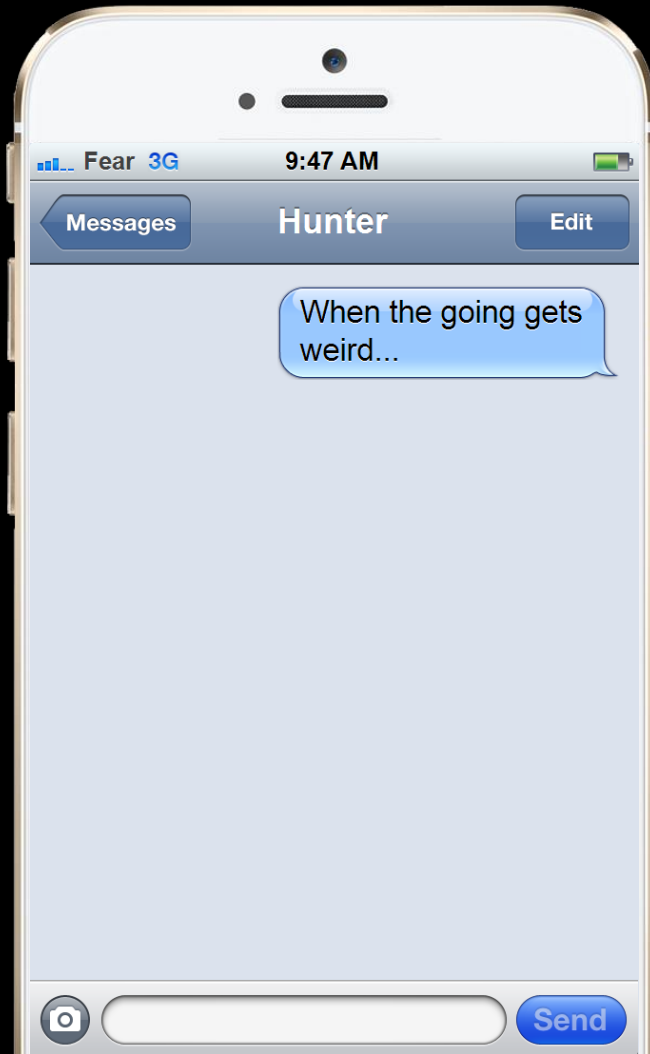
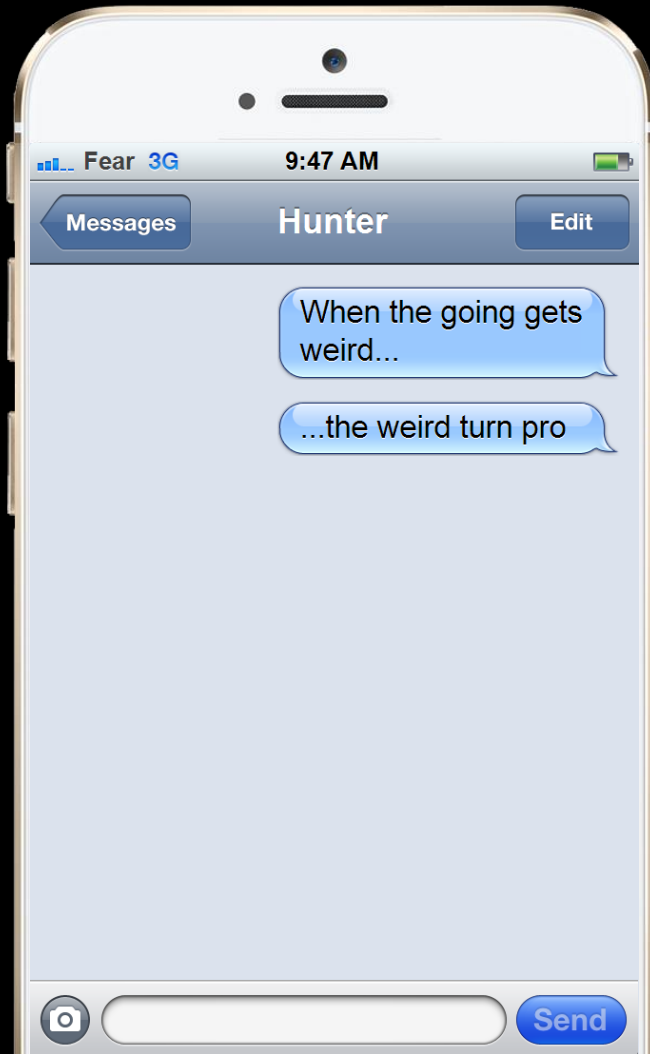


Andreas
adm. direktør og gründer av energiselskapet Otovo

Thorsheim



Fear And Loathing in Las Vegas, 1947



Fear And Loathing in Las Vegas, 1947

1: Systemer

Fossilsystemet



1600kWh

x

\$50

x



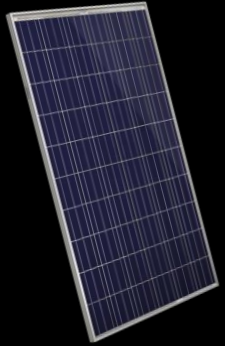
=

\$15c/kWh

\$3c/kWh

~ 20% effektiv

Fornybarsystemet



\$2,7c/kWh

+



\$0c/kWh

x



~ 90% effektiv

=

\$3c/kWh

2: Lagring



60.000 kr

$$\frac{60.000 \text{ kr}}{15\text{kWh} \times 2.000 \text{ ladinger}} = 2 \text{ kr/kWh}$$



30.000 kr

$$\frac{30.000 \text{ kr}}{15\text{kWh} \times 2.000 \text{ ladinger}} = 1 \text{ kr/kWh}$$



30.000 kr

$$\frac{30.000 \text{ kr}}{15 \text{ kWh} \times 10.000 \text{ ladinger}} = 0,2 \text{ kr/kWh}$$

0 kr

_____ = 0 kr/kWh

15kWh

Flytte i tid
kan erstatte
flytte i rom

3: Digitalisering

20 paneler

paneler

20.000 kr

montasje

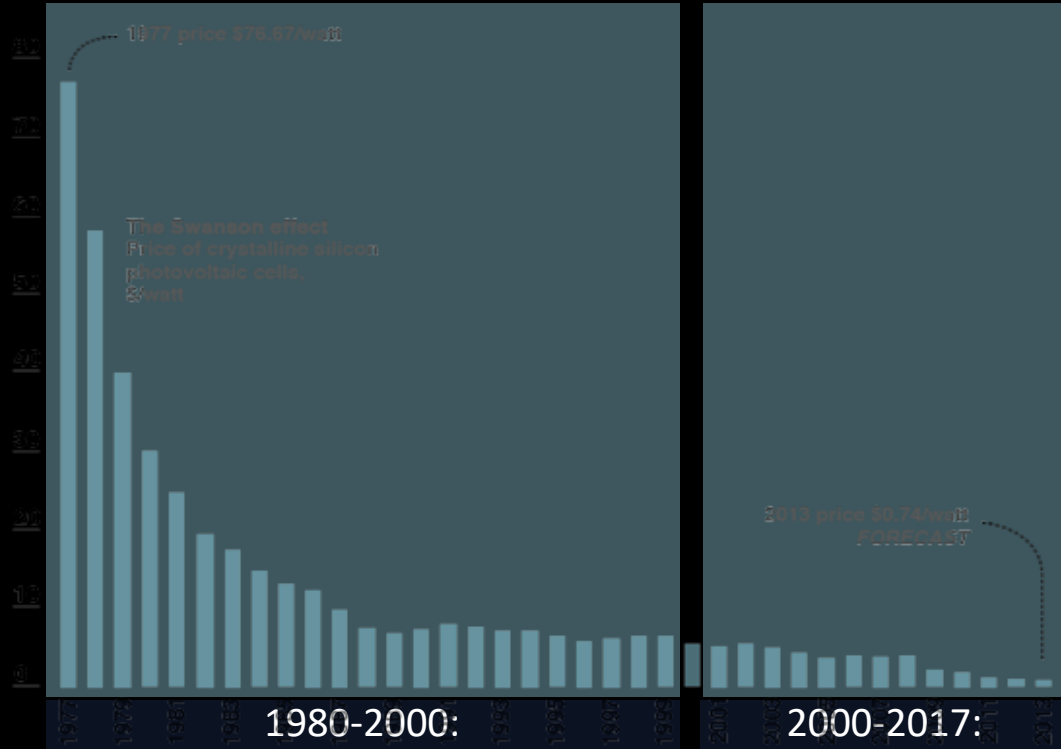
70.000 kr

elektriker

10.000 kr

total

= 100.000 kr



1980-2000:
R&D driven
cost reductions

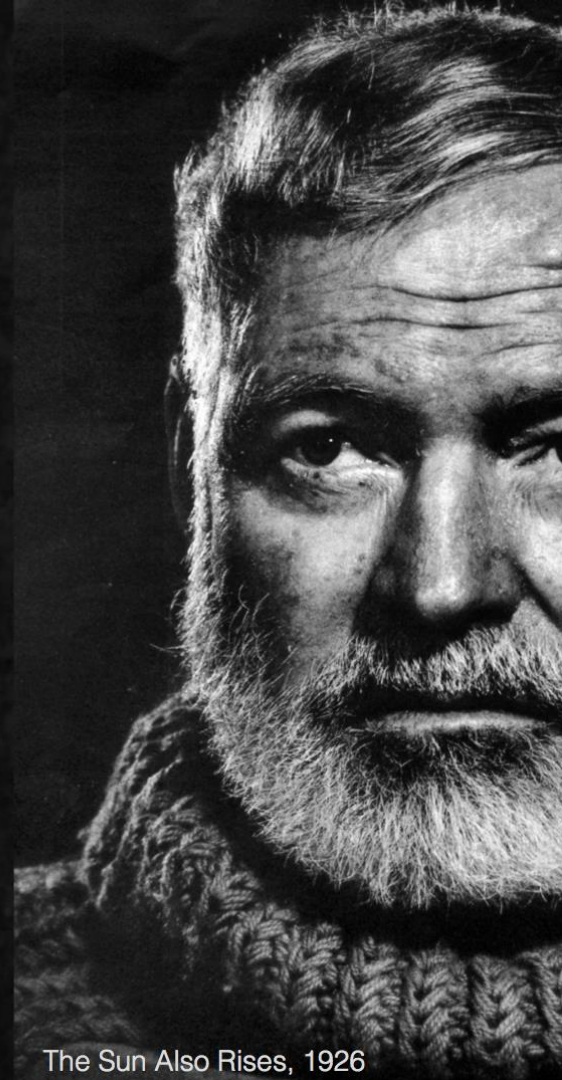
2000-2017:
Manufacturing
and process driven
cost reductions

2017→
Software driven
downstream
cost reductions

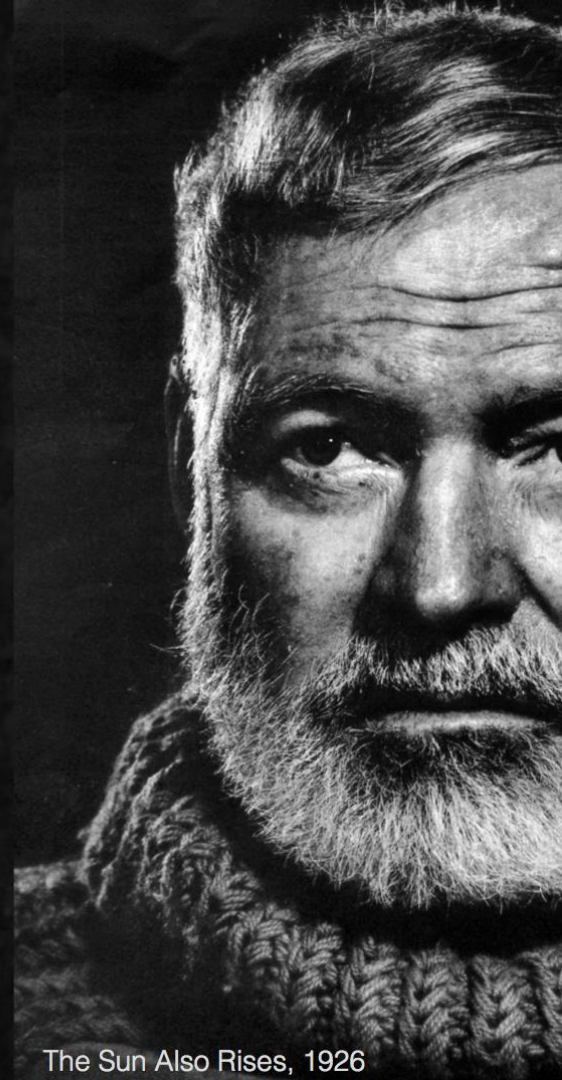
**Endringene er større
fordi mange nye teknologier
treffer oss
samtidig**

Lagring er større,
treffer oss senere
og **kraftigere**
enn de fleste tor

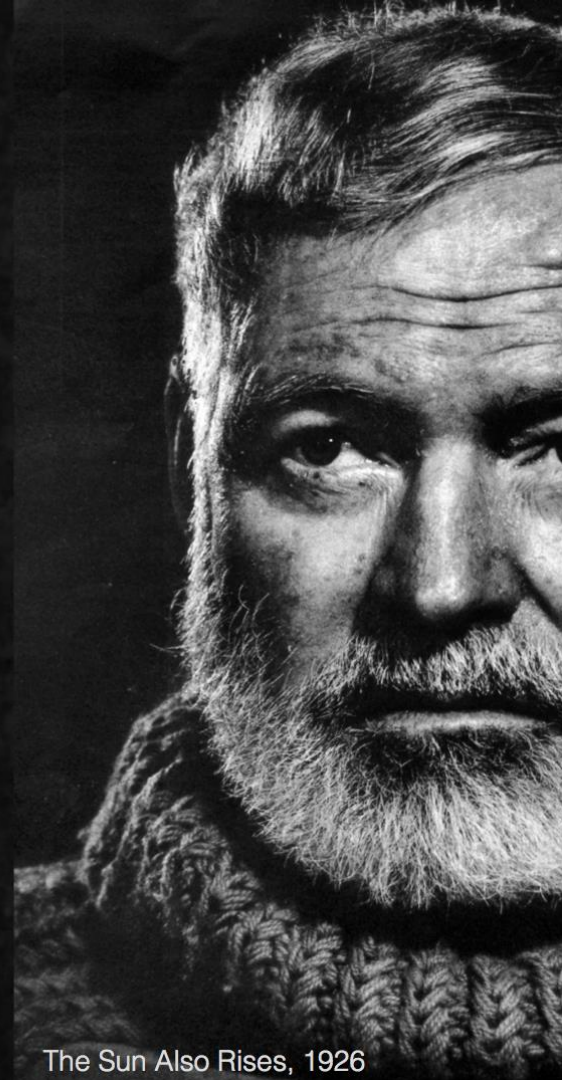
**Digitale verktøy,
ikke hardware,
vil være det som skaper
størst endring**



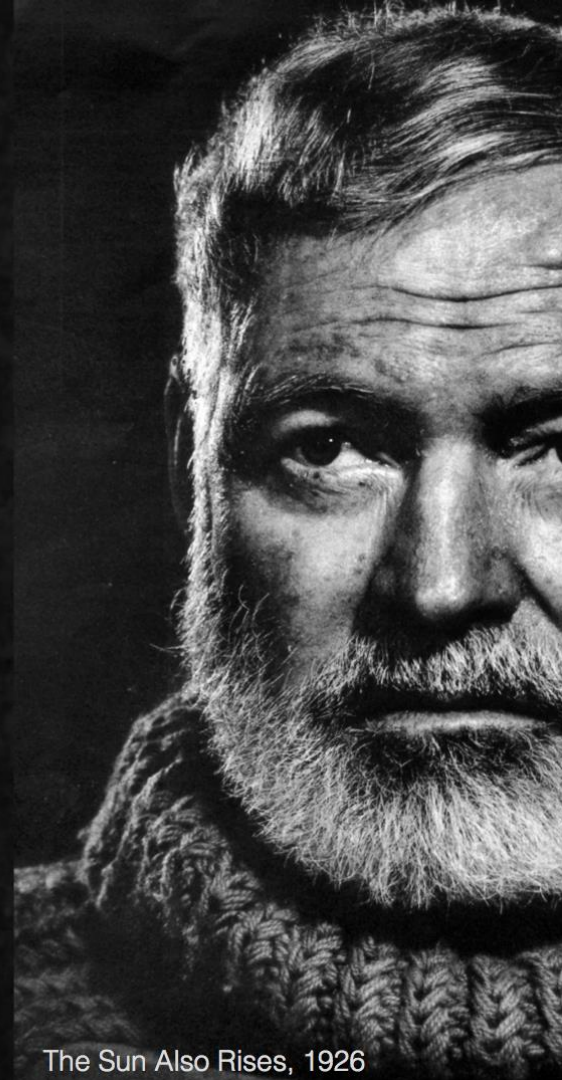
The Sun Also Rises, 1926



The Sun Also Rises, 1926



The Sun Also Rises, 1926



The Sun Also Rises, 1926