

Data Vizualization with ggplot2

Chuvakin Sergey

«School of Advanced Studies»

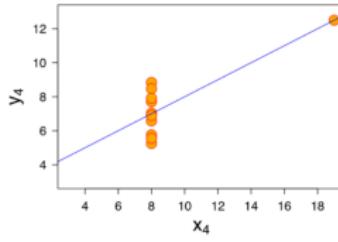
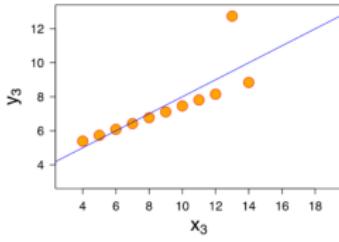
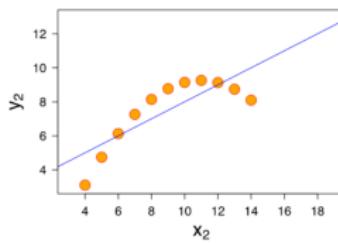
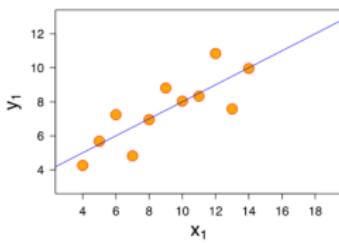
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Outline

- ▶ Why we need it?
- ▶ Ways to represent data
- ▶ Basic principles

Why we need it??

Certainly we can explore data using basic statistics like mean, median, mode standard deviation, but ...



Why we need it??

	I		II		III		IV	
	x	y	x	y	x	y	x	y
	10	8,04	10	9,14	10	7,46	8	6,58
	8	6,95	8	8,14	8	6,77	8	5,76
	13	7,58	13	8,74	13	12,74	8	7,71
	9	8,81	9	8,77	9	7,11	8	8,84
	11	8,33	11	9,26	11	7,81	8	8,47
	14	9,96	14	8,1	14	8,84	8	7,04
	6	7,24	6	6,13	6	6,08	8	5,25
	4	4,26	4	3,1	4	5,39	19	12,5
	12	10,84	12	9,13	12	8,15	8	5,56
	7	4,82	7	7,26	7	6,42	8	7,91
	5	5,68	5	4,74	5	5,73	8	6,89
SUM	99,00	82,51	99,00	82,51	99,00	82,50	99,00	82,51
AVG	9,00	7,50	9,00	7,50	9,00	7,50	9,00	7,50
STDEV	3,32	2,03	3,32	2,03	3,32	2,03	3,32	2,03

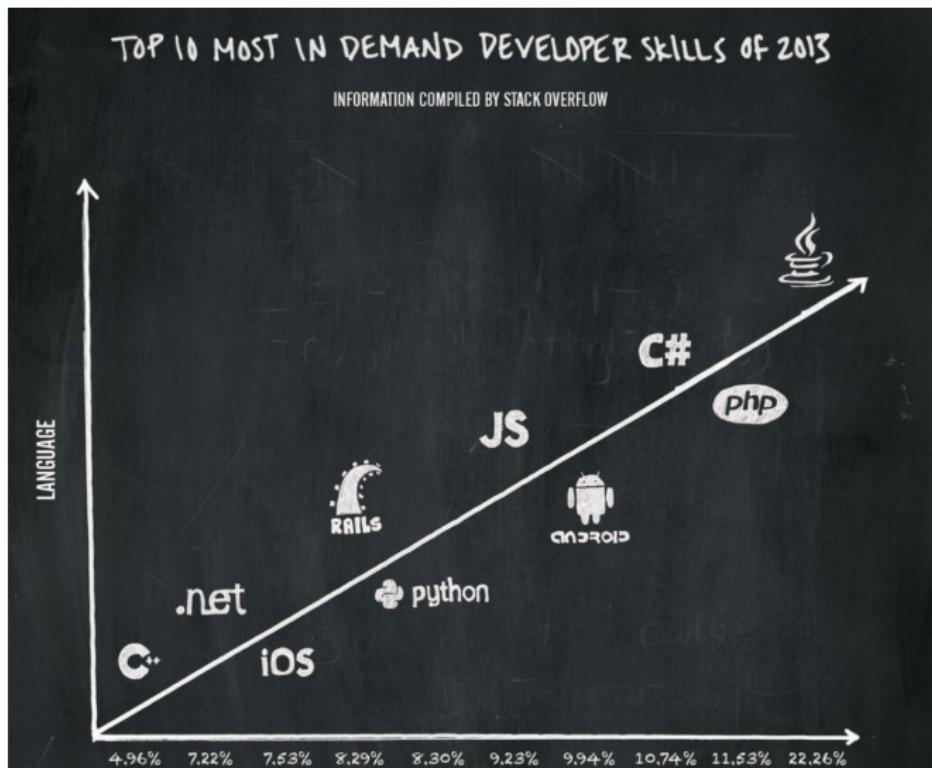
Types

Not sure that I can do it better, let's just follow [this link](#) and discuss it.

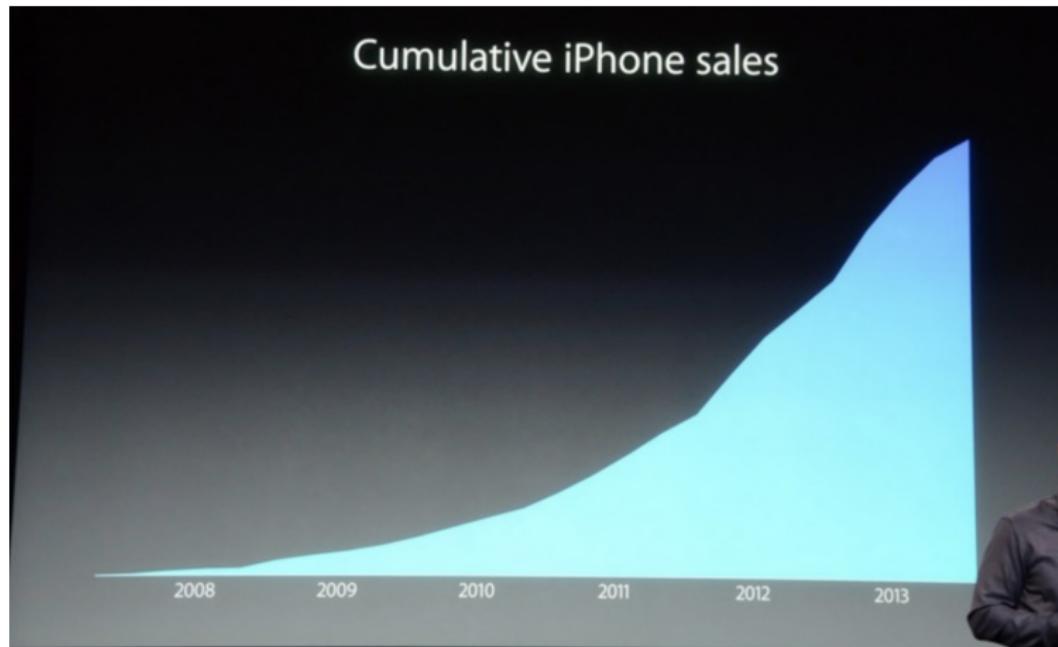
Principles

- ▶ Plot it's a story!
- ▶ Choose type wisely!
- ▶ Highlight important moments!
- ▶ Choose right colors!
- ▶ Pay attention to axes!
- ▶ Pay attention to titles!
- ▶ Fancy does not mean cool
- ▶ Avoid redundancy, just important things on plot
- ▶ Add interactivity when appropriate

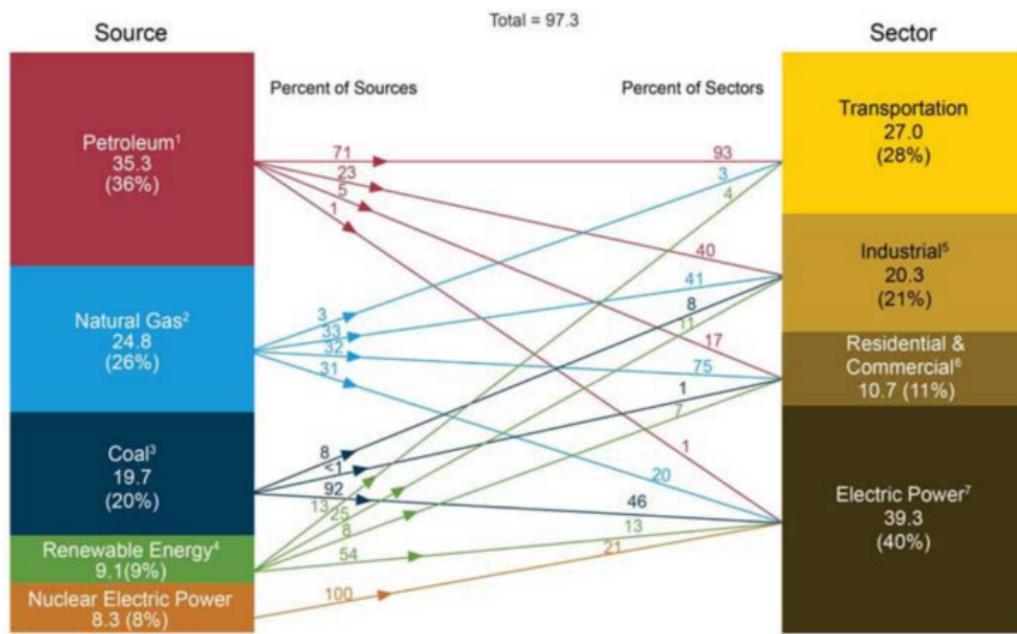
Examples



Examples



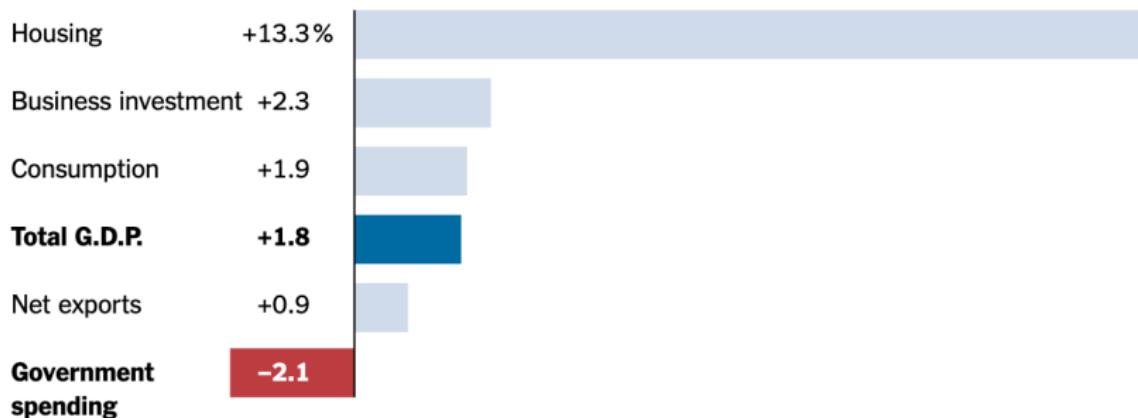
Examples



Examples

An Unbalanced Recovery

Estimated growth or decline for 2013.



Examples



Examples



Examples

Lotto numbers, like a star

