

THE WONDER OF SPELLING

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Abstract:

Computer technology is the fastest-growing industry in the world. The first computer was the size of a minibus and weighed a ton. Today, its job can be done by a chip the size of a pin head. And the revolution is still going on. They save a lot of time. They seldom make mistakes. It's much faster and easier to live with computer.

Keywords: spelling, pen, writing, recognition, letters, connecting.

Introduction

The Lernstift is a unique invention, that can help make our society competent and intelligent. The software has over 40 languages and Lernstift will be launched in English and German before being rolled out to more languages. This means it could also be used to help people learn new languages. Modern scientists and teachers can promote the invention for the purpose of development of society and progress.

Purpose of this work is to analyze the prospects of future technologies.

Research results

A pair of German inventors have created a digital pen that can check for spelling mistakes in handwriting. The Lernstift, which is German for learning pen, has a built-in sensor that recognises writing movements and tracks the shape of the letters to recognise words. It then vibrates when a mistake is made.

Lernstift also has Wi-Fi built-in and the pen can be connected a smartphone or PC to upload written texts online, share them on social networks or take part in writing training.



Illustrayion 1. Lernstift

Future models will also check for grammatical errors and the designers Falk Wolsky and Daniel Kaesmacher hope it will help children and adults develop their writing and spelling skills. The idea came from Wolsky's wife while she was helping her son with his homework. Current digital pens use optical sensors to pick up the writing movements and digitise the words or sketches so they can be used on a computer. Some of these pens require additional devices, while others only work with specialty paper. Lernstift is different because it has the technology and software built-in. The computer inside Lernstift is an embedded Linux system - a scaled-down version seen on some PCs and laptops. The board contains a non-optical motion sensor, processor, memory, Wi-Fi and vibration module. The motion sensor recognises all writing

movements, even if the pen is used to write in the air. This means Lernstift doesn't need any additional recognition devices or special paper to work. It combines a gyroscope with accelerometer, and to optimise the motion recognition, the inventors also added a magnetometer. Built-in Wi-Fi means it can connect to smartphones and computers for social media sharing or learning websites.

The pen has two functions: Orthography Mode is used to recognise misspellings and will vibrate when a word is spelt incorrectly. Calligraphy Mode is used to point out flaws in the form of handwriting and eligibility, to make it neater. Lernstift uses a built-in handwriting software to compare the written words with the correct spellings. Future models will also be able to point out grammatical mistakes such as wrong word order.

Conclusion

According to the project, the team are using a handwriting engine and language database to trace the words. The software has over 40 languages and Lernstift will be launched in English and German before being rolled out to more languages. This means it could also be used to help people learn new languages.

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