How does autocorrect work?

KS3 KS4 Ages 11-18 ⏰ 2 min read

Every time you type on your phone and it magically fixes your spelling mistakes, you're witnessing a clever bit of computer detective work. **1** doesn't actually understand what you're trying to say — instead, it's making educated guesses based on patterns it has learned from millions of other people's writing.

The Dictionary Detective

When you start typing a word, autocorrect immediately gets to work comparing your keystrokes to its massive built-in dictionary. But it's not just looking for perfect matches. The system knows that fingers slip on touchscreens, so it considers letters that are close to the ones you actually pressed. If you type 'teh', it notices that 'h' is right next to 'e' on the keyboard, making 'the' a likely candidate.

Think of autocorrect like a librarian who's memorised where every book should go. When you hand them a crumpled note saying 'Shak spear', they don't throw it away — they recognise the pattern and fetch you 'Shakespeare' instead.

Probability Mathematics

The really clever bit happens when autocorrect uses **1**. It has analysed billions of sentences to learn which words commonly appear together. For example, if you type 'Happy birthday to', the system knows that 'you' is far more likely to come next than 'turnip', even if your fingers happened to hit letters closer to 'turnip'.

Modern autocorrect also learns from your personal typing habits. If you frequently write about football, it becomes more likely to suggest 'match' instead of 'batch' when you type something unclear. This personal dictionary grows smarter the more you use your device.

The Mistakes That Happen

Of course, autocorrect famously gets things wrong sometimes, creating those embarrassing text messages that become family legends. This happens because the system can only work with probabilities, not actual understanding. When you text

about 'ducks' in the park, but autocorrect changes it to something rather different, it's because the alternative word appears more frequently in its training data.

Despite these occasional mishaps, autocorrect successfully fixes billions of typos every day, making digital communication faster and more accurate for people around the world.

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