## LET'S LOOK AT ALL THE LAYERS OF THE GRAMMAR OF GRAPHICS TOGETHER

Dr Alexandra Anderson



A step-change
quantitative soc
science skills
science skills
Funded by the
Funded by the
Nuffield Foundation

Nuffield
Foundation

## 7LAYERS TOTHE GRAMMAR OF GRAPHICS

## Describes all the non-data ink

Plotting space for the data
Statistical models \& summaries
Rows and columns of sub-plots
Shapes used to represent the data
Scales onto which data is mapped
The actual variables to be plotted


Q-Step

## CHARLESMINARD'S FIGURATVEMAPOF THESUCCESSVVELOSSESINMENOF THEFRENCH ARMYINTHE RUSSIANCAMPAIGN 1812-1813.



## EXAMPLE 1

What are the geometries, the aesthetics, and coordinates?

A step-change in A step-change
quantitative socic
science skills
Funded by the
Funded by the
Nuffield Foundation
ESRC and HEFCEE


## EXAMPLE 2

What are the geometrics, the aesthetics, themes here?

A step-change in quantitative social
science skills science skills Funded by the
Nuffield Foundatio Nuffield Foundation
ESRC and HEFCE

## EXAMPLE 3

What are the geometrics, the aesthetics, and coordinates here?

A step-change in quantitative social
science skills science skills Funded by the
Nuffieidd Foundatio Nuffield Foundation
ESRC and HEFCE

## EXAMPLE4

What are the aesthetics, geometrics, coordinates and themes here? What is the data? Does any other layer come to mind?


## 7LAYERS TOTHE GRAMMAR OF GRAPHICS

## Describes all the non-data ink

Plotting space for the data
Statistical models \& summaries
Rows and columns of sub-plots
Shapes used to represent the data
Scales onto which data is mapped
The actual variables to be plotted


Q-Step

