember to bring in ID and a photo of themselves to match to their record before they could borrow any resources.

A secondary issue occurred when students either forgot or lost their cards, or another student got hold of someone else’s card, so additional time was needed to find the correct account record and/or create a new card before they could borrow books again. This process took lots of staff time and impacted on the students’ learning, as there were times when they could not borrow resources quickly and easily.
The activity

The library introduced biometric scanning a few years ago, through its library management system – initially ‘Softlink Alice’, now ‘Softlink Oliver’ – with the aim of streamlining the process of creating student accounts and issuing resources. Initially, students had the option to scan their fingerprint the first time they visited the library, but for the academic year 2010-11 the scanning/registering process became part of the College enrolment process and, as such, the uptake of students registered for biometric data rose from 30% to 95% (the outstanding 5% was mainly due to it not being possible for some individuals’ fingerprint to be read successfully by the scanners, eg guitar players!).

If a biometric could not be scanned then a barcode would be issued so that students were not disadvantaged, this was also available should any student decline a biometric scan. However, Keith pointed out that the students “generally accepted the process, as staff didn’t make a big deal of it, and many were familiar with it from their schools. A simple notice about it is displayed and a full FAQ [frequently asked questions] sheet is available for every student to explain and explore preconceptions and often incorrect assumptions”.

How the system works:

1. College student data is imported into Biostore (over the summer break)
2. Finalised college student data is imported directly into the library management system (Oliver) before the start of term (to cover late enrolments)
3. The student’s finger is scanned three times and this is converted to a unique 110-digit code, which is linked to the student’s library record. (It is important to note that a fingerprint is not stored and cannot be reconstituted from the 110-digit number)
4. Students simply scan their finger to borrow resources and can borrow resources from day one.
5. After students have left the College, accounts are made inactive and their biometric data is removed.
The outcomes

The introduction of the use of biometric recognition has greatly improved the efficiency of the library team, as the speed of account generation at the start of term is significantly reduced and there are fewer “issues” created by lost or forgotten cards.

Librarian Keith Mawer, who works with learners across all curriculum areas, pointed out that the students find using the library quicker and easier because they “don’t need to bring anything with them to be able to borrow resources and other students cannot use ‘borrowed’ cards.”

The impact

Issue times are speeded up because:
- Staff do not need to wait for ID and photos from students to create cards manually;
- The software used (via Softlink Oliver) has had a 100% accuracy in bringing up the correct person’s record; and
- There are no delays due to lost or missing cards.

Staff time is used efficiently because:
- The initial scanning of biometric data forms part of the enrolment process;
- Library staff have immediate interaction with new students during enrolment; and
- Replacing cards is no longer a constant distraction throughout the year.
- The process makes it quicker and easier for students to borrow resources and use library services.

Lessons learned

A key lesson that was learned was that, it is important to be careful of what data is deleted after students leave the college; some students may return and the unique student identifier cannot be recreated. This is not so much of an issue at Wyke as it is a 6th Form college and students would only return briefly to retake a year. However, it would be a much greater problem in a further, higher or adult/community education organisation, where students may return – even after a number of years. Ideally, accounts should be rendered “inactive” and the biometric removed, these accounts can then be retrieved at a later date and the biometric taken again should the need arise.

The student information sheet originally had a picture of a fingerprint on it but that was removed, as it appeared to support inaccurate assumptions around the collection and storage of fingerprints rather than a 110-digit code number.

The financial implications are minimal as the cost of a finger scanner is around £70 (one is needed per workstation) and the individual licence was £195 in 2010-11.
Furthermore, this cost could be offset against the benefits in staff time being used more effectively through the use of biometric recognition and costs of producing library cards (cards and labour).

It is worth noting that this system can be used in other areas of the College, including the canteen, and with staff-only entry areas, but at present it is only being used in the library.

Useful links

Wyke 6th Form College

Biostore

Softlink Oliver Library Management System

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