From Speakwrite to Thinkwrite

1984

In George Orwell's novel of a futuristic society, 1984, a Speakwirte machine is first mentioned in Chapter One (page 9, line 14-17). A “Speakwrite”, which is an invention from George Orwell himself can be described as some form of dictation system, in which a user speaks into and his or her words are transferred directly into text that are then displayed on the telescreen (which is another one of Orwell’s inventions). In the novel, the protagonist (Winston Smith) uses the Speakwrite at work (Chapter 4). He uses it to adjust and alternate information and history in favour of the Party and Big Brother (The government). He changes the texts so that the Party seems to have stated the truth from the beginning (he rectifies the original figures by making them agree with the later ones). He does this by talking into the Speakwrite at his work desk. The point of this work is to make it appear as if every prediction the party has made could be shown by documentary evidence. History is being alternated and rewritten so that the Party and Big Brother have always been "right" and so they stand in the good graces of the people.

2021

A first attempt to develop a system that converts languages into text began as early as 1936 by Bell AT&T laboratories. At the 1939 World's Fair, the Bell AT&T laboratories presented their first prototype “Voder” which was a hands-free keyboard that could be controlled by a foot pedal. By the 1970s, further large companies such as IBM and Philips (that are still known today) were starting to get involved in speech technology. In 1997, the first commercial speech recognition program came onto the market. In the 1980s, the age of computers began. This gave the industry a big boost. Numerous companies were founded in the sector of speech recognition that researched and developed this technology. [1]

The first computer with speech recognition that came onto the market in 1997 held the promise that the mouse and keyboard would eventually disappear completely. Sadly, the first speech recognition programs were not as developed as imagined and hoped. The software's hardware requirements were enormous. To be able to operate the device required hours of training and learning the user's way of speaking. And despite all this, the word recognition rate was still insufficient. [2]

Nowadays it is possible for dictation programs to dictate up to 60 languages without users having to learn the computer’s programmer language first. Almost every modern computer is equipped with a dictation function. This is a great improvement from the past. Voice recognition has finally established itself in society, but it has not yet replaced the mouse and keyboard. Dictated text is not possible without post-processing. Corrections still need to be made with the mouse and keyboard. [2]

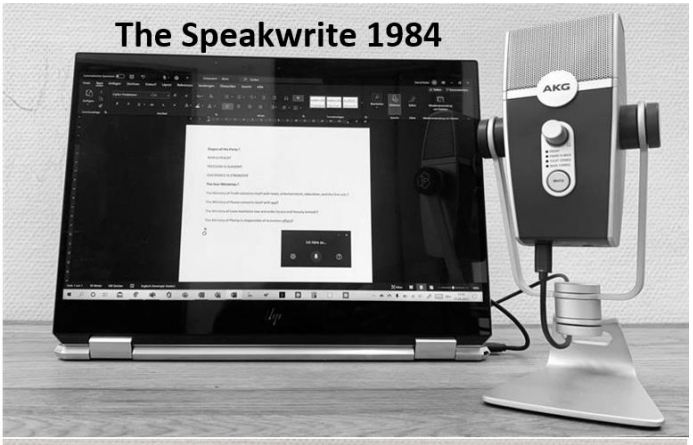
These Days, the dictation function does not only work on computers programs like Microsoft Office (Word) but also on smartphones. Most smartphone providers have integrated their own dictation systems directly into their cell phone software. A good example is Apple’s well known "Siri". Numerous internet websites like "trint.com" or "otter.ai" also provide online dictation tools. [2]

Speech recognition is especially popular among medical professionals and lawyers, as it saves a lot of work and time from typing. [3]

Present-day, we have even reached the point where Technology has enabled us to covert spoken not just into text but into actions. This is done with a so-called voice assistant in which spoken text (tasks) can be executed immediately. [4]

A voice assistant is a small device that can be set up anywhere in the house or in the office. It only needs internet connection. The machine receives tasks through spoken words, analyses them, puts them into the right context and executes the command. This way, the device is able to directly take commands and answer questions. For example, a voice assistant is able to answer what the weather will be like and to play the desired music. Most voice assistants are activated with an activation word like "Hey Siri", "Hey Google", "Alexa" etc.). [4]

2084



Technology has developed very rapidly in recent years. Therefore, it may very well be that in the year 2084, technology will be much more advanced than we can ever imagine today. In relation to our topic, technology might even develop in such a way that we will no longer need to use spoken words to transfer what we want to have written (typed or on paper) or executed.
We can imagine technology, that can directly convert our thoughts into text. One may even call it a “Thinkwrite” machine in honour of Orwell’s “Speakwrite” invention. It would not need a keyboard. It would only need a screen and the corresponding mouse to navigate on the screen and to open the corresponding programmes. To connect to the computer, the user's finger must be placed on the fingerprint scanner. This establishes a connection with the computer. Through that constant connection with the user and the computer, the thoughts are transmitted through the fingerprint scanner onto the screen. Corrections can also be made through the fingerprint scanner. It would be necessary for the finger to always have contact with the sensor during the whole “writing” process. As soon as you release the sensor, the connection is broken, and the programme no longer records what you are thinking. This function is intended to prevent you from unintentionally putting your other thoughts on paper.
The only difficulty with this technology we can imagine is that while using the Thinkwrite machine, you would need to learn how to focus your thoughts and not let yourself get distracted by other thoughts. This becomes essential if you don't want your text being a big mess of random thoughts from all over the place. Without learning to filter your thoughts, corrections would take much longer. The procedure of learning how to filter your thoughts must be learned intensively in our opinion. Otherwise, the system can be a bit frustrating and overwhelming with lots of corrections. We think Meditation could certainly be the answer to this slight problem because meditation focusing on getting rid of confusing and overwhelming thoughts.

In conclusion

In our opinion, we think that the technology sector will continue to gain momentum and develop itself further and further. In 63 years from now, technology might be more advanced than we can ever imagine today. Of course, there is always the chance of the technology industry developing in a completely different direction than what we suspect today. Today, there are already many companies researching the brain and how our thoughts work. With both technology and the human body being under constant research and development, there may be a chance in the future that those two topics would merge into one big, interesting topic.

However, it could also be that humanity would suddenly change its mind and not continue to buy into this theory of controlling the brain and our thoughts with or without a computer. As some experts have already said, at some point technological development will take a step backwards and we will go back to very rudimentary ideas and systems. But we think that this will not be the case and that people will want to keep on researching and researching. Especially in areas where we still know very little or have not yet succeeded in making a breakthrough. Maybe one day there will even be an invention similar to our idea of the Thinkwrite machine.

Sources:

[1] Speech recognition and voice control [www.bilder.buecher.de]
[2] Speech recognition is finally usable [www.tagesanzeiger.ch]
[3] the development of speech recognition [www.voicepoint.ch]
[4] Voice assistants [www.homeandsmart.de]