

OPTICAL CHARACTER RECOGNITION

Optical character recognition is usually abbreviated as OCR. It includes the mechanical and electrical conversion of scanned images of handwritten, typewritten text into machine text. It is common method of digitizing printed texts so that they can be electronically searched, stored more compactly, displayed on line, and used in machine processes such as machine translation, text to speech and text mining.

In recent years, OCR *OpticalCharacterRecognition* technology has been applied throughout the entire spectrum of industries, revolutionizing the document management process. OCR has enabled scanned documents to become more than just image files, turning into fully searchable documents with text content that is recognized by computers. With the help of OCR, people no longer need to manually retype important documents when entering them into electronic databases. Instead, OCR extracts relevant information and enters it automatically. The result is accurate, efficient information processing in less time.

Optical character recognition has multiple research areas but the most common areas are as following:

Banking:

The uses of OCR vary across different fields. One widely known application is in banking, where OCR is used to process checks without human involvement. A check can be inserted into a machine, the writing on it is scanned instantly, and the correct amount of money is transferred. This technology has nearly been perfected for printed checks, and is fairly accurate for handwritten checks as well, though it occasionally requires manual confirmation. Overall, this reduces wait times in many banks.

Blind and visually impaired persons:

One of the major factors in the beginning of research behind the OCR is that scientist want to make a computer or device which could read book to the blind people out loud. On this research scientist made flatbed scanner which is most commonly known to us as document scanner.

Legal department:

In the legal industry, there has also been a significant movement to digitize paper documents. In order to save space and eliminate the need to sift through boxes of paper files, documents are being scanned and entered into computer databases. OCR further simplifies the process by making documents text-searchable, so that they are easier to locate and work with once in the database. Legal professionals now have fast, easy access to a huge library of documents in electronic format, which they can find simply by typing in a few keywords.

Retail Industry:

Barcode recognition technology is also related to OCR. We see the use of this technology in our common day use.

Other Uses:

OCR is widely used in many other fields, including education, finance, and government agencies. OCR has made countless texts available online, saving money for students and allowing knowledge to be shared. Invoice imaging applications are used in many businesses to keep track of financial records and prevent a backlog of payments from piling up. In government agencies and independent organizations, OCR simplifies data collection and analysis, among other processes. As the technology continues to develop, more and more applications are found for OCR technology, including increased use of handwriting recognition.