

1.

I.

task: How many wars it shows? {summarize, quantities}

data: ratio

encoding method: express the quantity of wars.

II.

task: Which war has the greatest number of deaths? {discover, extreme}

data: ratio

encoding method: map the different sizes of poppy to show the number of deaths.

III.

task: Which war lasts for the longest time? {discover, extreme}

data: ratio

encoding method: present the lasting years in lines.

IV.

task: Which region evolves the most wars in the picture? {discover, extreme}

data: ratio

encoding method: a bar chart for quantities of each regions.

2.

This picture is to show the modern wars involving multiple regions in the world. So, it chooses the year 1900 as the origin point of x-axis instead of other years. And it chooses a “log” unit as the y-axis. These two methods make the picture more readable and compact, but not that tight. Besides, the picture uses different colors to distinguish each region and the poppy size to show the number of deaths of each war. And the slope of the poppy gives the duration of each war. In sum, it uses the simplest methods with the legends to show the information in the picture.

3.

The data I choose to implement the picture are: PatientID, Encounter_date and all symptoms (number via statistics).

4.

To compute the star coordinates, I will choose following data as the parameter: Gender (d1), Age_TBI (d2), Days_duration (d3), WarRelated_flag (d4), total_symptom_number (d5)

And I choose 7 sample as the subset:

PatientID	Gender	Age_TBI	Days_duration	WarRelated_flag	sym_num	x	y
382268	M (0)	24	3005 (30.0)	Y (10)	108 (10.8)	24.34	-21.61
382269	F (10)	22	1456 (14.5)	UN (0)	35(3.5)	26.13	6.16
3822046	M	3	2702 (27.0)	UN	1	17.83	-20.63
3822077	M	53	3156	UN	20	50.00	-2.97
3822084	M	16	2966	UN	3	29.87	-18.17
3822102	M	31	2540	Y	191	-142.92	40.15
3822108	M	26	1402	UN	73	-36.40	19.35

From the sample, at least, 382268, 3822046 and 3822084 can be a cluster.