

Kay McNulty:

Mother of Modern Computer Programming

From Donegal to ENIAC: A pioneer of the digital age



1921 - 2006

Early Life

Kathleen "Kay" McNulty, a native Irish speaker, born in Creeslough, Co. Donegal (1921) emigrated to the US at age 3. Kay excelled in mathematics graduating with a BSc in Mathematics (1942) from Chestnut Hill College, a time when few women studied advanced mathematics.



Wartime Mathematical Work

- Kay was recruited as a "human computer" for the US Army during WWII.
- Her work involved calculating ballistics and artillery trajectories.
- At that time computers were people, not machines and was a job mainly completed by women.

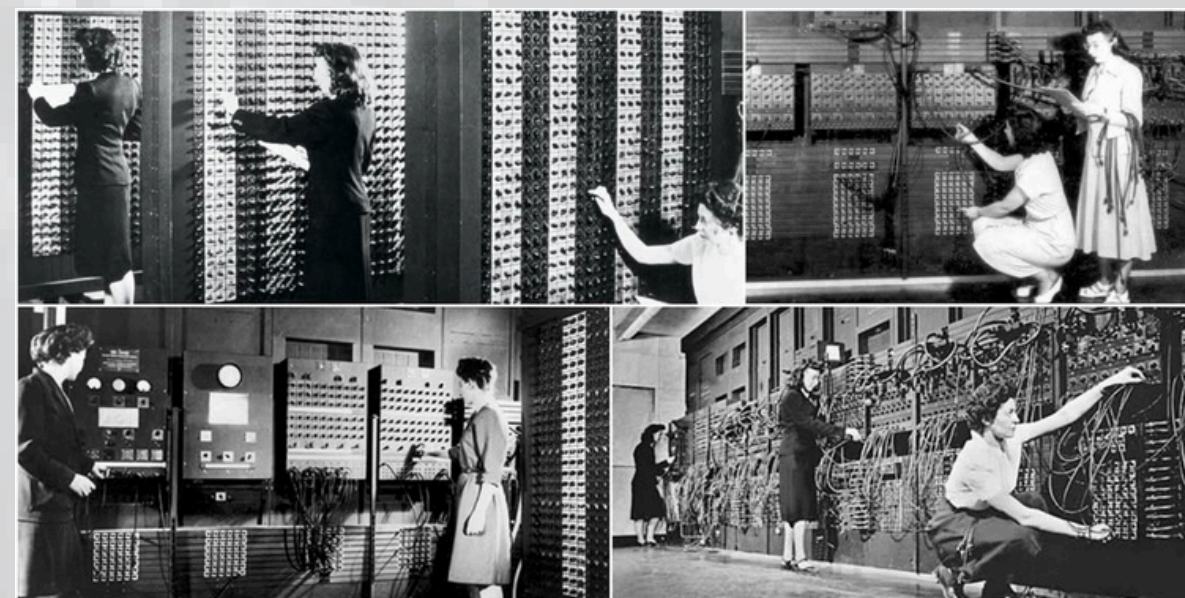
ENIAC: The First Electronic Computer

The original ENIAC only had six programmers, all of whom were women. Kay was one of these programmers.

They worked from blueprints with no manuals, or programming languages.

Punch cards, cables, switches and physical circuits were used.

Kay is recognised as the first person to create and work with subroutines when working with the ENIAC.



“We were the first programmers, but nobody knew what programming was.”

Why Kay McNulty Matters Today

- Kay was a pioneer in computer science, highlighting the contributions women made in early computing.
- She is just one symbol of Irish contributions to global innovation.
- She was one of the six ENIAC programmers whose work demonstrated programming as a distinct profession.
- She helped establish techniques for stored-program electronic computing systems.
- She was a leader and taught others, turning complex systems into practical skills and inspiring a new generation of programmers.



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