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Biometrics

Biometrics is the technology of authenticating a person's identity by verifying a personal characteristic. Biometric devices grant users access to programs, systems, or rooms by analyzing some biometric identifier (Schmidt 54-62). A biometric identifier is a physical or behavioral characteristic. Examples include fingerprints, facial features, hand geometry, voice patterns, signatures, and eye patterns.

A biometric device translates a personal characteristic into a digital code that is compared with a digital code stored in the computer. If the digital code in the computer does not match the personal characteristic's code, the computer denies access to the individual.

The most widely used biometric device today is a fingerprint scanner. A fingerprint scanner captures curves and indentations of a fingerprint. With the cost of fingerprint scanners less than $100, experts believe this technology will become the home user's authentication device for e-commerce transactions. To conduct a credit card transaction, the Web site would require users to hold a finger on the scanner. External fingerprint scanners usually plug into a parallel of USB port. [1] Businesses use fingerprint scanners to authenticate users before they can access a personal computer. Grade schools use fingerprint scanners as an alternative lunch money. Student's account balances adjust for each lunch purchased.

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[1] According to Carter and Juarez, newer keyboards and notebook computers have a fingerprint scanner built into them.

Law enforcement, surveillance systems, airports, day-care centers, financial institutions, the military and other organizations that deal with highly sensitive data use other types of biometrics. A face recognition system captures a live face image and compares it with a stored image. A hand geometry system measures the shape and size of a person's hand. (*Computers and Biometrics*). A voice recognition system compares a person's live speech with his or her stored voice pattern. A signature verification system recognizes the shape of a handwritten signature, as well as measures the pressure exerted and the motion used to write the signature. Finally, an iris recognition system reads patterns in the iris of the eye.

Works Citied

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