Is European refugee crisis over?

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I. Data Story Summary

A sharped increase in the number of forcibly displaced people worldwide has occurred in many countries, notably the Syrian Arab Republic, due to persecution, armed conflict, violence, or wars. There are millions of people who have lost their homes and are trying to seek asylum in other countries for international protection. By the year 2019, there are 77 million internally displaced people around the world including 3.5 million Asylum-seekers, 41million Internally displaced people, 5.6 million Palestinian refugees under UNRWA's mandate, 20 million Refugees under UNHCR's mandate, and 3million Venezuelans displaced abroad[1]. What is the current situation of the refugee crisis? From visualization 1, it is shown that Syria has the largest number of refugees as a result of the Syrian civil war in 2011. African and Asian countries host the most refugees. Germany is the largest host country in Europe. Turkey is the country that has the largest refugee population in the world mainly because of proximity and humanitarianism. Why does Germany host so many refugees? Germany was Europe's most vigorous champion of the refugees. Millions of refugees flooding to Germany brought cheap labor to Germany. However, as for other countries in Europe, they didn't accept as many refugees as Germany. Eastern European governments said they don't have the resources to settle the refugees[3]. So far, the EU asylum policy has largely failed, the refugee issue has proven to be a highly divisive test case for the solidarity among EU member states[3]. Nevertheless, in March 2019, the European Commission declared the migrant crisis to be at an end[1] [2], although displaced people continued to arrive. Is the refugee crisis really came to an end, or it is just the EU's compromise on the refugee crisis?

In the second part of the data story. The results of applications in the pie chart demonstrate that only 32% of applications are accepted on average. And some countries might even don't want refugees to flood into their nation. Countries such as Lithuania, Hungary, Poland, and Slovakia argue they have limited resources to welcome refugees in great numbers, and no experience in integrating non-Europeans into their societies[3]. What happened to those asylum-seekers whose applications were not recognized? It is found that 31 million forcibly displaced people whose applications for asylum were not accepted returned to their country of residence because they don't have other choices[2]. From visualization 4, the audience could find that, by 2019, the total number of applications in Europe dropped down to 675K, nearly half of that in 2016. It seems that the European migrant crisis came to an end in 2019. But is this the truth? Again, the same question was asked. Answers will be given in the third part of the data story.

The third part of the data story combines the war data with the refugee data. And by showing the visualization 5 to the audience, the relation between the number of forcibly displaced people and the number of violent deaths in the global conflicts could be seen. The audience could notice that the population of forcibly displaced people began to increase when the Syrian civil war broke out in 2011. By showing the audience the wars have caused millions of deaths and millions of people forcibly displaced, the data story could resonate with the audience that we need to stop the war. Furthermore, the European refugee crisis will never end if the world leaders don't stop the war, which gives answers to the question raised previously.

In the fourth part of the data story, it emphasized how the spreading of covid-19 could exacerbate the refugee crisis. Refugees and other displaced people belong to the most marginalized and vulnerable members of society. They are particularly at risk during this coronavirus disease outbreak because they often have limited access to water, sanitation systems, and health facilities. Whilst the virus made things worse, the restrictions imposed globally to try and curb its spread also made it more difficult for refugees to reach safety. During the first wave of the pandemic, 168 countries fully or partially closed their borders, according to UNHCR[4]. 90 of those countries made "no exception for people seeking asylum". In such a situation, the refugees who suffered from the war still remain displaced and get nowhere to resettle.

In summary, the European migrant crisis is not over yet. If the war doesn't stop, the refugee crisis will only get worse in the face of the spreading covid-19.

II. Dataset Summary

In order to show the audience what caused the refugee crisis, I chose the civil war data to show the number of deaths in the civil war by a year. Interestingly, by comparing two sets of charts(visualization 5), the relation is clear that the population of forcibly displaced people increased when the war broke out. In such a way, it will make the audience realize what damage war could bring to civilians. Moreover, it could call on the government to stop the war.

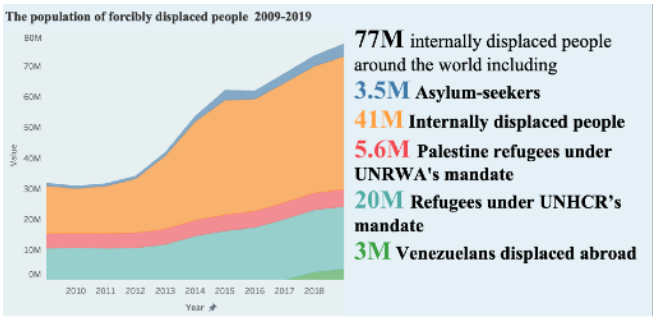
Lastly, the story used the status of global covid-19 border closures data to give another prospect of view. The closure of the border made it more difficult for refugees to reach safety.

III. Visualisations

A. (The population of forcibly displaced people 2009-2019) Visualisation 1

1) Description

The plot of population of forcibly displaced people from 2009 to 2019[2]. The color shows details about different kinds of displaced people. A glance at the graph will bring



the audience the clearest understanding of the situation of the current refugee crisis.

2) Justification

The area plot could clearly see both the relationship between different kinds of idps and the general trend of the refugee crisis. I didn't use legend in the chart, but instead, I colored the number on the right side to label each group. Area plot is better than a line graph combining different kinds of idps because it is more straightforward.

3) Narrative Design Patterns

Visualization 1 used addressing the audience pattern[5]. It presents the data to the audience in the simplest way, and it is not that complicated and easy to understand.

4) Strengths and Weaknesses

The area line graph could show trends and relationships between data better than other graphs. But multiple lines on the graph, especially unrelated can be confusing. Also, it is difficult to make out exact values for data. The meaning of different groups of idps wasn't explained clearly.

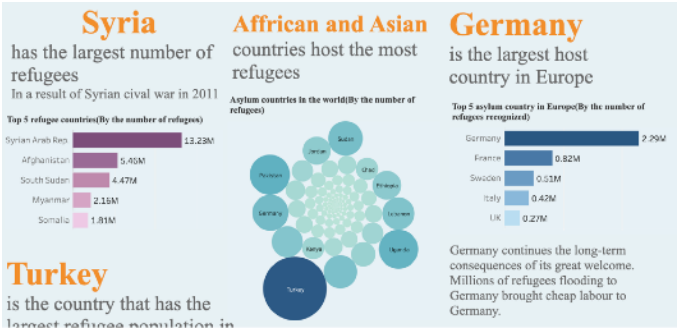
5) Improvements

I could add a caption about the meaning of different groups of idps.

B. (A glance at the data) Visualisation 2

1) Description

Three sets of the graph show the top 5 refugee countries, asylum countries in the world, and the top 5 asylum countries in Europe that have the largest number of refugees. Bar charts and packed bubble charts were used to visualize.



2) Justification

Visualization 2 was very straight forward to show the audience which country in the world has the largest population of refugees. The colors used in data visualization are beautiful. The bar charts in visualizations were used to highlight different countries, especially the differences between these countries.

3) Narrative Design Patterns

Visualization 2 used Addressing the audience pattern[5]. It gave the audience the idea of which country has the largest population of refugees.

4) Strengths and Weaknesses

Bar graphs can easily compare different data, highlight the key data we want to show. But the bar graphs require additional written or verbal explanation and It is hard to show multiple values or changes over time. Some countries' names in the packed bubble graphs can not be seen.

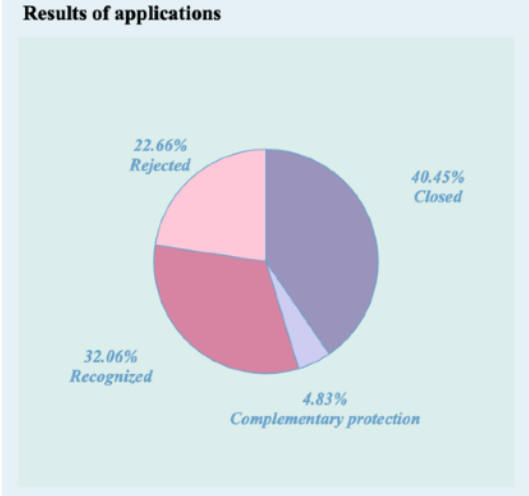
5) Improvements

I could try better ways to represent the data.

C. (Results of applications) Visualisation 3

1) Description

Visualization 3 used a pie chart to show the proportion of each application's results. 40% of applications were closed and only 32% of applications were recognized on average.



2) Justification

I used a pie chart to show how many applications were recognized. Pie charts are typically used to summarize categorical data. Most importantly, pie chart is good at comparing the proportions among components

3) Narrative Design Patterns

Visualization 3 used the Users-find-themselves pattern[5]. This pattern could guide the audience to discover the idea through the pie chart.

4) Strengths and Weaknesses

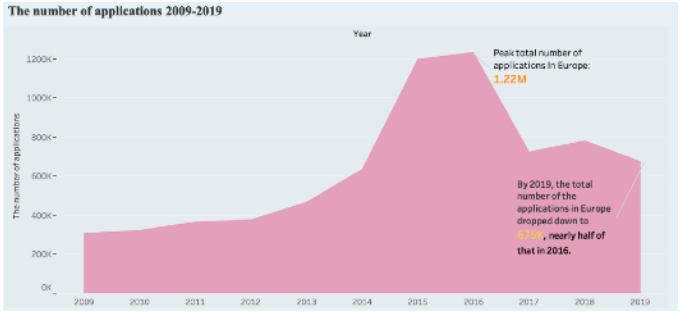
A pie chart provides an excellent visual concept of a whole. It shows a clear comparison of different components. It can highlight information by using a different color in each segment. It is easy to label and save lots of space. However, the total represented by the pie chart is unknown.

5) Improvements

I could try to use more charts instead of the radial chart to see the differences.

D. (The number of applications 2009-2019) Visualisation 4

1) Description



Visualization 4 used a line graph to show how the number of applications changes over time. I also colored the area under the line pink to better show the trend. Furthermore, I annotate the peak point and point in 2019 with text explanation, explaining that the number in 2019 is half of that in 2016.

2) Justification

Line graphs are usually used to show how a value changes over time. With the annotate in the graph, audience could understand what trend the graph is showing. By coloring the area under the line pink, the downward trend is more obvious.

3) Narrative Design Patterns

Visualization 4 used the Users-find-themselves pattern[5]. It could push readers to read and encourage them to make statements by themselves.

4) Strengths and Weaknesses

The line graph is good at showing trends of data and it is better than any other graphs. But, when there are many lines on the graph, it will be difficult to distinguish. Luckily, This graph only has one line.

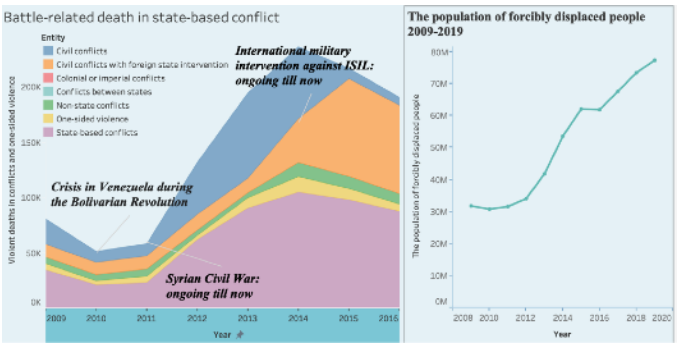
5) Improvements

I could add some more details to the line graph.

E. (Combination of the number of deaths in wars and the number of idps) Visualisation 5

1) Description

Visualization 5 compares the number of deaths in wars and the number of idps, using area line graph and line graph. The population of forcibly displaced people began to increase when the Syrian civil war broke out in 2011.



2) Justification

The combination of the two graphs makes the visualization more straightforward and visual to the audience. Also, it clearly shows the relation between these two variables. By comparing two graphs, the audience could easily notice that the population of forcibly displaced people began to increase when the Syrian civil war broke out in 2011.

3) Narrative Design Patterns

Visualization 5 used users-find-themselves patterns[5]. By comparing the two graphs, the audience could easily find the relationship between the two variables. And then concluded that the refugee crisis is caused by the war.

4) Strengths and Weaknesses

These two graphs could explain to each other. Line graphs could show trends and relationships between data better than other graphs. The weakness is that line graph is difficult to make out exact values for data.

5) Improvements

I could improve the visualization by put the second graph onto the first graph and make its y-axis on the right side. In this way, the audience could compare them more conveniently.

IV. Conclusion

The European migrant crisis is not over yet. If the war doesn't stop, the refugee crisis will only get worse in the face of the spreading covid-19. War is crucial, and it only brings the broken ruins and displaced people to the world. It is important to raise anti-war awareness and it is what this report does. World leaders need to collaborate to properly settle these refugees, otherwise, it will cause social unrest, and worsen the corona crisis. It will even lead to the outbreak of other diseases, for example, cholera in 2015. To manage these displaced refugees properly, it needs governments' support and the corresponding policies. Moreover, global efforts and collaborations are urgently needed.

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