

## GCSE Bitesize Computer Science

### Google's Diana Gorea on indexes

My name is Diana Gorea, I'm a software engineer at Google. In a text search problem, if we search on one web page, then any string search algorithm can do the job. But what if we search the whole World Wide Web? It is impossible to use string search. It will take an enormous amount of time for the user to wait for the search results. This is why Google search engine uses sophisticated algorithms and data structures. After crawling the web, data structures called indexes are created in which each word or phrase that is displayed on the web is associated with all the web pages in which the word occurs. When a user searches something, Google looks up in those indexes stored on Google's servers. Using these techniques result in the fast search experience that users expect.