Datavis_report

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Summary

The topic I have chosen for the end-of-semester project and poster presentation is “Global Public Perception of Artificial Intelligence (AI): Awareness, Concern and Trust towards Regulations”.

In today’s world where artificial intelligence is rapidly rising and entering almost every aspect of our daily lives, I chose this topic in order to understand how the public perceives AI, what they expect from it and what they are concerned about.n today’s world where artificial intelligence is rapidly rising and entering almost every aspect of our daily lives, I chose this topic in order to understand how the public perceives AI, what they expect from it and what they are concerned about. As a student of the department of statistics, I believe that understanding how artificial intelligence affects society (and therefore us) is critical for choosing the field in which I will specialize in the future and for general awareness. Also, the fact that the dataset I use is on a large scale involving 25 countries can be critical for interpreting the trends of AI in the international arena and evaluating our own position in this context.Also, the fact that the dataset I use is on a large scale involving 25 countries can be critical for interpreting the trends of AI in the international arena and evaluating our own position in this context.

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Based on the Pew Research Center’s comprehensive survey of 25 countries, this dataset examines global attitudes towards artificial intelligence on three main axes: Awareness, Sensitivity (Anxiety-Excitement Balance), and Trust in Regulations.

Before referring to the technical details of the dataset later in the report, it will be useful to give an intuitive information about the background of the topic.

Especially with the spread of the Internet, the collection of an incredible amount of data called “big data” (big data) has made many new developments possible. (From a statistical perspective, the increasing accuracy of analyses and models as the number of data increases forms the basis for these developments.pecially with the spread of the Internet, the collection of an incredible amount of data called “big data” (big data) has made many new developments possible. (From a statistical perspective, the increasing accuracy of analyses and models as the number of data increases forms the basis for these developments.) One of these areas has been artificial intelligence (AI) and machine learning (ML).

This field, which we have become more familiar with thanks to generative artificial intelligence chatbots like ChatGPT, which entered our lives on November 30, 2022, brings with it great potential and important promises. With these models, systems that can imitate human intelligence for the first time have been createdhis field, which we have become more familiar with thanks to generative artificial intelligence chatbots like ChatGPT, which entered our lives on November 30, 2022, brings with it great potential and important promises. With these models, systems that can imitate human intelligence for the first time have been created. It has been noticed that as they are trained with the huge human data on the Internet and their GPU (processing power) capacities increase, these models become more “intelligent” and more competent.

A race has begun to create a large market and reach AGI (Artificial General Intelligence), especially in America and China. race has begun to create a large market and reach AGI (Artificial General Intelligence), especially in America and China. (AGI is the theoretical level of artificial intelligence that can learn in all areas like a human and perform at or above human level, instead of artificial intelligence being very good only in a 'narrow' area.) Billions of dollars have been invested in this field and the sector has started to move forward at an exponential pace.

In just a few years, great achievements have been achieved in many fields, from DeepMind's AlphaGeometry model, which can solve problems at the gold medal level in the mathematical Olympiad, to Anthropic's Claude model, which can perform complex coding tasks; from artificial intelligence that can analyze x-rays at the level of doctors, to artificial intelligence that makes it possible for Chinese Unitree robots to perform kung-fu movements.

Thanks to these incredible pattern recognition abilities, artificial intelligence is promised to be able to solve many global problems in the future, such as the climate crisis, education inequality and water scarcity. However, in addition to these promises, a significant number of people also state that companies use these discourses primarily to raise fundshanks to these incredible pattern recognition abilities, artificial intelligence is promised to be able to solve many global problems in the future, such as the climate crisis, education inequality and water scarcity. However, in addition to these promises, a significant number of people also state that companies use these discourses primarily to raise funds. There are also those who think that the same technology can be used by malicious actors for purposes such as the production of biological/chemical weapons, cyber attacks and increasing income inequality.

In addition to all this, the question of whether our capitalist economy, our culture of working and consuming, on which we have built the entire modern society, is threatened by artificial intelligence is one of the most curious and important issues to be considered.n addition to all this, the question of whether our capitalist economy, our culture of working and consuming, on which we have built the entire modern society, is threatened by artificial intelligence is one of the most curious and important issues to be considered. Aside from the risk and fear of losing your job, achieving AGI can trigger an all-out paradigm shift.

What will be the role of humans when we turn everything over to artificial intelligence and enter an era where we don't have to work? Are we leaving everything under the control of big artificial intelligence companies and causing the power to be gathered in a centralized structure? How painful will the transition process to this new era be?hat will be the role of humans when we turn everything over to artificial intelligence and enter an era where we don't have to work? Are we leaving everything under the control of big artificial intelligence companies and causing the power to be gathered in a centralized structure? How painful will the transition process to this new era be? How will countries cope with this potential economic depression when unemployment rates are rising due to lost jobs? These and similar questions have now started to be asked by more and more people.

That's why I chose this data set to evaluate people's views and knowledge levels towards AI (at least to give a general idea).

Details Of The Data Set

This data set is a collection of summarized (aggregated) tables from the report "How People Around the World View AI" published by Pew Research Center.his data is a collection of summarized (aggregated) tables from the report "How People Around the World View AI" published by Pew Research Center. The data set does not contain the individual raw answers of the individuals pThis data set is a collection of summarized (aggregated) tables from the report "How People Around the World View AI" published by Pew Research Center. The data set does not contain the individual raw answers of the individuals participating in the survey, but the percentage distributions of these answers on a country-by-country basis.

The data set consists of three main parts:

AI Awareness: Proportion of respondents by country who have heard "a lot", "a little" or "nothing" about AI (%).

AI Sensitivity: The rates at which participants felt “more anxious”, “equally anxious/excited” or “more excited” in the face of increased use of AI (%).AI Sensitivity: The rates at which participants felt “more anxious”, “equally anxious/excited” or “more excited” in the face of increased use of AI (%).

Regulatory Confidence: The proportions of respondents who have “a lot/a little confidence” in their own countries, the EU, the United States and China to regulate AI effectively (%).

The Institution that Created the Data: Pew Research Center.

Data Collection and Source: The data were collected as part of the Pew Research Center’s “Spring 2025 Global Attitudes Survey” (Spring 2025 Global Attitudes Survey).ata Collection and Source: The data were collected as part of the Pew Research Center’s “Spring 2025 Global Attitudes Survey” (Spring 2025 Global Attitudes Survey). Data from 24 couCollection and Source: The data were collected as part of the Pew Research Center’s “Spring 2025 Global Attitudes Survey” (Spring 2025

Access Link: https://www.pewresearch.org/ Link Where You Can Access The Detailed Report Of The Data Set: https://www.pewresearch.org/global/2025/10/15/how-people-around-the-world-view-ai/?_gl=1*aqf2ri*_up*MQ..&gclid=CjwKCAjw6vHHBhBwEiwAq4zvA7cuJCEK_Hgo4adxJw8w-VQcrVxZBGujc0_6sijxVRKwAYwC6kZ9RBoCU0wQAvD_BwE&gbraid=0AAAAA-ddO9GRJRhitqA2Fb9e6-f3CFQj3

The key factors in my selection of this dataset were the presentation of the data collection methodology, tables showing the ratios, and a comprehensive report with visuals. Furthermore, the data is official, reliable, and up-to-date, ensuring that analyses reflect more accurate results.

Since the data is not in raw format but in the form of summary tables (ratios) generated by the Pew Research Center based on the data analysis, I extracted these ratios as text and manually defined them as a data frame in R.

```
# 1. Awareness Data
# We assign the text data to a variable
veri_awareness_tablo <- "Country,A_lot_pct,A_little_pct,Nothing_at_all_pct
U.S.,47,48,5
Canada,41,51,8
France,52,40,8
Germany,51,45,4
Sweden,46,45,8
Netherlands,46,44,10
Italy,45,46,9
UK,41,49,10
Hungary,38,53,8
Poland,34,53,13
Greece,34,49,17
Spain,30,56,14
Japan,53,36,11
Australia,44,53,3
South Korea,21,57,21
Indonesia,18,36,43
India,14,32,35
Israel,36,44,18
Turkey,19,50,25
South Africa,30,31,34
Nigeria,17,44,32
Kenya,12,36,49
Argentina,24,48,28
Brazil,22,47,30
Mexico,19,53,27
```

```
25-country median,34,47,14"


# Converting to data frame
df_awareness <- read.csv(text = veri_awareness_tablo)

# 2. Sentiment data
veri_sentiment_tablo <- "Country,More_concerned_than_excited_pct,Equally_concerned_and_excited_pct,More
U.S.,50,38,10
Italy,50,37,12
Australia,49,38,13
Brazil,48,37,10
Greece,47,39,10
Canada,45,45,9
UK,39,46,13
Argentina,39,41,13
Spain,39,38,19
Poland,37,42,15
Mexico,35,47,13
France,35,49,15
Netherlands,34,48,16
Hungary,33,47,18
Indonesia,32,49,14
Kenya,31,43,17
Sweden,31,45,22
South Africa,30,42,18
Germany,29,53,17
Japan,28,55,16
Turkey,26,35,19
Nigeria,24,36,20
Israel,21,34,29
India,19,39,16
South Korea,16,61,22
25-country median,34,42,16"

df_sentiment <- read.csv(text = veri_sentiment_tablo)


# 3.Trust Data
veri_trust_tablo <- "Country,Trust_Own_Country_pct,Trust_EU_pct,Trust_US_pct,Trust_China_pct
U.S.,44,43,44,13
Canada,64,57,33,17
France,47,47,21,17
Germany,70,71,33,23
Greece,22,38,37,34
Hungary,56,56,56,43
Italy,37,42,32,33
Netherlands,68,68,35,25
Poland,53,44,37,13
Spain,55,61,34,31
Sweden,55,54,25,15
UK,57,56,37,24
Australia,65,59,30,15
```

```
India,89,44,64,27
Indonesia,74,58,54,64
Japan,41,43,41,17
South Korea,55,53,58,21
Israel,72,54,70,22
Turkey,60,36,23,32
Kenya,54,58,62,61
Nigeria,46,72,79,79
South Africa,64,42,50,57
Argentina,33,31,35,39
Brazil,36,26,35,32
Mexico,50,35,24,38
25-country median,55,53,37,27"

df_trust <- read.csv(text = veri_trust_tablo)
```

To check the uploaded data:

```
head(df_awareness)
```

```
##       Country A_lot_pct A_little_pct Nothing_at_all_pct
## 1        U.S.        47           48                  5
## 2      Canada        41           51                  8
## 3      France        52           40                  8
## 4     Germany        51           45                  4
## 5      Sweden        46           45                  8
## 6 Netherlands        46           44                 10
```

```
head(df_sentiment)
```

```
##     Country More_concerned_than_excited_pct Equally_concerned_and_excited_pct
## 1      U.S.                              50                                38
## 2     Italy                              50                                37
## 3 Australia                              49                                38
## 4    Brazil                              48                                37
## 5    Greece                              47                                39
## 6    Canada                              45                                45
##   More_excited_than_concerned_pct
## 1                              10
## 2                              12
## 3                              13
## 4                              10
## 5                              10
## 6                               9
```

```
head(df_trust)
```

```
##   Country Trust_Own_Country_pct Trust_EU_pct Trust_US_pct Trust_China_pct
## 1    U.S.                    44           43           44              13
## 2  Canada                    64           57           33              17
## 3  France                    47           47           21              17
```

```
## 4 Germany                70          71          33          23
## 5  Greece                22          38          37          34
## 6 Hungary                56          56          56          43
```