So the article I picked up and decided to talk to you about mentions a subject that is familiar to at least some of us: Computer Science. This is the science of programming algorithms, which are abstract procedures for processing data, onto computers. Usually, computer science is taught at the university, sometimes with premises in high school, but little do we know that over in the united kingdom, computer science is being taught to much younger individuals.

two years back, after-school clubs were started by volunteers to provide complementary knowledge that usual education wasn't giving the children. More than 2k of such groups were started, teaching up to 30k children.

Idea developped into a whole lesson “computer science” about programming computers starting from age 5, more advanced classes starting at 11

how to teach children university-class knowledge? Start simple with Scratch, easy and fun: simple blocks of instructions that produce very visible results, basic logic, implications => 6 million different projects. Learn about the concepts that are similar in real programming (loops, parallel computing), sense of logic, process of spotting what's wrong, understanding the logic. Other toys let kids play with logic in sense similar as programming.

benefits:
* boost ability to abstract thinking: other kinds of abstraction: maps
* sequencing, steps, ordering: day's activities, tell a story in order (// with other parts of life)
* problem solving : see the relevant core important points of a puzzle, understand what matters in a whole (computational thinking)
* new approach to technology (understanding what it does rather than just blindly using it, empowering)
* role of school to not only teach the youth how to us the digital products of today but also provide knowledge about how they work, be in control rather than be used by the products
* lot of demand in the technology sector: way to develop new skills needed => more qualified good people: bring different types of people (everyone can create), diversity

downside:
* not everyone needs to know how to program
* using is enough for most people

Real impact: few studies, 80s showed that it helps boost abstract thought, the actual impact is yet to be found precisely but it will open people up to understanding the magic behind those black boxes.