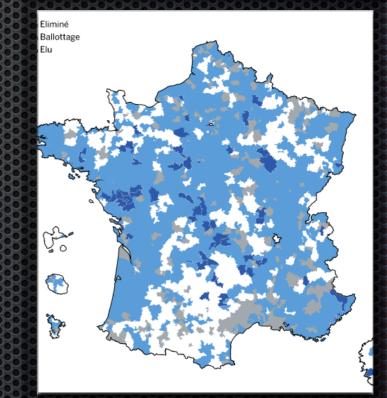
# Why Study Quantitative Methods?

Jan Rovny

# We are surrounded by Quantitative Data

- Journalists are the main presenters and summarizers of the quantitative data we consume
- But do they have the right quantitative skills to interpret the data?

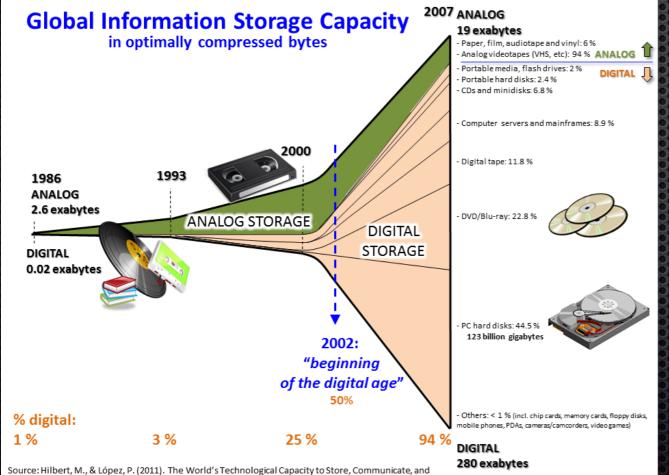
*"Four extra points of IQ, an extra year's education an a significantly enhanced income at the age of 30. Those are the benefits of having been breast-fed..."* (The Economist, March 21, 2015)



Le Monde, March 23, 2015

## Increasing amount of data is collected

- Economist podcast
- Big data / Small data

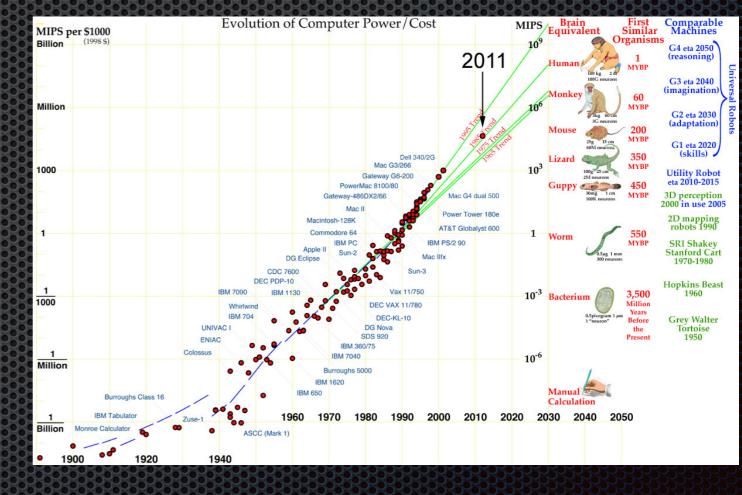




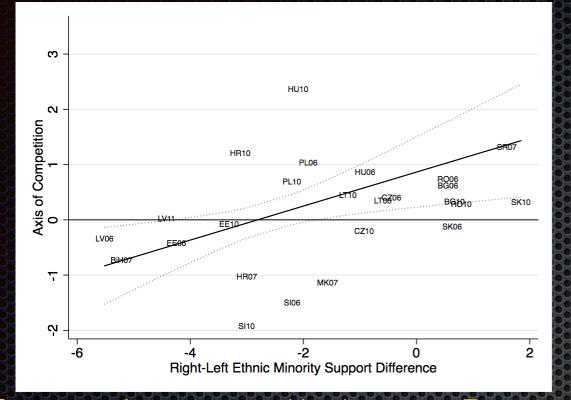
Compute Information. Science, 332(6025), 60 –65. http://www.martinhilbert.net/WorldInfoCapacity.html

# Quantitative data can be analyzed better than ever before

- Computers can perform methods theoretically derived in the past, but inapplicable until recently
- User-friendly software
- So, even uneducated users can analyze data
- We need educated consumers and producers of quantitative analyses to correct errors

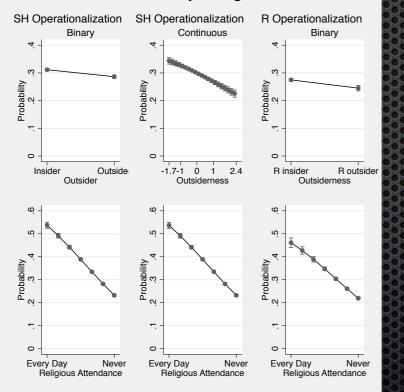


#### Quantitative data answer questions otherwise unanswerable

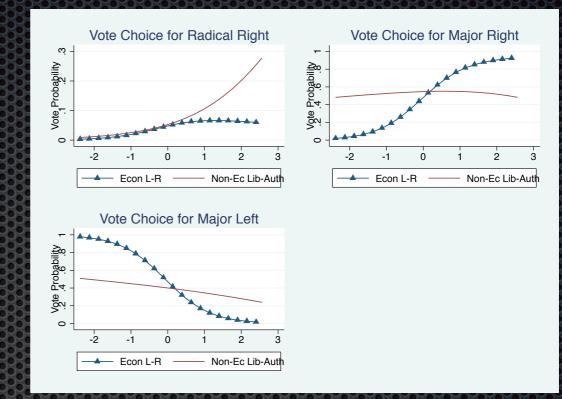


#### Structure of party competition in eastern Europe

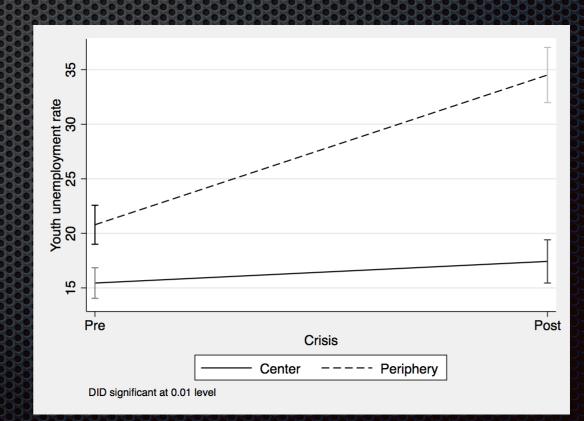
Vote Major Right



Voting behavior of labor market outsiders



Effect of radical right strategy on vote choice



Effect of economic crisis on unemployment across the EU

# Quantitative data may provide large scale systematic evidence

 An old example (Lazarsfeld 1949)

- In WWII, US army carried out 300 studies
- Critique: these studies would only support well known facts, e.g.:
- All these were proved exactly wrong by the data!

- Better educated men showed more psycho-neurotic symptoms than those with less education. (The mental instability of the intellectual as compared to the more impassive the-man-in-the-street is well known)
- Men from rural backgrounds were usually in better spirits during their Army life than soldiers from city backgrounds. (After all, they are more accustomed to hardships.)
- Southern soldiers were better able to stand the climate in the hot South Sea Islands than Northern soldiers (of course, Southerners are more accustomed to hot weather).
- As long as the fighting continued, men were more eager to be returned to the States than they were after the German surrender. (You cannot blame people for not wanting to be killed.)

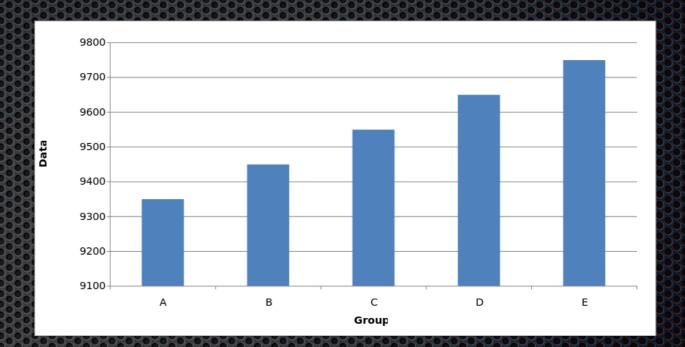
#### An aside on qualitative methods

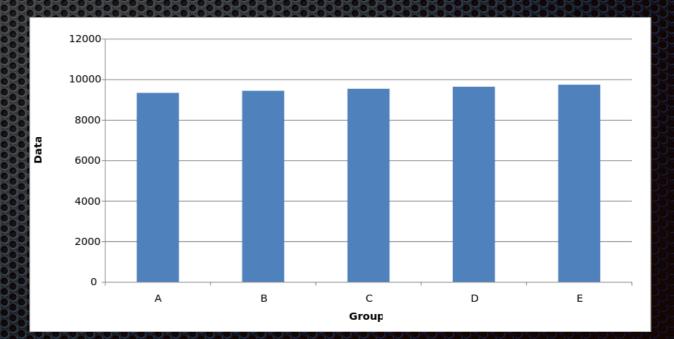
- Rich (unquantified) knowledge is and will always be the bedrock of all analysis
- Good quantitative work never rejects, but works with and builds on qualitative knowledge and analyses
- In the social sciences, rich qualitative, historical knowledge of the cases is crucial
- Rich knowledge produces good theory, and without theory, quantification is meaningless
- Qual and Quant are two eyes for seeing the world



### Quantitative data can be fickle

- Manipulation of data
- Misrepresentation of data
- Coding errors
- Role of random chance





# Preliminary Conclusion

- 1: Quantitative data is and will be increasingly collected, analyzed and reported
- 2: Quantitative data provides a view of the social world.
- 3: Quantitative data influences politicians, advisors, officials, and ordinary people
- 4: Quantitative data can be manipulated

### You and Quantitative Methods

- You are already consumers of massive amount of quantitative data analyses.
- Need to become intelligent, discriminating and critical consumers
- As policy analysts and makers of the future, you need to also become intelligent producers of quantitative data analyses
- This will
  - Give you a second eye to see the world with
  - Make you better equipped to face the information offered
  - Give you new opportunities for learning



## And if that is not enough...

