

# Modern IO thinking

Use design craftsmanship to solve complex real world problems

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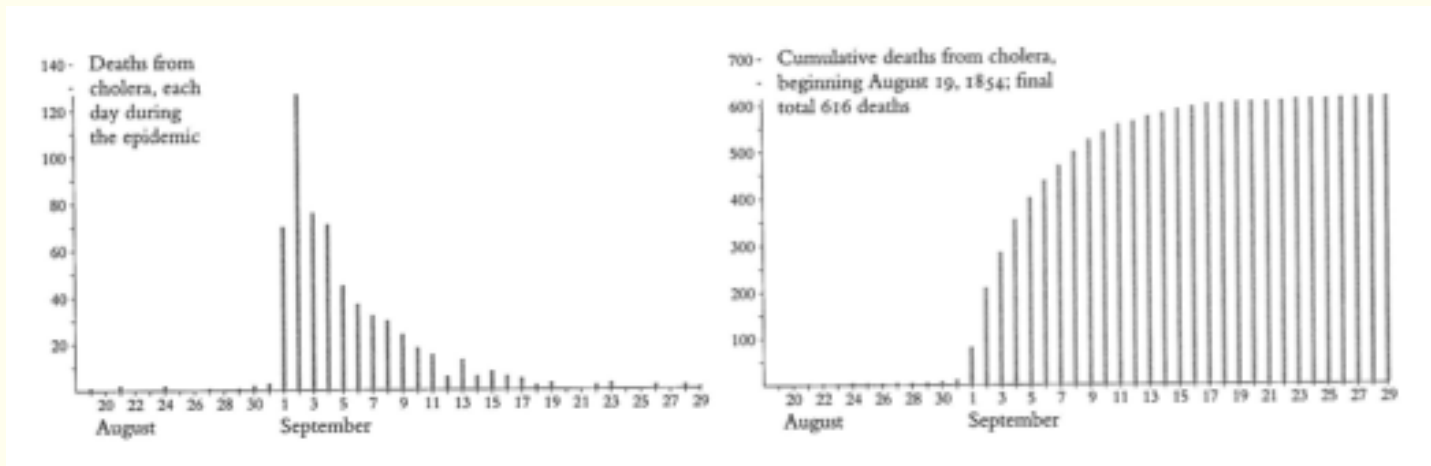
Solving complex problems (IO), it's not new but you must be a skilled craftsman

Integrating information and solving complex problems, it has been done throughout history many times by skilled people.

Working as a designer, I think you need:

- Domain expertise
- High degree of visibility in the presented data
- Natural mapping of visible data
- Present visible data “in the world”, not only “in the head”

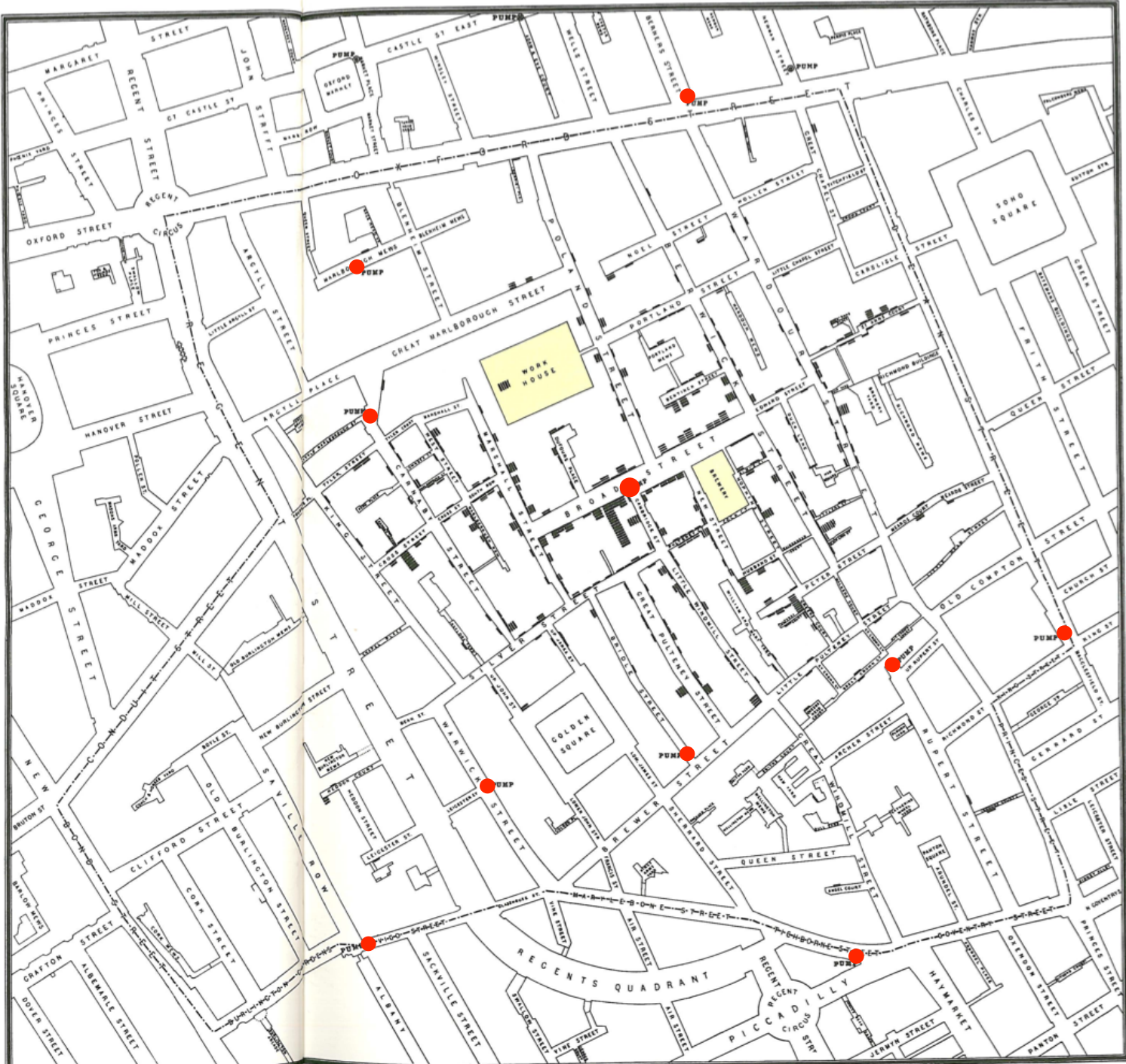
# 150 years ago: The Cholera epidemic in London 1854



Fra E. Tufte Visual Explanations

Mechanism for disease not yet established, years before the cholera bacteria was discovered (*Vibrio cholerae* 1886). Several mechanisms were discussed:

- Air
- Vapor from burying grounds of plague victims from two centuries earlier
- Infected water (good idea by Dr. John Snow)



- Deaths
- Address
- Water pumps

Dr. J. Snow has domain expertise, and use natural mapping with high degree of visibility:

None at the brewery suffered from cholera (saved by the beer)

The workhouse has it's own pump-well

# Borkmann's point: Solving real world problems at time through integration of information

...there came a point where no more information was needed. On reaching that point the superior detective knows enough to solve the case which depends on **"some decent thinking"**. Borkmann's point also marked the difference between a good investigator and a bad one. The good detective tries to establish when that point is reached, or passed; **a bad one, lacking this ability, carries on unnecessarily.**

Håkan Nesser (Wikipedia)

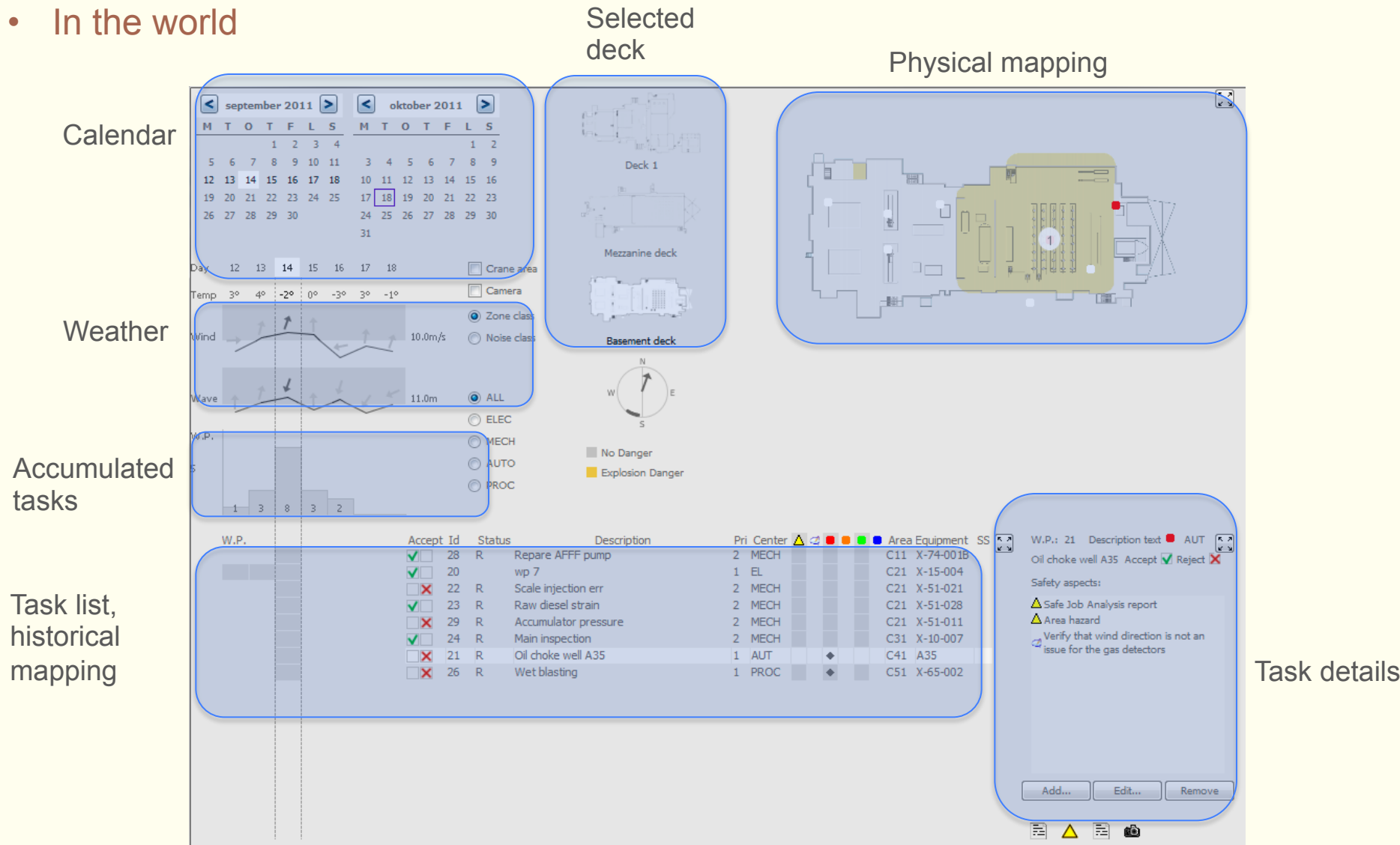


Dr. J. Snow solved the problem at Borkman's point through integration and visualization of the already existing data (map, deaths, address & water pumps)

BUT: No extensive up-front analysis or standardized work flow method solved the problem: These methods are pointing backward into the past, they often do not look into the future

# The IO-map, visualizing hazards in job planning

- Visibility
- Natural mapping
- In the world





## What do you need:

You need a designer with a high degree of craftsmanship and that has:

### Domain expertise

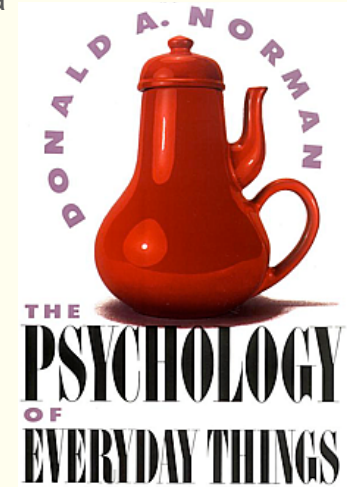
Ability to show the data with a high degree of **visibility**

Able to **natural map** the visible data

Present visible data “**in the world**”, not “in the head”

General ability and talent to do **design thinking**

Learn more on visibility & mapping of data

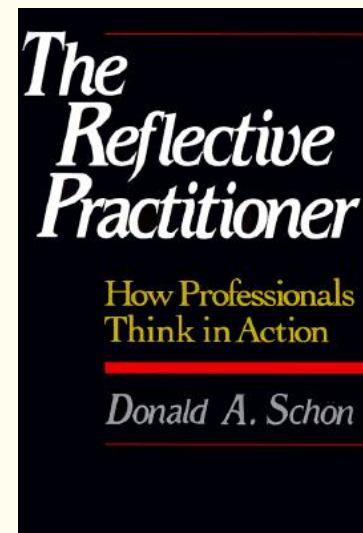


Don't fall into the abyss of forgetting the real problem and instead focus on..

- Work-methods, standards and extensive up-front analyses
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You will end up in the **non-productive loop of confusion**: “... we need some more analyses and to update the method and models first, and then..” **You have passed Borkman's point**

Explains why work methods and simplified models do not solve real world problems



Ok, if you absolutely insist, **user-centered design**

