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Ada Lovelace

10/12/1815 – 27/11/1852

Analytical Engine

Lovelace's notes on the translation of Menabrea's "*Notions sur la machine analytique de M. Charles Babbage*" includes the first published algorithm designed for processing by a machine, Babbage's proposed Analytical Engine (though there is some controversy over the extent to which the algorithm was her work or Babbage's). Her notes include many insightful comments on the potential and nature of the Analytical Engine, and the science of its use.

"In studying the action of the Analytical Engine, we find that the peculiar and independent nature of the considerations which in all mathematical analysis belong to operations, as distinguished from the objects operated upon and from the results of the operations performed upon those objects, is very strikingly defined and separated."

"[the operating mechanism] might act upon other things besides numbers, were objects found whose mutual fundamental relations could be expressed by those of the abstract science of operations, and which should also be susceptible of adaptations to the action of the operating notation and mechanism of the engine."

"The Analytical Engine has no pretension whatever to originate anything. It can do whatever we know how to order it to perform."