

CSC104 fall 2012

Why and how of computing week 8

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BA4270 (behind elevators)

<http://www.cdf.toronto.edu/~heap/104/F12/>

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Text: **Picturing Programs**

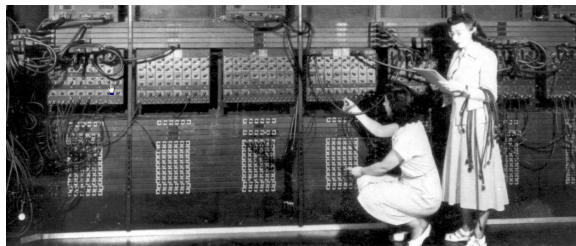
Outline

operators and operating systems

Notes

machines take over in batches

Machines began to take over setting the program counter to a new job, collecting the output, fetching memory... but it was still one job at a time.



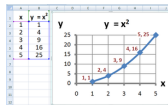
time sharing, version 0.1



one user, one program, one computer



task-switching to time-splitting, v 1.0



Does one task stop, or only appear to stop, for the other?

unix (mostly) to the desktop

GUIs, time-sharing, networking, flame-wars



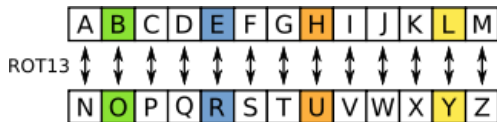
an operating system should have

- ▶ kernel (shell, shielded access to hardware, referee sharing)

- ▶ utilities

a blast from the past

really bad text encryption



Encrypt "STRING"

rot13 as an algorithm

- ▶ What is given, what's required?
- ▶ Redo the last step for a single character
- ▶ What is a really simple rule (or set of rules) for $(\text{rot13 } c)$, where c is some character?
- ▶ It might help to know that characters $\#A$ through $\#Z$ have ascii encodings 65 through 90.

reversing strings

Give step-by-step instructions to reverse “string”

- ▶ given/required?
- ▶ check-expect some small examples?
- ▶ try to write down a recipe

Notes