Topics
- work
- privacy
- property

CSC104 winter 2013

Why and how of computing

week 11

Project II → 1 week +
SLOGs → 1 week +
Tutorial → 1 week.

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Text: Picturing Programs

Outline

work

Notes

who's got the better deal?

My parents → 40 hour work.

14 hour days 1800s (Industrial Revolutionary)

life with, or without, computers — which works better?

what went wrong?

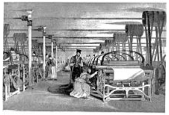
How many hours per week do you expect to work? What about your parents/grandparents? Explain labour-saving devices

previous experience

does technological change automatically improve lives?

More things produced/ hour
In some ways better, at least "uniform"

land cleared of people
provides wool and hands
for emerging factories



Some economists report that ~~overall~~ production actually dropped for the first few decades of the Industrial Revolution. The working day certainly lengthened — to 12 or even 14 hours!

automation/computerization

what has the effect been?

Ford
oakville

Ford assembly, then
and now
where'd everybody go?

In 1940s, a car "cost" 35 hours. Now it's 19 hours.

hardware effects

early 60s

1$/megabyte.

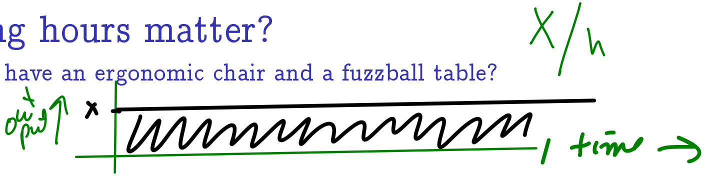
<< $1/gigabyte.

storing information gets smaller, cheaper, faster by the decade. . .

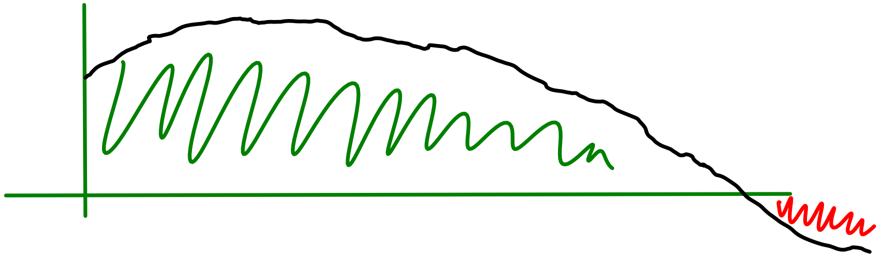
What's the effect on working lives?

do long hours matter?

...if you have an ergonomic chair and a fuzzball table?



Check out why crunch mode doesn't work. Chart productivity/hour over a long day.



don't operate heavy machinery...

after working (too much)

artillery gunners

≈ 24 hours awake
low-level skills
judgement.

prolonged sleeplessness affects motor skills and judgement

utopia, dystopia?

work 0.5 h/day

drive

no more work?

new jobs, flying cars,
or no jobs,
or retirement?

not just how long, but where

telecommuting → + flexibility

downside → always available

trade traffic for
flexibility and time?

flatten

```
; flatten : list -> list
(define (flatten L)
  (cond
    [(cons? L) (apply append (map flatten L))]
    [else (list L)]))

; predict what (flatten 3) does

; predict what (flatten (list 3)) does

; predict what (flatten (list 1 2 (list 3))) does
```

depth

```
; depth : list -> number
(define (depth L)
  (cond
    [(cons? L) (+ 1 (apply max (map depth L)))]
    [else 0]))

; predict what (depth 3) does

; predict what (depth (list 3 4)) does

; predict what (depth (list 3 4 (list 5 6))) does
```

Notes