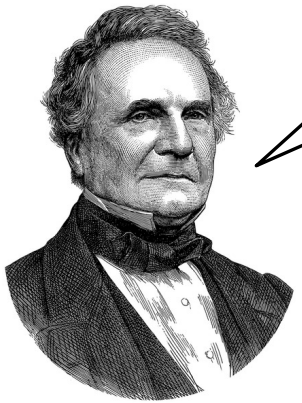
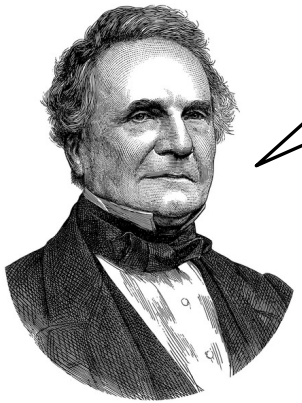
Top 3 Patterns From Past Ways of Working You Need to Know!



Hello
my name is

Babbage

Top 3 Patterns From Past Ways of Working You Need to Know!



Hello
my name is

Babbage

Without (Re)Learning The Hard Way!!!

“We must study the present in the light of the past for the purposes of the future”

John Maynard Keynes

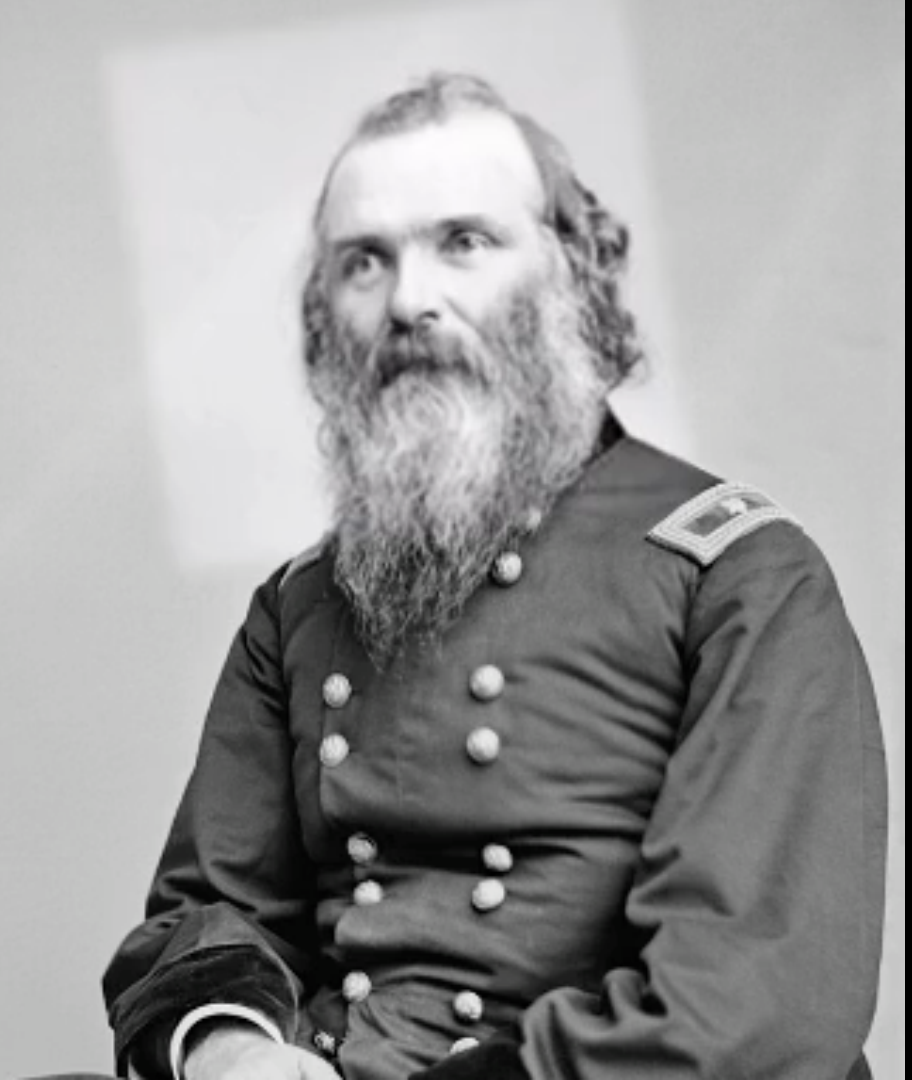
Source: Prof. Carlota Perez, Technological Revolutions and Financial Capital

Top 3 (Re)Learnings

(1771 to 1950)

Featuring Unsung Heroes!!!

Data Feedback Loop



CHARACTER UNLOCK

LEVEL 2

NAME: Daniel McCallum

1815 - 1878

Industrial Revolution: 2nd (Steam)

Occupation: General Superintendent, NY & Erie Railroad

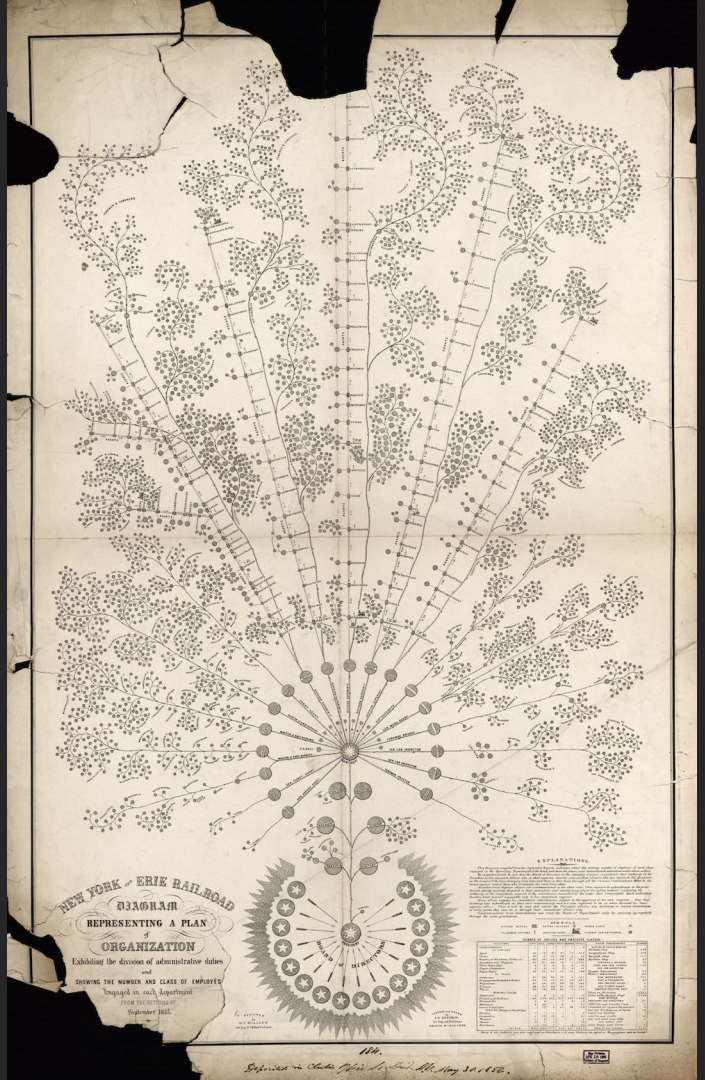
Claims to fame:

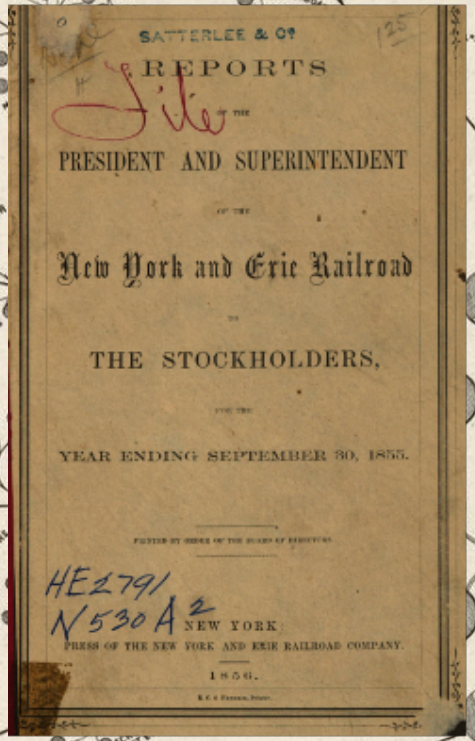
Created the world's first org chart

Innovated Ways of Working

Superpower: Disrupting the status quo!

START GAME


NEW YORK AND ERIE RAILROAD
DIAGRAM
REPRESENTING A PLAN
of
ORGANIZATION
Exhibiting the division of administrative duties
and
SHOWING THE NUMBER AND CLASS OF EMPLOYES
Engaged in each Department
FROM THE 1ST DAY OF
September 1855.
EXPLANATIONS.
NUMBER OF OFFICERS AND EMPLOYES CLASSED.


SATTERLEE & Co'

REPORTS

PRESIDENT AND SUPERINTENDENT

New York and Erie Railroad

THE STOCKHOLDERS,

YEAR ENDING SEPTEMBER 30, 1855.

HE2791
N530A2

NEW YORK:
PRESS OF THE NEW YORK AND ERIE RAILROAD COMPANY.
1856.

- McCallum's Principles (1855):
  - Clear responsibilities
  - Delegated autonomy
  - *Fast feedback loop*
  - "*Information to be obtained through a system of daily reports*"

- "Officers should be in <u>full possession of all information necessary to judge industry and efficiency</u>... [with] a complete daily history of details in all their minutiae"

- "The <u>comparison of Division accounts</u> will show the officers who conduct their business with the greatest economy... and will have the effect of exciting an <u>honorable spirit of emulation to excel</u>"

✅ **Pattern:**
Data Feedback Loop

CHARACTER UNLOCK

LEVEL 3

NAME: Prof. Robert H. Thurston

1839 - 1903

Industrial Revolution: 3rd (Steel)

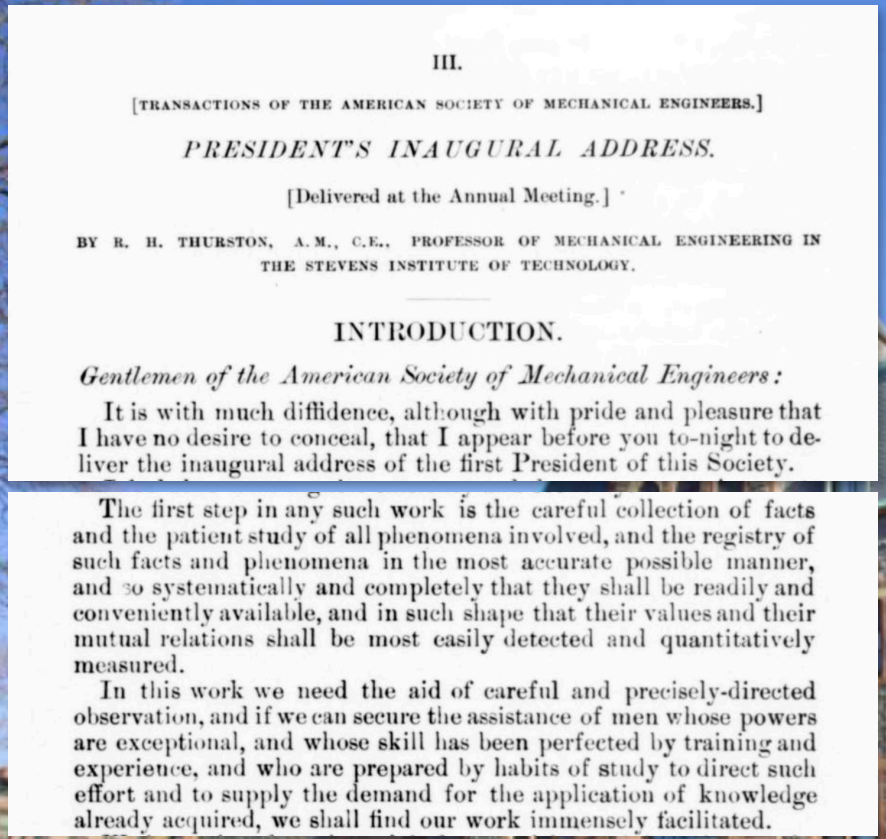
Occupation: 1st Professor of Mechanical Engineering at Stevens Institute of Technology

Claims to fame:

- Taught a young Taylor and Gantt
- First President of ASME

Superpower: A founding figure in Scientific Management

NEXT



III.

[TRANSACTIONS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS.]

PRESIDENT'S INAUGURAL ADDRESS.

[Delivered at the Annual Meeting.]

BY R. H. THURSTON, A.M., C.E., PROFESSOR OF MECHANICAL ENGINEERING IN THE STEVENS INSTITUTE OF TECHNOLOGY.

INTRODUCTION.

Gentlemen of the American Society of Mechanical Engineers:

It is with much diffidence, although with pride and pleasure that I have no desire to conceal, that I appear before you to-night to deliver the inaugural address of the first President of this Society.

The first step in any such work is the careful collection of facts and the patient study of all phenomena involved, and the registry of such facts and phenomena in the most accurate possible manner, and so systematically and completely that they shall be readily and conveniently available, and in such shape that their values and their mutual relations shall be most easily detected and quantitatively measured.

In this work we need the aid of careful and precisely-directed observation, and if we can secure the assistance of men whose powers are exceptional, and whose skill has been perfected by training and experience, and who are prepared by habits of study to direct such effort and to supply the demand for the application of knowledge already acquired, we shall find our work immensely facilitated.

- "The first step [...] is the careful collection of facts and the patient study of all phenomena [...] systematically and completely [...] such that their values and their mutual relations shall be most easily detected and quantitatively measured"
  16th Feb 1880

✅ **Pattern:**
Data Feedback Loop

Today...

Better Value Sooner Safer Happier

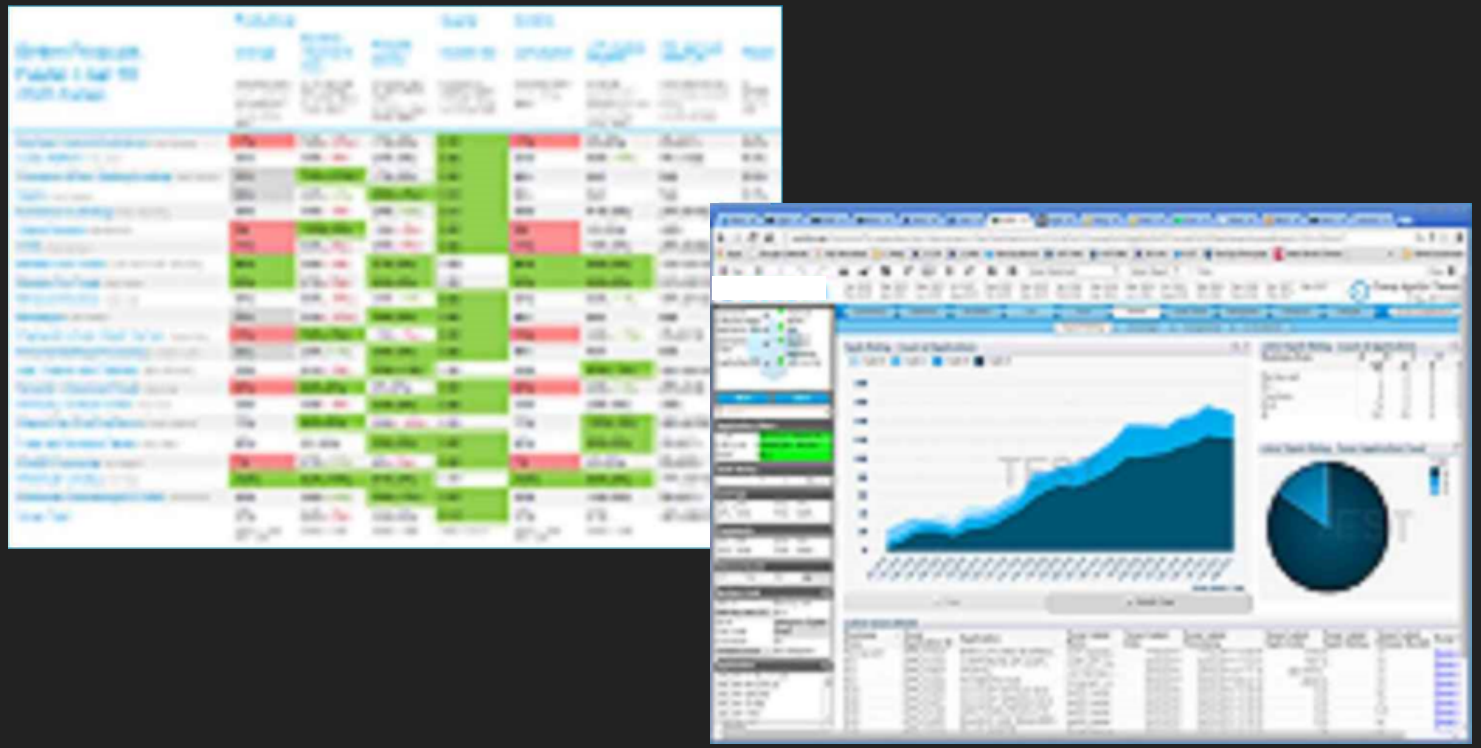
Better
Quality

Sooner
Lead Time
Throughput
Flow Efficiency

Happier
Customer, Colleagues,
Citizens and Climate

Safer
Continuous Compliance
Agile not Fragile

Measure, Visualize, Make Transparent



Pattern: dedicated data focus on ‘How’ measures

2

Continuous improvement

CHARACTER UNLOCK

LEVEL 3

NAME: **Andrew Carnegie**
1835 – 1919

Industrial Revolution: 3rd (Steel)

Occupation: Founder of Carnegie Steel Company (sold to US Steel)

Claims to fame:

- Learnt from McCallum
- Leading figure in 3rd I.R. (Steel)
- Richest person in USA

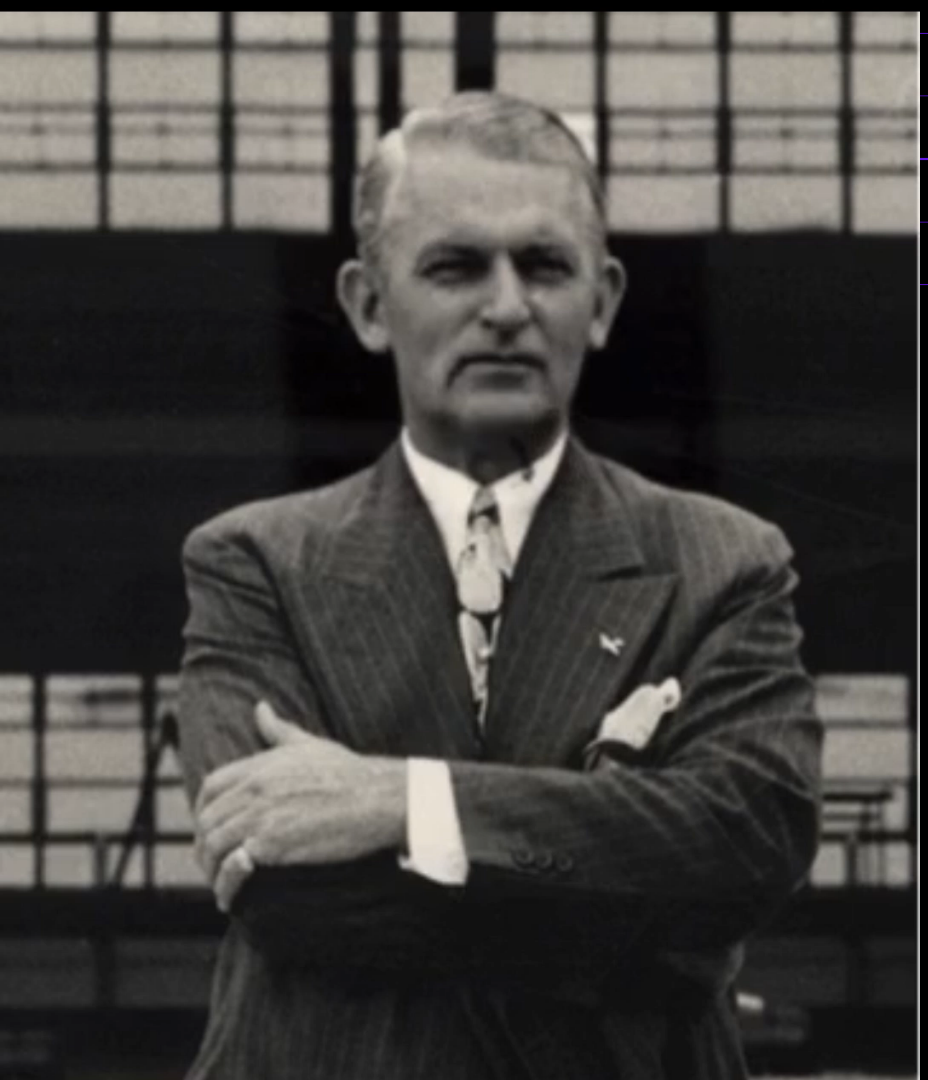
Superpower: Gave 90% of his fortune to charity

NEXT

- Carnegie hired a German chemist, to find out what was going on in the blast furnace. Significantly increased efficiency
- A new rolling mill design replaced current rail mill, which was only 3 months old
- Innovated processes so that the molten metal did not need to cool
- Vertical integration. Ore to trains
- Factory was built by Alexander Holley, a co-founder of ASME!
- By 1890 largest and most profitable steel company in the world

Edgar Thomson Steel Works, Pittsburgh, Pennsylvania (1875 to today)

✅ **Pattern:**
Continuous Improvement



CHARACTER UNLOCK

LEVEL 4

NAME: Charles E. Sorensen

1881 - 1968

Industrial Revolution: 4th (Oil & Mass Production)

Occupation: Principal, Ford Motor Co.

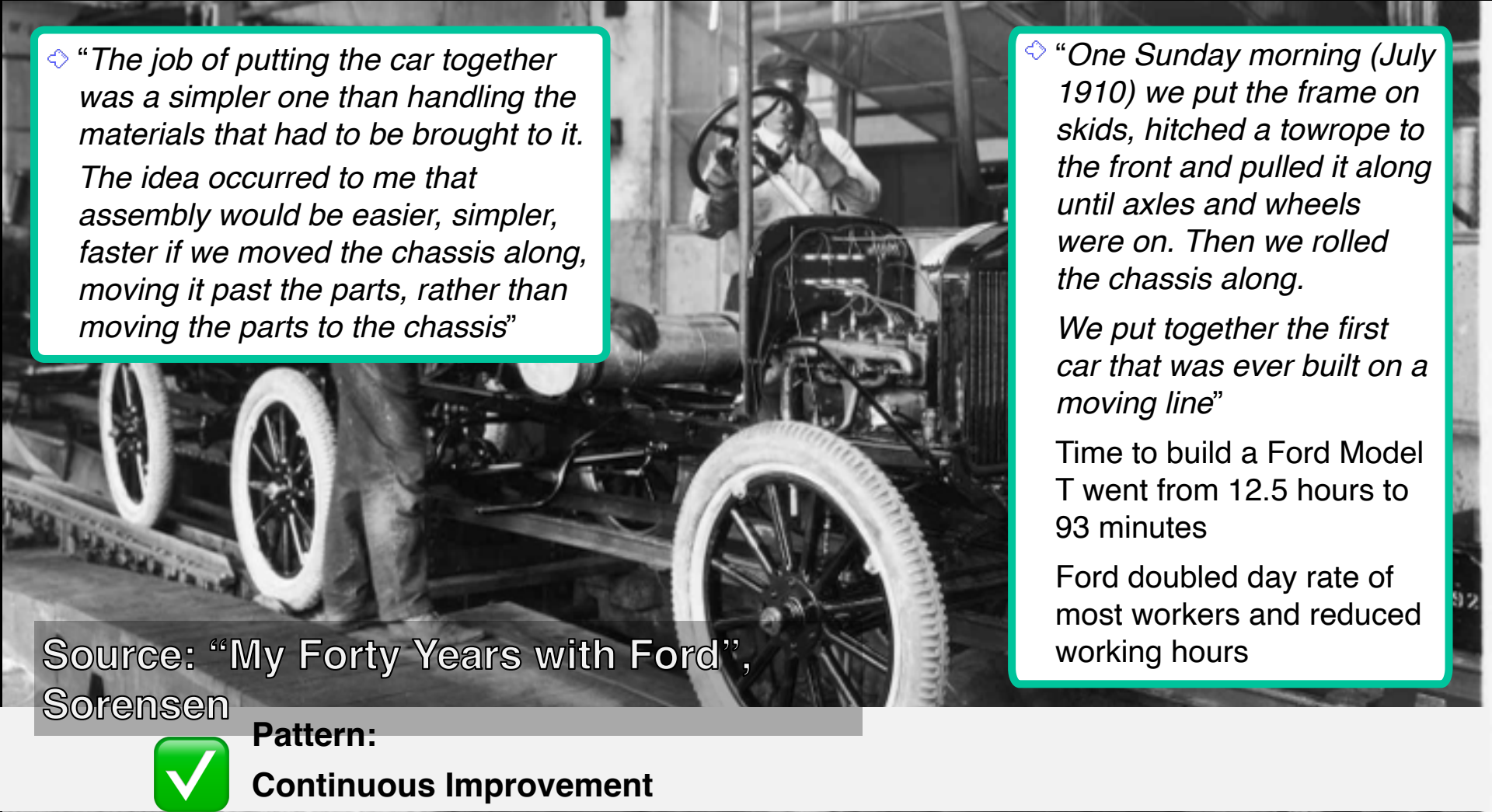
Claims to fame:

Originator of the moving assembly line

Head of Production at Ford

Superpower: Translating sketches from Henry Ford!

NEXT



- *"The job of putting the car together was a simpler one than handling the materials that had to be brought to it.*

  The idea occurred to me that assembly would be easier, simpler, faster if we moved the chassis along, moving it past the parts, rather than moving the parts to the chassis"

- *"One Sunday morning (July 1910) we put the frame on skids, hitched a towrope to the front and pulled it along until axles and wheels were on. Then we rolled the chassis along.*

  We put together the first car that was ever built on a moving line"

  Time to build a Ford Model T went from 12.5 hours to 93 minutes

  Ford doubled day rate of most workers and reduced working hours

Source: "My Forty Years with Ford", Sorensen

✅ **Pattern:**

Continuous Improvement

Today...


No thanks!
We are too busy

Incentivize Continuous Improvement

3

Humanity

CHARACTER UNLOCK

LEVEL 3

NAME: Henry Gantt

1861 - 1919

Industrial Revolution: 3rd (Steel)

Occupation: Efficiency Consultant

Claims to fame:

- Creator of the Gantt chart
- Frederick Taylor's assistant (1887)

Superpower: Predicting the future!

NEXT

"It is undoubtedly true that the "efficiency" methods, have failed to produce what was expected of them. The reason seems to be that we have to a large extent ignored the human factor and failed to take advantage of the ability and desire of the ordinary man to learn and to improve his position.

Moreover, these "efficiency" methods have been applied in a manner that was highly autocratic.

This alone would be sufficient to condemn them"

Source: "Organizing for Work", Gantt, 1919

✅ **Pattern: Humanity**

CHARACTER UNLOCK

LEVEL 4

NAME: Konosuke Matsushita

1894 - 1989

Industrial Revolution: 4th (Oil & Mass Production)

Occupation: Founder of Panasonic

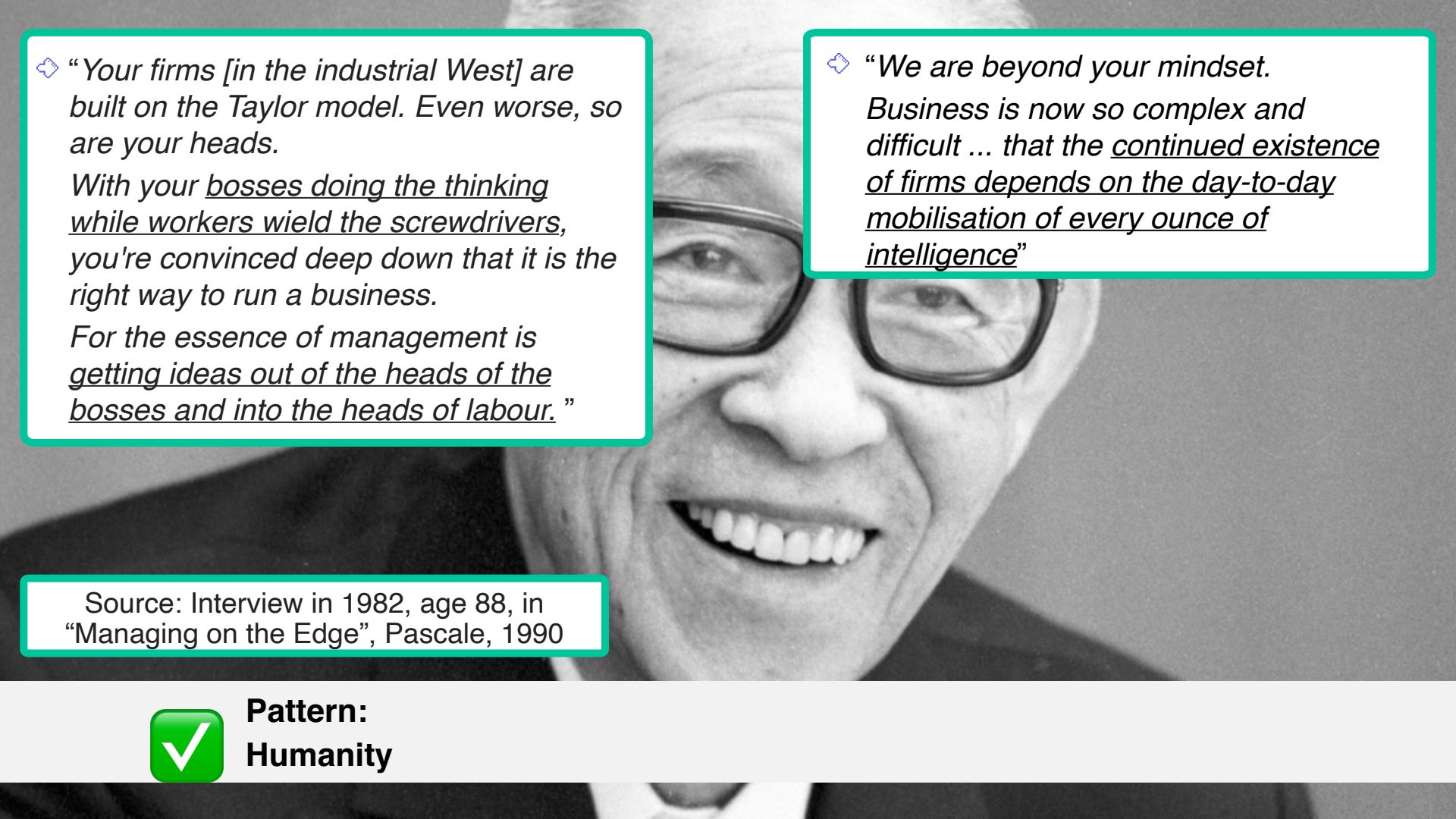
Claims to fame:

Created one of the world's largest manufacturers of electrical goods

Published 44 books

Superpower: Referred to as the "God of Management" in Japan

NEXT



- "*Your firms [in the industrial West] are built on the Taylor model. Even worse, so are your heads.*

  With your bosses doing the thinking while workers wield the screwdrivers, you're convinced deep down that it is the right way to run a business.

  For the essence of management is getting ideas out of the heads of the bosses and into the heads of labour. "

- "*We are beyond your mindset.*

  Business is now so complex and difficult ... that the continued existence of firms depends on the day-to-day mobilisation of every ounce of intelligence"

Source: Interview in 1982, age 88, in "Managing on the Edge", Pascale, 1990

✅ **Pattern:**
Humanity

Today...

Nurture **humane ways of working**

- Long lived multidisciplinary teams (Value Streams)
- High alignment (OKRs), enabling high autonomy
- Outcomes over Output
- Psychological Safety
- Enabling Leadership (‘how can I help?’)
- Leadership Principles (with teeth)

Data Feedback Loop

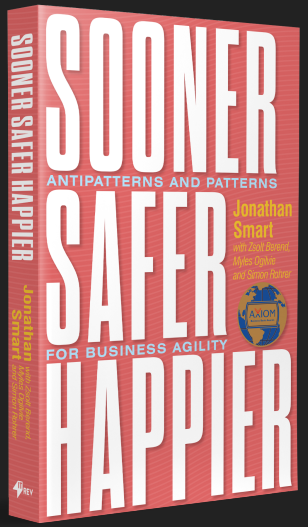
Continuous Improvement

Humanity

An (almost) feasible dinner party from the past

(image generated by human intelligence)


Continuously improve!
P.S. Here's some money, go build a library
Let's see who can eat with the fewest motions
OMG LOL
I want data for starter, data for main & data for dessert, with a side of data
Whatever you do, don't use my chart to apply a deterministic mindset to emergent unknowable work, and in an autocratic manner
Furnish me with a fund of information, so that we can remedy our impediments



Thank you

soonersaferhappier.com

Axiom Business Book Award winner in Leadership category

Join the movement here!