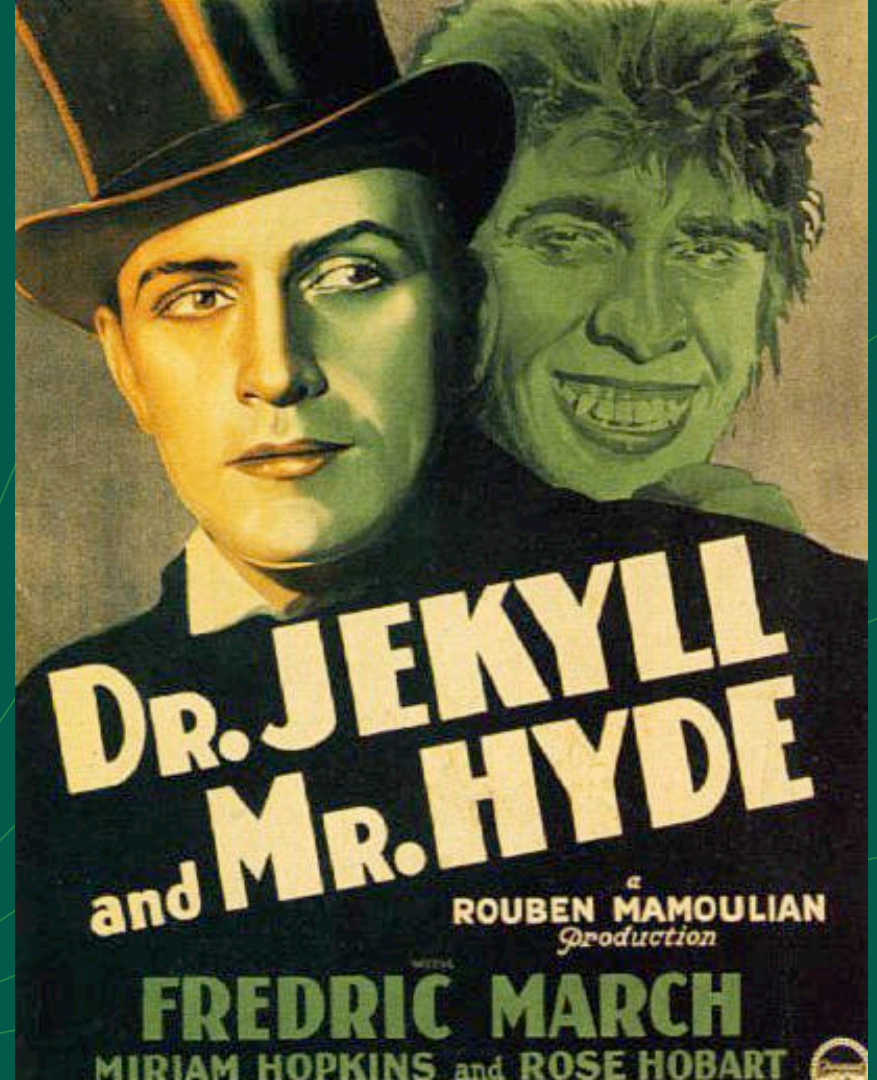# Software Engineers are Culture Engineers

Risto Sarvas
Futurice & Aalto University

Service Design Lead
Futurice
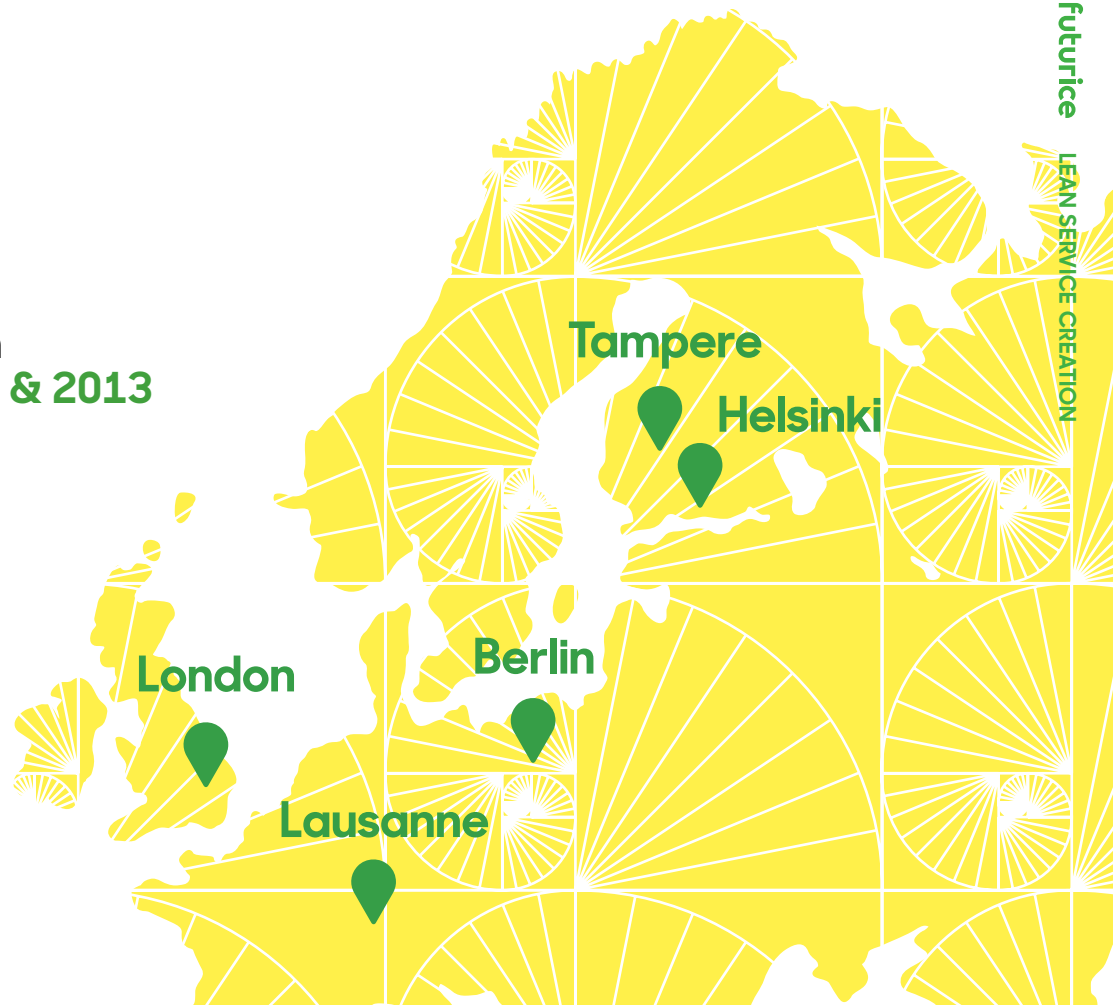
Lecturer
Aalto University

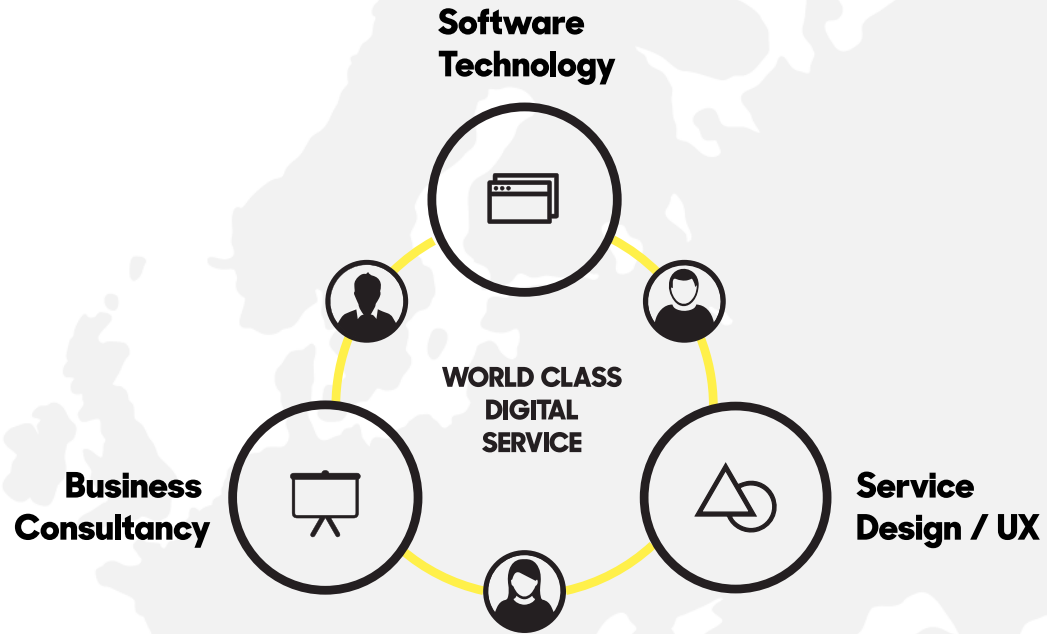Stay-at-home Dad
2014–15

Futurice

- **Founded in 2000**
- **200+ employees** from 18 countries
- **8th year** in a row profitable growth
- Best Place to Work in Europe **2012 & 2013**

Tampere

Helsinki

London

Berlin

Lausanne

Our toolbox

Software Technology

Business Consultancy

WORLD CLASS DIGITAL SERVICE

Service Design / UX

Digitalization

Digitalization is much more than change in technology.

It is a change in culture…

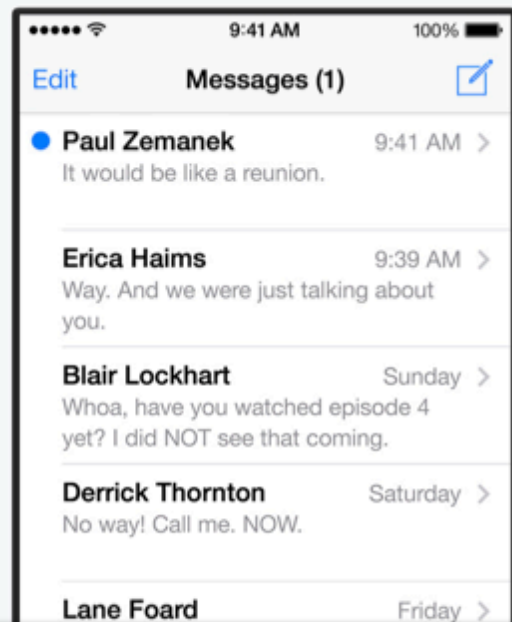…into the geek culture!

Culture?

**Part 1:
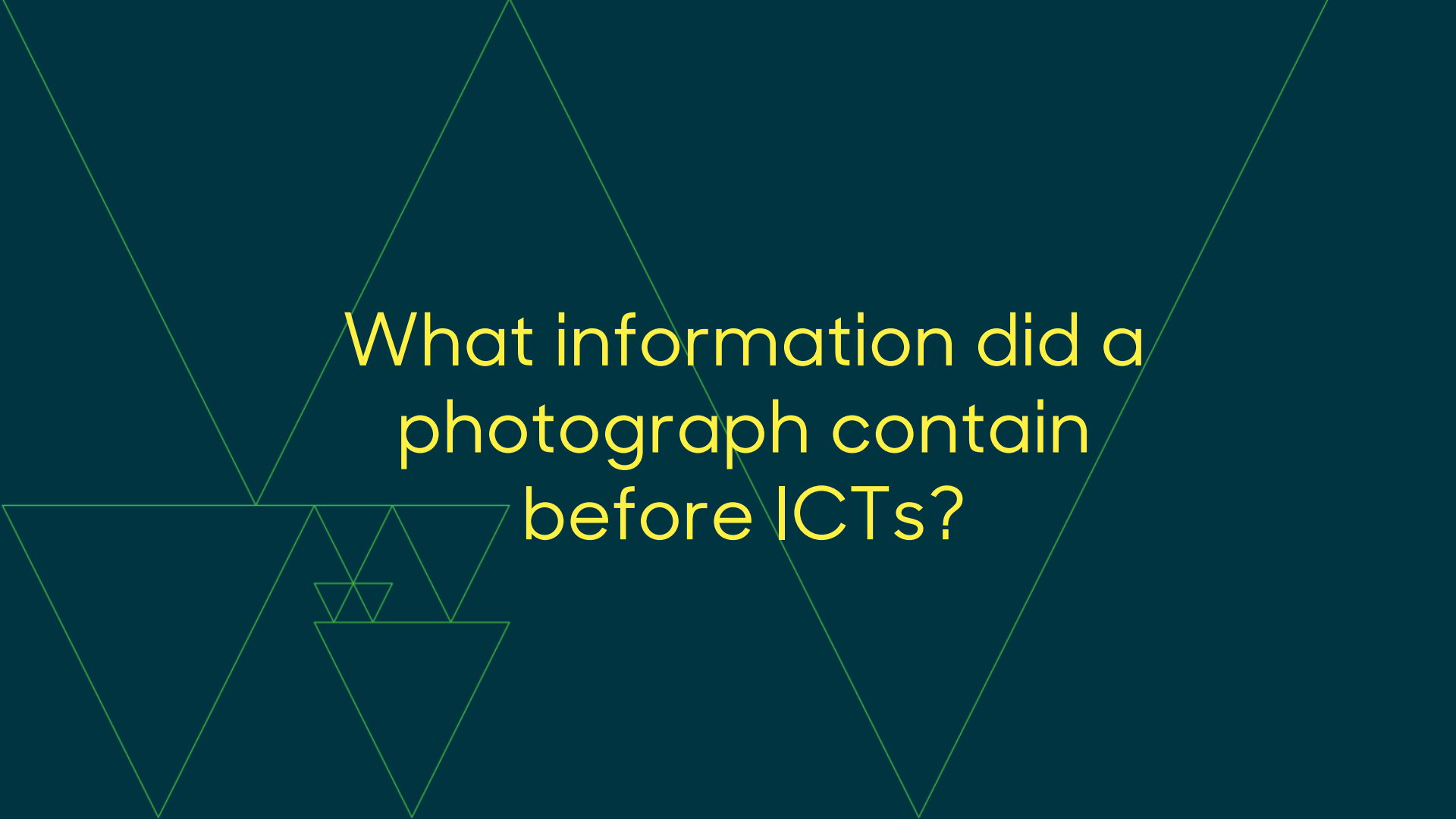Software Culture &
Photography**

How did we communicate with photos before ICTs?

A picture is like a comma.
It is not the message.

What information did a photograph contain before ICTs?
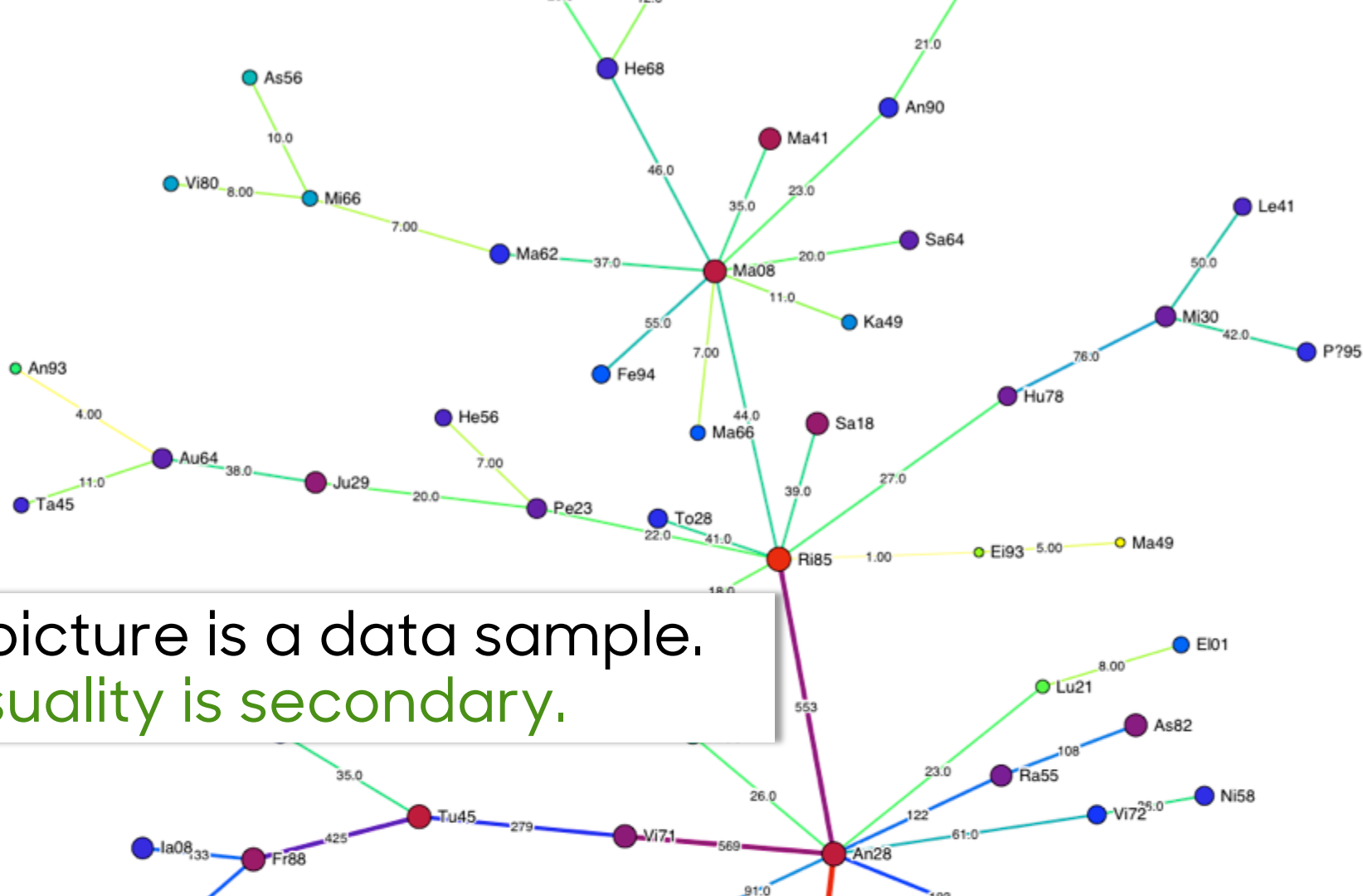
A picture is a data sample.
Visuality is secondary.

Who decided what pictures to show publicly before ICTs?

Political dimensions.
Photographers everywhere.

Who controlled
the meanings of pictures
before ICTs?
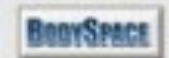
Can someone here fix the redeye in my pic?

Just was out shooting some bike pics with my friend tonight, anyone here with good photoshop skills able to take out th
would be much appreciated thanks!

Memes and meanings.
Democracy of interpretations.

Who were the audiences of ordinary people's pictures before ICTs?

2 weeks ago

#селфи #selfie #swedishhousemafia #армия #учения2014 #безделье В ожидании командующего армии, везде наводят порядок, а я... я в домике :) Продолжаем готовиться!

ailuupo, dmickute, wilytoo and 64 others like this.

libbyw1
Too cute

drdubek
Incredible idiot))

vlodko27
Drunk ruSSian scum

gerashchenko7
@vlodko27 just drunk ruSSian idiot

4esotkas
RuSSIAN BITCH

ugfdxvbv_v
Шнырь груз 200

alex68frost
@sanya_sotkin 200

romanmsk

Leave a comment...

Unclear audiences.
Unclear consequences.
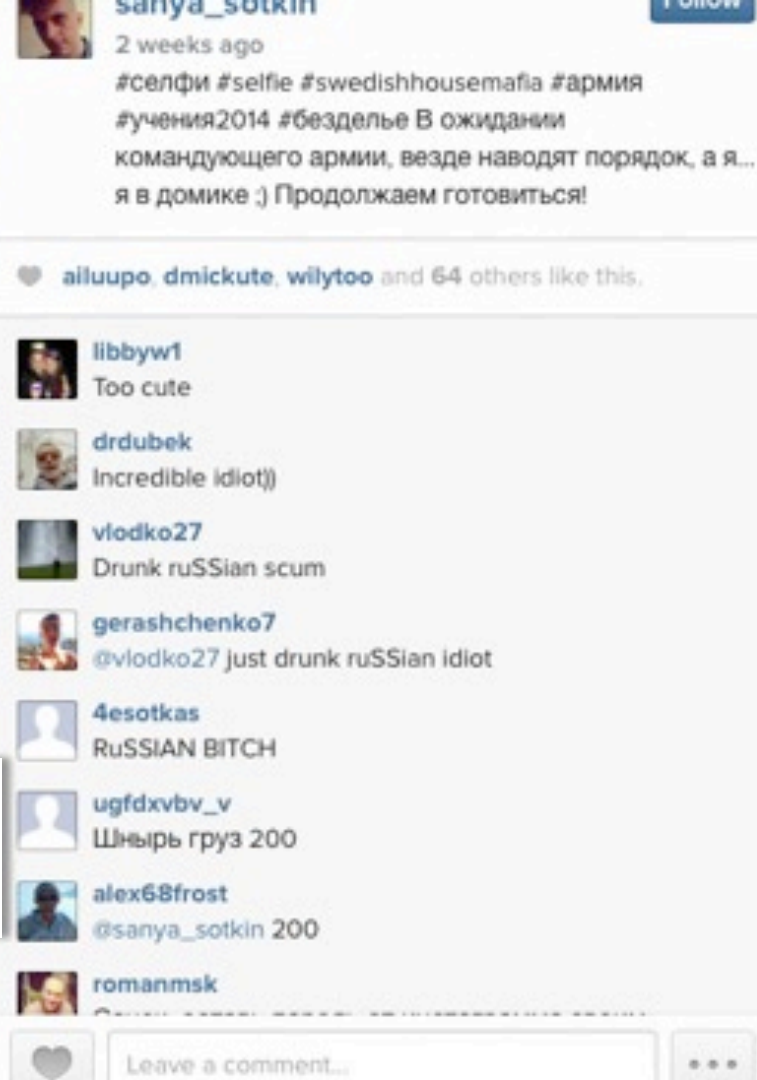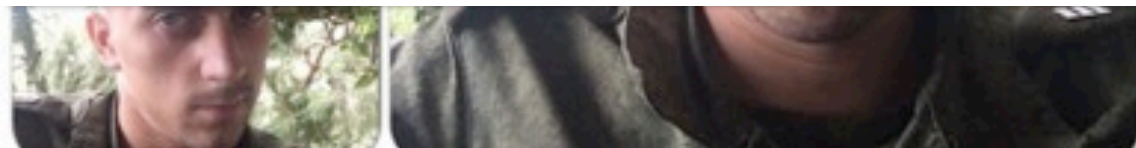
Other examples?
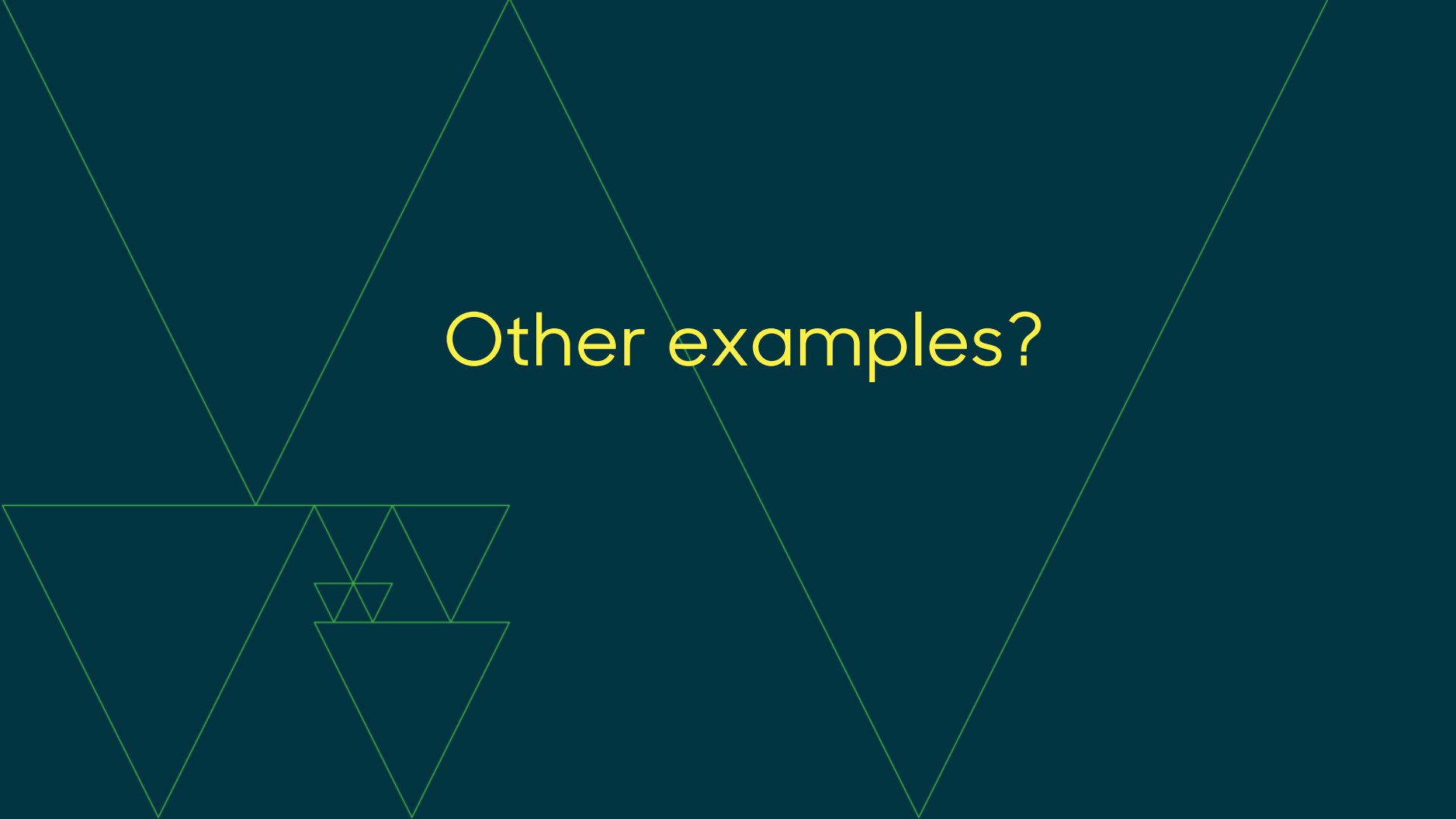
arhimaheena, arastenberger, villapossu, laurakristiina, joinfuturice

kliksnap Tai sitten "Aikuiset ei trampoliineille" #voishansitäpredikaattiverbiäainavälilläviljellä

janettajessika #tarmpoliini #ihantylsää #sinnevaan #anarkiaa

pnew0 #määritteleaikuinen

Hashtags.
Main stream culture.

mpoliini pois ...yppimästä isin päältä. Isi on aikuinen ja katsos tota kylttiä!"

futurice

Part 2: Software Culture & Work

The culture of getting stuff done.

Disruption

Dominant
Design

Old Technological Path Era of Ferment New Technological Path

You are here
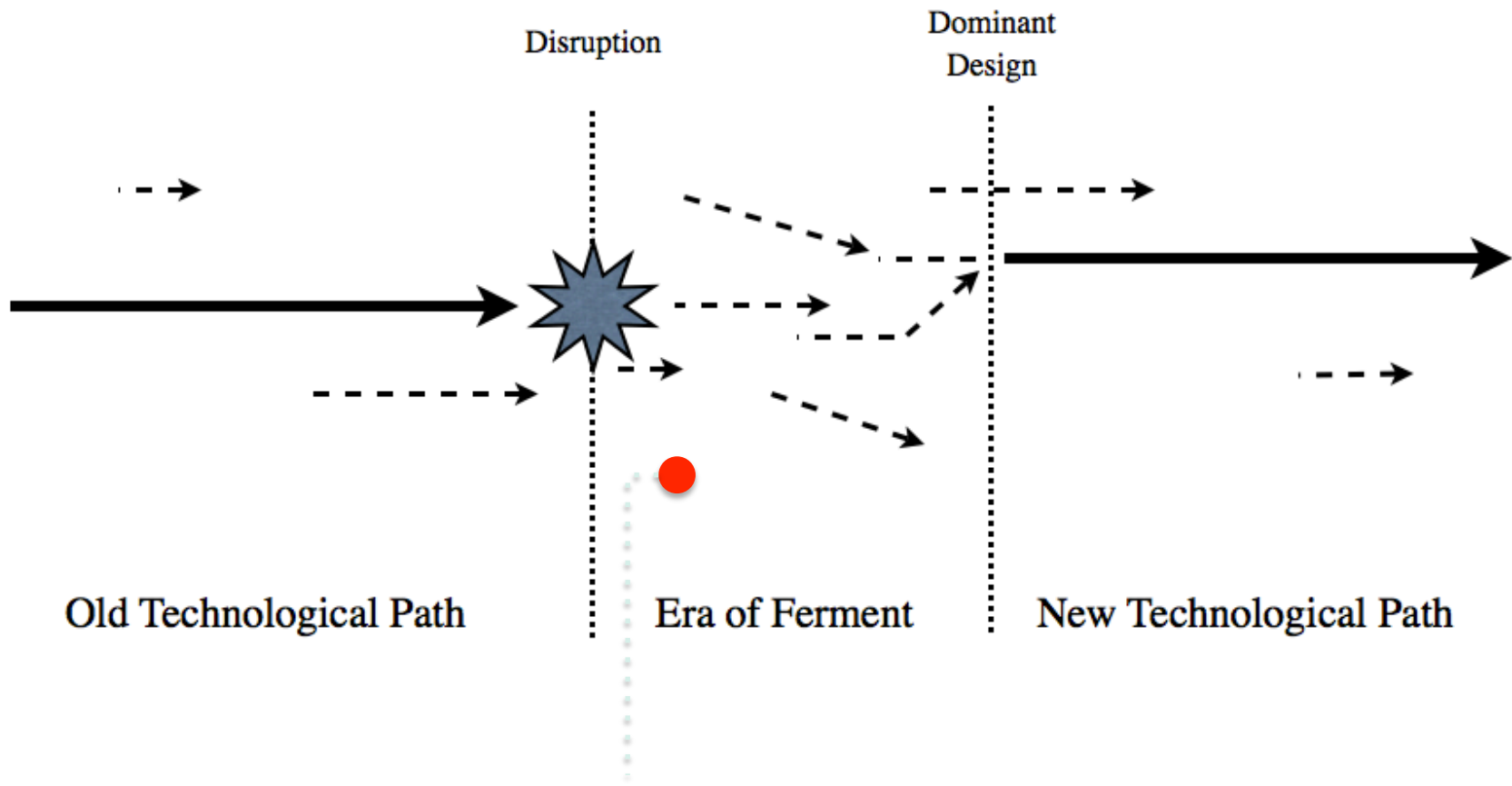
How to…

…from tech-centric to customer-centric?

…from internal politics to getting results?

…from endless meetings to doing stuff?

…from silos to multi-disciplinary teams?

…be a start-up without being a start-up?

Software based products, systems and services are often seen as the answer.

...what is the work culture they bring with them?

DANGER
KEEP OFF
THIN ICE

Less planning.
More trial & error.

©Sebastien Launay

Quick action.
No reporting.

Jack of all trades.
Entrepreneur's attitude.
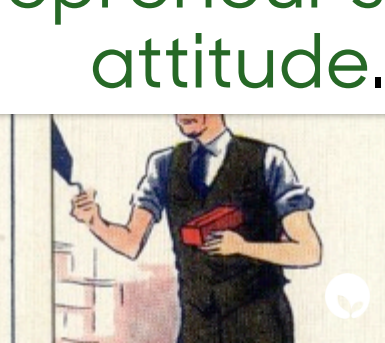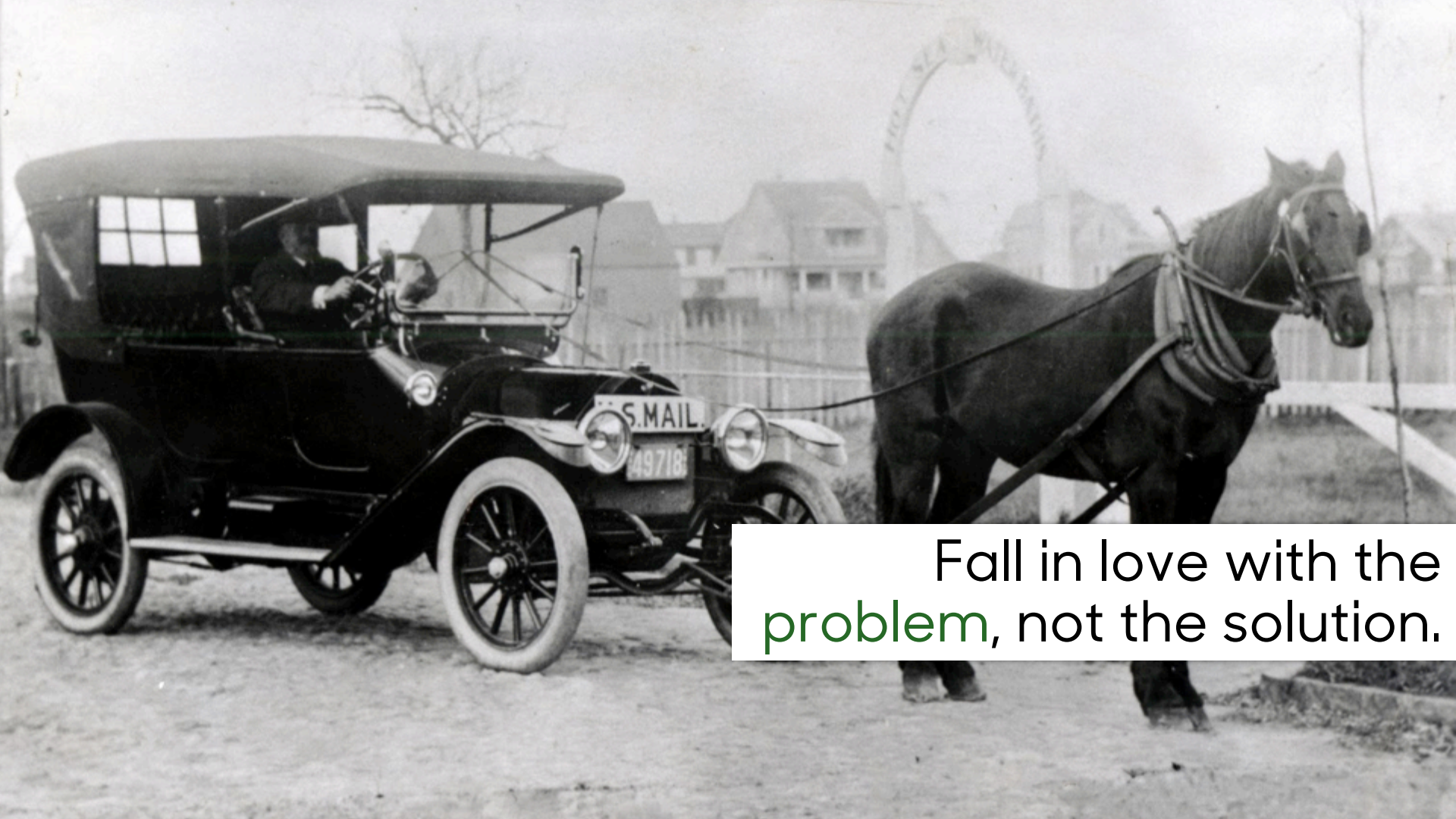
Fall in love with the problem, not the solution.

Leadership, not management.

ORGANIZATION CHART

of

THE TABULATING MACHINE CO.

BOARD OF DIRECTORS - C·T·R· CO.
Alfred DeBuys — Clarence P. King
George W. Fairchild — Stacy C. Richmond
Charles R. Flint — Joseph E. Rogers
A. Ward Ford — Christopher D. Smithers
Oscar L. Gubelman — Thomas J. Watson
Samuel M. Hastings — George I. Wilber
John W. Herbert — Rollin S. Woodruff
Joel S. Coffin

OFFICERS - C·T·R· CO.
Thomas J. Watson - Pres. & Genl. Mgr.
George W. Fairchild – Vice-President
James S. Ogsbury - Secy & Treasurer

COMPUTING-TABULATING-RECORDING CO.
Offices - 50 Broad St. — New York City

THE TABULATING MACHINE CO.
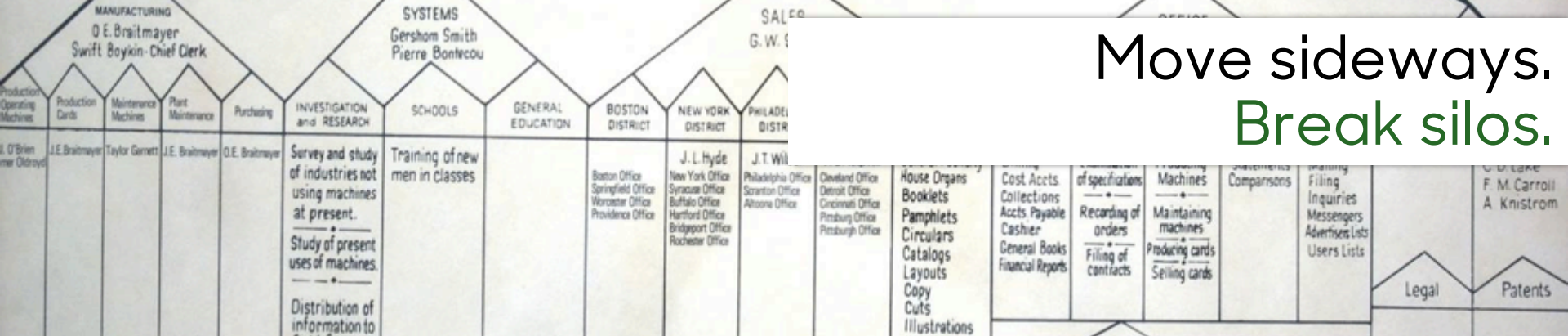General Offices — • — 50 Broad St.
New York City
FACTORIES — WASHINGTON, D.C.
— ENDICOTT, N.Y.
— DAYTON, O.

THOMAS J. WATSON *President*
R.L. Houston *General Manager*

DIRECTORS
George M. Bond — James S. Ogsbury
George W. Fairchild — Gershom Smith
Thomas J. Watson

OFFICERS
Thomas J. Watson — President
Gershom Smith — Vice-President
R.L. Houston — Treasurer
W.D. Jones — Asst. Treasurer
James S. Ogsbury — Secretary
O.E. Braitmayer — Asst. Secretary

MANUFACTURING
O.E. Braitmayer
Swift Boykin - Chief Clerk

SYSTEMS
Gershom Smith
Pierre Bontecou

SALES
G.W. S

Production
Operating
Machines

Production
Cards

Maintenance
Machines

Plant
Maintenance

Purchasing

L. O'Brien / mer Oldroyd — J.E. Braitmayer — Taylor Garnett — J.E. Braitmayer — O.E. Braitmayer

INVESTIGATION and RESEARCH
Survey and study of industries not using machines at present.
· — ·
Study of present uses of machines.
· — ·
Distribution of information to

SCHOOLS
Training of new men in classes

GENERAL EDUCATION

BOSTON DISTRICT
Boston Office
Springfield Office
Worcester Office
Providence Office

NEW YORK DISTRICT
J.L. Hyde
New York Office
Syracuse Office
Buffalo Office
Hartford Office
Bridgeport Office
Rochester Office

PHILADE...DIST...
J.T. Wi...
Philadelphia Office
Scranton Office
Altoona Office

Cleveland Office
Detroit Office
Cincinnati Office
Pittsburg Office
Pittsburgh Office

House Organs
Booklets
Pamphlets
Circulars
Catalogs
Layouts
Copy
Cuts
Illustrations

Cost Accts.
Collections
Accts Payable
Cashier
General Books
Financial Reports

of specifications
· — ·
Recording of orders
· — ·
Filing of contracts

Machines
Maintaining machines
Producing cards
Selling cards

Statements
Comparisons

Mailing
Filing
Inquiries
Messengers
Advertises Lists
Users Lists

C.D. Lake
F.M. Carroll
A. Knistrom

Legal

Patents

Move sideways.
Break silos.

No critical thinking.
Techno optimism.

Everything is measured.
Quantitative world view.

Part 3: So what?

Why should you care?

Your skillset?

Communications?
Strategic design?
People skills?
Understanding society?

Constant learning!

Understanding software is understanding society.

Your values will be coded into the society.

Growing political and financial power!

With great powers come great responsibility.

What will you do with your skills?

Thank you!
Questions?

risto.sarvas@futurice.com
@rsarvas