

Handout 48. The History of Computer Science: text selection 1

<p>The oldest known gear mechanism is the Antikythera mechanism, which is believed to have been invented by Archimedes in the 2nd century BC. It is a clock that can forecast the positions of the sun, the moon and the eclipses, by turning a simple hand crank. This masterpiece of mechanics had around thirty cogwheels.</p>	<p>In 1450, Johannes Gutenberg revolutionized printing. He improved the press, the ink, and most importantly, he made it movable, which means the press could be reconfigured as many times as needed.</p> <p>In the same way, in 1801, Joseph Marie Jacquard improved the weaving loom by introducing the punched card. This card contained the instructions for how to create a specific pattern. By using this card on two different looms, the same pattern can be reproduced; by changing the card, the same loom could produce another pattern.</p>
<p>In the 19th century, navigators found their way by looking at the positions of the stars and planets. They needed precise information. In 1821, Charles Babbage presented drawings for a difference machine that would speed up arithmetic. He never built it, but he designed another, more powerful machine: the analytical engine, which could read the calculations to be made on punched paper — this was the first computer concept.</p>	<p>In 1941, the German Konrad Zuse successfully invented the world's first computer, the Zuse3. But it was destroyed in 1944 by the Allied bombings.</p> <p>The race for power had begun, to rival the human brain. In 1997, the computer Deep Blue defeated the world chess champion Gary Kasparov.</p>