Forelesningsnotater:

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Den Industrielle Revolusjonen

Hvordan kan vi måle "fremgang"?
Ting blir bedre, men for hvem?
Måle med:
- GDP – Fordeling?
- GDP per capita – Kun nåtiden, eller fremtidig også?
- Økonomisk vekst – Hva om befolkningen vokser raskere?

Man må være obs på hvilket perspektiv man har når man undersøker endringer.

Viktig poeng:
Hvis man endrer en viktig del av en produksjonsprosess, må man også endre flere andre ting i samme prosess.

⇓ Ny maskin?:
- Mer "input"
- Etterspørsel
- Ikke bare billigere men også raskere
- Etc... → Blir en rekke "bottlenecks"

En rekke aspekter med den industrielle revolusjonen:

Technologi

1) Spinnin jennys*
   - ↳ Many more threads
   - ↳ Needs mor weavins
   - ↳ Cartwrights

2) Steam engines
   - ↳ Not many steam engines until 1850 (Boultom & Watt)

3) Railways
   - ↳ Not very powerful

How do we quantify contribution?

↳ Standardization of time!

Small contribution *to GDP!

Transport

1) Rivers
2) Canals
3) Coastal shipping

Diffence between ships and trains = Speed

Wetter countries, less use for railways

4) Oceanic shipping

America → (New Canal) → Liverpool → Manchester

5) Urban rail
   - ↳ Mass transit

Social Savings Contribution

If we remove something from the economy, and assume that all the use of this "something" gets shifted to the "next best thing, how much less economic activity is there in the economy?

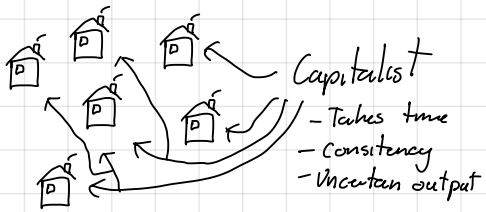
↳ Write as % of GDP

⇒ Steam engines & Railways: A couple of %o points... (A fraction of a percent)

↳ See transport

Factories

1) Putting out system
   - ↳



Women work at home
- ↳ Can choose working hours,
  - Summer: Work on fields
  - Winter: More spinning

* This system is obsolete with the spinning jenny

↓

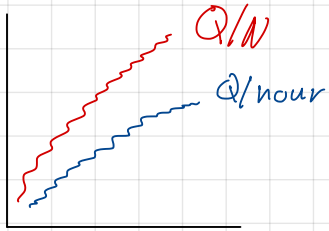
2) Create locations to house the machines
   - ↳ Instead of bringing the material to the spinner, you bring the spinner to the material

3) Worker discipline
   - ↳ Worker housing
   - ⇒ Increased labour input (Vogt)

↓

the creates a "synthetic day"
- ↳ People work more days in 1850 than in 1750
- ↳ People work more hours per day

⇒ Massive implications on Macro measurements →



Raw Materials

1) Water
   - ↳ Main power source
   - ↳ Cloth needs power, alot of water near Manchester

2) Wind
   - ↳ Inconsistant

3) Copper
   - ↳ Need pumps to take water out of the mines

Accessability of raw materials determine not just what gets produced, but also where

Why is Iceland a major producer of Aluminium?
- Bauxite comes from the caribean

⇒ Power and shipping

Urbanisation

1) Disease ← Cholera, Sheavy
2) Wage increase
   - ↳ See: Were people better off

↳ Slow productivity growth compared to modern standards

$\Delta Prod = \frac{\Delta Q}{\Delta Input}$ ← Vogt increased input estimate

↳ Social savings was small

Profound point:

Were People better off?

Mortality	Morbidity
How dead are you?	How sick are you?

How to measure this?

New measurement: Height

Diseased: Height ↓

Higher wage: Height ↑