POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

Google Trends and Indonesia Presidential Elections 2024: Predictor of Popularity Candidate in Digital Age

Assyari Abdullah[1], Yasril Yazid[2], Jayus[3], Sumaiyah[4], Akmal Khairi[5], Edison[6], Dwi Sutri Astuti [7]

[1,2,6,7] Universitas Islam Negeri Sultan Syarif Kasim Riau, Pekanbaru, Indonesia
[3,4] Universitas Muhammadiyah Riau, Pekanbaru, Indonesia
[5] Sekolah Tinggi Agama Islam Imam Syafii, Pekanbaru, Indonesia

*corresponding author E-mail: assyariabdullah@uin-suska.ac.id

Received: May 01, 2024; Revised: August 23, 2024; Approved: August 31, 2024

ABSTRACT

Google Trends is an alternative and effective tool for predicting candidate popularity and election results with a simple method. This research aims to analyze and compare the popularity of Indonesia's 2024 presidential candidates using Google Trends. This research uses Google Trends as a tool. Data is taken from December 2022-December 2023 with the keywords 'Anies Baswedan', 'Ganjar Pranowo', and 'Prabowo Subianto. Crowed data is visualized using facilities provided by Google Trends, Canva and Flourish Studio's Data Visualization Software with three focus analyses: Interest over time, Interest by Region, and Related queries. The findings of this research show that the trend of searching for information about Indonesia's 2024 presidential candidates has been crowded since October 2022 and increased significantly until December 2023. The popularity of Anies Baswedan and Ganjar Pranowo on Google Trends was the same when each candidate made a declaration. Anies gained full popularity with 100 achievements, as well as Ganjar Pranowo gained full popularity when declared by Megawati Soekarno Putri with 100 achievements. However, the facts were very much different on the day when the Gerinda Party declared Prabowo Subianto. Prabowo's popularity when measured by Google Trends is only perched at position 30 while other candidates are above Prabowo, namely Ganjar 100 and Anies 78. Prabowo's popularity rose on August 13, 2022, which managed to get 100, Anies rose to 79 and Ganjar dropped to 57 even though it was only one day apart. These three candidates have different voter bases in the 2024 presidential election. Anies Baswedan's searchers on Google Trends are spread almost throughout the province. While Ganjar Pranowo excelled in Central Java, while West Papua, Maluku and Sulawesi many wanted to know Prabowo Subianto's information.

Keywords: President of Indonesia; Election 2024; Google Trends

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

INTRODUCTION

In today's digital age, the internet and social media play a very important role in the world of politics and elections (Mislove et al., 2021; Tumasjan et al., 2010). The internet has become a great source of data. More than half of the world's population uses it (IWS, 2023) and there are over 4.2 billion Google searches every day (World Bank, 2016). This includes searches about the presidential election. One increasingly popular tool used to monitor the popularity of presidential candidates in the online world is Google Trends. Google Trends is a platform that collects search data on specific topics from the Google search engine (Google News Initiative, 2023).

It should be noted that (Mellon 2013) Real argument Google Trends It has several key advantages over traditional survey data. First, the high cost of doing surveys causes most of the survey questions to be asked only occasionally so making comparisons from time to time can be difficult. Instead, Google Trends provides information about search trends measured on a weekly basis and is more amazingly accessible for free. Second, in many countries where surveys are only conducted sporadically, while Google search data is available everywhere and because the majority of global people use Google as a search engine. The Google Trends website allows researchers to download data on all countries for free and download time series of popularity of any search term over time (provided enough people search for it). For this reason, Google Trends is an interesting source of data for social scientists as well as to see recent trends in Indonesian politics.

Google Trends can be used as a tool that is very integrated with the world of research. The use of Google Trends as a research tool has contributed to the field of health and medical research (Nuti et al., 2014; Davidson et al., 2015), economics and finance (Preis et al., 2013; Kristoufek, 2015; Kristoufek, 2013) milieu (Mccallum & Bury, 2013) Predictors of future election outcomes (Prado-Román et al., 2021). The use of Google Trends in political research contributes to predicting election outcomes and has so far shown promising results (Mavragani, 2016; Tsagarakis, 2019).

In the context of Indonesia's presidential election in 2024, the use of Google Trends as a tool to monitor the popularity of presidential candidates becomes very relevant. Search results from Google Trends can be seen as a new kind of 'meta-media' (Trielli &; Diakopoulos, 2022; Metaxa et al., 2019), which can shape opinions, reinforce stereotypes, and influence voters' preferences (Epstein, 2018; Kay et al., 2015; Knobloch-Westerwick et al., 2015).

To be clear, the use of Google Trends remains a relevant and powerful tool for gauging the popularity patterns of presidential candidates, despite its older inception. This relevance persists because Google Trends captures real-time search behaviors that reflect the evolving interests and concerns of the public. In the current digital age, where online information consumption significantly influences political landscapes, Google Trends offers unique insights that traditional polling methods may miss (Himelboim et al., 2013; Gayo-Avello, 2013). For candidate pairs, understanding voter trends and preferences can provide a competitive advantage for presidential candidates and political parties. Moreover, recent studies have shown that search trends often correlate with electoral outcomes, thus validating Google Trends as a predictive tool in the political arena (Vosen & Schmidt, 2011; Preis et al., 2013)

This study aims to analyze the relationship between Google Trends data and the popularity of Indonesia's 2024 presidential candidate. By connecting search behaviors with changing political dynamics, this research contributes to a deeper understanding of how digital tools like Google Trends can reflect and even anticipate the level of popularity of presidential candidates in the digital age (Mavragani, 2016; Tsagarakis, 2019).

Previous relevant studies include research on social media use in elections, the relationship between online popularity and voter choice (Abdullah, 2018), as well as the use of Google Trends search data in political analysis (Tumasjan et al., 2010; Himelboim et al., 2013; Jayus et al., 2024). In addition, this research also aims to analyze and read trends for Indonesia's

2024 presidential candidates using Google Trends analysis. Using data from Google Trends, the study will look at search patterns related to presidential candidates, identify peaks of interest over a period of time, and track changes in trends over time. Through this analysis, this research will explore the potential use of Google Trends in predicting voter preferences and presidential election outcomes. Similar research has previously shown the success of using data from social media and search engines in predicting voter preferences and election outcomes (Bovet & Makse, 2019; Zhang et al., 2016)

In addition, the study will also explore and clearly define the specific factors that influence presidential candidate search trends on Google Trends. These factors will be quantified and analyzed to understand their impact on search behaviors. Such factors can include political events, social media campaigns, public debates, or hot issues in the presidential election. This study will also address gaps left by previous research by offering new insights into how these factors specifically affect voter behavior and preferences during the 2024 Indonesian presidential election. By understanding these factors, this study can provide a better understanding of political dynamics and voter preferences in the context of Indonesia's 2024 presidential election. Previous research has shown that factors such as political events and important issues can influence the interest and popularity of presidential candidates (Kenski & Stroud, 2006; Ratkiewicz et al., 2011; Yang & DeHart, 2016). However, this study will offer a fresh perspective by focusing on how these factors are reflected in digital search trends, thus bridging the gap in understanding the connection between online behavior and electoral outcomes (Gayo-Avello, 2013; Ariel et al., 2024).

The results of this study are expected to provide valuable insights for presidential candidates, political parties, and the general public. Information obtained through Google Trends analysis can help in informing campaign strategies, gaining a better understanding of voter preferences, as well as providing guidance in strategic decision-making in the context of presidential

elections. This research will be the first step in understanding the potential and limitations of using Google Trends as an analytical tool in the presidential election in Indonesia.

RESEARCH METHOD

This study aims to analyze and compare the popularity of Indonesia's 2024 presidential candidates using Google Trends. Google Trends allows monitoring changes in online interest in a term in a country or region over a selected time period, for example. a range of years, 1 year, 90 days, 30 days, 7 days, 4 hours, 1 hour, or a specific period of time. It also allows multiple relative comparisons of terms in different regions, or comparisons of different terms in one region, while the feature offers the opportunity to compare different terms in different regions. Data, depending on the time period chosen, can be monthly, weekly, hourly, or even with 1-minute intervals. (Mavragani &; Tsagarakis, 2019).

This research process generally involves selecting keywords that are meant to measure the specific construct that interests you. Then, Google Trends is used to generate an estimate of the volume of Google searches containing one or more of those keywords, at a specific time and location (Salganik, 2018). This study used a comparative descriptive research design (Creswell, 2014). Data will be collected from Google Trends using keywords related to Indonesia's 2024 presidential candidates. Search data will be retrieved for specific time periods relevant to the presidential election. The data will include search volume, geolocation, as well as search trends related to presidential candidates. Then, a simple dataset that has been downloaded from Google Trends is displayed using Flourish Studio's Data Visualization Software and Canva (Flourish, 2024; Flourish, 2024), after which it is analyzed and discussed in full.

Table 1. Search Keywords on Google Trends

No	Presidential Candidate	Information

1	Anies Baswedan	Indonesian Presidential candidate declared by the Nasdem Party and the coalition
2	Prabowo Subianto	Indonesian Presidential candidate declared by Gerindra Party and the coalition
3	Ganjar Pranowo	Indonesian presidential candidate declared by the PDI-P Party and the coalition

The study will look at search trends related to presidential candidates, identify trend changes over time, and compare candidate popularity through Google Trends data analysis. Searches conducted on the Google search engine can be obtained for free in aggregate form through the Google Trends (GT) website. Because of this, researchers began using this data to measure populations (Lorenz et al., 2022). To produce targeted and measurable research, it is important to display terms commonly used in Google Trends research (Google News Initiative, 2023b)that is:

Table 2. Terminology in Google Trends analysis

No	Term	Definition
1	Interest over time	Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term.
2	Interest by Region	See in which location your term was most popular during the specified time frame. Values are calculated on a scale from 0 to 100, where 100 is the location with the most popularity as a fraction of total searches in that location, a value of 50 indicates a location which is half as popular. A value of 0 indicates a location where there was not enough data for this term.
3	Related queries	Users searching for your term also searched for these queries. You can sort by the following metrics: 1. *Top* - The most popular search queries. Scoring is on a relative scale where a value of 100 is the most commonly searched query, 50 is a query searched half as often as the most popular query, and so on. 2. *Rising* - Queries with the biggest increase in search frequency since the last time period. Results marked "Breakout" had a tremendous increase, probably because these queries are new and had few (if any) prior searches.

Source: trends.google.co.id, 2023

RESULT AND DISCUSSION

In the midst of the rapid development of the Internet, search engines have become a form of community media that is routinely and widely used to

access information on the Internet lately (Abdullah, 2020; Chay & Sasaki, 2011; Davis et al., 2012; Weeks et al., 2012) and Google became the largest search engine of the century (Valentine, 2009).

Google's technology uses complex algorithms to find web items that interest users based on the 'keywords' and 'phrases' typed into its search engine(Cahill, 2007; Yingxing Li & Kaiying Deng, 2012; Moe & Schweidel, 2012).

Every search query that goes to Google will automatically go into Google's database (Westwood, 2010; Zheluk et al., 2012). Based on data available in Google's database, researchers can see trends that are popular based on keywords using Google Trends.

Google Labs presents 'Google Trends' (https://trends.google.com) which was first launched on May 11, 2006 at that time run by Google Analytics (Cahill, 2007). At the time of writing, Google had the highest market share of all search engines (see Fig. 1). Where google.com has a market share of 80.78%, then followed by bing.com about 2.57%, google.com.vn 2%, Google google.co.uk 1.49%, google.co.in 0.72% and finally m.baidu.com 0.58% (Statcounter.com, 2023).

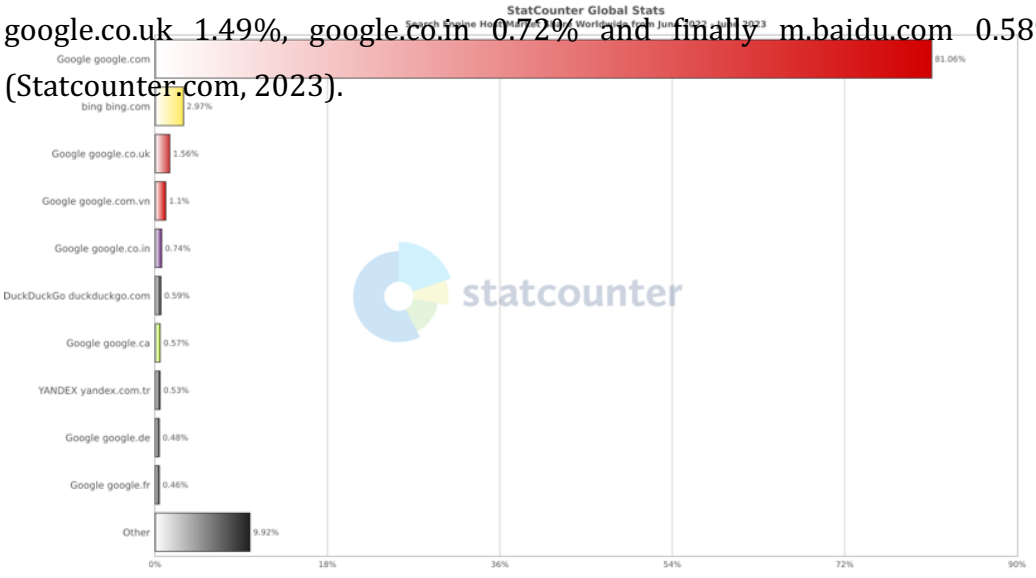


Figure 1. Search Engine Host Market Share Worldwide June 2022 – June 2023

Source: Statcounter.com, 2023

Google Trends is a freely available tool that parses archived search records to show fluctuations in the popularity of a particular keyword on Google, provided that a minimum number of relevant searches are performed over a certain period of time (Trevisan et al., 2018).

(Cahill, 2007) also explained that Google Trends allows users to enter keywords and see how often people search for them. The search results will be displayed in the form of a graph complete with the time. Thus, researchers easily see the popularity of certain search terms over a relatively long period. Through Google Trends researchers can also search for multiple keywords separated by 'commas' to compare results on the same graph, and see where that search query is coming from. Thus, Google search statistics have become a tool used in the academic field (Scharkow &; Vogelgesang, 2011; Scheitle, 2011)

Google Trends provides Search Volume Index (SVI) or Search Volume Index of keywords, which is the relative popularity of search terms entered in the Google search engine, and is measured as part of a random sample of Google queries (Google queries) in specific units of time (e.g., days, weeks, or months) and locations (Google News Initiative, 2023).

Search Volume Index (SVI) range values from 0 to 100, where a value of 100 indicates the maximum share of keywords from all Google queries during the selected time and location. For every other unit of time, SVI is calculated as a fraction of the maximum query division time unit. As such, Google Trends does not provide absolute search counts for a term, but rather estimates of how a keyword's popularity changes over time. SVI is available at the global and national levels as well as the more detailed geographic level of a region or city. Google Trends makes it possible to search for up to five

keywords simultaneously and compare their popularity in the selected time and geographical region.

Recently, researchers have shown that search engine queries can be used to study phenomena that are usually measured using surveys. For example, researchers have used Google Trends data to study consumer trends (Vosen & Schmidt, 2011), outbreak tracking of diseases such as influenza (Ginsberg et al., 2009), economic crisis tracking (Jun et al., 2018), and in migration research (For example, Wladyka, 2017; Vicéns-Feliberty & Ricketts, 2016; Böhme et al., 2020). Next (Chykina &; Crabtree, 2018) measures deportation-related concerns among immigrants in the United States based on the frequency of the search phrase "Will I be deported". (Stephens-Davidowitz, 2014) measures racial hostility in the U.S. based on search volume containing racial epithets directed at African Americans, and their relationship to voter preferences in the presidential election. However, Google Trends is only considered reliable by a few methodological studies that have evaluated it using criteria measures. For example, some studies have found that searches related to candidates and political parties are able to predict poll outcomes and election outcomes (Askitas, 2015; Hauge &; Lied, 2017, pp. 2008–2016), while other studies have found that search is not able to predict these results any better (Lui et al., 2011; Harford, 2014).

USING GOOGLE TRENDS FOR POLITICS

The use of Google Trends data is a popular way to assess public interest in certain topics (Mccallum & Bury, 2013). The use of Google Trends for business and product development may be undoubted, but doubts come when Google Trends is used in politics. Even though (Mavragani &; Tsagarakis, 2016) says that Google Trends is in political research and predicts election outcomes, but the question has been asked by (Sison, 2022) needs to be answered carefully. (Sison, 2022) question 'Can Google Trends volume predict election outcomes, or is it just a coincidence?' became evidence of such doubts. Seth Stephens-Davidowitz is a scientist whose PhD thesis is based on data from Google Trends, and was among the first to position Google Trends as an

alternative to traditional sociological research, which he says often fails to quantify (Koronska, 2021).

In an article published in Newyorktime.com, Seth Stephens-Davidowitz outlines how racial rejection played a large role in the presidential election in the United States in 2009 (Stephens-Davidowitz, 2012). Google Trends has also been used to comment on the exercise of democratic right to vote following the 2016 referendum on EU membership (Brexit) in the UK (Koronska, 2021). (Pfannenstiel, 2021) use Google Trends to see how support for Democratic candidates -Pete Buttigieg, Elizabeth Warren, Joe Biden, and Bernie Sanders-that get support changes over time.

Case studies on elections in Germany purportedly show a strong correlation between users' Google search preferences and actual election results. However, this preference is influenced by various social events that should be filtered out as noise for better estimation of outcomes (Polykalas et al., 2013). (Prado-Román et al., 2021) analyzed the predictive capacity of Google Trends in four presidential elections in the United States and five presidential elections in Canada starting in 2004. The results show that Google Trends has been predicting the real winner in elections held since 2004.

However, a 2011 Wellesley College study concluded Google Trends did not prove to be a good predictor of the outcome of the 2008 and 2010 U.S. congressional elections (Wihbey et al., 2011; Lui et al., 2011). (Cochran, 2019) compare Google Trends with political polls and conclude that Google Trends is no better than polls, nor can it replace polls.

Interesting what (Ma-Kellams et al.,2018) said, Big Data in the form of Google searches has emerged as the most powerful predictor of political behavior compared to other aggregate measures. In this way, the data generated on digital channels reflects the attitudes and intentions of citizens, and therefore has an explanatory and predictive nature (Prado-Román et al., 2021). Therefore, this research proposes using Google Trends as a predictive

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

tool for election results as an alternative, as it is a simple and effective method of measuring election results (Martínez & Román, 2014).

Finding new ways to predict election outcomes is crucial, as pollsters don't always manage to approach voting intentions and outcomes well (Mavragani & Tsagarakis, 2016). In general, data from Google can be accurate to gauge people's interest if the keywords are carefully chosen (Scharkow & Vogelgesang, 2011), including predicting election outcomes and political phenomena (Mavragani & Tsagarakis, 2016).

Referring to the results of recent research, Google Trends can be used to observe an increase in the use of online data in polls and measurement of voting intent. This is because the number of Internet penetration is increasing significantly in western countries including Indonesia. According to the We Are S
reach
numb
peop
the In

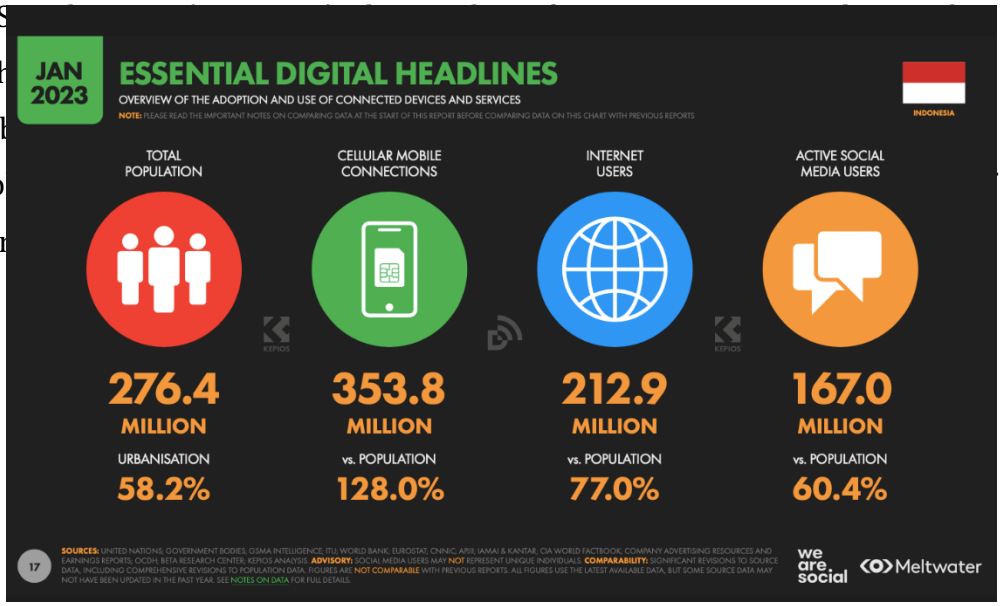


Figure 2. Internet Penetration in Indonesia, (2023)

Source: Wearesocial.com, 2023

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

Next Burnap et al., (2015) It has emerged that changes in online behaviour can be accurately portrayed on Internet data, while political campaigners are increasingly using social media and online platforms (Weber et al., 2013). Political campaigns can use data to help decide who to target in their outreach efforts, how to reach them, and how they respond to certain messages (Culliford, 2020). Data in online media and conversations on social media become valuable resources for determining campaign strategy formulation and election predictions (UGM, 2018).

Google Trends is a valid tool in nowcastings and predictions, with great potential (Mavragani &; Tsagarakis, 2019) Google Trends has been used to predict the outcome of the 2015 Greek referendum (Mavragani &; Tsagarakis, 2016). Google Trends search analysis makes it possible to identify the temporal evolution of voters with large amounts of data and to analyze trends (Trevisan et al., 2018).

POPULAR PRESIDENTIAL CANDIDATES: READING INTEREST OVER TIME CHARTS

Interest over time is understood as A number represents search interest relative to the highest point on the graph for a given region and time. The value of 100 is the peak of the term's popularity. A value of 50 means that the term is half as popular. A score of 0 means that there is not enough data for this semester. To see who Indonesia's presidential candidate for 2024 is using Google Trends, researchers entered three keywords consisting of "Anies Baswedan", "Prabowo Subianto", and "Ganjar Pranowo" whose three names are Indonesian Presidential Candidates in 2024 and have registered with the General Elections Commission. The three key words are both positioned in the "search term" with the Indonesian region, All catgories, web search, and selected data in the last 12 months, namely from December 4, 2022 to December 4, 2023 (See fig. 3).

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

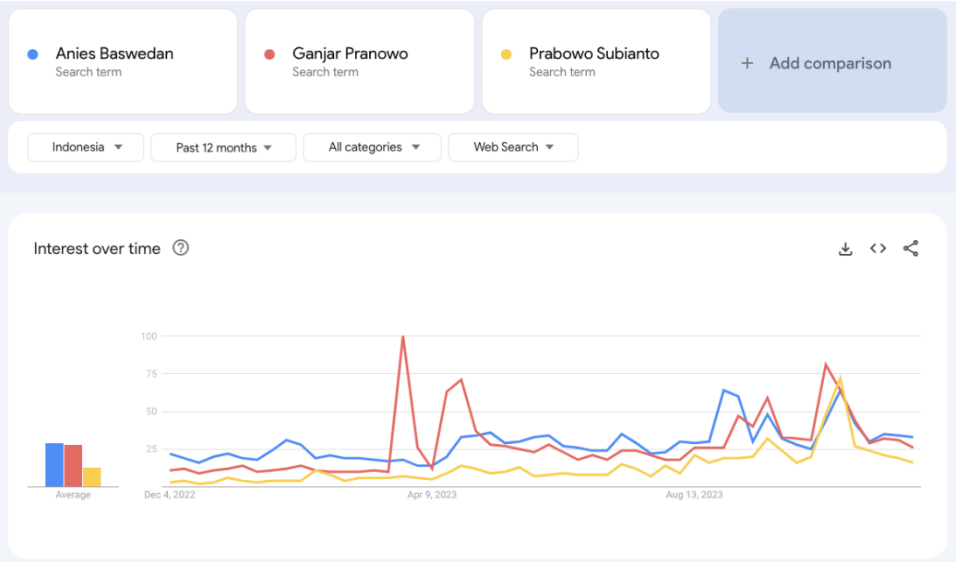


Figure 3. Interest Over Time Chart

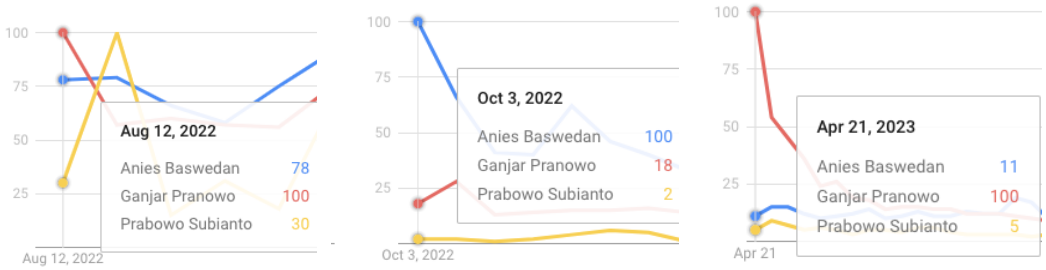
From the graph above, it reads that the trend of searching for information about Indonesia's 2024 presidential candidates has been crowded since October 2022 and increased significantly until December 2023. Looking back, precisely on October 3, 2022, the Nasdem Party declared Anies Baswedan as its Presidential Candidate (Aerospace &; Icha, 2022), Anies' popularity rose sharply and far outperformed other candidates. The same thing was repeated, when the Indonesian Democratic Party of Struggle (PDI-P) declared Ganjar Pranowo on April 21, 2023 as the presidential candidate carried by the Party with the bull logo (Suryaningtyas, 2023). The phenomenon was different when the Gerinda Party declared Prabowo Subianto on August 12, 2022 at the national leadership meeting (Rapimnas). The activity was held at the Sentul International Convention Center (SICC) (detikNews, 2022)

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

Table 3. Time of Declaration of Indonesian Presidential Candidates 2024

No	Presidential Candidate	Date of Declaration
1	Prabowo Subianto	Aug 12, 2022
2	Anies Baswedan	October 3, 2022
3	Ganjar Pranowo	April 21, 2023

The popularity of Anies Baswedan and Ganjar Pranowo on Google Trends is the same when each candidate is declared by his party. Anies gained full popularity with an achievement of 100, as well as Ganjar Pranowo gained full popularity when declared by Megawati Soekarno Putri with the number 100. However, the facts were very much different on the day when the Gerinda Party declared Prabowo Subianto. Prabowo's popularity when measured by Google Trends is only perched at position 30 while other candidates are above Prabowo, namely Ganjar 100 and Anies 78. Interestingly, Prabowo's popularity rose on August 13, 2022, which managed to reach 100, Anies rose to 79 and Ganjar fell to 57 even though it was only one day later (see Table 3).



(3) Prabowo Subianto's Declaration

(4) Anies Baswedan Declaration

(5) Ganjar Pranowo Declaration

Figure 4. Popularity of Indonesian Presidential Candidates 2024 When Declaration

It is very interesting when reading the Interest Over Time chart (see Fig. 5), Monitoring from three candidates throughout the year (December 4, 2022 - December 4, 2023) Anies' popularity is always at the top, Ganjar is in the middle, while Prabowo is at the bottom. Ganjar has occupied the top position several times, namely on March 26 – April 1, 2023, this may be the

effect of the high news about the preparation of Ganjar's declaration as a presidential candidate held on April 21. Not far ago, Ganjar's popularity dropped on April 2-8, 2023 and the peak occurred on April 9-15, Ganjar's position was under Anies. Ganjar's condition is very volatile, on April 16, Ganjar is again perched in the upper position and the peak occurs on April 23-29, 2023. Then, Ganjar's position dived again under Anies until September 2023. Interestingly, on September 10-23, 2023, Ganjar again managed to excel compared to his other two rivals and lasted for quite a long time, namely until October 21, 2023. Meanwhile, Prabowo's popularity on Google Trends throughout 2023 is relatively flat under Anies and Ganjar. Throughout 2023, Prabowo can only pick up Anies and Ganjar once, namely on October 15-21, 2023.

PORTRAIT OF THE POPULARITY OF PRESIDENTIAL CANDIDATES IN THE REGIONS: INTEREST BY REGION

The three presidential candidates, Ganjar Pranowo, Prabowo Subianto, and Anies Baswedan, have different voter bases in the 2024 presidential election (Dihni, 2022). Based on the regional map, Anies Baswedan's searchers on Google Trends are spread almost throughout the province. While Ganjar Pranowo excelled in Central Java, while West Papua many wanted to know Prabowo Subianto's information. In Maluku and Sulawesi, the level of searches for Prabowo is also high, although not as high as searches for Anies (Dihni, 2023).

Although the level of tracing for Anies is the largest, it does not mean that the electability of the former education minister is also the highest. Google can't confirm whether search interest comes with endorsements or not. In its note, Google explained that search interest in a particular figure does not necessarily affect a person's support for that figure. Google users can search for parties or politicians for a variety of reasons, not that it's their choice. Trends data only shows what Google users want to know more about. They search for those keywords because they are driven by curiosity, needs,

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

in ıi,
2(

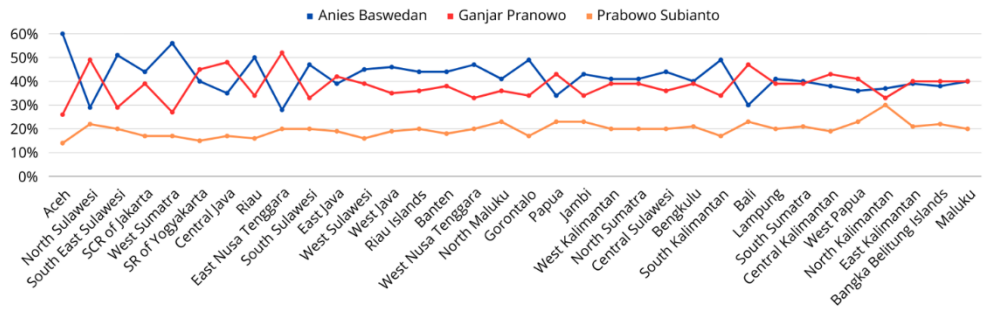


Figure 5. Candidate Compared breakdown by subregion

Then it will be even more interesting when we read the Compared breakdown by subregion data where through Fig. 9 we will be able to see and discuss a comparison map that shows which terms or topics are most searched for in each region (Google News Initiative, 2023).

Table 4. Top 15 Province Popularity Candidate

No	Anies Baswedan		Ganjar Pranowo		Prabowo Subianto	
	Region	**Percentage**	**Region**	**Percentage**	**Region**	**Percentage**
1	Aceh	60%	East Nusa Tenggara	52%	North Kalimantan	30%
2	West Sumatra	56%	North Sulawesi	49%	Bali	23%
3	South East Sulawesi	51%	Central Java	48%	Papua	23%
4	Riau	50%	Bali	47%	West Papua	23%
5	Gorontalo	49%	SR of Yogyakarta	45%	North Maluku	23%
6	South Kalimantan	49%	Central Kalimantan	43%	Jambi	23%
7	South Sulawesi	47%	Papua	43%	North Sulawesi	22%

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

No	Anies Baswedan		Ganjar Pranowo		Prabowo Subianto	
	Region	Percentage	Region	Percentage	Region	Percentage
8	West Nusa Tenggara	47%	East Java	42%	Bangka Belitung Islands	22%
9	West Java	46%	West Papua	41%	East Kalimantan	21%
10	West Sulawesi	45%	Maluku	40%	Bengkulu	21%
11	SCR of Jakarta	44%	East Kalimantan	40%	South Sumatra	21%
12	Riau Islands	44%	Bangka Belitung Islands	40%	East Nusa Tenggara	20%
13	Bantam	44%	West Sulawesi	39%	Maluku	20%
14	Central Sulawesi	44%	SCR of Jakarta	39%	West Kalimantan	20%
15	Jambi	43%	West Kalimantan	39%	North Sumatra	20%

Based on the data above, it is quite illustrated that Anies Baswedan is superior to Aceh, West Sumatra, South East Sulawesi, Riau, Gorontalo, South Kalimantan, South Sulawesi, West Nusa Tenggara, West Java, West Sulawesi, SCR of Jakarta, Riau Islands, Banten, Central Sulawesi Jambi. Then, Ganjar Pranowo is also depicted superior in East Nusa Tenggara, North Sulawesi, Central Java, Bali, SR of Yogyakarta, Central Kalimantan, Papua, East Java, West Papua, Maluku, East Kalimantan, Bangka Belitung Islands, West Sulawesi, SCR of Jakarta and West Kalimantan. Finally, Prabowo Subianto excelled in North Kalimantan, Bali, Papua, West Papua, North Maluku, Jambi, North Sulawesi, Bangka Belitung Islands, East Kalimantan, Bengkulu, South Sumatra, East Nusa Tenggara, Maluku, West Kalimantan and North Sumatra.

Still from the same data it can be seen that Anies Baswedan in Aceh, West Sumatra and Riau gained popularity of more than fifty percent. While Ganjar only in East Nusa Tenggara reached fifty percent. Interestingly, Prabowo Subianto does not have a dominant base based on data taken from Google trends.

The results of the Google Trends search are different from the results of the Charta Politika poll. In the survey, Ganjar's voter base was in Central

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

Java, DIY, Bali, NTT, NTB, Maluku, and Papua. While Anies is only strong in DKI Jakarta and Banten, Sumatra, and Kalimantan. Prabowo is strong in West Java and Sulawesi(Dihni, 2023). This difference can be seen from the data released by Charta Politika (See Fig. 10).

Although the search rate for Anies is the highest on Google Trends, it does not mean that the electability of the former Jakarta Governor is also the highest. Google can't confirm whether search interest comes with endorsements or not. In its note, Google explained that search interest in a particular figure does not necessarily affect a person's support for that figure. Google users can search for parties or politicians for a variety of reasons, not that it's their choice. Trends data only shows what Google users want to know more about. They search for those keywords because they are driven by curiosity, needs, interests, and are done voluntarily not because they are asked or asked (Dihni, 2023).

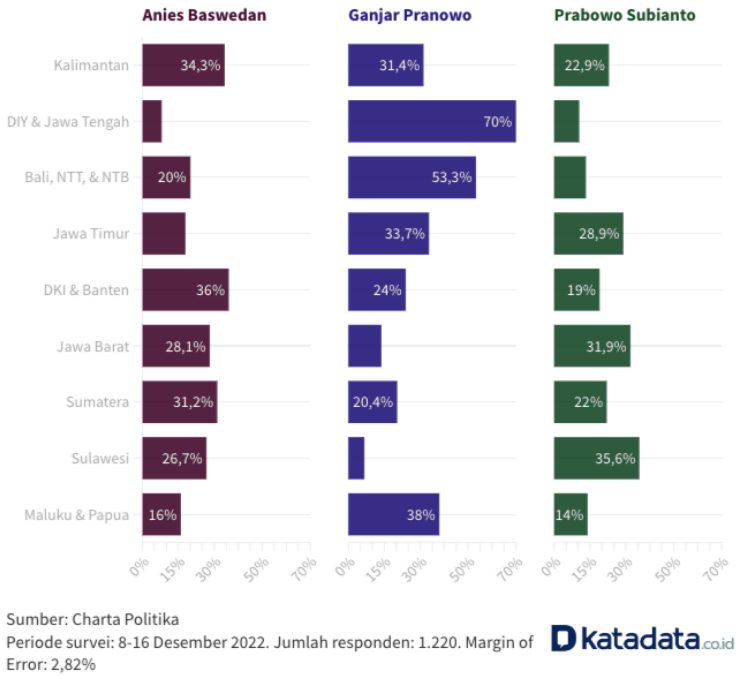


Figure 6. Presidential Options by Region by Charta Politika

Seth Stephens-Davidowitz in Everybody Lies: Big Data, New Data, and

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

What the Internet Can Tell Us About Who We Really Are says that search data on Google can give an idea of public interest in certain keywords or topics (Stephens-Davidowitz & Pinker, 2017).

If the search is related to a character, that interest can translate as popularity. The more popular, the more curious. Popular can be in a positive or negative context. Popularity on Google also doesn't align with the number of followers on social media. Anies has far fewer followers than Prabowo, but public curiosity about him is higher than that of the defense minister. Similarly, Ganjar, whose number of followers is also low, has a much higher electability rate (Dihni, 2023).

RELATED QUERIES: WHAT DO THEY LOOK FOR FROM KANDIDATE?

Google trends that tell researchers how often words are searched in different parts of the world (Stephens-Davidowitz, 2012). There are various topics and keywords that Google users search for the three figures we are talking about have been discussed in this paper. From searching on Google, netizens mostly want to find out topics related to politics from the three figures. Moreover, they are predicted to run in the 2024 Presidential Election. In addition, the public searches a lot for keywords from the three figures when there is news that is crowded. However, many netizens are also curious about their families, and profiles (Dihni, 2023).

POLITICON : Jurnal Ilmu Politik Vol.6 No.2 ; Hal 273 - 300
Website : http://journal.uinsgd.ac.id/index.php/politicon
ISSN : 2685-6670 (Online)

(1) Related queries Anies Baswedan (2) Related queries Prabowo Subianto

(3) Related queries Ganjar Pranowo

Figure 7. Popular Searches of Netizens about Candidates

Related queries charts can show you 'Top' and 'Rising' terms related to trending topics or stories(Google News Initiative, 2023b).

From Anies Baswedan's Related queries data (1) we can know that the queries that are widely typed to find out about Anies Baswedan are 'Vice President Anies Baswendan', 'Anies Baswedan What Party', 'Yenny Wahid Vice President Anies Baswedan', 'Head of the Anies Baswedan Winning Team', 'Anies Baswedan Presidential Debate', 'Coalition of Change', 'Anies Baswedan's Wealth 2023', 'Denny Indrayana Anies Baswedan'. From Prabowo Subianto's Related queries (2) we can also understand that queries that often appear related to Prabowo Subianto are 'Cawapres Prabowo', 'Prabowo Subianto Vice President', 'Prabowo Subianto Capres', 'Prabowo Subianto Party', 'Prabowo Subianto's Age', 'Prabowo Subianto Gibran Rakabuming', 'Where Was Prabowo Subianto Born', 'Prabowo Subianto's Child Name', 'Prabowo Subianto Was Born in What Month', 'Prabowo Subianto's Hobbies', 'Prabowo Subianto's winning team', 'Prabowo's favorite food', 'what is

Prabowo Subianto's favorite drink', 'What is Prabowo Subianto currently serving as'. Finally, the queries that are popular with Ganjar Pranowo are 'Ganjar Pranowo Capres', 'Prestasi Ganjar', 'Vice President Ganjar', 'Ganjar Pranowo Party', 'Anak Ganjar Pranowo', 'Ganjar Pranowo Mahfud MD', 'Ridwan Kamil Cawapres Ganjar Pranowo', 'TPN ganjar pranowo', 'U20 World Cup', 'Blunder Ganjar Pranowo', 'Chairman of TPN Ganjar Pranowo', 'What are Ganjar Pranowo's achievements during his time as governor', 'Ganjar Pranowo Israel statement'.

CONCLUSION

In order to realize systematic and directed research, the conclusions will try to answer the research question (RQ) described above. This research aims to analyze and compare the popularity of Indonesia's 2024 presidential candidates using Google Trends. The results of this research are:

First, this research shows that the trend of searching for information about Indonesia's 2024 presidential candidates has been busy since October 2022 and increased significantly until December 2023.

Second, the popularity of Anies Baswedan and Ganjar Pranowo on Google Trends is the same when each candidate declares. Anies gained full popularity with 100 achievements, as well as Ganjar Pranowo gained full popularity when declared by Megawati Soekarno Putri with 100 achievements. However, the facts were very much different on the day when the Gerinda Party declared Prabowo Subianto. Prabowo's popularity when measured by Google Trends is only perched at position 30 while other candidates are above Prabowo, namely Ganjar 100 and Anies 78. Prabowo's popularity rose on August 13, 2022, which managed to get 100, Anies rose to 79 and Ganjar dropped to 57 even though it was only one day apart. These three candidates have different voter bases in the 2024 presidential election.

Third, Anies Baswedan's searchers on Google Trends are spread almost throughout the province. While Ganjar Pranowo excelled in Central Java, while West Papua, Maluku and Sulawesi many wanted to know Prabowo Subianto's

information.

BIBLIOGRAPHY

Abdullah, A. (2018). Membaca Komunikasi Politik Gerakan Aksi Bela Islam 212: Antara Politik Identitas Dan Ijtihad Politik Alternatif. Anida', 41(2), 202–212. http://ejournal.uin-suska.ac.id/index.php/Anida/article/view/4654

Abdullah, A. (2020). Public Relations in The Era of Artificial Intelligence: Peluang atau Ancaman? ARISTO, 8(2), 406. https://doi.org/10.24269/ars.v8i2.2629

Annur, C. M. (2023). Pengguna Internet di Indonesia Tembus 213 Juta Orang hingga Awal 2023 | Databoks. Katadata.Co.Id. https://databoks.katadata.co.id/datapublish/2023/09/20/pengguna-internet-di-indonesia-tembus-213-juta-orang-hingga-awal-2023

Ariel, Y., Elishar, V., & Weimann-Saks, D. (2024). Analysing political engagement in a multimedia, multi-elections environment: Predictive factors in an unpredictable political reality. The Journal of International Communication, 1–21. https://doi.org/10.1080/13216597.2024.2340710

Askitas, N. (2015). Calling the Greek Referendum on the Nose with Google Trends. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2708382

Böhme, M. H., Gröger, A., & Stöhr, T. (2020). Searching for a better life: Predicting international migration with online search keywords. Journal of Development Economics, 142, 102347.

Bovet, A., & Makse, H. A. (2019). Influence of fake news in Twitter during the 2016 US presidential election. Nature Communications, 10(1), 1–12.

Burnap, P., Rana, O. F., Avis, N., Williams, M., Housley, W., Edwards, A., Morgan, J., & Sloan, L. (2015). Detecting tension in online communities with computational Twitter analysis. Technological Forecasting and Social Change, 95, 96–108. https://doi.org/10.1016/j.techfore.2013.04.013

Cahill, K. (2007). Google Tools on the Public Reference Desk. The Reference Librarian, 48(1), 67–79. https://doi.org/10.1300/J120v48n99_05

Chay, S., & Sasaki, N. (2011). Using Online Tools to Assess Public Responses to Climate Change Mitigation Policies in Japan. Future Internet, 3(2), 117–129. https://doi.org/10.3390/fi3020117

Chykina, V., & Crabtree, C. (2018). Using Google Trends to Measure Issue Salience for Hard-to-Survey Populations. Socius: Sociological Research for a Dynamic World, 4, 237802311876041. https://doi.org/10.1177/2378023118760414

Cochran, T. (2019). Is Google Trends Better Than Polling? – 720 Strategies. 720strategies.Com. https://www.720strategies.com/insights/google-

trends-polling/
Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed). SAGE Publications.
Culliford, E. (2020). How political campaigns use your data. Reuters. https://www.reuters.com/graphics/USA-ELECTION/DATA-VISUAL/yxmvjjgojvr/
Davidson, M. W., Haim, D. A., & Radin, J. M. (2015). Using Networks to Combine "Big Data" and Traditional Surveillance to Improve Influenza Predictions. Scientific Reports, 5(1), 8154. https://doi.org/10.1038/srep08154
Davis, N. F., Smyth, L. G., & Flood, H. D. (2012). Detecting internet activity for erectile dysfunction using search engine query data in the Republic of Ireland. BJU International, 110(11c). https://doi.org/10.1111/j.1464-410X.2012.11237.x
DetikNews. (2022). Gerindra Deklarasi Prabowo Subianto Sebagai Capres 2024. detikbali. https://www.detik.com/bali/berita/d-6230476/gerindra-deklarasi-prabowo-subianto-sebagai-capres-2024
Dihni, A. W. Y., Vika Azkiya. (2022). Peta Basis Pemilih Ganjar, Prabowo, dan Anies di Pilpres 2024 Halaman 2—Analisis Data Katadata. katadata.co.id. https://katadata.co.id/ariayudhistira/analisisdata/6389e3075a934/peta-basis-pemilih-ganjar-prabowo-dan-anies-di-pilpres-2024?page=2
Dihni, A. W. Y., Vika Azkiya. (2023). Apa yang Dicari Warganet dari Para Bakal Capres 2024 di Google? Halaman 2 - Analisis Data Katadata. katadata.co.id. https://katadata.co.id/ariayudhistira/analisisdata/64133f11c4a17/apa-yang-dicari-warganet-dari-para-bakal-capres-2024-di-google?page=2
Dirgantara, A., & Icha, R. (2022, October 3). Nasdem Resmi Deklarasikan Anies Baswedan Jadi Capres 2024. KOMPAS.com. https://nasional.kompas.com/read/2022/10/03/10440681/nasdem-resmi-deklarasikan-anies-baswedan-jadi-capres-2024
Epstein, R. (2018). Manipulating minds: The power of search engines to influence votes and opinions. In Digital Dominance: The Power of Google, Amazon, Facebook, and Apple. Oxford University Press.
Flourish. (2024). How to visualize Google Trends data. Flourish | Data Visualization & Storytelling. https://flourish.studio/blog/google-trends-data-visualization/
Flourish. (2024b). Visualize elections. Flourish | Data Visualization & Storytelling. https://flourish.studio/resources/elections/
Gayo-Avello, D. (2013). A meta-analysis of state-of-the-art electoral prediction from Twitter data. Social Science Computer Review, 31(6), 649–679.
Ginsberg, J., Mohebbi, M. H., Patel, R. S., Brammer, L., Smolinski, M. S., & Brilliant, L. (2009). Detecting influenza epidemics using search engine query data. Nature, 457(7232), 1012–1014.
Google News Initiative. (2023). Google Trends. https://storage.googleapis.com/gweb-news-initiative-

training.appspot.com/upload/Google_Trends.pdf
Google News Initiative. (2023b). Google Trends: Understanding the data. - Google News Initiative. https://newsinitiative.withgoogle.com/resources/trainings/google-trends-understanding-the-data/
Harford, T. (2014). Big data: A big mistake? Significance, 11(5), 14–19.
Hauge, H. S., & Lied, T. B. (2017). Explaining election outcomes using web search data: Evidence from the US presidential elections 2008-2016 [Master's Thesis].
Himelboim, I., Smith, M. A., Rainie, L., Shneiderman, B., & Espina, C. (2013). Classifying Twitter topic-networks using social network analysis. Social Media+ Society, 1(2), 2056305113501305.
IWS. (2023). Usage and population statistics. Internet World Stats. https://www.internetworldstats.com/
Jayus, J., Sumaiyah, S., Mairita, D., & Abdullah, A. (2024). Media Sosial sebagai Media Kampanye Politik Menjelang Pemilu 2024. JURNAL SIMBOLIKA Research and Learning in Communication Study, 10(1), 72–81. https://doi.org/10.31289/simbolika.v10i1.11468
Jun, S.-P., Yoo, H. S., & Choi, S. (2018). Ten years of research change using Google Trends: From the perspective of big data utilizations and applications. Technological Forecasting and Social Change, 130, 69–87.
Kay, M., Matuszek, C., & Munson, S. A. (2015). Unequal Representation and Gender Stereotypes in Image Search Results for Occupations. Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, 3819–3828. https://doi.org/10.1145/2702123.2702520
Kenski, K., & Stroud, N. J. (2006). Connections between internet use and political efficacy, knowledge, and participation. Journal of Broadcasting & Electronic Media, 50(2), 173–192.
Knobloch-Westerwick, S., Johnson, B. K., Silver, N. A., & Westerwick, A. (2015). Science Exemplars in the Eye of the Beholder: How Exposure to Online Science Information Affects Attitudes. Science Communication, 37(5), 575–601. https://doi.org/10.1177/1075547015596367
Koronska, K. (2021, January 25). [Analysis] Can Google Trends be Used for Political Polling? The New Global Order. https://thenewglobalorder.com/world-news/analysis-can-google-trends-be-used-for-political-polling/
Kristoufek, L. (2013). BitCoin meets Google Trends and Wikipedia: Quantifying the relationship between phenomena of the Internet era. Scientific Reports, 3(1), 3415. https://doi.org/10.1038/srep03415
Kristoufek, L. (2015). Power-law correlations in finance-related Google searches, and their cross-correlations with volatility and traded volume: Evidence from the Dow Jones Industrial components. Physica A: Statistical Mechanics and Its Applications, 428, 194–205. https://doi.org/10.1016/j.physa.2015.02.057
Lorenz, R., Beck, J., Horneber, S., Keusch, F., & Antoun, C. (2022). Google Trends

as a Tool for Public Opinion Research: An Illustration of the Perceived Threats of Immigration. In S. Pötzschke & S. Rinken (Eds.), Migration Research in a Digitized World (pp. 193–206). Springer International Publishing. https://doi.org/10.1007/978-3-031-01319-5_10

Lui, C., Metaxas, P. T., & Mustafaraj, E. (2011). On the predictability of the US elections through search volume activity.

Ma-Kellams, C., Bishop, B., Zhang, M. F., & Villagrana, B. (2018). Using "Big Data" Versus Alternative Measures of Aggregate Data to Predict the U.S. 2016 Presidential Election. Psychological Reports, 121(4), 726–735. https://doi.org/10.1177/0033294117736318

Martínez, R. G., & Román, C. P. (2014). Google search activities for predicting election results. IDP Revista de Internet Derecho y Política, 18, 2. https://doi.org/10.7238/idp.v0i18.1941

Mavragani, A., & Tsagarakis, K. P. (2016). YES or NO: Predicting the 2015 GReferendum results using Google Trends. Technological Forecasting and Social Change, 109, 1–5. https://doi.org/10.1016/j.techfore.2016.04.028

Mavragani, A., & Tsagarakis, K. P. (2019). Predicting referendum results in the Big Data Era. Journal of Big Data, 6(1), 3. https://doi.org/10.1186/s40537-018-0166-z

Mccallum, M. L., & Bury, G. W. (2013). Google search patterns suggest declining interest in the environment. Biodiversity and Conservation, 22(6–7), 1355–1367. https://doi.org/10.1007/s10531-013-0476-6

Mellon, J. (2013). Where and When Can We Use Google Trends to Measure Issue Salience? PS: Political Science & Politics, 46(02), 280–290. https://doi.org/10.1017/S1049096513000279

Metaxa, D., Park, J. S., Landay, J. A., & Hancock, J. (2019). Search Media and Elections: A Longitudinal Investigation of Political Search Results. Proceedings of the ACM on Human-Computer Interaction, 3(CSCW), 1–17. https://doi.org/10.1145/3359231

Mislove, A., Lehmann, S., Ahn, Y.-Y., Onnela, J.-P., & Rosenquist, J. (2021). Understanding the Demographics of Twitter Users. Proceedings of the International AAAI Conference on Web and Social Media, 5(1), 554–557. https://doi.org/10.1609/icwsm.v5i1.14168

Mocanu, D., Rossi, L., Zhang, Q., Karsai, M., Quattrociocchi, W., & Wijermans, N. (2013). Collective attention in the age of (mis)information. Computers in Human Behavior, 29(6), 2671–2676.

Moe, W. W., & Schweidel, D. A. (2012). Online Product Opinions: Incidence, Evaluation, and Evolution. Marketing Science, 31(3), 372–386. https://doi.org/10.1287/mksc.1110.0662

Nuti, S. V., Wayda, B., Ranasinghe, I., Wang, S., Dreyer, R. P., Chen, S. I., & Murugiah, K. (2014). The Use of Google Trends in Health Care Research: A Systematic Review. PLoS ONE, 9(10), e109583. https://doi.org/10.1371/journal.pone.0109583

Pfannenstiel, B. (2021). Iowa Poll: Pete Buttigieg rockets to the top of the 2020 field as a clear front-runner. The Des Moines Register.

https://www.desmoinesregister.com/story/news/politics/iowa-poll/2019/11/17/pete-buttigieg-leads-new-iowa-poll-warren-sanders-biden-follow/4198100002/

Polykalas, S. E., Prezerakos, G. N., & Konidaris, A. (2013). An algorithm based on Google Trends' data for future prediction. Case study: German elections. IEEE International Symposium on Signal Processing and Information Technology, 000069–000073. https://doi.org/10.1109/ISSPIT.2013.6781856

Prado-Román, C., Gómez-Martínez, R., & Orden-Cruz, C. (2021). Google Trends as a Predictor of Presidential Elections: The United States Versus Canada. American Behavioral Scientist, 65(4), 666–680. https://doi.org/10.1177/0002764220975067

Preis, T., Moat, H. S., & Stanley, H. E. (2013). Quantifying Trading Behavior in Financial Markets Using Google Trends. Scientific Reports, 3(1), 1684. https://doi.org/10.1038/srep01684

Ratkiewicz, J., Conover, M., Meiss, M., Gonçalves, B., Patil, S., Flammini, A., & Menczer, F. (2011). Detecting and tracking political abuse in social media. Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media.

Salganik, M. J. (2018). Bit by bit: Social research in the digital age. Princeton University Press.

Scharkow, M., & Vogelgesang, J. (2011). Measuring the Public Agenda using Search Engine Queries. International Journal of Public Opinion Research, 23(1), 104–113. https://doi.org/10.1093/ijpor/edq048

Scheitle, C. P. (2011). Google's Insights for Search: A Note Evaluating the Use of Search Engine Data in Social Research *. Social Science Quarterly, 92(1), 285–295. https://doi.org/10.1111/j.1540-6237.2011.00768.x

Sison, V. (2022). Can Google Trends Really Predict Election Outcomes? https://www.linkedin.com/pulse/can-google-trends-really-predict-election-outcomes-virgilio-sison

Sofiamaddalena. (2023, January 26). Digital 2023: Indonesia. We Are Social Indonesia. https://wearesocial.com/id/blog/2023/01/digital-2023/

Statcounter.com. (2023). Search Engine Host Market Share Worldwide June 2022—June 2023. StatCounter Global Stats. https://gs.statcounter.com/search-engine-host-market-share

Stephens-Davidowitz, S. (2012). How Racist Are We? Ask Google. The New York Times. https://archive.nytimes.com/campaignstops.blogs.nytimes.com/2012/06/09/how-racist-are-we-ask-google/

Stephens-Davidowitz, S. (2014). The cost of racial animus on a black candidate: Evidence using Google search data. Journal of Public Economics, 118, 26–40.

Stephens-Davidowitz, S., & Pinker, S. (2017). Everybody lies: Big data, new data, and what the Internet can tell us about who we really are (First edition). Dey St., an imprint of William Morrow.

Suryaningtyas, M. T. (2023, May 7). Memaknai Deklarasi Pencapresan Ganjar Pranowo. kompas.id. https://www.kompas.id/baca/riset/2023/05/07/memaknai-deklarasi-pencapresan-ganjar-pranowo

Trevisan, F., Hoskins, A., Oates, S., & Mahlouly, D. (2018). The Google voter: Search engines and elections in the new media ecology. Information, Communication & Society, 21(1), 111–128. https://doi.org/10.1080/1369118X.2016.1261171

Trielli, D., & Diakopoulos, N. (2022). Partisan search behavior and Google results in the 2018 U.S. midterm elections. Information, Communication & Society, 25(1), 145–161. https://doi.org/10.1080/1369118X.2020.1764605

Tumasjan, A., Sprenger, T. O., Sandner, P. G., & Welpe, I. M. (2010). Predicting elections with Twitter: What 140 characters reveal about political sentiment. ICWSM, 10(1), 178–185.

UGM. (2018, June 5). Big Data and Its Role in Electoral Politics in Indonesia. DPP UGM. https://dpp.fisipol.ugm.ac.id/en/big-data-and-its-role-in-electoral-politics-in-indonesia/

Valentine, M. (2009, September 2). Google Gets 76 Billion Searches Per Month of 113 Billion Total. Small Business Tutorials - Domain Names. https://website101.com/press/google-76-billion-searches/

Vicéns-Feliberty, M. A., & Ricketts, C. F. (2016). An analysis of Puerto Rican interest to migrate to the United States using Google trends. The Journal of Developing Areas, 50(2), 411–430. https://doi.org/10.1353/jda.2016.0090

Vosen, S., & Schmidt, T. (2011). Forecasting private consumption: Survey-based indicators vs. Google trends. Journal of Forecasting, 30(6), 565–578.

Wagner, S. A., Vogt, S., & Kabst, R. (2016). The future of public participation: Empirical analysis from the viewpoint of policy-makers. Technological Forecasting and Social Change, 106, 65–73. https://doi.org/10.1016/j.techfore.2016.02.010

Weber, I., Popescu, A.-M., & Pennacchiotti, M. (2013). PLEAD 2013: Politics, elections and data. Proceedings of the 22nd ACM International Conference on Conference on Information & Knowledge Management - CIKM '13, 2553–2554. https://doi.org/10.1145/2505515.2505813

Weeks, B. E., Friedenberg, L. M., Southwell, B. G., & Slater, J. S. (2012). Behavioral Consequences of Conflict-Oriented Health News Coverage: The 2009 Mammography Guideline Controversy and Online Information Seeking. Health Communication, 27(2), 158–166. https://doi.org/10.1080/10410236.2011.571757

Westwood, S. J. (2010). How to Measure Public Opinion in the Networked Age: Working in a Googleocracy or a Googlearchy? In J. Berleur, M. D. Hercheui, & L. M. Hilty (Eds.), What Kind of Information Society? Governance, Virtuality, Surveillance, Sustainability, Resilience (Vol. 328, pp. 150–160).

Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-15479-9_14

Wihbey, J., April 5, T. J. R., & 2011. (2011). Predicting U.S. elections through search volume in Google Trends. The Journalist's Resource. https://journalistsresource.org/politics-and-government/elections-search-volume/

Wladyka, D. K. (2017). Queries to Google Search as predictors of migration flows from Latin America to Spain. Journal of Population and Social Studies [JPSS], 25(4), 312–327.

World Bank. (2016). World Development Report 2016: Digital Dividends [Text/HTML]. World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/23347/9781464806711.pdf

Yang, H. "Chris," & DeHart, J. L. (2016). Social Media Use and Online Political Participation Among College Students During the US Election 2012. Social Media + Society, 2(1), 205630511562380. https://doi.org/10.1177/2056305115623802

Yingxing Li & Kaiying Deng. (2012). User browsing interest in the propagation of public opinion in Tibetan internet to determine research. 2012 International Conference on Computer Science and Information Processing (CSIP), 859–862. https://doi.org/10.1109/CSIP.2012.6308989

Zhang, Q., Perra, N., Gonçalves, B., Ciulla, F., Vespignani, A., & Moreno, Y. (2016). Forecasting elections with Twitter: A general framework for modeling, prediction, and visualization. ACM Transactions on Intelligent Systems and Technology (TIST, 8(5), 70.

Zheluk, A., Gillespie, J. A., & Quinn, C. (2012). Searching for Truth: Internet Search Patterns as a Method of Investigating Online Responses to a Russian Illicit Drug Policy Debate. Journal of Medical Internet Research, 14(6), e165. https://doi.org/10.2196/jmir.2270