Computer keyboard essay sample

Technology, Computer

In computing, a keyboard is a typewriter-style device, which uses an arrangement of buttons or keys, to act as mechanical levers or electronic switches. Following the decline of punch cards and paper tape, interaction via teleprinter-style keyboards became the main input device for computers. A keyboard typically has characters engraved or printed on the keys and each press of a key typically corresponds to a single written symbol. However, to produce some symbols requires pressing and holding several keys simultaneously or in sequence. While most keyboard keys produce letters, numbers or signs (characters), other keys or simultaneous key presses can produce actions or computer commands. Despite the development of alternative input devices, such as the mouse, touchscreen, pen devices, character recognition and voice recognition, the keyboard remains the most commonly used and most versatile device used for direct (human) input into computers. In normal usage, the keyboard is used to type text and numbers into a word processor, text editor or other programs. In a modern computer, the interpretation of key presses is generally left to the software.

A computer keyboard distinguishes each physical key from every other and reports all key presses to the controlling software. Keyboards are also used for computer gaming, either with regular keyboards or by using keyboards with special gaming features, which can expedite frequently used keystroke combinations. A keyboard is also used to give commands to the operating system of a computer, such as Windows' Control-Alt-Delete combination, which brings up a task window or shuts down the machine. Keyboards are the only way to enter commands on a command-line

History

While typewriters are the definitive ancestor of all key-based text entry devices, the computer keyboard as a device for electromechanical data entry and communication derives largely from the utility of two devices: teleprinters (or teletypes) and keypunches. It was through such devices that modern computer keyboards inherited their layouts. As early as the 1870s, teleprinter-like devices were used to simultaneously type and transmit stock market text data from the keyboard across telegraph lines to stock ticker machines to be immediately copied and displayed onto ticker tape. The teleprinter, in its more contemporary form, was developed from 1903–1910 by American mechanical engineer Charles Krum and his son Howard, with early contributions by electrical engineer Frank Pearne. Earlier models were developed separately by individuals such as Royal Earl House and Frederick G. Creed. Earlier, Herman Hollerith developed the first keypunch devices, which soon evolved to include keys for text and number entry akin to normal typewriters by the 1930s. The keyboard on the teleprinter played a strong role in point-to-point and point-to-multipoint communication for most of the 20th century, while the keyboard on the keypunch device played a strong role in data entry and storage for just as long.

The development of the earliest computers incorporated electric typewriter keyboards: the development of the ENIAC computer incorporated a keypunch device as both the input and paper-based output device, while the BINAC computer also made use of an electromechanically controlled typewriter for both data entry onto magnetic tape (instead of paper) and

data output. From the 1940s until the late 1960s, typewriters were the main means of data entry and output for computing, becoming integrated into what were known as computer terminals. Because of the lack of pace of text-based terminals in comparison to the growth in data storage, processing and transmission, a general move toward video-based computer terminals was affected by the 1970s, starting with the Datapoint 3300 in 1967. The keyboard remained the primary, most integrated computer peripheral well into the era of personal computing until the introduction of the mouse as a consumer device in 1984. By this time, text-only user interfaces with sparse graphics gave way to comparatively graphics-rich icons on screen. However, keyboards remain central to human-computer interaction to the present, even as mobile personal computing devices such as smartphones and tablets adapt the keyboard as an optional virtual, touchscreen-based means of data entry. [edit]Keyboard types

One factor determining the size of a keyboard is the presence of duplicate keys, such as a separate numeric keyboard, for convenience. Further the keyboard size depends on the extent to which a system is used where a single action is produced by a combination of subsequent or simultaneous keystrokes (with modifier keys, see below), or multiple pressing of a single key. A keyboard with few keys is called a keypad. See also text entry interface. Another factor determining the size of a keyboard is the size and spacing of the keys. Reduction is limited by the practical consideration that the keys must be large enough to be easily pressed by fingers. Alternatively a tool is used for pressing small keys.