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From Brussels with Love?

**Data Analysis of Social Media Usage by Czech
Members of the European Parliament**

Master's Thesis

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Year of the defense: 2023

Declaration

1. I hereby declare that I have compiled this thesis using the listed literature and resources only.
2. I hereby declare that my thesis has not been used to gain any other academic title.
3. I fully agree to my work being used for study and scientific purposes.

In Prague on 1st of August 2023

Mgr. Boris Vanka

References

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Abstract

Populism is on growth throughout Europe and the World. Research has shown that especially in the European Parliament, the number of populist politicians is rising over the last decades. Likewise, social media usage by users is booming and is used particularly by this type of politicians who spread their messages, using emotionality and negativity. Since the literature indicated that populists are especially active, efficient, and followed this research aimed to analyze the relationship between the degree of populism and its influence on the three variables of the Members of the European Parliament elected for Czechia.

In order to evaluate such a relationship, the data from Facebook (page posts, interaction by users, and numbers of followers) were utilized to test defined hypotheses and answer the research question. Exploratory Data Analysis was used as a wider framework, while Pearson Correlation Coefficient served as a tool for computing the correlation. Therefore, the scale of the independent variable (*degree of populism*) was based on data about Czech political parties, reflected in *anti-elitism*, *corruption salience*, *protectionism*, and *nationalism*. The dependent variables were based on *activity*, *efficiency*, and acquirement of *followers*. Moreover, the test of *statistical significance* was conducted to increase the reliability of the research.

Results of the analysis indicated that the level of populism has no effect on MEPs activity (number of share page posts), while there was a high correlation between the two variables in the case of efficiency and a moderate one for growth of the follower's base. Hence, the thesis pointed out that more populist MEPs produce content that is more attractive to the users, which manifests in a high amount of interactions (likes, comments, shares, etc.). This seems likely because the activity of the MEPs among the spectrum did not correlate with increasing populism, while efficiency and growth of followers did. Concussively, populist messages appear more effective in gaining interaction and followers.

Abstrakt

Populismus roste v celé Evropě i ve světě. Výzkumy ukazují, že zejména v Evropském parlamentu v posledních desetiletích roste počet populistických politiků. Stejně tak je na vzestupu využívání sociálních médií, které využívají zejména politici tohoto typu, kteří šíří svá poselství a využívají k tomu emocionalitu a negativitu. Vzhledem k tomu, že literatura naznačila, že populisté jsou obzvláště aktivní, efektivní a sledovaní, byl tento výzkum zaměřen na analýzu vztahu mezi mírou populismu a jeho vlivem na tři proměnné poslanců Evropského parlamentu zvolených za Českou republiku.

K vyhodnocení takového vztahu byla využita data z Facebooku (příspěvky na stránce, interakce uživatelů a počty sledujících), která umožnila ověřit definované hypotézy a odpovědět na výzkumnou otázku. Jako širší rámec byla použita explorační datová analýza, zatímco Pearsonův korelační koeficient byl posloužit jako nástroj pro výpočet korelace. Škála nezávislé proměnné (míra populismu) tedy vycházela z údajů o českých politických stranách, které se odrážejí v anti-elitářství, přítomnost tématu korupce, protekcionismu a nacionalismu. Závislé proměnné vycházely z aktivity, efektivity a získávání stoupenců. Pro zvýšení důvěryhodnosti výzkumu byl navíc proveden test statistické významnosti.

Výsledky analýzy ukázaly, že míra populismu nemá žádný vliv na aktivitu europoslanců (počet příspěvků na sdílených stránkách), zatímco v případě efektivity byla mezi oběma proměnnými vysoká korelace a v případě růstu základny stoupenců korelace mírná. Práce tedy poukázala na to, že populističtější europoslanci vytvářejí obsah, který je pro uživatele atraktivnější, což se projevuje vysokým počtem interakcí (lajků, komentářů, sdílení atd.). To se zdá být pravděpodobné, protože aktivita europoslanců mezi spektrem nekorelovala s rostoucím populismem, zatímco efektivita a růst počtu sledujících ano. Konkrétně se zdá, že populistická sdělení jsou efektivnější v získávání interakcí a sledujících.

Keywords

European Parliament, Members of the European Parliament, Social Media, Data Analysis, Quantitative Analysis, Pearson Correlation Coefficient, Statistical Significance, Political Communication, Facebook

Klíčová slova

Evropský parlament, poslanci Evropského parlamentu, sociální sítě, datová analýza, kvantitativní analýza, Pearsonův korelační koeficient, hladina statistické významnosti, politická komunikace, Facebook, Twitter, Instagram

Název práce

Srdečné pozdravy z Bruselu? Datová analýza sociálních sítí českých europoslanců

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1. Introduction

Unlike any of the times in the history of humankind, most of today's societies around the globe spend a considerable amount of their lives looking at screens. Online space has become a parallel universe in which we can find a tasteful recipe, pictures of a friend from primary school, as well as the most recent scientific knowledge. This lifestyle shift also culminated thanks to platforms designed to connect people: social media. Be it Facebook, Twitter, or Instagram, networks spread to our lives, and what once appeared as a nice-to-have tool is now a necessity. All of this is feasible because of rapid technological change, which allowed us to be (apart from consumers of content) creators of what is uploaded to the Internet

Despite some users being rather clueless about it, this 'movement' creates data, which can be collected by companies, NGOs, governments, political parties, universities, and many more organizations. Since the collection and analysis of these pieces of information help organizations to be more efficient, gain unique insights, or think of challenges ahead in new ways, the world of *Data Analysis* has become more significant than ever. With every passing day, it is easier to explore a large amount of information with new methods, growingly without knowledge of programming languages. And since data may also lead to a better understanding of the communication between voters and politicians, this area offers a unique space for scholars, especially in the field of political sciences.

The world of social media and data is interesting on its own, but it is particularly fascinating in the context of political communication. As further explained, disseminating information via digital channels for parties and candidates is more important than ever. This is obvious according to the global and Czech trends, which show steady growth in the usage of online platforms among citizens. Moreover, social media are essential for supranational (European) politicians since they spend a large part of their lives outside of their nation-states. Therefore, the Internet and various platforms are crucial for overcoming this distance barrier between Brussels or Strasbourg and the capitals of the nation-states.

The general motivations for all MEPs to use social media intensively are apparent. Apart from overcoming the distance issue, the policy-making process in the EU is more complex than the one in Czechia, and people consequently tend to be less interested in it - which can be changed via direct online channels, such as listed platforms. Another motive to use them may be the competition for the voters' attention. The MEPs must contest for traditional media coverage (TV, radio, newspapers, etc.) with the elected representatives in Czechia (200

members of the Parliament, 84 Senators, and others from the regional level), who are closer to the people, and focus their attention mainly on national issues. The main advantage of using social media by MEPs is the fact that platforms are much more direct, without any gatekeepers, and with the option of adjusting the message based on their preferences. However, one thing is clear: the MEPs have a list of bases to use social media, which means that research on their online behavior is suitable.

Moreover, one group of politicians is better at using social media for spreading their content than the rest: populists. They are on the rise around the World, as well as in the structures of the EU, which makes their phenomena even more critical. Therefore, the author analyzed if the *degree of populism* among the Czech Members of the European Parliament (MEPs) had an effect on their social media usage. As stated in the literature review, populist politicians tend to be more active on social media, as well as efficient in how much reactions they gain from followers and other users. Furthermore, according to past studies, they are likely to be followed more, since their fans are more present and active online. Likewise, solely MEPs from one country were chosen since national public spheres are more important than the European (supranational) ones (Ramos-Serrano, et al., 2018, p. 134). Czechia, in particular, was chosen since the author spoke the language thus could use more specific sources and due to his long-term interest in Czech political parties (which manifested in a job experience in both Czech and European Parliaments). The country is also interesting since “*conservative backlashes and rising populism noticeable in Western Europe,*” seeps in and influence political arena (Skrzypek, 2017, p. 4). This can also happen via the supranational level, since the MEPs (including populists) associate in political groups (Kantola, 2021, p. 797).

Consequently, the goal of this thesis was to test if there was a relationship between the level of populism and three main variables connected to Facebook usage. The first was the *activity* of MEPs, measured by creating the activity index (dividing the number of posts by the number of days of the measured period). Secondly, it was the efficiency of the communication, which was calculated by dividing the interactions of users (likes, comments, clicks, shares, etc.) by posts of the MEPs. In other words, the researcher aimed to understand how many responses were caused by one shared piece of content (post). Thirdly, the author focused on the changes in the MEPs' followers base. This was done by subtracting the initial number of followers (the first day of the measured period in 2021) from the last included number (the last day of the measured period in 2023). These three angles arose from the literature, later reflected in the research question and the hypotheses. Overall, by analyzing the mentioned data, the author

aimed to better understand the relationship between MEPs' populism level and their usage of social media.

This thesis was divided into five main parts. After an introduction, the research framework was outlined. Within it, the author first offered definitions of terms crucial for this paper and later discussed the relevant publications and studies. Afterward, the research question and hypotheses that emerged from the *literature review* were presented. The last part of the second chapter contained an explanation of the used methods (which were *Exploratory Data Analysis* and *Pearson Correlation Coefficient*). Since the procedure of this kind of quantitative approach is highly structured with clear predefined steps, the author found it to suit the structure and aims of the thesis. Moreover, all the used formulas, abbreviations, interpretation scales, and other used components were clearly described in this part. The research included data from Facebook between 2021 and 2023.

The third chapter presented the outcomes of the research. To make them easy to comprehend, they were presented together with validation of hypotheses, as well as tables explaining the numbers, tables, and charts which resulted from the analysis. In the following part (*Discussion*), the author examined the possible factors influencing the research results, provided a broader context, and delivered interpretations based on the outcomes of the analysis. Moreover, the fourth chapter outlined the possibilities for future research, which could widen the scope of the knowledge regarding the usage of social media by politicians. Lastly, a conclusion reiterated the main findings while closing the thesis itself.

2. Research Framework

This chapter aimed to address several key aspects of the thesis. Firstly, the literature review presented the existing academical debate, providing a foundation for the research. Based on that, the hypotheses were introduced in the following part. Thirdly, the used methodology and research design were explained, while the last part explored the limitations of the research.

2.1. Literature review

2.1.1. Introduction

While conducting new research, an up-to-date state of knowledge is crucial for its relevancy. This state-of-the-art was presented using a *thematic structure*, meaning that it was centered around essential concepts. To start with, political communication in the era of social media (SM) was discussed. The next part focused on populism and SM while investigating substantial indications of this phenomenon. Thirdly, the European Parliament (EP) and its connection to populism were introduced. In the last part, the author concluded all the main points and outlined the ground for the research.

2.1.2. Political Communication in the Age of Social Media

Since most of the planet's population owns a mobile device (Statista.com, 2020) and the majority of EU citizens use social media on smartphones at least once a month (Statista.com, 2020), analyzing data produced by users is more crucial and exciting than ever before. As researchers argue, “*massive amounts of user-generated data sourced from various social networking platform[s]...provide new insights,*” and therefore “*it is critical for individuals, organizations, and governments to extract [data] and make use of the meaningful information,*” (Xu et al., 2022, p. 11). Zachlod (et al., 2022, p. 1064) agree while stating that “*extensive spread and use of social networks provide a rich data source that can be utilized to answer a wide range of research questions from various disciplines,*”. The same author also believes that the analysis of data from SM is not an entirely explored field for researchers (Zachlod et al., 2022, p. 1066).

Even though this type of research is relatively pristine, such platforms have already changed users' behavior a long time ago. As Ghani (et al., 2019, p. 417) declare, the “*popularity of the Internet and the advent of the Web 2.0 technologies have transformed the contents of the web from publisher to user-created contents,*”. According to Ramos-Serrano (et al., 2018, p.

125), this type of communication supports dialog since the information flows in both ways. Moreover, SM has not only changed the way we communicate but also has been a significant contributor to what is nowadays called ‘Big Data’ (Ghani et al, 2019, p. 417). Plenković (2015, pg. 115) aspires to grasp the larger context and argues that communication as a whole is becoming increasingly influenced by online space, the new media, smartphones, and social media, as well as the enhancement of ‘Internet citizens’.

Although analysis of social media is rather a new area of study, Ghani (et al., 2019, p. 417) assert that over *“the last decade, research related to social media has been increasingly growing, and many algorithms related to artificial intelligence and machine learning have been developed,”*. Understanding the data generated by users (be it the creators of the content or the ones interacting with it) can be crucial even in cases of whole-societal issues, such as the pandemic of Covid-19. As CNN noted, online gossip about the lockdown of Lombardy ahead of the official Italian government statement led to a vast withdrawal from the region, making it harder for state officials to fulfill their goal of containing the virus (Cinelli et al., 2020, p. 1). Similar situations are one of the many reasons to demand more research on *“how people seek or avoid information and how those decisions affect their behavior, particularly when the news cycle—dominated by the disintermediated diffusion of information—alters the way information is consumed and reported on,”* (Cinelli et al., 2020, p. 1).

The shift in how news is spread and digested affects various areas, including the political sphere. As Zachlod (et al., 2022, p. 1064) pointed out, the option of influencing the outcomes of elections or affecting a community through social media is a conceivable scenario. Cinelli (et al., 2020, p. 1) agree with this statement while adding that the *“shift from the traditional news...profoundly impacts the construction of social perceptions and the framing of narratives,”*. Moreover, *“it influences policy-making, political communication, as well as the evolution of public debate especially when issues are controversial,”* (Cinelli et al., 2020, p. 1).

Furthermore, Turnbull-Dugarte (2019, p. 1) claimed that online platforms such as Facebook helped to fill a gap created by a decrease in traditional newspaper production, and, consequently, politicians used this opportunity to communicate with the voters in new ways. However, from Serrano's (2019, p. 215) perspective it is much more a sort of necessity rather than an opportunity because elected officials *“cannot avoid or neglect its use, as social media platforms are now a cornerstone of political communication,”*. Therefore, in the context of the current *“trends in data collection...political parties are using social media to collect, monitor, and analyze voter reactions to political messaging,”* (Serrano, 2019, p. 215). Moreover, SM

also represents an “*ideal vehicle and information base to gauge public opinion on policies and political positions as well as to build community support for candidates running for public offices,*” (Stieglitz et al, 2013, p. 1278).

While it is certain that the rise of the Internet influenced political communication, the way in which it is impacted is a point of interest for multiple researchers. In the first decades of its augment, this initially scientific project was perceived as a tool for the participation of people in the public sphere (Bekafigo et al., 2013, p. 637). Such a hopeful perspective can be traced back to a primitive techno-optimism (Loader et al., 2011, p. 758) which portrayed the online space as a “*place for open deliberation,*” producing the “*conditions of equality,*” among people (Ramos-Serrano et al., 2016, p. 124). Despite many disadvantages of the online space, this favorable view was not buried in the past millennium. As Loader (et al., 2011, p. 758) claims, “*a fresh wave of technological optimism has more recently accompanied the advent of social media platforms such as Twitter, Facebook, YouTube, Wikies and the blogosphere,*” seeing them as a place where anyone can share their opinions and thus leading the way to create a more egalitarian society.

However, if the topic is perceived via the lens of political communication, the main feature of social media is interactivity between users, supporting the notion of “*dialogue with citizens and voters,*” that goes “*beyond the mere transmission of information*” (Ramos-Serrano et al., 2016, p. 125). According to Serrano (et al., 2019, p. 215), politicians use SM as an official channel to comment on relevant topics, where users provide them with quick and concrete opinions about their stances. This ability to talk directly to people is the reason behind SM's popularity among elected officials (Karlsen et al., 2016, p. 352) since they are “*increasing dialogue with potential voters*” (Ramos-Serrano et al., 2016, p. 125). Various studies of political communication on SM (Enli et al., 2013, pp. 769-770; Gilmore et al., 2014, p. 44; Chukwuere et al., 2020, p. 18) emphasize that they reinforce communication between users (citizens, voters) and politicians.

2.1.3. Social Media and Populists

One group of politicians is likely to be more successful in the usage of SM: populist (Hameleers et al., 2020, p. 239). Researchers across multiple countries (Serrano et al., 2019; Flew et al., 2019; Heft et al., 2022; Guerrero et al., 2020) concluded that parties that may be put into the basket of *populism* are likely to use SM platforms extensively, as well as being more efficient in their communication. The same point was made by Bobba (et al., 2018, p. 56) in the context of the 2018 Italian general elections, who researched that “[L]eaders of populist parties

appear more active and their posts more liked: on average, populists publish 4.5 times more posts than non-populists, while they receive about 1,000 likes more for each post,”. Furthermore, these politicians tend to have higher number followers than the rest of the politicians (Metz et al., 2023, pp. 320-323), since they have “*an advantage..when it comes to mobilizing users around their social media messages,*” (Ceccobelli, et al., p. 447). Besides, their followers are “*more aware than others of the importance...[of] social media environments,*” (Ceccobelli, et al., p. 447). Moreover, these users are more dedicated to communicating with their favorite politicians online, without gatekeepers which are present in traditional media outlets.

The precise definition of *populism* may vary, yet the main essence of this political stream has considerable similarities. Mudde (2007, pp. 6-7) talks about the term as an ideology that divides people into two camps: the people and a corrupt elite. Furthermore, he argues that “*politics should be an expression of the volonté générale (general will) of the people*” (Mudde, 2004, p. 543). In other words, “*populism sees the people as the embodiment of democratic virtue and the elites as secretly aiming to subvert the popular will for selfish purposes,*” (De La Torre et al., 2019, p. 81). The elites are blamed “*for the difficult situation in which the people find themselves*”, which means “[that] *‘the people’ must be given back their democratic voice and power through the populist leader and party,*” (Bobba, 2019, p. 13). These essences of populism are commonly embodied in four main characteristics, which are *Anti-elitism*, *Corruption Salience*, *Protectionism*, and *Nationalism*. While resistance toward elites and focus on the corruption issue is strongly connected to populism politics (Jolly et al., 2022, p. 2; Norris et. al, 2019, pp. 123-124; De Cleen, 2017, pp. 8-14; Ehrlich, 2023, pp. 223-227; Frič et al., 2019, pp. 223-227), *Protectionism* and *Nationalism* are a reflection of restoration of sovereignty (Ernst et al., 2018, p. 1349; Ettinger, 2020, p. 410), which is typical for the phenomena as well. For instance, Brubaker (2019, p. 23) perceives *Nationalism*, *Protectionism*, and *Populism* as interconnected phenomena. Moreover, this applies to multiple types of populism, including the entire political spectrum. As Eklundh (2018, pp. 18-19) argued, the “*recourse to ‘national sovereignty,’ related to ‘protectionism’ from both the Left and Right...as a response to globalization, is used in a complementary way to ground a political and economic project,*”. Moreover, Bonikowski (et al., 2019, p. 62) claim that “*populism is not inherently a left- or right-wing phenomenon but rather, that it is always employed as a framing device for other, more comprehensive ideologies,*”. Likewise, Bonansinga (2022, p. 521) stated that “*all populism varieties may be built on ideational ‘premises of insecurity’ which become manifested in these actors’ perception and representation of outgroups as fundamentally threatening,*”,

that may lead to protection of the nation from the outside world. Such an approach is having momentum in various countries across the globe, including *“India, Turkey, Pakistan, Hungary, Poland, and Brazil, as well as opposition and minor populist parties and individual politicians in Western Europe, Indonesia, and Australia”* (Yilmaz et al., 2022, p. 2).

In terms of transmission of information, populists *“relies on emotionally loaded communication...which encourages citizens’ passion for public affairs and mobilizes them for political participation,”* where *“emotional alarmism, stigmatization, and the polarization of opinions...is typical”* (Frič et al., 2019, pp. 223). Moreover, researchers who studied campaigning of populists on Facebook during the 2014 and 2019 elections to the EP argued that *“negative, exaggerated, and sensationalized messaging...increased frequencies of likes, shares, and comments [and] make parties’ messages travel farther and deeper in social networks, thereby reaching a wider audience,”* (Klinger et al., 2023, p. 263). Consequently the communication style of these politicians *“include[s] emphasising the sovereignty of the people, referencing dangerous others’ and attacking elites,”* (Heft et al., 2022, p. 25). Since populist politicians and parties have *“limited access to traditional mass media, they use these new communication channels to overcome disadvantages in communication and to contact potential voters,”* (Serrano, 2019, p. 215). Heft (et al., 2022, p. 5) adds that *“[d]igital communication technologies are used in particular by...fringe political actors...who are occasionally shunned or...even excluded from coverage on traditional media,”*. The core reason for this situation lies in the way populists *“blamed traditional media for presenting them in a negative light and obscuring their intentions,”* which pushes them to use *“social media as an alternative ecosystem,”* (Serrano et al., 2019, p. 215).

Therefore, populist individuals use social platforms to *“bypass the mainstream media’s frequently liberal-cosmopolitan stance and allow people to talk to each other directly, organise in groups and rallies and accelerate the spread of nationalism,”* (Flew et al., 2019, p. 8). This distrust was manifested, for example, by voters and proponents of AFD in Germany (Decker et al., 2017, pp. 6-8), who supported this right-wing party mainly because they feel misinterpreted by the mainstream media (Serrano, 2019, p. 215). Moreover, with almost no gatekeepers (Meijer, 2019, p. 90) and fact-checking in its infancy (Freiling et al., 2021, p. 156), populists have a unique and prolific space where they can disperse opinions and messages (Khosravini, 2017, pp. 66-67).

However, it is not solely about populists being able to use social media skillfully: the critical element is also the fact that their supporters and followers consume this kind of content more often *and* with a higher level of trust than the traditional media (Heft et al., 2022, p. 7).

Further, Hameleers (et al., 2019, pp. 146-148) argues that people who carry populist ideas prefer homogeneous societies, oppose migration, do not hold respect toward national elites, doubt mainstream media, and are more likely to perceive unfiltered information from social media as truthful and vital. Hence, this approach underlines the success of populist politicians on social media.

Additionally, *“both left and right populisms are characterized by the antagonistic pitting of “the people” vs. “the elite”* (Sengul, 2022, p. 51). However, the main difference is that the *“left-wing populist parties tend to concentrate on economic issues on social media, while right-wing...on issues that resonate with xenophobic voters,”* (Serrano, 2019, p. 215). According to Vachudova (2021, pp. 472-475), while those *“on the economic left, [are] reigniting debates on inequality and redistribution,”* the right-wing parties in Europe are claiming to protect an *“ethnicity, culture, nation, religion, race, or even civilization that is under threat,”*. The same opinion is supported also by the findings of Pirro (2018, p. 12). This may culminate into resistance toward outsiders (immigrants, especially from Muslim countries) and insiders (LGBTQ+ and proponents of progressive values), mainly in the case of right-wing populism (Vachudova, 2021, p. 475)

2.1.4. Populists and the European Parliament

Populists gained momentum not only in individual countries around the world (Yilmaz et al., 2022, p. 2), but also in the only EU institution elected directly by the people. From the 1979 election to the EP until the one in May of 2019, there had been a *“constant growth of populist parties in terms of their overall number, electoral performance, and number of seats they occupy,”* while *“populism...moved from the fringes to the mainstream,”* (Manucci, 2021, p. 25-38). The growing presence of populism in the EP is crucial since it is *“an important institution on a number of policy issues that impact significantly the EU member states as well as the lives of Europeans,”*. Moreover, the Parliament creates *“opportunities for European parties, institutions, and decision-making bodies to use social media in order to engage citizens,”* (Lappas et al., 2018, p. 1), offering populists an opportunity to spread their messages. Furthermore, the growth of the number of populists may possess an issue for the EU also because a significant amount of them are deeply critical of the European project because they are *“against remote and unresponsive elites, and dislike of undemocratic, complex and untransparent decision-making procedures,”* (Rooduijn, 2019, p. 22). On the other hand, there is a notable difference between the two terms since *“[p]opulism is a general set of ideas about the functioning of democracy”*, while *“Eurocepticism concerns a position towards a more*

concrete polity (the EU) or issue (European integration),” (Rooduijn, 2019, p. 22). Nevertheless, the overlap of these two terms is not an exception.

Additionally, the fact that the coverage of the EU in media is predominantly pessimistic (Gleissner, 2005, pp. 222-223; Michailidou, 2015, p. 332) is convenient for populists, because they “*present a negative discourse based on the recovery of the sovereignty..., or on the exit of the European Union,*” (Alonso-Muñoz, 2020, p. 10). Apart from pessimism, there is also an issue of distance, since the majority of the topics related to the EU are presented “*in the context of national developments or general economic trends like the Euro-crisis,*”, while “*most of the news items that discuss European issues in depth concern international relations and abstract economic processes, which is the type of information that is quite distant,*” (Moeller et al., 2018, p. 446). The amenity for the populist is underlined by an argument of Ramos-Serrano (et al., 2018, p. 134) who claimed that the national public sphere still prevails compared to the European level. On the same note, Rivas de Roca (et al., 2020, pp. 237-238) claims that the notion of the EU is created more by diplomatic matters, rather than topics influencing the daily life of citizens. As a consequence, the coverage is predominantly unfavorable, while the issues are remote to regular voters. This opens an opportunity for populists, who can bend the facts toward their point of view, presenting themselves as an entity that has the ultimate solutions for complex issues (Akgemci, 2022, p. 44).

2.1.5. Conclusion

As mentioned earlier, SM poses a tremendous opportunity for researchers in social sciences. First, there is a growth in the amount of produced data by users, since more people use SM networks than ever before. This is also due to the augment of Web 2.0, which changed the direction of information from solely produced-recipient to user-to-user. This user-generated content opened doors to politicians, who can communicate with their supporters and voters directly, without gatekeepers known from traditional media. Consequently, SM became a cornerstone of today's political communication.

Moreover, this change, which began with the idea of *open deliberation* in the *public sphere* where 'anyone' can express their opinions, favored mostly populist politicians. The main reason for this is the absence (or low levels) of any entry barrier, as well as discrimination of populists (or populist notion of such thing) by traditional media. Therefore, they are able to use SM to a higher degree, more efficiently, while also being more followed.

The types of populism may vary across the political spectrum (*left-wing* and *right-wing*), yet there are common features in cases of all camps. Firstly, it is *anti-elitism*, which springs

from the notion of the “*us versus them*” attitude. Secondly, the importance and space they give to the topic of *corruption* is greater than in the case of other parties. Thirdly, they play the *protectionism* card, which aims to shield people from the negative consequences of the outside world. And lastly, it is *nationalism* which is mostly associated with *right-wing* populists, however, it is also utilized by *left-wing* populists (Mulle, 2022, 409-410).

Finally, the described situation is especially advantageous for populism among Members of the European Parliament (MEPs). This is due to the fact that the media coverage of the EU (and EP) issues is limited in depth, distant from the people, mostly negative, and contextualized in the light of national developments. Since MEPs are the only directly elected representative in this supranational body, they have a significant motivation to utilize the SM in order to gain people's support during elections. Both SM and EU architecture favors populist communication, which may be the reason for the rise in the number of such politicians elected to the EP. Besides, their influence on the functioning of the Parliament is growing, which is one of the many causes why it is necessary to better understand their activity, success in communication, and sizes of audiences (inevitably consuming their content) on SM.

2.3. Research Question and Hypotheses

In this part, the general context leading to the research question, and the hypotheses' specific nature were discussed, including references to previous studies and research.

As discussed, the issue at the center of this thesis is the lack of knowledge regarding SM usage by populist Czech MEPs. Since they hold considerable power in the legislative system and are influencers of the public debate, it is crucial to apprehend their online activity, as well as their success (both efficiency and acquisition of followers). Consequently, the research aimed to compare the *degree of populism* among Czech MEPs, with the goal of spotting differences between the two groups. The practice of comparing distinct approaches toward SM (especially Facebook) between populists and no (or low) populists is a regular practice among scholars (de Vreese et al., 2018; Engesser et al., 2017; Larsson, 2022). Based on the literature, the researcher aimed to test the assumptions (Serrano et al., 2019; Flew et al., 2019; Heft et al., 2022; Guerrero et al., 2020) that elevated levels of populism among Czech MEPs were reflected in higher activity and effectiveness on SM.

In order to do so, the author decided to analyze the Czech MEPs while focusing on a leading SM site: Facebook. Motivations for selecting this platform were several. First of all, with 70 % of the people in Czechia using the platform, it is the most popular site in the country (Macková et al., 2023, p. 3), meaning that it represents the broadest spectrum of users than other platforms (*Demographics of Social Media Users and Adoption*, 2023). Apart from its vast usage, it is also the oldest site, founded in 2004 (*A Brief History of Facebook as a Media Text*, n.d.). Moreover, there is a consensus among scholars that Facebook is especially convenient for populists to spread their content (Ernst et al., 2017; Groshek et al., 2012; Stier et al., 2017). According to some scholars, the general behavior and type of messages produced by populist politicians are mostly shaped by the reactions of users and followers on Facebook (Groshek et al., 2017; Bobba, 2019).

Regarding the time frame of the research, studies of the similar topic varied, yet it can be typically anywhere from a week (Larsson, et al., 2014, p. 656) or 30 days (Blassnig, 2019, p. 4; Bobba, 2018, p. 1) to six months (Sven, 2017, p. 1114) up to one year (Gründl, 2020, p. 1493). To ensure maximal reliability of the research, the author chose a period of 24 months (1st of July 2021 until 30th of June 2023). It was selected because it reflects a two-round-years length of communication, including different periods of SM communication intensity (such as public holidays, different political and societal events, etc.).

Furthermore, the author intentionally choose the respective years (2021 and 2023) and did not include the election year of 2019. The reason was a general lack of studies on SM communication during the standard mandate (Lappas et al. 2018, p. 1), which is induced by the prevalence of scholars who focused on election periods. Apart from that, Enli (et al., 2013, p. 638) argue that shared content during this time is planned to a higher degree, as well as more intensive, meaning that it is less likely to represent the authentic SM communication of the candidates. On the other hand, an extensive period during non-mandate times may uncover the fundamental nature of politicians, at least in the case of their usage of Facebook.

Therefore, in order to research the activity, efficiency, and changes in the follower base of populist politicians on Facebook (as mentioned in the literature review) in non-election years, the following main research question was formulated.

Research Question (RQ): *Did the more elevated degree of populism among the MEPs elected for Czechia had a positive impact on their **activity** (page posts) **and success** (efficiency and increase of fan base) on Facebook in the two years period between 2021 and 2023?*

In order to answer the main research question, the following hypothesis, focusing on activity, efficiency, and evolution of the Fan trend, were defined.

Hypothesis 1 (H1): *The higher degree of populism among MEPs elected for Czechia was correlated with more **activity** in their communication on Facebook in the two years period between 2021 and 2023.*

The *activity* of populist and non-populist MEPs is measured by the number of shared posts on their Facebook page. In order to comprehend the high volume of Facebook posts shared by each MEP, the author chose to utilize the “*activity index*” introduced by Larsson (et al., 2014, p. 655). This index, which is created by “*dividing the number of posts...by the number of days that [politicians] had maintained a profile*“, provided the researcher with a clear and comprehensive number representing the MEPs' activity. Note that the content of the posts was not the focus of the researcher, since he was solely focusing on the number of shared contents.

Hypothesis 2 (H2): *The higher degree of populism among MEPs elected for Czechia was correlated with more **efficiency** in their communication on Facebook in the two years period between 2021 and 2023.*

The efficiency of populist and non-populist MEPs was measured by dividing the number of *interactions* (likes, comments, shares) that a particular MEP page received by their *activity* (expressed by the number of posts of a page). This straightforward calculation provided the researcher with a numerical overview of how many interactions were on average caused by the post of an MEP page. More information on how the particular computation was made is provided in the following chapter

Hypothesis 3 (H3): *The higher degree of populism among MEPs elected for Czechia was correlated with **acquisition of more followers** on Facebook in the two years period between 2021 and 2023.*

In order to understand the changes in the follower bases of MEPs, the researcher deducted the numbers of followers from the first day of the measured period from the last day of the examined time frame. In this way, the increase in followers for all the MEPs was clear.

Null Hypothesis (H0): *The higher degree of populism among MEPs elected for Czechia had **no effect on their activity, nor success** (efficiency and acquisition of more followers) on Facebook in the two years period between 2021 and 2023.*

In quantitative research which tests hypotheses (and especially if statistical methods are utilized), the null hypothesis (H0) is defined in order to support the reliability and trustworthiness of the research (Futschik, 2019, p. 2292; Quintana, 2018, p. 1-8). It contradicts the researchers' assumptions, despite they may be founded on previous experiments and literature. In other words, H0 claims that there is *no relationship* between independent (*x*) and dependent (*y*) variables included in the research (Turney, 2023). As the name implies, it serves as insurance of the research's importance. This hypothesis is verified using a *significance test*, which is calculated the outcomes of the *Pearson Correlation Coefficient (R)* for individual *alternative* hypotheses. For this thesis, *alternative* hypotheses are the same as the central ones (H1, H2, H3), which is a common practice (Turney, 2023). The concrete procedures and calculations of *R* and the *significance test* will be presented in the following particularly in the second part of the subchapter on *R* computation (2.4.3.).

2.4. Method and Research Design

In order to examine activity and efficiency (of both MEPs and users) on Facebook within a period of two years, a framework of Exploratory Data Analysis (EDA) was applied. It is a method that “*looks at the data from many angles,*” where the objective lies in “*uncovering facts about the data,*” (Morgenthaler, 2009, p. 33). As Komoroski (et al., 2016, pp. 185-186) argued, the main goal of this approach is to “*examine the data for distribution, outliers, and anomalies to direct specific testing of your hypothesis*”, while seeing a “*potential relationship (direction and magnitude) between...variables*”. Therefore it “*has gained a large following as the gold standard methodology to analyze a data set*”. EDA is divided into two main categories, depending on the number of variables. While *univariate* focuses on solely one element, *multivariate* considers several factors. Moreover, the division is also made in the case of the *non-graphical* and *graphical* representation of data (Komoroski, et al., 2016, p. 186).

For this research, *multivariate* and *non-graphical* approaches were applied, since the researcher included different variables (degree of populism, efficiency, activity, and followers), and the center of the research was in the computation. On the other hand, visualization was utilized in all cases as well (since it helped to underline the meaning behind the calculation), yet it was still included in a category of *non-graphical* EDA since the graphs were not the primary tool for analysis, but only a representation of previous computations. In order to find a relationship between two variables within the EDA framework and under described circumstances, Komoroski (et al., 2016, p. 190) recommended focusing on uncovering a possible correlation via the *Pearson Correlation Coefficient (R)*. This term, including the particular formula and process of its computation, as well as its application for the research, is explained in subchapter 2.4.3.

In order to make the process of EDA transparent and specific, the approach from the book '*Big Data Fundamentals: Concepts, Drivers and Techniques*' (Erl et al., 2015, pp. 156-162) was used as a guide through the process. It includes nine steps which are explained below (see *Table number 1*). The author clustered stages into three categories by the common theme (identification of data, their acquirement, and analysis). All parts are seeking to clearly explain *why* the data were chosen, *how* they were obtained, and *what* happened to them once the researcher conducted the analysis.

Table number 1, Process of Exploratory Data Analysis

Step number	Name of the Phase	Explanation
1	Evaluation of the research aim	<i>Definition of research problems, objectives, and questions.</i>
2	Data identification	<i>Classifying the data and the way of their collection.</i>
3	Collection of the data	<i>Acquiring information from a reliable data source.</i>
4	Extraction to a suitable system	<i>Transfer of data to software that allows their analysis.</i>
5	Data validation and cleaning	<i>Inspection for any possibly invalid or missing data.</i>
6	Data aggregation and representation	<i>Merging the data into one place (dataset).</i>
7	Data analysis	<i>Examination and evaluation of the information.</i>
8	Visualization of the data	<i>Choosing an appropriate graph for the visualization of analysis.</i>
9	Drawing conclusions	<i>Answering the research questions, discussion, and recommendations.</i>

2.4.1. Evaluation of Goals and Data Identification

The research goal of this thesis was to *explore the impact of the degree of populism on the activity and success (efficiency, and change in the number of followers) of Czech MEPs on Facebook*. This aim was based on the research problem, which was composed of the *overall shortage of research on SM communication of MEPs during the non-election period*, as well as the more particular *lack of knowledge on how populism influences Facebook usage by Czech MEPs*.

In order to understand the relationship between populism and the success of Czech MEPs on Facebook, the author identified data from this platform for two years (from the 1st of July 2021 until the 30th of June 2023). As demonstrated by mentioning past studies on similar topics in the previous chapter, this period was proved as adequately long. Moreover, the initial amount of scraped pages was determined by the number of MEPs elected for Czechia for the 2019-2024 term, which was 21 (MEPs | European Parliament | Czechia, n.d.). Yet due to the software limitations explained in the following subchapter (2.4.2.), two MEPs had to be excluded from the research. Therefore, the data from 19 MEPs' Facebook pages were acquired and subsequently analyzed. This sample size was also referred to as n , which is a common practice in statistics (*Sample Sizes Required*, n.d.).

Since the goal is to explore *how populism influences the success of MEPs on Facebook*, and therefore understand the relationship between multiple variables among 19 samples, the required data were *quantitative* in nature. In order to measure the *activity* of MEPs ($H1$), the author identified the number of MEPs *page posts* (for each day and every MEPs page within the measured period, which was 730) as the most suitable metric. Consequently, the content (text and visuals) of the of the posts was not included in the research, since the degree of populism was measured according to surveys as well as literature, and not based on the particular messages on Facebook. For the measurement of the *efficiency* of MEPs' communication on Facebook ($H2$), it was appropriate to divide the number of *interactions* (by users with the page for every day within the measured period) by the *activity* (page posts) of the MEPs. Note that all the *interactions* (as explained in the table number 2 below) were treated equally and were not distinguished. Finally, the change in the number of *followers* ($H3$) was measured by deducting the number of users following the page at the beginning of the research timeframe by the number of followers from the last day of the research period. Hence providing the researcher with the overall disparity of the users who followed the MEPs pages. To better comprehend the SM variables, see the table below.

Table num. 2, Facebook Variables Explained

Variables	Alternative Names	Definition
<i>Fan Trend</i>	Followers, Fans, Fan base	A <u>number of people following certain pages</u> on social media
<i>Page Posts</i>	Posts, Activity, Content	Amount of <u>shared content</u> on a certain social media platform
<i>Page Interactions</i>	Interactions	A number of users who interacted with a page: gave a <u>like</u> , <u>shared</u> , <u>clicked on</u> , <u>commented</u> , <u>tagged</u> , or <u>mentioned it</u> .

To summarize, the most popular SM (for both people and populists) platform (Facebook) was chosen to fulfill the thesis aim. Moreover, the period of two years (from the 1st of July 2021 until the 30th of June 2023) suited the analysis goals and reflected common practices among the research of SM by social scientists. In order to measure activity (H1), efficiency (H2), and changes in the fan trend (H3) of the MEPs pages (and to test the assumption of higher success among populist MEPs), the following variables were identified. It was the number of:

- *page posts* (activity of MEPs pages),
- *interactions* (number of likes, shares, comments, tags, and mentions by users),
- *followers* of the individual pages (from which the difference was calculated)

Once these criteria for the data were identified, the researcher approached the data acquisition phase. As for the *degree of populism* (x = independent variable) among Czech MEPs, the following procedure took place in order to obtain data. For the sake of clarity, steps 3 (collection), 4 (extraction), 5 (validation), and 6 (aggregation) regarding this variable were explained in this subchapter.

Because political parties, in general, have different degrees of populism among them and binary populist/non-populist division would omit the complexity of the phenomena (March, 2017, pp. 282-283), the research needed to reflect that. The least complex scale divides populism into three categories (Bobba et al., 2019, p. 52). The first one is *no-populist* politicians, followed by the *soft* and *hard* populists. While the first group never uses populist approaches to communication, the second occasionally arranges to use some populist

elements. Lastly, the last (*hard*) group has a constant presence of populist elements in their communication. See table number 2 below for more information.

Table num. 3, Scale of Populism

Non-populist parties (NPPs)	Soft-populist parties (SPPs)	Hard-populist parties (HPPs)
Political parties that never resort to elements of populism within the ideological and communication dimensions.	Political parties that occasionally resort to some elements of populism within at least one of the ideological or communication dimensions.	Political parties that consistently resort to all the elements of populism within both ideological and communication dimensions.
Non-Populism <-----> Populism		

(Source: Bobba et al., 2019, p. 52)

Since such a general ranking would not sufficiently reflect the level of populism among Czech political parties (and hence Czech MEPs), the author decided to create a more detailed scale. In order to do so, based on the mentioned studies (Jolly et al., 2022, p. 2; Norris et. al, 2019, pp. 123-124; De Cleen, 2017, pp. 8-14; Ehrlich, 2023, pp. 223-227; Frič et al., 2019, pp. 223-227, Ernst et al., 2018, p. 1349; Ettinger, 2020, p. 410; Brubaker, 2019, p. 23; Eklundh, 2018, pp. 18-19; Bonansinga, 2022, p. 521) four leading characteristics of populism were defined. These were *Anti-elitism*, *Corruption Salience*, *Protectionism*, and *Nationalism*.

As a next step, data was obtained for all mentioned categories, by which populism can be measured, from the Chapel Hill Expert Survey. This institution focuses on “*party positioning on ideology and policy issues*,” (Chapel Hill Expert Survey, n.d.-b). Moreover, it “*has been involved in the measurement of the ideological profiles and thematic positioning of political parties in...Central and Eastern Europe*” (Frič et al., 2019, p. 224). Besides, it is a widely utilized source of information about political parties' stances among multiple academics researching the topic of populism (Vachudova, 2021; Schafer, 2022; Norris, 2019; Colonescu, 2022; McDonnell et. al, 2021; Norris, 2020; Donovan, 2020).

Once the author acquired the data for all Czech political parties which had their representative elected in the EP, it was uploaded to an Excel sheet. In this software, the average of all 4 populist variables was created for each political party. These were consequently transferred to a scale from zero (0) to one hundred (100), where the lowest score had the *least*-populistic party (TOP 09), while the highest number belonged to the *most*-populistic one (SPD). Moreover, the researcher verified the reliability of the computation using a new scale by comparing it with calculations operating with the original numbers. Outcomes of both ranges were the same, hence the author decided to utilize solely the chosen scale (0-100) as a

representation of the level of populism among Czech MEPs. Moreover, the results of the calculation were confirmed by current literature (Stockemer, 2020, p. 38; Zulianello, 2020, p. 330; Vachudova, 2019, pp. 699-700; Kevický, 2022, p. 17; Larsson et al., 2021, p. 61), which overlapped in line with the degree of populism among Czech political parties in the created ranking. In other words, both literature and data from the surveys served as a foundation for a more detailed hierarchy. See Table number 4 for the explanation.

Table num. 4, Computation of the Populism Scale Among Czech Political Parties

Political party	Abbreviation	Scores of signs of populism (1 = lowest, 10 = highest)				Total Sum	Scale 1 - 100
		Anti-elitism	Corruption Salience	Protectionism	Nationalism		
TOP 09	TOP09	2,5	6,3	2,8	3,6	15,2	0
Mayors and Independents	STAN	2,8	6,3	3,8	3,8	16,7	7,614213198
Czech Social Democratic Party	ČSSD	3,2	4,4	6	5,3	18,9	18,78172589
Christian Democrats	KDU-ČSL	2,8	5,3	5,5	5,9	19,5	21,82741117
Czech Pirate Party	CPP	5,8	8	3,6	2,1	19,5	21,82741117
Civil Democrats	ODS	3	6,1	3,4	7,2	19,7	22,84263959
ANO 2011	ANO	6,3	5,7	5,9	6,6	24,5	47,20812183
Communist Party	KSČM	6,8	4,7	8,5	8	28	64,97461929
Freedom and Direct Democracy	SPD	9	7,5	8,7	9,7	34,9	100

(Source: Chapel Hill Expert Survey, nd., www.chesdata.eu)

2.4.2. Data Extraction, Validation, and Aggregation

The *collection* (step 3) and *extraction* (step 4) were described jointly below since there was a strong link between those parts. The data were obtained via a website-based application *ZoomSphere* whose main function is the management of SM accounts. More precisely, their goal is to “*help our customers build their social media presence, grow their fanbase, and create strong marketing strategies,*” (Zoomsphere, n.d.). Within the interface, the software provided users with a ‘*benchmarking feature*’ application (app), which delivered the data needed by the researcher (MEPs *page posts*, *interactions* by users, and *followers’* evolution). This was achieved by copying the URLs (Uniform Resource Locators, also referred to as ‘web addresses’) of all Facebook pages included in the research within the Zoomsphere benchmarking app interface. Consequently, the software provided the researcher with data from copied pages.

As mentioned earlier, 19 out of 21 Czech MEPs were included in the research. This was due to the fact that Facebook API (application programming interface) allowed the author to gather data solely from pages and not individual profiles. This change in API is related to the Cambridge Analytica scandal in 2018, which motivated Facebook management to tighten the opportunities for harvesting the data (Van Der Vlist et al., 2022, p. 5-9). Therefore, specifically Markéta Gregorová and Hynek Blaško could not be included. The first named MEP did not

have a page, but only a private profile. Blaško, on the other hand, had an active page, yet the URL of his page included the word '*profile*'. The researcher first contacted the Zoomsphere support center in order to solve the situation. However, since the Facebook API is rigid, the data could not have been obtained because of the page web address form. Secondly, the author contacted Mr. Blaško (or his team) via a direct message to his Facebook page. The request of changing his URL took place three times over multiple days. However, there was no reaction to the researcher's questions whatsoever. Hence, these two MEPs could not have been involved in the research. All other (19) MEPs had active pages which were included.

Since the data needed to be analyzed using computations, they were acquired in CSV (Comma-Separated Value) format, which has several advantages (ByteScout, 2021). Firstly, it is human-readable, which means it is easy to inspect and edit. This was especially important following step number 5 (data validation and cleaning). Secondly, it has an easy-to-follow structure, meaning that it decreases the chance of error while being processed by human researchers. Thirdly, CSV files are readable in various programs, giving the author an opportunity to choose the best suitable tool freely. After the researcher downloaded the datasets in CSV, he opened and analyzed them in the Microsoft Excel program (hereafter referred to as Excel). Overall, there were 3 datasets in line with the research goals and hypotheses (*page posts*, *interactions*, and *followers*), with 19 columns reflecting the number of included MEPs.

To fulfill step number five, all data sets were checked for missing values, outliers, or any other issues, which could decrease the validity of the research. The data were reliable, with no missing values or discrepancies, providing the researcher with information on MEPs page usage and user interactions for 24 consecutive months.

After the author took all the necessary precautions to ensure that the data was cleaned, step number six was conducted. In other words, all the data was aggregated into one single Excel document. In order to ensure the clarity and reliability of the data, they were divided into three distinct sheets based on their type (*page posts*, *interactions*, *followers*). For *page posts* and *interactions*, the columns for the period of 2 years were compounded, leaving the author with overall numbers for each MEP. Therefore, note that the content of the posts and individual reaction were not subject of interest for the researcher, which means they were not included in the research.

In the case of *followers*, the researchers' goal was to obtain the growth of the *Fan base* from 2021 to 2023. To do so, he deducted the initial number of *followers* from the first day (1st of July 2021) of the measured period from the amount of the last day (30th of June 2023). Thus, the net growth of users who followed the profiles of 19 Czech MEPs was acquired. Note that

none of the MEPs lost *Fans* (meaning that all of them registered an increase in the users following their pages) and the researcher used only positive numbers.

The next two phases of the EDA (6: data analysis, 7: visualization) were explained in the following subchapter.

2.4.3. Data Analysis with Pearson Correlation Coefficient (R)

Since all the pieces of information were in one document, the research of data was conducted. To analyze the data, Excel (again) suited the aim of the research for two reasons. Firstly, the software was able to execute computations that were required for the analysis, which was tested by the author in advance within pilot research. Secondly, data did not have to be transferred, which decreased the chance of their corruption. Lastly, the software had a visualization feature, which made the graphics more reliable, since the graphs were created within the same interface as the calculation.

As mentioned previously, the main goal of the thesis was to find a relationship between the *degree of populism* among Czech MEPs and their *activity* plus success on Facebook. The 'success' was defined by hypotheses as the *efficiency* and evolution of the number of *followers* on chosen SM platform, while *activity* reflected the number of page posts. Since the research was based on testing hypotheses with the use of *quantitative* data, it is deductive (Casula et al., 2021, 1705). In order to understand the relationship, the author utilized the *Pearson Correlation Coefficient* (referred to as R) which “*is a statistical metric that measures the strength and direction of a linear relationship between two random variables,*” and is commonly used in social sciences (Senthilnathan, 2019, p. 1), as well as in data analysis (Haomiao, 2016, p. 208). The author also considered *linear regression*, which has similar characteristics as R , since it is able to measure the correlation between variables. However, this model would not be suitable for this research, since linear regression is used when “*the independent variable (x) are considered known constants,*” and determined by researchers (Schober et al., 2018, p. 1766). On the other hand, the “*Pearson correlation [coefficient] is conventionally applied when both variables are observed,*” (Schober et al., 2018, p. 1766), which was the case of this research, because the author did not define either of the variables by himself. Hence, the computation of R is appropriate for evaluating the correlation among the variables in this thesis.

In order to measure the correlation, independent (x) and dependent (y) variables have to be defined. The variable x is considered *not* to be influenced by factors included in the research, hence it is labeled as independent. On the other hand, variable y is tested for a relationship with the x variable, on which it could be dependent. While visualizing correlation, the x

(independent) variable occupies the horizontal axis, and the y (dependent) variable is situated on the vertical axis (Schober et al., 2018, pp. 1765-1768). In the case of this analysis, the independent variable (x) was (in all cases) the *degree of populism* among MEPs (as defined in subchapter 2.4.1.), while dependent variables (y) utilized for testing the hypotheses were the following:

- *Activity*: number of MEPs pages posts divided by the number of days (H1)
- *Efficiency*: interactions by users divided by MEPs pages posts (H2)
- *Fan trend*: changes in the number of MEPs pages followers (H3)

The computation of R itself has four main steps (Turney, 2023b). Firstly, the author summed up the variables for all our hypotheses. To do so, the variables were renamed to x (independent) and y (dependent) in order for the researcher to be easier to calculate and limit the space for mistakes. In statistics, including the computation of R , the Greek symbol sigma (Σ) is used as a representation of sum. Therefore, after this phase, the researcher obtained sums of all the variables ($19 = n$), where the total of the independent one was expressed as Σx and the total of the dependent one as Σy . The goal of the second step was to convert the sum (Σx and Σy) to its square root. Using the same table with 19 rows, Excel provided the researcher with Σx^2 and Σy^2 , which were the sums of the respective square roots of variables from step number one. Thirdly, a cross-product of all (n) variables (x and y) was computed. The multiplication was represented by Σxy . In the final step, the calculation was done with the use of the *Pearson correlation coefficient* (R). See all the formula and all its parts clarified below.

$$R = \frac{n(\Sigma XY) - (\Sigma X) \cdot (\Sigma Y)}{\sqrt{n(\Sigma X^2) - (\Sigma X)^2} \sqrt{n(\Sigma Y^2) - (\Sigma Y)^2}}$$

(Source: Senthilnathan, 2019, p. 3)

Table num. 5, Components of the *R* Computation Formula Explained

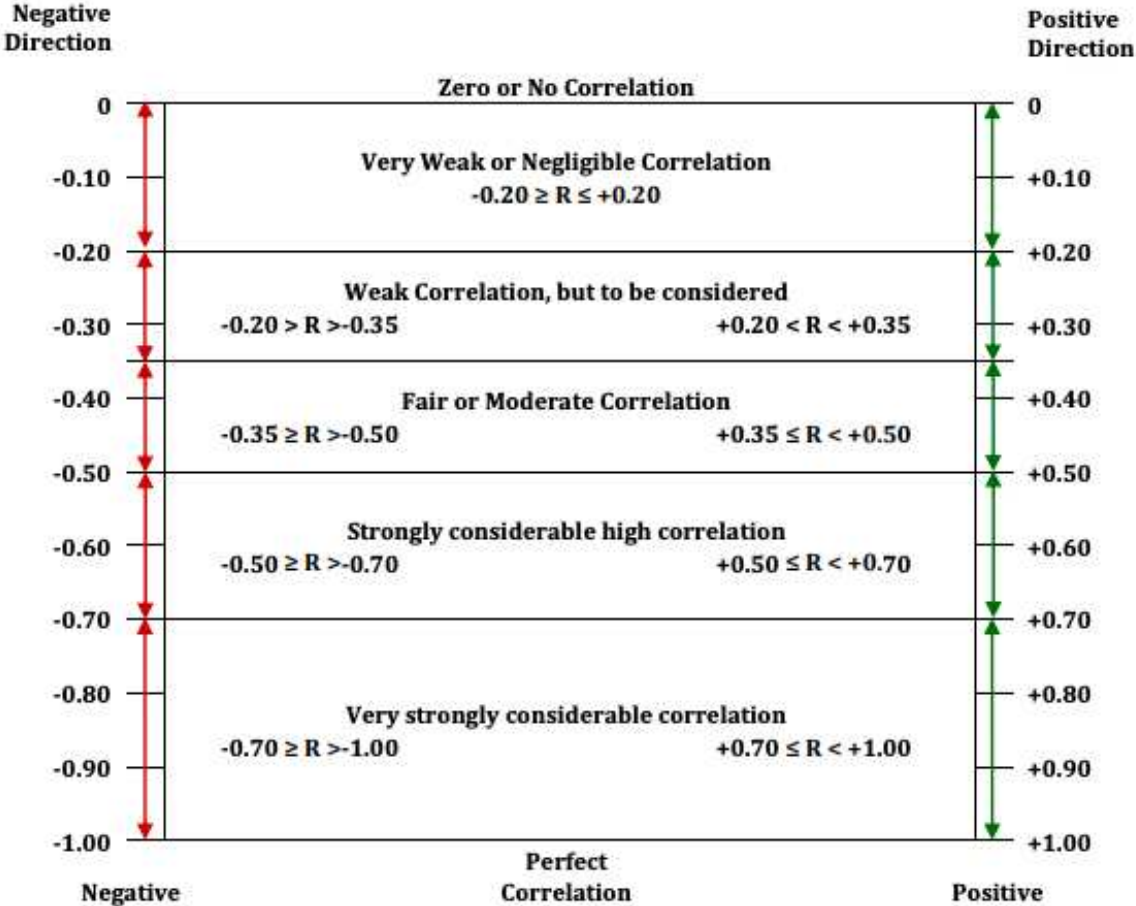
Abbreviation in the formula	Meaning of the abbreviation
n	Sample size
x	Measures of the independent variable
y	Measures of the dependent variable
Σx	Sum of the measures of the independent variable
Σy	Sum of the measures of the dependent variable
Σx^2	Sum of the square values of the independent variable
Σy^2	Sum of the square values of the dependent variable
Σxy	Sum of the cross-product of variables

(Source: Senthilnathan, 2019, p. 3)

Once the computation was conducted, and the author acquired the results of the *R* formula, the interpretation took place. Overall, the outcomes of the calculation were on a scale from negative (-1) to positive (1) number one, which is an ordinary procedure (Turney, 2023). The numbers on the scale measure the direction and strength of correlation, where '1' represents the perfect correlation in a positive direction. In that case, the line runs exactly between the *x* and *y* axis since the variables change simultaneously in the same direction. On the other hand, '-1' stands for the strongest possible correlation in a negative direction, which means that the variables change concurrently, yet in opposite directions (Hayes, 2023). The scale between these two extremes determined the intensity of correlation in either a negative or positive direction. As Senthilnathan (2019, p. 4) stated, in case the outcome is 0, *no correlation* existed. If the *R* is smaller than 0.20 or -0.20, the correlation was *negligible*. Once the *R* equaled or was between 0.20 and 0.35 or -0.20 and -0.35, a *weak* correlation existed. Between 0.35 and 0.5 or -0.35 and -0.5, the correlation was *moderate*. If the *R* is equal to or is bigger than 0.50 and 0.70 or -0.50 and 0.70, a *high* correlation existed. Lastly, if the *Pearson Correlation Coefficient*

produced a number above 0.70 or -0.70 (up to 1 or -1), the correlation was *very strong*. See the table below for clarity on how the outcomes were interpreted.

Table num. 6, Spectrum for interpretation of Pearson Correlation Coefficient (R)



(Source: Senthilnathan, 2019, p. 4)

2.4.4. Statistical Significance Test

To enhance the reliability of the research and to test the null hypothesis (H0), the author decided to conduct a *test of the statistical significance*. The term “*refers to the claim that a set of observed data are not the result of chance but can instead be attributed to a specific cause,*” (Team, 2021). In other words, if the outcomes are tested as statistically significant, the “*results in the data are not explainable by chance alone,*” (Kenton, 2022), since the test proved “*whether a result is likely due to...factor of interest,*” (Gallo, 2022) or not. Moreover, this procedure also defines “*maximum risk of making a false positive conclusion that you are willing to accept,*” (Bhandari, 2023), which increases the research credibility. The test was achieved

by comparing the results (H1, H2, H3) to H0, which (when the null hypothesis was rejected) indicated that the outcomes were statistically significant enough to be considered as correct (Team, 2021).

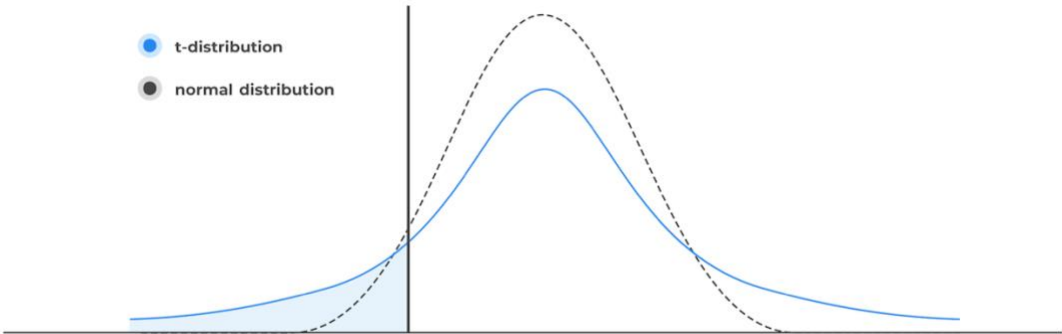
To understand if the relationship between two variables (x and y) is statistically significant, the *Pearson Correlation of the population* (ρ), which implies the statistical importance of the findings, needed to be detected. To do so, the researcher first needed to calculate the “ratio of the difference between the mean of the two sample sets and the variation that exists within the sample sets,” (Hayes, 2023), referred to as the T value. It was calculated based on the outcomes of R (which varied according to a particular hypothesis) and N (sample size same for all hypotheses). See the formula used for the computation below.

$$t = \frac{r}{\sqrt{\frac{1 - r^2}{n - 2}}}$$

(Source: Hayes, 2023)

The T critical value is a “cut-off point” on the T distribution. It is close to the *normal distribution* curve (also known as a *bell curve* or *De Moivre* distribution), yet different in some properties, since it is more suited for smaller samples (*T Critical Value: Easy Definition, Calculating - Statistics How To*, 2023). See the example of the T and *Normal* Distributions below, including the T critical value on the left side of the picture.

Chart num. 1, Normal and T Distribution with left Critical Value



Source: Tuitoek, 2022

After obtaining the T value for each hypothesis, the critical values (expressed as T^*) were calculated. In order to compute T^* , multiple variables and conditions needed to be defined:

1. Degree of freedom (DF): computed by subtracting 2 from the sample size ($N - 2$),
2. Level of significance (α): broadly used as 0,05, where values below this threshold are viewed as vital evidence against H_0 (US Census Bureau, 2021),
3. One or two-tailed form: the author chose a *one-tailed* option since the hypotheses argued that the growth in the *degree of populism* was correlated with the activity, efficiency, and growth of followers on Facebook among Czech MEPs. On the other hand, a *two-tailed* choice could be utilized if the hypotheses would claim that there is an effect of independent variable (x) on dependent one (y), without specifying if the outcome is expected to be in one (positive) or the other (negative) direction. Moreover, note that since the *one-tailed* form was utilized, the level of significance (α) remained 0,05, and was not divided by 2, which is a common practice for *two-tailed* examinations, where both ends of the T Distribution are tested (*What Are the Differences Between One-tailed and Two-tailed Tests?*, n.d.).

After calculating the *degree of freedom* ($DF = N - 2$), defining the *level of significance* ($\alpha = 0,05$), and choosing a *one-tailed* option, the values were interpreted according to the T^* *interpretation table*. See the graphical illustration below, where the T *critical value* (1,74) is located on the intersections of the seventeenth row ($DF = 17$) and fourth column ($\alpha = 0,05$).

Table num. 7, Interpretation of the Critical Value of T for One-tailed Tests

Significance level (α)

Degrees of freedom (df)	.2	.15	.1	.05	.025	.01	.005	.001
1	1.376	1.963	3.078	6.314	12.706	31.821	63.657	318.309
2	1.061	1.386	1.886	2.920	4.303	6.965	9.925	22.327
3	0.978	1.250	1.638	2.353	3.182	4.541	5.841	10.215
4	0.941	1.190	1.533	2.132	2.776	3.747	4.604	7.173
5	0.920	1.156	1.476	2.015	2.571	3.365	4.032	5.893
6	0.906	1.134	1.440	1.943	2.447	3.143	3.707	5.208
7	0.896	1.119	1.415	1.895	2.365	2.998	3.499	4.785
8	0.889	1.108	1.397	1.860	2.306	2.896	3.355	4.501
9	0.883	1.100	1.383	1.833	2.262	2.821	3.250	4.297
10	0.879	1.093	1.372	1.812	2.228	2.764	3.169	4.144
11	0.876	1.088	1.363	1.796	2.201	2.718	3.106	4.025
12	0.873	1.083	1.356	1.782	2.179	2.681	3.055	3.930
13	0.870	1.079	1.350	1.771	2.160	2.650	3.012	3.852
14	0.868	1.076	1.345	1.761	2.145	2.624	2.977	3.787
15	0.866	1.074	1.341	1.753	2.131	2.602	2.947	3.733
16	0.865	1.071	1.337	1.746	2.120	2.583	2.921	3.686
17	0.863	1.069	1.333	1.740	2.110	2.567	2.898	3.646
18	0.862	1.067	1.330	1.734	2.101	2.552	2.878	3.610
19	0.861	1.066	1.328	1.729	2.093	2.539	2.861	3.579
20	0.860	1.064	1.325	1.725	2.086	2.528	2.845	3.552

(Source: Turney, 2023)

In the next step, the T value was compared to its critical value T^* . The aim here was to define if the absolute value (meaning that if the number was negative the minus sign was omitted) is *greater* or *lower* than the critical one. In case T was higher than T^* , the correlation was significant. In other words, the *Pearson Correlation of Population* (ρ) was lower than the level of significance (α), represented as $\rho < \alpha$. If the T was lower than T^* , then the correlation was not significant ($p > \alpha$). Therefore, the H_0 was correct if $p > \alpha$ and rejected if $p < \alpha$. The outcomes of the *statistical significance test* were stated in the *Results* chapter with individual hypotheses. Notice all the mentioned variables explained in the table below.

Table num. 8, Components of the Level of Statistical Significance Testing Explained

Abbreviation	Meaning
ρ	Pearson Correlation of Population
α	Level of significance
DF	Degree of Freedom
T	Difference between the means of two groups
T^*	Critical value of T
R	Pearson Correlation Coefficient result
N	Sample size

2.4.5. Formulas used for Computation in Excel

In order to enhance the credibility of the research, which is generally “*established with evidence for their replicability using new data,*” (Nosek, 2020, p. 1), the author decided to share Excel formulas used for obtaining the desired outcomes. They are presented in the same order as the previous parts of this chapter, firstly presenting the computation of *Pearson Correlation Coefficient* (R) and then explaining the calculation of different components in order to conduct the *statistical significance test*. See all the used formulas in the table below.

Table num. 9, Excel Formulas Explained

Goal of the Calculation	Formula	Explanation
R	=PEARSON(Array1 :Array2)	<i>Array1</i> = the independent variable (x = <i>degree of populism</i>) <i>Array2</i> = the dependent variables (y = H1: activity index, H2: efficiency, H3: followers' growth)

<i>Activity Index (H1)</i>	=Cell1/Cell2	Cell1 = Number of included days
		Cell2 = Number of page posts
<i>Efficiency (H2)</i>	=Cell1/Cell2	Cell1 = Received interactions from users
		Cell2 = Number of page posts
<i>Followers Growth (H3)</i>	=Cell1-Cell2	Cell1 = Number of Fans from the last day of the measured period
		Cell2 = Number from the first day of the measured period
<i>T value</i>	=Cell1*SQRT((Cell2-2)/(1-Cell1^2))	Cell1 = <i>R (Pearson Correlation Coefficient results)</i>
		Cell2 = <i>N (Sample size)</i>
		SQRT = formula returning a positive square root of chosen numbers
<i>Degree of Freedom (DF)</i>	=N-2	N = Sample size
<i>T critical value (T*)</i>	=T.INV(0,05;Cell1)	T.INV = Returns an inverse value of T distribution
		0,05 = Significance level (α)
		Cell1 = Degree of Freedom (DF)
<i>p</i> (<i>Pearson Correlation of population; determines the</i>	=TDIST(ABS(Cell1); Cell2; 1)	TDIST = Returns probability for T-distribution
		ABS = Returns absolute value of number

statistical significance of the findings)	Cell1 = R (<i>Pearson Correlation Coefficient</i>)
	Cell2 = Degree of Freedom (DF)
	1 = one-tailed testing

(Source: *Excel Functions (by Category)* - Microsoft Support, n.d.)

In the following parts, the author presents the outcomes of the analyses and interprets the outcomes. For the clarity of the thesis, the results are presented in the following chapter, while the discussion takes place in a separate part. Hence, step number 9 of EDA was embodied in these chapters (numbers 3 and 4). In the last and conclusive part, the author stated his recommendations for further research, which is in line with the last phase of EDA (drawing conclusions).

2.5. Limitations of the Research

Despite the analysis aspired to widen the pool of knowledge with the most suitable tools and frameworks, there are boundaries that it could not overcome.

The first set of limitations lies in the methods (*EDA* and *Pearson Correlation Coefficient*) themselves. Even though this approach was the most suitable choice (in the context of defined goals), the nature of *quantitative* research imposed certain limits. The main one was the fact that it was incomprehensible to gain depth within the topic, as it would be possible with *qualitative* research. The selected techniques uncovered long-term trends, however, the researcher did not reveal the essence of the research sample *and* measured variable. This would be possible if tools such as questionnaires, surveys, or structured interviews with the MEPs had been conducted.

Moreover, this kind of more in-depth analysis could also focus on the texts (e.g., the posts of politicians, and reactions of the users) or visuals (pictures or videos), which could uncover and possibly explain some of the phenomena, omitted by this thesis. On the other hand, it would be time-consuming, costly, and above the limits of a master's degree student to conduct a *qualitative* analysis of such a sample ($n = 19$) in a similar period (24 months). In other words,

the price-performance ratio of this procedure was appropriate for the purposes and options of the researcher, given his current academic stage.

The acquired quantitative data regarding the *interactions* of people (likes, comments, shares, mentions, etc.) were also just a limited representation of their behavior. Since this variable merely measured what the users *did*, it completely omitted what *did not* happen. This means non-reactions of users who saw the content but moved on without responding to it. The analyses would be deeper and more robust if the data concerning this particular fact (how many people saw the content but had not reacted to it) would be available as well.

Another significant limitation was the chosen sample. Firstly, the thesis used data from two years and missed the long-term trends, such as the evolvement of the MEP's communication since the 2019 elections to the EP. Furthermore, since Czechia is a member state of the EU since 2004 and some of the MEPs were serving for several election periods, a larger amount of data could uncover additional patterns. However, certain time and financial limits were imposed on the researcher, which restrained to analyze a higher volume of data. Likewise, not all the MEPs elected in 2019 for Czechia (21) were analyzed since two had to be excluded due to the specific Facebook API limitations.

Boundaries were also caused by the manner in which the author utilized the independent (*x*) variable (*degree of populism*) since only Czech political parties were included. Despite the ranking being based on a trustworthy source (Chapel Hill Expert Survey), and also vastly in line with conducted studies, the MEPs' membership in the political groups in the EP and European Political parties was omitted due to lack of data. In the case of their presence, the *degree of populism* would be more detailed, which would lead to more reliable outcomes. On the other hand, the author considered the chosen approach as appropriate to test defined hypotheses, since MEPs are elected in their home countries and are, therefore, exposed to more pressure from the national political party, which applies mainly to their standpoints on issues (Zapletalová et al., 2020, p. 7). Hence, this fact makes them more or less populist depending on a party's views, which were reflected in this research.

The choice of including exclusively one SM platform, Facebook, also imposed particular limits. If the data of Czech MEPs' usage of Twitter, Instagram, or other similar sites would be contained, the overall notion would be much more complex. On the other hand, due to the change of management, Twitter modified its API earlier this year (Jingnan, 2023) and hence did not allow the researcher to gain any data for the thesis. Moreover, only a limited number of Czech MEPs had an active profile on Instagram, meaning that the research of this particular SM channel would not be representative enough.

On a similar note, the option of comparing the SM usage of Czech MEPs with the members of the Czech Parliament (Chamber of Deputies or Senate), other significant national politicians (the President, Mayors of Cities, and Regional Politicians, etc.), or cross-country comparison with a similar state size (Slovak, Austrian or other MEPs) could provide the research with a better knowledge of whose voice is sufficiently listened to in the online world and whose is not. Meaning that the limits also did lie in types and volume of chosen *n*.

Despite all these disadvantages, the author firmly believes that the research brought interesting data and insights and that its completion was legitimate and justifiable.

3. Results Section

In this part, the results of the EDA (*Exploratory Data Analysis*), with a particular focus on the outcomes of computation of the *Person Correlation Coefficient (R)* and *test of statistical significance*, were presented. Since this chapter served to provide information regarding the aims of the thesis, the results were introduced together with tables and charts that strived to make it easier to understand the meaning of the data. To separate the results and the authors' interpretation (and thus assure the reliability of the research), discussion and contextualization took place in the following (forth) part.

This chapter was structured around the main hypotheses, which were focused on the relationship between the *degree of populism* among 19 Czech MEPs and their *activity*, *efficiency*, and *followers' growth* on Facebook. To test them, the value of *R* for each hypothesis was presented and interpreted based on table number 6, which presented a spectrum for this purpose.

Note that the *degree of populism* (x = independent variable) was, in all the cases, sorted from the lowest (0) to the highest (100) value, in order for the reader to understand the evolution of populism among MEPs. Since the dependent (y) variables (*activity*, *efficiency*, and *followers' evolvement*) were sorted according to the independent variable, their development in the table is not gradual. Therefore, to better understand the performance of particular MEPs, the author utilized a *conditional formatting* feature, which coloured cells based on their values. In other words, light blue represents the lowest numbers, while dark blue the highest. Moreover, for clarity reasons, all numbers in this chapter were rounded to two decimal places.

Lastly, note that for the purpose of visualizations of the outcomes, the scatter plot was utilized. As Gogtay (2017, p. 81) argues, it is “*an important prerequisite to any correlation analysis*,” since it helps to understand the meaning behind the data. Moreover, according to Sainani (2016, p. 1213), “*scatter plots are a fundamental graphing tool and are essential when reporting...correlation*,”. Besides, they allow the researchers and readers to spot any “*outliers, [or] non-linear relationships*,” within the datasets (Gogtay, 2017, pp. 78-79.).

For all scatter plots in this thesis, the following rules applied. The *red dots* symbolized placement of MEPs between x (degree of populism) and y (dependent variables changing according to hypothesis) axis, while the *blue line* purpose is clarify “*the relationship between the variables*,” (Sainani, 2016, p. 1213).

3.1. Activity (H1)

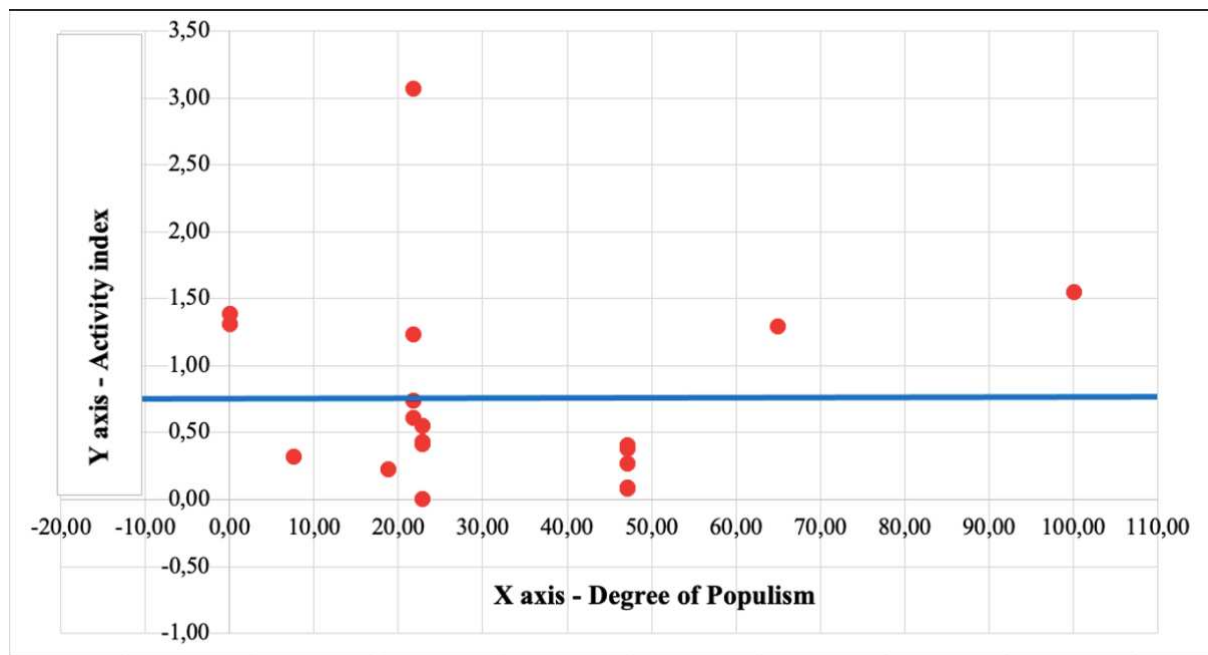
The first hypothesis (H1) stated that: “*The higher degree of populism among MEPs elected for Czechia was correlated with more activity in their communication on Facebook in the two years period between 2021 and 2023,*”. The independent variable (x) was the degree of populism (second column), while the dependent one (y) was the activity index. The dependent variable was calculated by dividing the overall number of MEP posts within 2 years frame by the number of the days within measured period. In other words, where the index stated 1, an MEP shared content 730 times within 24 months. See more information regarding the relationship between activity and the level of populism in the table below.

Table num. 10, Degree of Populism vs. Activity Index

MEPs name	Degree of populism	Activity index
Jiří Pospíšil	0,00	1,31
Luděk Niedermayer	0,00	1,38
Stanislav Polčák	7,61	0,32
Radka Maxová	18,78	0,22
Michaela Šojdrová	21,83	0,73
Tomáš Zdechovský	21,83	3,07
Marcel Kolaja	21,83	0,61
Mikuláš Peksa	21,83	1,24
Alexandr Vondra	22,84	0,43
Evžen Tošenovský	22,84	0,00
Jan Zahradil	22,84	0,41
Veronika Vrecionová	22,84	0,55
Dita Charanzová	47,21	0,08
Martin Hlaváček	47,21	0,09
Martina Dlabajová	47,21	0,38
Ondřej Knotek	47,21	0,40
Ondřej Kovařík	47,21	0,27
Kateřina Konečná	64,97	1,29
Ivan David	100,00	1,55

The values above were also used for the calculation of the *Pearson Correlation Index*. In this case, $R = 0,004$, which fell into the category of a *Very Weak* correlation. Since the number is positive, the direction copies the same positive trend. However, the relationship between x and y is rather negligible, and it indicates *no correlation*. Consequently, the first hypothesis ($H1$) cannot be validated, which means that the *degree of populism* among Czech MEPs did not have an impact on their activity on Facebook. See more in the chart below.

Chart num. 2, Degree of Populism vs. Activity Index



Regarding the statistical significance of this findings, T value was 0,016, whereas T^* stood for 1,74. Therefore, the T value was *lower* than its critical value, meaning that the results were not statistically significant. Moreover, *Pearson Correlation of Population* (p) was calculated as 0,49, which is higher than the *level of significance* ($\alpha = 0,05$). As a results, $p > \alpha$, which did not provide researcher with permission for rejecting the null hypothesis ($H0$), as well as not enough evidence to support the alternative hypothesis ($H1$).

3.2. Efficiency (H2)

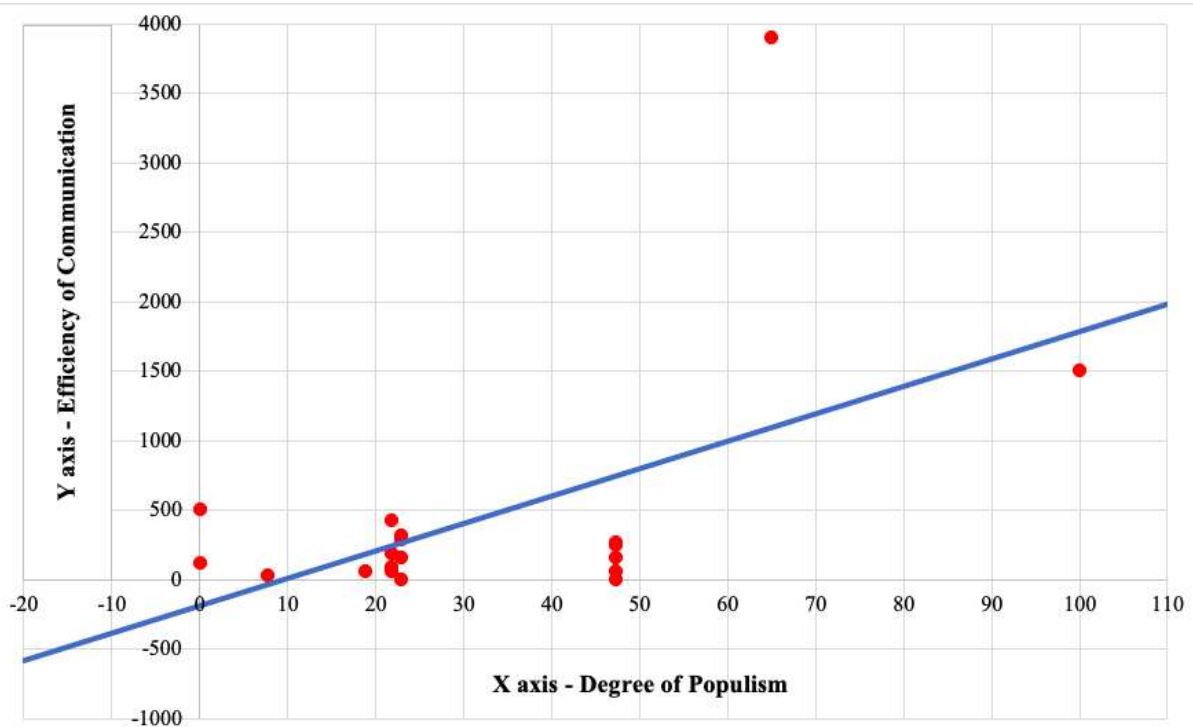
The second hypothesis (H2) stated that: “*The higher degree of populism among MEPs elected for Czechia was correlated with more efficiency in their communication on Facebook in the two years period between 2021 and 2023,*”. The independent variable (x) was the degree of populism (second column), while the dependent one (y) was the efficiency (computed by dividing the number of user interactions by MEPs page posts). See all the values in the table below.

Table num. 11, Degree of Populism vs. Efficiency of the Communication

MEPs name	Degree of populism	Efficiency
Jiří Pospíšil	0,00	509,90
Luděk Niedermayer	0,00	116,14
Stanislav Polčák	7,61	33,39
Radka Maxová	18,78	60,40
Michaela Šojdrová	21,83	59,04
Tomáš Zdechovský	21,83	429,77
Marcel Kolaja	21,83	95,10
Mikuláš Peksa	21,83	189,71
Alexandr Vondra	22,84	316,81
Evžen Tošenovský	22,84	6,00
Jan Zahradil	22,84	284,28
Veronika Vrecionová	22,84	155,55
Dita Charanzová	47,21	272,64
Martin Hlaváček	47,21	249,26
Martina Dlabajová	47,21	56,53
Ondřej Knotek	47,21	158,87
Ondřej Kovařík	47,21	3,96
Kateřina Konečná	64,97	3897,65
Ivan David	100,00	1501,51

For H2, the $R = 0,53$, meaning that a *Strongly Considerable High Correlation* existed in this case. The direction was positive, suggesting that it was in line with the assumptions of H2. Accordingly, the second hypothesis (H2) was tested successfully, meaning that degree of populism among Czech MEPs influenced the efficiency of their communication on Facebook. In other words, the more populist the politicians, the more likes, comments, shares, and other interactions their content acquired. For more information, see chart number 3 below.

Chart num. 3, Degree of Populism vs. Activity Index



After the calculation of R , the researcher tested H2 also for the level of statistical significance. The T value in this case was 2,56 and its critical value (T^*) was 1,74. Clearly, $T > T^*$, which means that the results of H2 were statistically significant. Furthermore, the outcome of the p value was 0,01, which is lower than the *level of significance* ($\alpha = 0,05$), confirming the same conclusion. Consequently, $p < \alpha$, implying that the null hypothesis (H_0) can be rejected.

3.3. Followers (H3)

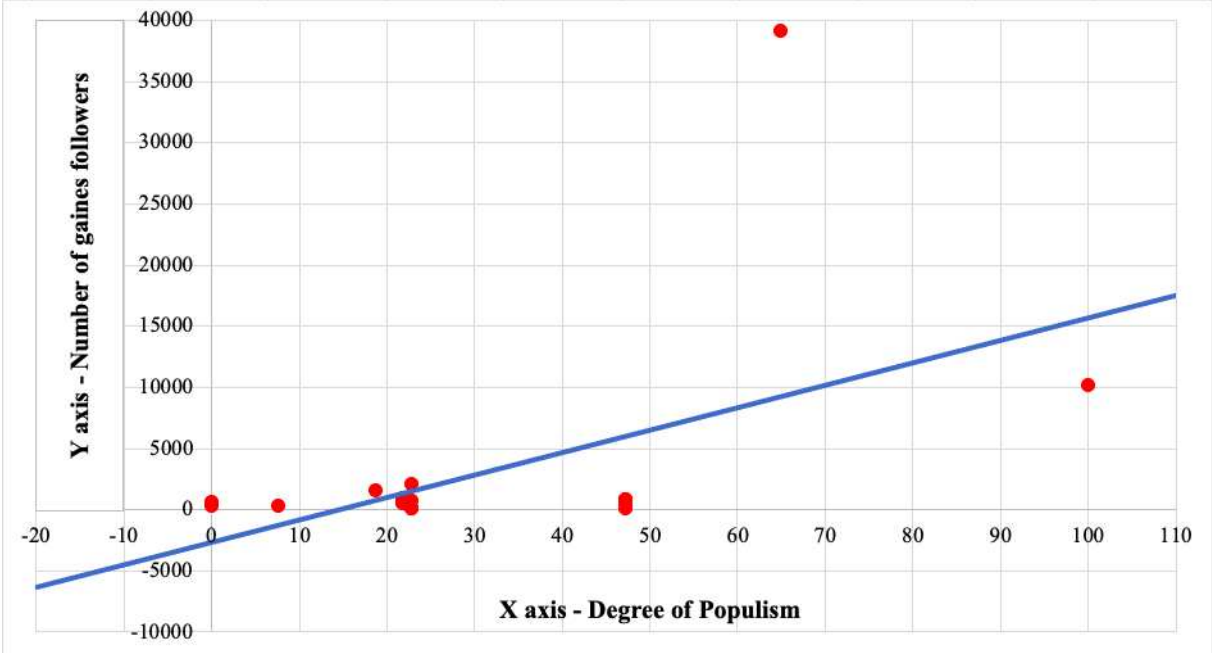
The third hypothesis (H3) claimed that: “*The higher degree of populism among MEPs elected for Czechia was correlated with **acquisition of more followers** on Facebook in the two years period between 2021 and 2023,*”. The independent variable (*x*) was the degree of populism (second column), while the dependent one (*y*) was the *followers' growth*, which was calculated by subtracting the number of MEPs followers from the first day (1st of July 2021) of the measured period from the number as of the last day (30th of June 2023). See the growth of the *Fan base* in the table below.

Table num. 12, Degree of Populism vs. Number of Gained Followers

MEPs name	Degree of populism	Followers growth
Jiří Pospíšil	0,00	640
Luděk Niedermayer	0,00	330
Stanislav Polčák	7,61	264
Radka Maxová	18,78	1578
Michaela Šojdrová	21,83	448
Tomáš Zdechovský	21,83	771
Marcel Kolaja	21,83	957
Mikuláš Peksa	21,83	642
Alexandr Vondra	22,84	2050
Evžen Tošenovský	22,84	40
Jan Zahradil	22,84	696
Veronika Vrecionová	22,84	97
Dita Charanzová	47,21	851
Martin Hlaváček	47,21	765
Martina Dlabajová	47,21	174
Ondřej Knotek	47,21	645
Ondřej Kovařík	47,21	116
Kateřina Konečná	64,97	39067
Ivan David	100,00	10183

As for the *Pearson Correlation Coefficient*, in this case, $R = 0,491562221$, which (by small margins) belonged to the category of *Moderate Positive Correlation*. Hence, the third hypothesis (H3) was tested positively, which implies that the growth of the *follower* base is positively related to the *degree of populism*. Therefore, the more populist an MEP, the more likely the politician is to gain *Fans* on Facebook. For more information see the chart number 4 below.

Chart num. 4, Degree of Populism vs. Number of Gained Followers



Testing the last hypothesis (H3) for statistical significance brought similar results as the previous case. Here, the T was equal to 2,33, outperforming T^* that stood for 1,74. This resulted in $T > T^*$, meaning that the results were statistically significant. Likewise, $p = 0,02$ which was smaller than the chosen *level of significance* ($\alpha = 0,05$). Accordingly, $p < \alpha$, which left researcher with enough proof to reject the null hypothesis (H0) and support the alternative one (H3).

3.4. Conclusion

In this part, all the results of the research are presented in an overview table. The values and finding based on the calculations in one place should serve as a comprehensive and conclusive overview of this chapter.

Outcomes of both, the calculation of *Pearson Correlation Coefficient (R)* and its *statistical significance* are presented. Note that the red color represents statistically insignificant results ($\rho > \alpha$), whereas the green one stands for significant outcomes ($\rho < \alpha$), which allowed researcher to reject the null hypothesis (H_0).

Table num. 13, Results of the Analysis (R and Statistical Significance)

Hypotheses	Values	Results	Meaning
Hypothesis 1 (H1)	R (<i>Pearson Correlation Coefficient</i>)	0,004	- $0,20 \geq R \leq 0,20$ <i>Negligible Correlation in a Positive Direction</i>
	DF (<i>degree of freedom</i>)	17	-
	T	0,02	-
	T^* (<i>absolute value of the critical value of T</i>)	1,74	$T < T^*$; relationship is insignificant
	ρ (<i>Pearson Correlation of Population</i>)	0,49	$\rho > \alpha$ H0 cannot be rejected and H1 cannot be supported as statistically significant
Hypothesis 2 (H2)	R (<i>Pearson Correlation Coefficient</i>)	0,53	+ $0,50 \leq R \leq + 0,70$ <i>Strongly Considerable High Correlation in Positive Direction</i>
	DF (<i>degree of freedom</i>)	17	-
	T	2,56	-

	T^* (absolute value of the critical value of T)	1,74	$T > T^*$; relationship is significant
	ρ (Pearson Correlation of Population)	0,01	$\rho < \alpha$ H0 can be rejected and H2 can be supported
Hypothesis 3 (H3)	R (Pearson Correlation Coefficient)	0,49	$+ 0,35 \leq R \leq + 0,50$ Moderate Correlation in Positive Direction
	DF (degree of freedom)	17	-
	T	2,33	-
	T^* (absolute value of the critical value of T)	1,74	$T > T^*$; relationship is significant
	ρ (Pearson Correlation of Population)	0,02	$\rho < \alpha$ H0 can be rejected and H3 supported

4. Discussion

In this chapter, the results of the research will be discussed. Firstly, the author re-stated the research problem and summarized the main findings. In the second part, the outcomes of the analysis were interpreted in the context of the main research question, hypotheses, and literature, while also the implications of the results were discussed. Finally, the space for potential new studies was presented in the last part.

4.1. Main findings

The goal of this research was to *explore the impact of the degree of populism on the activity and success (efficiency, and change in the number of followers) of Czech MEPs on Facebook*. The aim was defined based on the lack of studies on this topic in the period outside of election campaigns, as well as on the general understanding of how populism influences using Facebook by Czech MEPs. Moreover, as mentioned in the literature review (Ramos-Serrano et al., 2018, p. 134), national public spheres still prevail above the supranational (EU) meaning that focusing on a particular country was suitable. Moreover, because the researcher possessed the knowledge of Czech political parties' environment (since he is interested in the topic for a decade, worked in the Czech Parliament, as well as for Czech MEP, plus speak Czech, which enabled him to utilize local sources), focusing on the country represented a meaningful choice.

Contradictory to the previous studies on the activity of populists on social media (Serrano et al., 2019; Flew et al., 2019; Heft et al., 2022; Guerrero et al., 2020), no to negligible correlation ($R = 0,004$) was found between the degree of populism of the Czech MEPs and a number of their pages posts on Facebook (H1) within the measured period. Moreover, in this case the outcomes were not statistically significant ($\rho > \alpha$) and the null hypothesis (H0) could not be rejected. However, in accordance with the finding on the efficiency of the populists (Serrano et al., 2019; Flew et al., 2019; Heft et al., 2022; Guerrero et al., 2020), this research demonstrated that a high positive correlation ($R = 0,53$) exists between their activity (number of posts) and reactions of the users (H2). Here the findings were statistically significant ($\rho < \alpha$) and the null hypothesis (H0) was rejected.

Lastly, the change in the number of followers (within the 2 years period) and the degree of populism (H3) were moderately and positively correlated ($R = 0,49$), proving the outcomes of conducted studies (Metz et al., 2023; Ceccobelli, et al.). As for the second hypothesis, also

in this case the findings were statistically significant ($\rho < \alpha$), and the null hypothesis (H0) was rejected.

4.2. Interpretations and Implications of the Results

To provide a comprehensive understanding of the research outcome, the author decided to answer the research question (RQ) in this part. It asked the following:

RQ: *Did the more elevated degree of populism among the MEPs elected for Czechia had a positive impact on their **activity** (page posts) **and success** (efficiency and increase of fan base) on Facebook in the two years period between 2021 and 2023?*

As already stated, the activity (H1) of the MEPs did not correlate with the more elevated degree of populism, while their efficiency in acquiring interactions from followers (H2) and growth in the number of fans (H3) increased in relation to the independent variable. Therefore, on average, the higher *degree of populism* had an effect on the *efficiency* of the MEPs communication on Facebook, as well as on the growth of *followers*. Nevertheless, the higher level of populism had no effect on activity of Czech MEPs on Facebook within the researched period.

Despite the aim of this thesis was to measure correlation (a potential affinity between variables) and not causality (relation between a cause and effect), the outcomes indicated several things. Firstly, higher level of populism among Czech MEPs means implied that they were likely to be more efficient in gaining more interactions (likes, comments, shares etc.). This may mean that their followers were consuming the content more often (Heft et al., 2022, p. 7) since they attribute higher importance to platforms such as Facebook (Ceccobelli, et al., p. 447). This could be due to the populists' attitude of accusing traditional media of presenting them negatively, while using SM as an "*alternative ecosystem*," (Serrano et al., 2019, p. 215). Likewise, it may resonate with their fans who question trustworthiness of traditional media (Hameleers, et al., 2019, pp. 146-148).

Moreover, results may also denote that the type of shared content is designed and created in line with the "*emotional alarmism, stigmatization, and the polarization of opinions*," (Frič et al., 2019, pp. 223), which tent to boost the number of interactions from users (Klinger et al., 2023, p. 263). Therefore, this pessimistic and 'spectacular' content allows populist MEPs to reach out and appael to a broader mass of users (Klinger et al., 2023, p. 263). Hence, the bypassing of traditional media and focus on the SM (Flew et al., 2019, p. 8) in case of Czech

populists was probably not manifested by producing more post, but likely by focusing on the content of the messages.

Even though this research did not investigate the types of the reaction on Facebook, it is interesting to realize that the platform algorithm appreciated them differently. For instance, the “angry” reaction is valued as 5 times more important than a single “like”, meaning that negative messages, associated with populism, have wider spread and discoverability by users (Merrill, 2021). Some European politicians already lamented to Facebook regarding this topic, since they felt a pressure to adjust their communication negatively to stay relevant (Sabur, 2021). This growing pessimism encoded in political communication on Facebook may be already happening, as Klinger (et al., 2023, p. 277-278) demonstrated on the comparison of 2014 and 2019 elections to the EP. Despite the criticism, the Facebook algorithm configuration in its essence favors populist content, which may be yet another reason for their efficiency. This argument seems applicable despite virtually identical degrees of activity among Czech MEPs, populist or no-populist.

This could be also the reason behind the growing number of followers connected to the populism, because people can see content outside of their preferences since the “*algorithmic ranking and classification systems mediate the relationship between user preferences and content exposure,*”, while it is also influenced by “*habits of their friends*” (Kjerstin, 2021, pp. 187-193), who share, like or comment various posts. This loop appears to be a vicious cycle, since Facebook “*rewards post interaction with a greater visibility,*” (Baranowski et al., 2022, p. 13), causing populist content to diffuse better and, consequently, produce more followers for such politicians (Baranowski et al., 2022, p. 2).

What does this mean to practical political communication of Czech MEPs? If the connection between a negativity and success on Facebook exists, and the platform will keep favoring the negative and emotional content, then it may lead to the shift which Klinger (et al., 2023, p. 277-278) illustrated. In other words, if the goal of Czech MEPs will be to gain more interaction and followers on Facebook with lower effort, they should get inspired by the way in which their populist colleagues utilize the platform. The inspiration lies, as mentioned, primarily in emotional and negative type of content. In case they would refute such an idea, then there is an option of sharing more content without such components. In other words, if the reactions are more neutral (“like” rather than “angry”), then the quantity could solve the acquisition of followers and users’ interactions.

4.3. Recommendations for Future Research

This research aimed to uncover the bond between populism among Czech MEPs and their usage of Facebook, as well as the reactions of the users. However, what are the options for the future studies based on the outcomes of this thesis?

Firstly, a study focusing on the content shared by Czech MEPs on Facebook would be an appropriate continuation of this work. Mainly since *quantitative* data were used while *qualitative* perspective was omitted, but also because results of this research imply that there is a connection between the Facebook posts of the MEPs and efficiency of its dissemination. This is based on the fact that number of shared posts did not match with received interactions for all MEPs, where those with higher degree of populism showed signs of more success. Hence, content analysis of the posts (both text and visuals) of the 21 Czech MEPs is a next reasonable step in better understanding of their communication on Facebook.

Similarly, exploratory data analysis of the identical variables as incorporated in this research, yet with larger scope and more diverse sample could uncover the issue of populism and political communication on SM in a new light. For example, analyzing the Czech MEP together with their counterparts from other EU member states (ideally with similar population, so the variables are comparable), such as Austria, Slovakia, Hungary, Greece, or Portugal, could be an interesting path to take. Moreover, research focused on the *degree of populism* including national politicians would be attractive. In this way, researchers could see if there are similar patterns across the EU, as well as between EP and Czechia.

Lastly, expand the scope of the research also to other platforms, such as Instagram, Twitter, and nowadays particularly popular TikTok, would be vital. Grasping how the level of populism reflect itself on various social networks, and how it resonated with users of such platforms, would improve knowledge of where populists are most present and effective. Or, alternatively, where are present most users who are seek content with populist flavor.

5. Conclusion

This thesis focused on the topic of the influence of the degree of populism on the communication of the Czech MEPs on Facebook. The motivations for such research were several, including the lack of studies on such topic, or little research on MEP's political communication outside of the election campaigns, as well as their growing influence in the EP and within the public discourse on national levels. Based on current literature, the author defined three main aspects in which populists tend to strive on social media: *activity*, *efficiency*, and *number of followers*. The first one was measured using the number of page posts, while the second utilized division of users' interaction by their activity. The last one was obtained by deducting the number of followers from the last day of the researched period from the amount from the first day included in the thesis. All tracked variables were reflected in the *Research Question* and three *Hypotheses*. As for the timeframe, the data were collected starting from the 1st of July 2021 until the 30th of June 2023, reflecting communication within 2 entire years. The thesis concentrated on one social media platform which is dominantly preferred by populists: Facebook. In order to investigate the connection of these variables of the phenomena, the scale of populism was created. MEPs were divided into groups established on the amount of populism each Czech political party, for which they were elected, contained. The range was founded by the researcher on four variables typical for populism: *anti-elitism*, *corruption salience*, *nationalism*, and *protectionism*. Out of 21 MEPs elected for Czechia in 2019, two of them could not be included in the research due to Facebook API limitations. Hence, $n = 19$.

Since the aim of the researcher was to uncover potential relationships between the degree of populism and three aspects that manifested on Facebook, a combination of *Exploratory Data Analysis (EDA)* and calculation of the *Pearson Correlation Coefficient (R)* was utilized. Moreover, the test of *statistical significance* was conducted, aspiring to lower the option of interpreting the results of R inaccurately. While EDA provided a general framework on how to ensure the relevancy and reliability of the data, computation of R enabled researchers to analyze them. The analyses took place in Microsoft Excel, while all the formulas were explained in the second part.

The results indicate several points. Firstly, according to the research, it is probable that populism has no influence on the activity (H1) of Czech MEPs ($R = 0,004$; $\rho = 0,49$; $\rho > \alpha$). Regarding the efficiency and degree of populism, it seems that a strong correlation in a positive direction existed ($R = 0,53$; $\rho = 0,01$; $\rho < \alpha$). Lastly, within this research, the degree of populism had an effect on the acquirement of new followers on Facebook ($R = 0,49$; $\rho = 0,02$; $\rho < \alpha$).

Therefore the main contribution of this thesis is the indication of the high efficiency of populists in spreading the content and getting new followers, without higher levels of shared content on their pages. However, more studies (especially in a quantitative manner) need to be conducted in order to prove or refute such ideas.

As with every research, also this thesis had its limitations. First and foremost it was the *quantitative* nature that omitted a deeper understanding of the communication of the Czech MEPs on Facebook. Secondly, restrictions were possessed by the sample size ($n = 19$), as well as the included period (24 months), which did not include the bigger picture. Likewise, the used data were a sum of the variables, which means that the research did not include the evolvement in time, overlooking potentially interesting outcomes. Moreover, the *levels of populism* were based on Czech political parties for which are MEPs elected and did not include the degree of populism among European ones where the politicians have a membership as well. The involvement of such data (if they would be available to the author) would enrich the research and make it more comprehensive. Lastly, limiting only to Facebook created a situation of overlooking populism on other social media, including Twitter, Instagram, or nowadays popular TikTok.

Despite these limitations, the researcher believes he brought new insights to the debate regarding populism among Czech MEPs. Be it the little to no influence of populism on activity on Facebook, or, on the other hand, increased impact on efficiency in spreading messages or gaining followers. Hopefully, future studies will explore the relationship between such findings and emotionality, as well as the negativity of the content on various social media.

6. List of References

7.2.4.2. *Sample sizes required.* (n.d.).

<https://www.itl.nist.gov/div898/handbook/prc/section2/prc242.htm>

9th parliamentary term | Marcel KOLAJA | MEPs | European Parliament. (n.d.).

https://www.europarl.europa.eu/meps/en/197546/MARCEL_KOLAJA/history/9#detailcardmep.

A brief history of Facebook as a media text: The development of an empty structure. (n.d.).

<https://firstmonday.org/ojs/index.php/fm/article/download/5423/4466>

Aaron Ettinger (2020) Principled realism and populist sovereignty in Trump's foreign policy ,
Cambridge Review of International Affairs, 33:3, p. 410.

Advanced search | Search | MEPs | European Parliament | Czechia. (n.d.).

<https://www.europarl.europa.eu/meps/en/search/advanced?countryCode=CZ>

Akgemci, Esra “Authoritarian Populism as a Response to Crisis: The Case of Brazil”,
Uluslararası İlişkiler, Vol. 19, No. 74, 2022, p. 44.

Alena Macková, Martina Novotná, Lucie Čejková & Lenka Hrbková (2023): One way or another? Discussion disagreement and attitudinal homogeneity on social networking sites as pathways to polarization in Czechia, *Journal of Information Technology & Politics*, p. 3.

Alonso-Muñoz, L., & Casero-Ripollés, A. (2020). Populism against Europe in social media: The Eurosceptic discourse on Twitter in Spain, Italy, France, and United Kingdom

during the campaign of the 2019 European Parliament election. *Frontiers in communication*, 5, 54, p.10.

Auxier, B., Anderson, M., & Atske, S. (2022, May 11). Social Media Use in 2021. *Pew Research Center: Internet, Science & Tech.*
<https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/>.

Beers, B. (2023). P-Value: what it is, how to calculate it, and why it matters. *Investopedia.*
<https://www.investopedia.com/terms/p/p-value.asp>

Bekafigo, M., & McBride, A. (2013). Who Tweets About Politics? *Social Science Computer Review*, 31(5), p. 637.

Bennett, W. L. (2017). Branded Political Communication: Lifestyle Politics, Logo Campaigns, and the Rise of Global Citizenship. In *The Politics Behind Products*, p. 3.

Bhandari, P. (2023). An easy introduction to statistical significance (With examples). *Scribbr.*
<https://www.scribbr.com/statistics/statistical-significance/>

Biggest social media platforms 2023 | Statista. (2023, February 14). Statista.
<https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>.

Blassnig, S., & Wirz, D. S. (2019). Populist and popular: An experiment on the drivers of user reactions to populist posts on Facebook. *Social Media+ Society*, 5(4), 2056305119890062.

Blumler, J. G., & Kavanagh, D. (1999). The Third Age of Political Communication: Influences and Features. *Political Communication*, 16(3), pp. 209–210.

- Bobba, G. (2019). Social media populism: Features and ‘likeability’ of Lega Nord communication on Facebook. *European Political Science*, 18, p. 13.
- Bobba, G., & Roncarolo, F. (2018). The likeability of populism on social media in the 2018 Italian general election. *Italian Political Science*, 13(1), p. 56.
- Bobba, G., & Seddone, A. (2019). Between the ideological and communicative approaches: hard and soft populism in France and Italy. *Representation*.
<https://doi.org/10.1080/00344893.2019.1691638>, pp. 49-52.
- Bobba, G., & Seddone, A. (2019). Between the ideological and communicative approaches: hard and soft populism in France and Italy. *Representation*.
<https://doi.org/10.1080/00344893.2019.1691638>, p. 330.
- Bobba, G., Cremonesi, C., Mancosu, M., & Seddone, A. (2018). Populism and the gender gap: Comparing digital engagement with populist and non-populist Facebook pages in France, Italy, and Spain. *The International Journal of Press/Politics*, 23(4), 458-475.
- Bonansinga, D. (2022). ‘A threat to us’: The interplay of insecurity and enmity narratives in left-wing populism. *The British Journal of Politics and International Relations*, 24(3), p. 521.
- Bonikowski, B., Halikiopoulou, D., Kaufmann, E., & Rooduijn, M. (2019). Populism and nationalism in a comparative perspective: a scholarly exchange. *Nations and nationalism*, 25(1), 58-81.
- Boyd, B. J., Banerjee, S., & Paul, J. (2022). Role of social media on mobile banking adoption among consumers. *Technological Forecasting and Social Change*, 180, 121720.
<https://doi.org/10.1016/j.techfore.2022.121720>.

Brubaker, R. (2019). 'Populism and nationalism', *Nations and Nationalism*, Online first 29 April 2019, p. 23.

ByteScout (2021). CSV format: history, advantages and why it is still popular, <https://bytescout.com/blog/csv-format-history-advantages.html#3>

Caiani, M., Padoan, E., & Marino, B. (2021). Candidate Selection, Personalization and Different Logics of Centralization in New Southern European Populism: The Cases of Podemos and the M5S. *Government and Opposition*, 57(3), p. 408.

Casula, M., Rangarajan, N., & Shields, P. (2021). The potential of working hypotheses for deductive exploratory research. *Quality & Quantity*, 55(5), 1703-1725

Ceccobelli, D., Quaranta, M., & Valeriani, A. (2020). Citizens' engagement with popularization and with populist actors on Facebook: A study on 52 leaders in 18 Western democracies. *European Journal of Communication*, 35(5), p. 447.

Černá, E., & Vojtkovský, T. (2023, January 25). Průzkum: mladé ženy nejčastěji volily PirSTAN, 370 tisíc voličů ale uteklo ke koalici Spolu. *iROZHLAS*. https://www.irozhlas.cz/zivotni-styl/spolecnost/snemovni-volby-2021-volebni-chovani-paq-research_2111010732_ern.

Chaffee, S. H., & Kanihan, S. F. (1997). Learning about Politics from the Mass Media. *Political Communication*, 14(4), p. 427.

Chapel Hill Expert Survey. (n.d.). Chapel Hill Expert Survey. <https://www.chesdata.eu/>

Chukwuere, J. E., Onyebukwa, C. F., & Mbukanma, I. (2020). The role of social media platforms in revolutionising the orthodox African electoral process and outcomes. *Journal of African Films and Diaspora Studies*, 3(2), p. 18.

- Cinelli, M., Quattrociocchi, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports*, 10(1). p. 1.
- Colonescu, C. (2022). Measures of Populism in the CHES 2017 Dataset. *Athens Journal of Social Sciences*, 9(2), 95-114.
- Conger, K., & Hirsch, L. (2022, October 28). Elon Musk Completes \$44 Billion Deal to Own Twitter. *The New York Times*. <https://www.nytimes.com/2022/10/27/technology/elon-musk-twitter-deal-complete.html>.
- ČT24.CZ (2019). Kdo zastupuje Česko v europarlamentu? Přes dvě třetiny obyvatel neznají jediné jméno. *ČT24 - Nejdůvěryhodnější Zpravodajský Web V ČR - Česká Televize*. <https://ct24.ceskatelevize.cz/domaci/2729159-kdo-zastupuje-cesko-v-europarlamentu-pres-dve-tretiny-obyvatel-nevi-jedine-jmeno>.
- Curriculum vitae | Luděk NIEDERMAYER | MEPs | European Parliament*. (n.d.). https://www.europarl.europa.eu/meps/en/124701/LUDEK_NIEDERMAYER/cv#detailcardmep.
- De Cleen, B. (2017). Populism and nationalism. In C. Rovira Kaltwasser, P. Taggart, P. Ostiguy, & P. Ochoa Espejo (Eds.), *Handbook of populism* (pp. 342-362). Oxford University Press, pp. 8-14.
- De La Torre, C., & Mazzoleni, O. (2019). Do we need a minimum definition of populism? An appraisal of Mudde's conceptualization. *Populism*, 2(1), p. 81.

- de Vreese CH, Esser F, Aalberg T, et al. (2018) Populism as an expression of political communication content and style: a new perspective. *The International Journal of Press/Politics* 23(4): 423–438. Crossref. PubMed. ISI.
- De Wilde, P. (2011). No Polity for Old Politics? A Framework for Analyzing the Politicization of European Integration. *Journal of European Integration*, 33(5), p. 560.
- De Zúñiga, H. G., Michalska, K., & Römmele, A. (2020). Populism in the era of Twitter: How social media contextualized new insights into an old phenomenon. *New Media & Society*, 22(4), p. 588.
- Demographics of social media users and adoption in the United States*. (2023, May 11). Pew Research Center: Internet, Science & Tech.
<https://www.pewresearch.org/internet/fact-sheet/social-media/?tabId=tab-f13a8cb6-8e2c-480d-9935-5f4d9138d5c4>
- Donovan, B. (2020). Populist Rhetoric and Nativist Alarmism: The AfD in Comparative Perspective. *German Politics and Society*, 38(1), 55-76.
- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Wang, Y. (2020). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59, p. 2.
- Ehrlich, S. D., & Gahagan, C. (2023). The multisided threat to free trade: Protectionism and fair trade during increasing populism. *Politics and Governance*, 11(1), pp. 223-227.
- Eklundh, E. (2018). Populism, hegemony, and the phantasmatic sovereign: The ties between nationalism and left-wing populism. *Podemos and the new political cycle: Left-wing populism and anti-establishment politics*, pp. 18-19.

Engesser S, Ernst N, Esser F, et al. (2017) Populism and social media: how politicians spread a fragmented ideology. *Information, Communication & Society* 20(8): 1109–1126.
Crossref.

Enli, G., & Skogerbø, E. (2013). PERSONALIZED CAMPAIGNS IN PARTY-CENTRED POLITICS. *Information, Communication & Society*, 16(5), pp. 769-770.

Erl, T., Khattak, W., & Buhler, P. A. (2015). *Big Data Fundamentals: Concepts, Drivers & Techniques*, pp. 156-162.

Ernst, N., Engesser, S., Büchel, F., Blassnig, S., & Esser, F. (2017). Extreme parties and populism: an analysis of Facebook and Twitter across six countries. *Information, Communication & Society*, 20(9), 1347-1364.

Excel functions (by category) - Microsoft Support. (n.d.). <https://support.microsoft.com/en-us/office/excel-functions-by-category-5f91f4e9-7b42-46d2-9bd1-63f26a86c0eb>

Facebook Insights Metrics Definitions | DashThis. (n.d.). DashThis. <https://dashthis.com/blog/facebook-insights-metrics-definitions-in-plain-english/#:~:text=Storytellers%20is%20a%20reference%20to,interacted%20with%20your%20Fan%20Page>.

FAQ: What are the differences between one-tailed and two-tailed tests? (n.d.). <https://stats.oarc.ucla.edu/other/mult-pkg/faq/general/faq-what-are-the-differences-between-one-tailed-and-two-tailed-tests/>

Flew, T., & Iosifidis, P. (2020). Populism, globalisation and social media. *International Communication Gazette*, 82(1), pp. 7–25.

Forbes. (2023, March 8). *180 nejvlivnějších žen Česka* — Forbes.
<https://forbes.cz/lists/zeny22/>.

Freiling, I., Krause, N. M., Scheufele, D. A., & Brossard, D. (2021). Believing and sharing misinformation, fact-checks, and accurate information on social media: The role of anxiety during COVID-19. *New Media & Society*, *25*(1), 141–162.
<https://doi.org/10.1177/14614448211011451>, p. 156.

Frič, P., & Gyarfášová, O. (2019). The rise of the politics of emotions: Anti-elitism and anti-corruptism as traits of Czech and Slovak populist parties. *Politické vedy*, (4), pp. 223-227.

Futschik, A., Taus, T., & Zehetmayer, S. (2019). An omnibus test for the global null hypothesis. *Statistical methods in medical research*, *28*(8), 2292-2304.

Gallo, A. (2022, October 12). *A Refresher on Statistical Significance*. Harvard Business Review. <https://hbr.org/2016/02/a-refresher-on-statistical-significance>

García-Gordillo, M., & Bezunarte-Valencia, O. (2020). The far-right's influence on Twitter during the 2018 Andalusian elections: an approach through political leaders. *Comunicacion Y Sociedad*, *33*(2), p. 228.

García-Gordillo, M., & Bezunarte-Valencia, O. (2020b). The far-right's influence on Twitter during the 2018 Andalusian elections: an approach through political leaders. *Comunicacion Y Sociedad*, *33*(2), pp. 237-238.

Ghani, N. A., Hamid, S., Hashem, I. a. T., & Ahmed, E. (2019). Social media big data analytics: A survey. *Computers in Human Behavior*, *101*, p. 417.

- Gilmore, J., & Howard, P. N. (2014). Digital Media and the 2010 National Elections in Brazil. In *Studies in public choice*. Springer Nature (Netherlands), p. 44.
- Gleissner, M., & De Vreese, C. H. (2005). News about the EU Constitution. *Journalism: Theory, Practice & Criticism*, 6(2), pp. 222-223.
- Gogtay, N. J., & Thatte, U. M. (2017). Principles of correlation analysis. *Journal of the Association of Physicians of India*, 65(3), pp. 78-81.
- Groshek, J., & Engelbert, J. (2012). Double differentiation in a cross-national comparison of populist political.
- Groshek, J., & Koc-Michalska, K. (2017). Helping populism win? Social media use, filter bubbles, and support for populist presidential candidates in the 2016 US election campaign. *Information, Communication & Society*, 20(9), 1389-1407
- Group and individual visits to the EP | News | European Parliament*. (n.d.). <https://www.europarl.europa.eu/news/en/faq/26/group-and-individual-visits-to-the-ep>.
- Gründl, J. (2020). Populist ideas on social media: A dictionary-based measurement of populist communication. *New Media & Society*, 24(6), p. 1493.
- Guerrero-Solé, Frederic; Suárez-Gonzalo, Sara; Rovira, Cristòfol; Codina, Lluís (2020). “Social media, context collapse and the future of data-driven populism”. *Profesional de la informació*, v. 29, n. 5, e290506.
- Hameleers, M., Reinemann, C., Schmuck, D. and Fawzi N., *Communicating Populism: Comparing Actor Perceptions, Media Coverage, and Effects on Citizens in Europe*. Chapter 8: The Persuasiveness of Populist Communication Conceptualizing the Effects

and Political Consequences of Populist Communication From a Social Identity Perspective, Routledge, 2019, pp. 146-148.

Hameleers, M., Schmuck, D., Bos, L., & Ecklebe, S. (2020). Interacting with the ordinary people: How populist messages and styles communicated by politicians trigger users' behaviour on social media in a comparative context. *European Journal of Communication*, 36(3), p. 239.

Haomiao Zhou, Zhihong Deng, Yuanqing Xia, Mengyin Fu (2016), A new sampling method in particle filter based on Pearson correlation coefficient, *Neurocomputing*, Volume 216, 2016, p. 208.

Havlik, V., & Voda, P. (2018). Cleavages, Protest or Voting for Hope? The Rise of Centrist Populist Parties in the Czech Republic. *Swiss Political Science Review*, 24(2), pp. 162-163, <https://doi.org/10.1111/spsr.12299>.

Hayes, A. (2023). Positive correlation: definition, measurement, examples. *Investopedia*.
<https://www.investopedia.com/terms/p/positive-correlation.asp>

Hayes, A. (2023a). T-Test: What It Is With Multiple Formulas and When To Use Them. *Investopedia*. <https://www.investopedia.com/terms/t/t-test.asp>

Heft, A., Pfetsch, B., Voskresenskii, V., & Benert, V. (2022). Transnational issue agendas of the radical right? Parties' Facebook campaign communication in six countries during the 2019 European Parliament election. *European Journal of Communication*, 38(1), pp. 5-25.

Himmelboim, I., Lariscy, R. W., Tinkham, S. F., & Sweetser, K. D. (2012). Social Media and Online Political Communication: The Role of Interpersonal Informational Trust and Openness. *Journal of Broadcasting & Electronic Media*, 56(1), pp. 92-93.

Hix, S. and Marsh, M. (2011) Second-Order effects plus Pan-European political swings: an analysis of European parliament elections across time. *Electoral Studies*, 30 (1). pp. 8-9.

Home | MEPs | European Parliament. (n.d.-b). <https://www.europarl.europa.eu/meps/en/home>

Home | MEPs | European Parliament. (n.d.).
<https://www.europarl.europa.eu/meps/en/home>

How the European Union works | Fact Sheets on the European Union | European Parliament.
(n.d.). <https://www.europarl.europa.eu/factsheets/en/chapter/209/how-the-european-union-works>.

Indeed Editorial Team. (2023). What is an alternative hypothesis? (Definition and examples).
Indeed.com. <https://www.indeed.com/career-advice/career-development/alternative-hypothesis>

Inglehart, R., & Norris, P. (2016). Trump, Brexit, and the Rise of Populism: Economic Have-Nots and Cultural Backlash. *Social Science Research Network*, p. 31.

Jingnan, H. (2023, February 9). Twitter's new data access rules will make social media research harder. *NPR*. <https://www.npr.org/2023/02/09/1155543369/twitters-new-data-access-rules-will-make-social-media-research-harder>

Jolly, S., Bakker, R., Hooghe, L., Marks, G., Polk, J., Rovny, J., ... & Vachudova, M. A. (2022). Chapel Hill expert survey trend file, 1999–2019. *Electoral studies*, 75, p.

- Kantola, J., & Miller, C. M. (2021). Party politics and radical right populism in the European Parliament: Analysing political groups as democratic actors. *Journal of Common Market Studies*, 59(4), p. 797.
- Karlsen, Rune & Enjolras, Bernard. (2016). Styles of Social Media Campaigning and Influence in a Hybrid Political Communication System: Linking Candidate Survey Data with Twitter Data. *The International Journal of Press/Politics*, p. 352.
- Keles, B. Y., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), pp. 79–93.
- Kevický, D. (2022). Where is the populist radical right successful? Spatial analysis of populist radical right parties in Slovakia and Czechia. *Eurasian Geography and Economics*, p. 17.
- Khosravini, M. (2017). Right Wing Populism in the West: Social Media Discourse and Echo Chambers. *Insight Turkey*, 19(3), pp. 66-67.
- Kjerstin Thorson, Kelley Cotter, Mel Medeiros & Chankyung Pak (2021) Algorithmic inference, political interest, and exposure to news and politics on Facebook, *Information, Communication & Society*, 24:2, pp. 187-193.
- Klinger, U., Koc-Michalska, K., & Russmann, U. (2023). Are campaigns getting uglier, and who is to blame? Negativity, dramatization and populism on Facebook in the 2014 and 2019 EP Election Campaigns. *Political Communication*, 40(3), p. 263.
- Komorowski, M., Marshall, D. C., Saliccioli, J. D., & Crutain, Y. (2016). Exploratory data analysis. Secondary analysis of electronic health records, pp. 185-190

- Lappas, G., Triantafillidou, A., & Yannas, P. (2018b). Social Media Adoption and Popularity of Members of the European Parliament. In *Proceedings of the 5th Multidisciplinary International Social Networks Conference*, pp. 1-8.
- Larsson, A. O. (2022). Picture-perfect populism: Tracing the rise of European populist parties on Facebook. *New Media & Society*, 24(1), 227-245.
- Larsson, A., & Kalsnes, B. (2014). 'Of course we are on Facebook': Use and non-use of social media among Swedish and Norwegian politicians. *European Journal of Communication*, 29(6). p. 655.
- Li, Y., & Xie, Y. (2020). Is a Picture Worth a Thousand Words? An Empirical Study of Image Content and Social Media Engagement. *Journal of Marketing Research*, 57(1), p. 17.
- Lloyd, J. W., & Marconi, C. (2014). *Reporting the EU: News, Media and the European Institutions*, p. 5.
- Loader, B. D., & Mercea, D. (2011). NETWORKING DEMOCRACY? *Information, Communication & Society*, 14(6), p. 758.
- Mainstreamová média nebo offline interakce. Jak se podle sociologů vyhnout názorovým bublinám? | Radio Wave.* (2022, October 13). Radio Wave. <https://wave.rozhlas.cz/mainstreamova-media-nebo-offline-interakce-jak-se-podle-sociologu-vyhnout-8847273>.
- Manucci, L. (2021). Forty years of populism in the European Parliament. *População e Sociedade*, 35, p. 25)
- March, L. (2017). Left and right populism compared: The British case. *The British Journal of Politics and International Relations*, 19(2), pp. 282-283.

- McCombs, M. (1997). Building consensus: The news media's agenda-setting roles. *Political Communication* 14(4), pp. 433-434.
- McDonnell, D., Werner, A., & Karlsson, M. (2021). Reputation versus office: Why populist radical right governmental participation has differed between Sweden and Denmark. *International Political Science Review*, 42(5), 613-630.
- Medina Serrano, Juan Carlos & Shahrezaye, Morteza & Papakyriakopoulos, Orestis & Hegelich, Simon. (2019). The Rise of Germany's AfD: A Social Media Analysis. pp. 215.
- Meijer, I. C. (2019). The Handbook of Journalism Studies. In *Routledge eBooks*.
<https://doi.org/10.4324/9781315167497>, p. 90.
- Merrill, J. B., & Oremus, W. (2021, October 26). Five points for anger, one for a 'like': How Facebook's formula fostered rage and misinformation. *The Washington Post*,
<https://www.washingtonpost.com/technology/2021/10/26/facebook-angry-emoji-algorithm/>
- Metz, M., Kruikemeier, S., & Lecheler, S. (2020). Personalization of politics on Facebook: examining the content and effects of professional, emotional and private self-personalization. *Information, Communication & Society*, 23(10), p. 1481.
- Metz, R., & Plesz, B. (2023). An insatiable hunger for charisma? A follower-centric analysis of populism and charismatic leadership. *Leadership*, 19(4), 318–338.
<https://doi.org/10.1177/17427150231167524>
- Michailidou, A. (2015). The role of the public in shaping EU contestation: Euroscepticism and online news media. *International Political Science Review*, 36(3), p. 332.

Mobile phone users worldwide 2015-2020 | Statista. (2023, January 18). Statista. <https://www.statista.com/statistics/274774/forecast-of-mobile-phone-users-worldwide/>.

Moeller, J., Kühne, R., & De Vreese, C. (2018). Mobilizing Youth in the 21st Century: How Digital Media Use Fosters Civic Duty, Information Efficacy, and Political Participation. *Journal of Broadcasting & Electronic Media*, 62(3), p. 446.

Moffitt, B. (2022b). How Do Populists Visually Represent ‘The People’? A Systematic Comparative Visual Content Analysis of Donald Trump and Bernie Sanders’ Instagram Accounts. *The International Journal of Press/Politics*, p. 16.

Morgenthaler, S. (2009). Exploratory data analysis. *Wiley Interdisciplinary Reviews: Computational Statistics*, 1(1), p. 33.

Mudde, C. (2010). The Populist Radical Right: A Pathological Normalcy. *West European Politics*, 33(6), pp. 6-7.

Mudde, Cas, “The Populist Zeitgeist”, *Government and Opposition*, 39(4), 2004, p. 543.

Mulle, E. D., & Kernalegenn, T. (2022). The Left(s) and Nationalism(s) in contemporary Western Europe. *Nations and Nationalism*. <https://doi.org/10.1111/nana.12864>, pp. 409-410

Nicole Ernst, Sven Engesser, Florin Büchel, Sina Blassnig & Frank Esser (2017) Extreme parties and populism: an analysis of Facebook and Twitter across six countries, *Information, Communication & Society*, 20:9, pp. 1349-1355.

- Nisen, M. (2013, May 26). How To Know If You're Too Old To Call Yourself A Millennial. *Business Insider*. <https://www.businessinsider.com/definition-of-generational-cohorts-2013-5?op=1>.
- Norris, P. (2019). Varieties of populist parties. *Philosophy & Social Criticism*, 45(9-10), 981-1012.
- Norris, P. (2020). Measuring populism worldwide. *Party politics*, 26(6), 697-717.
- Norris, P., & Inglehart, R. (2019). *Cultural backlash: Trump, Brexit, and authoritarian populism*. Cambridge University Press,
- Nosek, Brian & Errington, Timothy. (2020). What is replication?. *PLOS Biology*. 18. e3000691. 10.1371/journal.pbio.3000691, p. 1.
- Nulty, P., Theocharis, Y., Popa, S. A., Parnet, O., & Benoit, K. (2016b). Social media and political communication in the 2014 elections to the European Parliament. *Electoral Studies*, 44, p. 443.
- Nulty, P., Theocharis, Y., Popa, S. A., Parnet, O., & Benoit, K. (2016). Social media and political communication in the 2014 elections to the European Parliament. *Electoral Studies*, 44, pp. 434-435.
- Oliver Decker, Alexander Yendell, Johannes Kiess, and Elmar Brähler. 2017. Polarisiert und radikalisiert? Medienmisstrauen und die Folgen für die Demokratie, pp. 6-8.
- Olof Larsson, A. (2021). The rise of Instagram as a tool for political communication: A longitudinal study of European political parties and their followers. *New Media & Society*, 14614448211034158.

Ordinary legislative procedure. (n.d.). European Parliament.

https://www.europarl.europa.eu/infographic/legislative-procedure/index_en.html.

Ortiz-Ospina, E. (2023, March 20). *The rise of social media*. Our World in Data.

<https://ourworldindata.org/rise-of-social-media>.

Paweł Baranowski, Simon Kruschinski, Uta Russmann, Jörg Haßler, Melanie Magin, Bene Márton, Andrea Ceron, Daniel Jackson & Darren Lilleker (2022): Patterns of Negative Campaigning during the 2019 European Election: Political Parties' Facebook Posts and Users' Sharing Behaviour across Twelve Countries, *Journal of Information Technology & Politics*, p. 13.

Pirro, A. L. P., Taggart, P., & Van Kessel, S. (2018). The populist politics of Euroscepticism in times of crisis: Comparative conclusions. *Politics*, 38(3), 378–390.

<https://doi.org/10.1177/0263395718784704>, p. 12.

Plenković, M. (2015). Crisis Communication. *Media, culture and public relations*, 6 (2), p. 115.

Projekt motivačních stáží europoslankyně Martiny Dlabajové - PročByNe? (2022, August 5).

Projekt Motivačních Stáží Europoslankyně Martiny Dlabajové - PročByNe?

<https://www.procbyne.cz/>.

Quattrociocchi, W., Scala, A., & Sunstein, C. R. (2016). Echo Chambers on Facebook. *Social Science Research Network*, pp. 1-2.

Quintana, D. S., & Williams, D. R. (2018). Bayesian alternatives for common null-hypothesis significance tests in psychiatry: a non-technical guide using JASP. *BMC psychiatry*, 18, 1-8.

- Ramos-Serrano, M., Gómez, J. M., & Pineda, A. M. (2018). 'Follow the closing of the campaign on streaming': The use of Twitter by Spanish political parties during the 2014 European elections. *New Media & Society*, 20(1), pp. 124-134.
- Redakce, D. (2021, September 23). Fiala a Bartoš: Jací by byli premiéři. *Deník N*. <https://denikn.cz/709730/fiala-a-bartos-jaci-by-byli-premieri/>.
- Rivas-de-Roca, Rubén; García-Gordillo, Mar. "Thematic Agenda on Twitter in the 2019 European Parliament Elections: A Comparative Study Between 'Spitzenkandidaten' and National Candidates". Tripodos. Blanquerna School of Communication and International Relations-URL, 2020, Num. 49, p. 30.
- Rooduijn, M., & van Kessel, S. (2019). Populism and Euroskepticism in the European Union. In Oxford Encyclopedia of European Union Politics. Oxford University Press. doi:10.1093/acrefore/9780190228637.013.1045, p. 22.
- Rufai, S. R., & Bunce, C. (2020). World leaders' usage of Twitter in response to the COVID-19 pandemic: a content analysis. *Journal of Public Health*, 42(3), p. 511.
- Sabur, R. (2021, October 4). European political parties 'forced to take more extreme positions' by Facebook algorithm tweak, says whistleblower. The Telegraph, <https://www.telegraph.co.uk/worldnews/2021/10/04/whistleblower-claims-facebook-choose-profit-safety/>
- Sainani, K. L. (2016). The value of scatter plots. *PM&R*, 8(12), 1213-1217.
- Schäfer, A. (2022). Cultural backlash? How (not) to explain the rise of authoritarian populism. *British Journal of Political Science*, 52(4), 1977-1993.

- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients. *Anesthesia & Analgesia*, 126(5), pp. 1765-1768.
- Sebastian Stier, Arnim Bleier, Haiko Lietz & Markus Strohmaier (2018) Election Campaigning on Social Media: Politicians, Audiences, and the Mediation of Political Communication on Facebook and Twitter, *Political Communication*, 35:1, pp. 51-55.
- Segesten, A. D., & Bossetta, M. (2019b). The Eurosceptic Europeanization of public spheres: print and social media reactions to the 2014 European Parliament elections. *Comparative European Politics*, 17(3), pp. 363-364.
- Sengul, Kurt Adam. 2022. Performing islamophobia in the Australian parliament: The role of populism and performance in Pauline Hanson's "burqa stunt". *Media International Australia* 184, p. 51.
- Senthilnathan, Samithamby. (2019). Usefulness of Correlation Analysis. *SSRN Electronic Journal*. 10.2139/ssrn.3416918, pp. 1-2.
- Sifft, Stefanie & Brüggemann, Michael & Kleinen-von Königslöw, Katharina & Peters, Bernhard & Wimmel, Andreas. (2007). Segmented Europeanization: Exploring the Legitimacy of the European Union from a Public Discourse Perspective. *JCMS Journal of Common Market Studies*. 45. p. 131.
- Skrzypek, A., & Skóra, M. (2017). The future of the Visegrad Group. Berlin: Foundation for European Progressive Studies/Das Progressive Zentrum, p. 4.
- Statham, P., & Trenz, H. (2012). *The Politicization of Europe: Contesting the Constitution in the Mass Media*, p. 58.

- Statista. (2022, July 27). *Share of U.S. adults who use social media 2019, by age*. <https://www.statista.com/statistics/471370/us-adults-who-use-social-networks-age/>.
- Statista. (2022a, January 28). *Monthly active mobile social media users in European countries 2021*. <https://www.statista.com/statistics/299496/active-mobile-social-media-users-in-european-countries/>.
- Stieglitz, S., & Dang-Xuan, L. (2013). Social media and political communication: a social media analytics framework. *Social Network Analysis and Mining*, 3(4), p. 1278.
- Stier, S., Posch, L., Bleier, A., & Strohmaier, M. (2017). When populists become popular: Comparing Facebook use by the right-wing movement Pegida and German political parties. *Information, Communication & Society*, 20(9), 1365-1388.
- Stockemer, D., & Amengay, A. (2020). The 2019 elections to the european parliament: the continuation of populist wave but not populist tsunami. *Journal of Common Market Studies*, 58(Supplemental Issue), p. 38.
- Strömbäck, J., & Van Aelst, P. (2013). Why political parties adapt to the media. *International Communication Gazette*, 75(4), pp. 353-354.
- Sven Engesser, Nicole Ernst, Frank Esser & Florin Büchel (2017) Populism and social media: how politicians spread a fragmented ideology, *Information, Communication & Society*, 20:8, 1109-1126, DOI: 10.1080/1369118X.2016.1207697
- T Critical Value: Easy Definition, Calculating - Statistics How To*. (2023, March 3). Statistics How To. <https://www.statisticshowto.com/probability-and-statistics/find-critical-values/t-critical-value/>

- Team, I. (2021). Statistical Significance Definition, Types, and How It's Calculated. *Investopedia*. <https://www.investopedia.com/terms/s/statistical-significance.asp>
- Tests of significance*. (n.d.). <http://www.stat.yale.edu/Courses/1997-98/101/sigtest.htm>
- Time spent with digital vs. traditional media in the U.S. 2023* | Statista. (2023, January 9). Statista. <https://www.statista.com/statistics/565628/time-spent-digital-traditional-media-usa/>.
- Tuitoek, K., & Tuitoek, K. (2022). T-Distribution and degrees of freedom. *AnalystPrep* | *CFA® Exam Study Notes*. <https://analystprep.com/cfa-level-1-exam/quantitative-methods/t-distribution-and-degrees-of-freedom/>
- Turnbull-Dugarte, S. J. (2019). Explaining the end of Spanish exceptionalism and electoral support for Vox. *Research & Politics*, 6(2), p. 1.
- Turney, S. (2023). Pearson Correlation Coefficient (r) | Guide & Examples. *Scribbr*. <https://www.scribbr.com/statistics/pearson-correlation-coefficient/>
- Turney, S. (2023a). Student's t Table (Free Download) | Guide & Examples. *Scribbr*. <https://www.scribbr.com/statistics/students-t-table/>
- Turney, S. (2023c). Student's t Table (Free Download) | Guide & Examples. *Scribbr*. <https://www.scribbr.com/statistics/students-t-table/>
- Turnout | 2019 European election results* | *European Parliament*. (2019, July 4). 2019 European Election Results. <https://www.europarl.europa.eu/election-results-2019/en/turnout/>
- US Census Bureau. (2021, October 8). *Statistical Quality Standard E1: Analyzing Data*. Census.gov. <https://www.census.gov/about/policies/quality/standards/standarde1.html>

- Vachudova, M. A. (2019). From competition to polarization in Central Europe: How populists change party systems and the European Union. *Polity*, 51(4), 689–706.
<https://doi.org/10.1086/705704>
- Vachudova, M. A. (2021). Populism, democracy, and party system change in Europe. *Annual Review of Political Science*, 24(1), 471–498. <https://doi.org/10.1146/annurev-polisci-041719-102711>, p. 472.
- Van Der Vlist, F., Helmond, A., Burkhardt, M., & Seitz, T. (2022). API Governance: The Case of Facebook’s Evolution. *Social Media + Society*, 8(2), 205630512210862.
<https://doi.org/10.1177/20563051221086228>
- Vujtechova, P. (2022). Media Insight that makes sense. Newton Media, a.s.
<https://www.newtonmedia.eu/>.
- Wolfsfeld, G. (2011). *Making Sense of Media and Politics: Five Principles in Political Communication*, p. 46.
- Xu, Q., Chang, V., & Jayne, C. (2022). A systematic review of social media-based sentiment analysis: Emerging trends and challenges. *Decision Analytics Journal*, 3, 100073. p. 11.
- Yilmaz, I., & Morieson, N. (2022). Civilizational Populism: Definition, Literature, Theory, and Practice. *Religions*, 13(11), 1026, p. 2.
- Zachlod, C., Samuel, O., Ochsner, A. M., & Werthmüller, S. (2022). Analytics of social media data – State of characteristics and application. *Journal of Business Research*, 144, pp. 1064-1066.

Zapletalová, V., and Komínková, M., Who is fighting against the EU's energy and climate policy in the European Parliament? The contribution of the Visegrad Group, *Energy Policy*, Volume 139, 2020, p. 7.

Zielonka, J. (2018). *Counter-revolution: Liberal Europe in Retreat*. Oxford University Press, pp. 6-8.

Zoomsphere. (n.d.). All-in-one Social Media Management Tool. ZoomSphere.com.
<https://www.zoomsphere.com/>

Zulianello, M. (2020). Varieties of populist parties and party systems in Europe: From state-of-the-art to the application of a novel classification scheme to 66 parties in 33 countries. *Government and Opposition*, 55(2), p. 330.