
Information Visualization

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time allowed: **2h**

no document allowed except a sheet of paper with hand-written notes.

instructions:

Please answer all the questions. If there is any ambiguity in the questions, explain your hypotheses.

Question 1 (3pts)

Give one concrete exemple, **different than that given in the lectures**, of data attribute for each of the following data types : **nominal**, **ordered**, and the two quantitative types (**interval & ratio**).

Question 2 (2pts)

For each of those data types, explain how two values can be compared, and how several values can be aggregated.

Question 3 (5pts)

Image 1 (below) from Zan Armstrong, published in the Scientific American, shows the average number of babies born every minute of a day in the US.

- Give the visual mapping for this chart using Card et al. taxonomy.
- Explain why this encoding is good/bad according to Bertin's criterions.

Question 4 (4pts)

Image 2 (below) is a screenshot of the Film Finder pioneer visualisation software.

- List the parts of the interface that relate to each item of Ben Shneiderman's information-seeking mantra.
- List the parts of the interface that relate to each step of the Information Visualisation Pipeline.

Question 5 (6pts)

A group of 10 friends ($f_1 \dots f_{10}$) try to choose a restaurant among a list of 5 possibilities (A, B, ...E) for the dinner. To do so, each of them order the five restaurant with a unique rank (1st, 2nd, ...5th).

How would you represent this preference information in order to help them make a choice ?

Justify your design.

Image 1

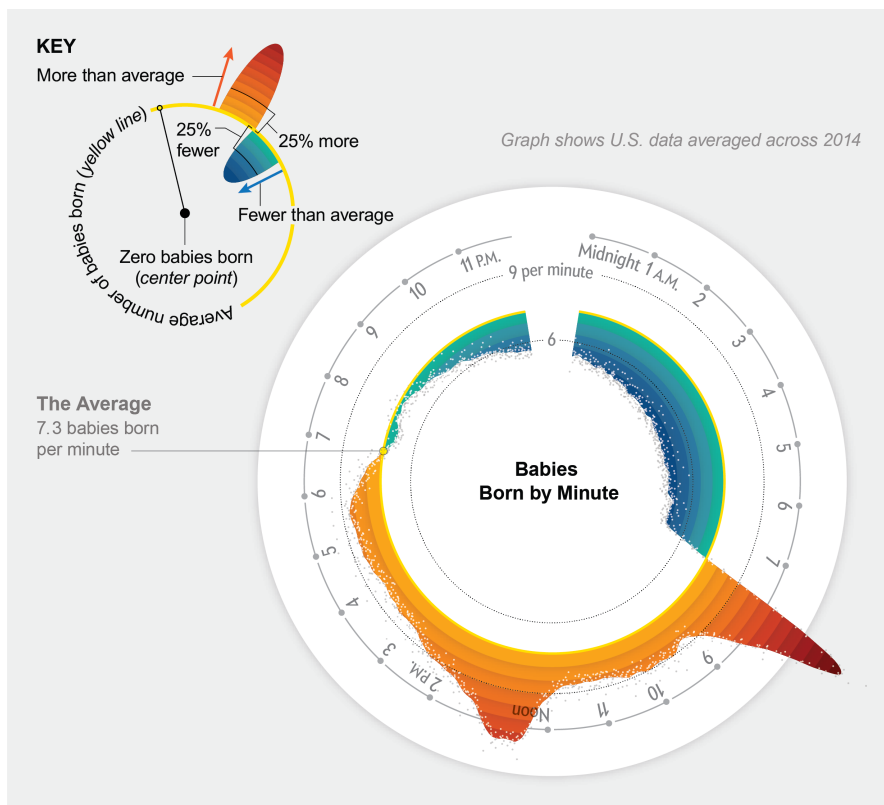


Image 2

Popularity

Title :
ALL

Actor : ALL

Actress : Pfeiffer, Michelle

Director : Miller, George

105 Length 231

Ratings G PG PG-13 R

Films Shown: 210

Copyright (C) 1993 HCIL

Witches of Eastwick, The
 Director: Miller, George Year: 1987
 Country: USA Language: English
 Actors: Nicholson, Jack; Jenkins, Richard; Joakum, Keith; Struycker, Carel
 Actresses: Cher; Sarandon, Susan; Pfeiffer, Michelle; Cartwright, Veronika

ALL
Drama
Mystery
Comedy
Music
Action
War
Sci-Fi
Western
Horror