

DIFFERENCES BETWEEN IMAGE AND WORD RATIOS IN ONLINE NEWS PLATFORMS: A COMPARISON OF EUROPEAN COUNTRIES AND USA

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ABSTRACT

Mediums, such as online newspapers or similar news platforms that do not have a printed equivalent have different technical distinctions within themselves. Apart from the difference, which we can exemplify by interface, accessibility, usability, and many other points, we can assume that there are other differences in the presentation of content. This study analyzes the related presentation formats by focusing on word and image counts through news-related websites' home pages. The study aimed to determine whether platforms' image and word-based assets differ in other societies by comparing the pertinent quantitative data. Three sample groups formed from European Countries and the United States of America within the scope of the study. The top three and the last three countries were selected from European Countries through Eurostat's statistics about national access to online news. The first group was formed by Norway, Finland, and Hungary (EUR1), while the second group consisted of Türkiye, France, and Romania (EUR2). The five most visited online newspapers or news platform websites were determined for each country of both groups. Then, 15 news-related websites from the United States were chosen against these groups for comparison. The Shapiro-Wilk normality tests were applied to all groups. Results (EUR2: $p < 0.05$) were approved using the non-parametric Kruskal-Wallis test due to non-normal distribution. After the difference was obtained in Kruskal-Wallis results ($p = 0.024$), the post hoc Dunn test was involved in identifying the differentiated group. The present study confirms a significant difference between the EUR1 and the USA ($p = 0.021$) groups and that news-related platforms tend to show technical differences regarding image and word counts in different countries.

Keywords: *News Platforms, Digital Culture, Shapiro-Wilk, Kruskal-Wallis, Dunn.*

Introduction

With the current developments in digital environments, multiple differentiations have occurred in the news consumption processes of societies in the same sense. These differentiations become much more visible in the context of platforms such as social media and independent publishers that go beyond the traditional publishing of news sites. The content produced and the methods of consumption of the content are increasing, albeit at different levels. The diversification of the means of consumption of the

created content has begun to build some bridges on the diffusion effect of the content. In a resembling way, the effects of diversification create visible signs in how people express themselves. Another case we must underline is that the relevant signs are also visible through technical design processes. For example, in the study conducted by Esau, Friess, and Eilders (2017), they found that negotiation-oriented processes reveal significant differences in how people express themselves in their studies on news forums, online newspapers, and social media platforms. Their studies conclude that news forums offer a more respectful discussion environment than social media platforms (2017: 336). We can interpret this situation as digital culture has started to have unique structures on specific platforms. Deuze (2006: 69) studied digital culture in the context of media environments relatedly. He points out that digital culture can be characterized by isolating the individual from the society around the context established by the new media with traditional media.

Digital culture can reveal differentiations in the production and distribution points of the content within the framework of the new opportunities offered by technology in accessibility and usability. On the other hand, under the assumption that the information created on the Internet is evaluated differently in different fields, the physical tools that provide access to the content may also differ. As a matter of fact, in one of the current sectorial researches covers the period from 2019 to 2022, a report states that there is an increase in users' access to media channels with portable devices, like 1 hour in North America, half an hour in Europe, Latin America, the Middle East, and Africa, 11 minutes in the Asia-Pacific Region, and 14 minutes in South Asia (Kerwin, 2022). It means there is a changing trend line in accessing content in the digital environment and different platforms over time. Concerning communication studies, journalism is also affected by this transformation process. Boyle (2013) points out a process in which journalism is changing with the effect of digitalization and the continuing impacts of the concepts of marketization, commercialization, and internationalization. He further stated that technology tends to break existing practices and patterns (2013: 93). Miller (2020: 32) also stated that newspapers had entered a post-internet transformation process; however, they did not move away from the printed format, and they were able to adapt themselves to the Internet, and they kept persisted their continuity as new popular places on the Internet. In these contexts, it is clear that there is a process of modification in the structures of the platforms, in the diversification of the means of accessing content offered by the platforms, and in the traditional press activities brought about by the different outcomes of digitalization. Is this change and digitalization effect also valid for different societies when considering platforms that offer similar content? Cyr and Trevor-Smith (2004: 1206) examined the localization efforts of German, Japanese, and American websites over page layout structures. They stated that different cultural characteristics should be considered for similar content. We can comprehend that different societies differ regarding technical design in the context of their languages and cultures. At this point, we encounter the primary motivation of this present study.

The study focuses on an analysis carried out by the author through a quantitative pattern, which is based on image and word counts for the home pages of the most visited online newspapers and news-related platforms selected from Europe and the United States. The study aimed to learn whether different cultural structures such as news platforms that are supposed to provide similar services differ while presenting their content. Thus, in a digital transformation process, understanding whether the content providers of different countries differ in the technical aspect of the content they offer users can help interpret the reflexes of digital culture in media content consumption among societies. While doing this, this present study planned to limit the analysis to the number of words and images on the home pages of online newspapers, which can be considered a common measurement point for all cultures, rather than the specified design elements on the page layout. In this way, we can observe the differentiation in the content presentation of news-related portals through quantitative results. The hypotheses formed within the scope of the study over the relevant context are planned by the author as follows:

H_0 : Online newspapers and news-related platforms in European countries and the USA have similar image and word ratios ($p > 0.05$).

H_1 : Online newspapers and news-related platforms in European countries and the USA have different image and word ratios ($p < 0.05$).

The first part of the study covers the literature review, which focuses on the studies related to the image-visual and word-text ratios of internet journalism similarly. The second part surrounds the processes and findings in the context of the method used in the research. Finally, the last part of the study concludes the findings and contains suggestions for future studies.

1. Background

There are many studies in which online newspapers were examined by scholars in the light of technological development to respond to political or socio-economic needs. Some of these studies focus on the page layouts of national and international publishing organizations or the technical features we can accept as a context for how newspapers present news in the page layouts. In this sense, the research conveyed by Wessler et al. (2008) is especially important in terms of being studied in the European context. Their study compares three online newspapers each from Austria, Bulgaria, France, Germany, Ireland, Lithuania, Poland, Romania, Spain, and the United Kingdom. The research stated that the context between being a member of the European Union and the process of Europeanization was analyzed by comparing the reflections on online newspapers with the number of articles and the length of the articles. Their study focuses on the comparison of the countries in Europe through categorization processes put forward by Hallin and Mancini for Western Europe. Also, we understand that they used the Kruskal-Wallis test in comparison processes, which is similar to the method preferred in this present study (2008: 173-177). Another study made by Marsh (2002) is also essential to underline, and we can rely on it as another similar study regarding the method. Marsh focuses on websites that offer educational content for children, online newspapers, and retail business sites in the related study. We understand that Marsh selected 15 samples and compared them with each other in the context of the home pages. The related study focuses on a process related to the texts' counts and the corresponding images. In the results obtained, the study concludes that online newspapers used the least number of images under the conditions of the corresponding period and had the highest image/text ratio. In this sense, it has similar points to this present study regarding the number of samples and the method focused on the ratios of images and words (2002: 7, 124).

Some other examples of studies also cover natural language processing (NLP) in the context of artificial intelligence. For example, in the study by Singh and Singh (2021), they used algorithms for comparing online newspaper articles on similar topics in Hindi and English and the proportional detection of similarities through the related method. We understand that the study analyzes the success of the similarities between two mutual articles and established over three different algorithms while using Google's news sources for data (2021: 336-337). Another critical study by Yun et al. (2007) shows similarities to the present study regarding analyzing cultural differences. The related study contains samples of websites of high-circulation magazines published in four countries. We can identify that they compared women's perspectives through content analysis with examples of Time for the United States, The Economist for the United Kingdom, Cho-sun Weekly for South Korea, and Tiempos del Mundo for Mexico. Within the scope of the related study, they concluded their results through ANOVA tests to compare the means (2007: 936-940).

During the literature review focused on Türkiye, we see that the page analyses of online newspapers were made in the studies carried out for both local and national publishing activities. For example, in

the doctoral thesis study conducted by Onursoy (2001), 15 news platforms compared that were not in the form of printed newspapers over the Internet with other 15 newspapers in the published form in print through usability and satisfaction studies with a sample group of 80 students and faculty members (2001: 95-98). Another study, made by Köseoğlu (2017) on ten local newspapers, which the Press Advertisement Institution documented in Tekirdağ. The study includes an interview process held face-to-face with newspaper managers. Also, content analysis on local and national visual use of newspapers was provided (2017: 43-49). In another study, the change experienced by newspapers in the process of technological-digital transformation in terms of internet journalism was conducted by Işık Yolcu (2009). The related study focuses on the shift experienced by website version of Milliyet newspaper between 1996 and 2008. Işık Yolcu analyzes the new media interactions-oriented change progress by the content analysis method. In the content analysis used in the related study, we understand that the photo and word counting was done through the home pages and the number of news, in a similar sense to this present study. An important finding in the related study consists of the results stating that the home pages started to take up three times as much space over time. Also, the same study mentions an increase in words and photographs in the same direction (2009: 140). Another similar study was carried out by Aydoğan (2013). The study conducts another type of content analysis, including comparisons between printed and online versions of Habertürk and Hürriyet newspapers. In various sub-headings, we observe that the study presents and interprets the number of characters and counts of images of the articles that the newspapers have in both mediums (2013: 36-37).

In the literature, the studies based on Türkiye often focus on national investigations. However, we can also mark some Internet/online journalism investigations comparing international cultures. Özsoy, Sadık, and Boz (2013) studied one of the essential studies that we can point to in this field. The study compares Türkiye's national sports newspaper Fotomaç with As from Spain, La Gazzetta Dello Sport from Italy, and L'Équipe from France. Comparison takes position in content analysis for home pages of the websites of the newspapers and the frequency-percentage distribution of the relevant results. In the content analysis, they concentrate on the news about football and other sports branches, their distribution in the articles, and the headlines with and without photos. In the results obtained from their studies, they state that it is an essential finding that Fotomaç allocates more space to football than other newspapers (2013: 142-146).

2. Methodology

The study includes an application for comparing different sample groups with each other based on content analysis through a process with a quantitative research design. The research model applied in the study was planned as shown in Figure 1. In this part of the study, the sampling transformation of the data used and the comparative findings of the partial content analysis process based on the samples are given.



Figure 1. Research Model Diagram

The content analysis process was applied partially, and no categorization or subheadings were measured with different frequencies and percentage values. The analysis process is based on counting the number of images and words on the home pages of the relevant websites and obtaining a ratio. To better understand the process, we have to explain the processes applied during the creation of the samples and the data analysis.

2.1. Samples and Data Analysis Tools

Published research reports were used for sample preferences. According to the Reuters Institute's Digital News Report for 2022 (cited by Watson (2022) from Reuters Institute (2022)), the consumers that pay the most for news platforms are in Europe. Moreover, the fact that the United States of America (USA) is the third-highest country that pays for news right after European countries Norway and Sweden constitutes the reason for being included in the sample groups. The assumption that content producer platforms serving the highest-paying users could follow current trends more closely played a significant role in this choice. The study used the data from Eurostat for sample groups to compare with the United States. It was noticed that a review published by the World Economic Forum had been carried out through Eurostat's online news platforms data for 2021 (Ellerbeck, 2022). Starting from here, the statistics dated January 13, 2023, published by Eurostat on the same channel, were examined. It supported the selection procedure of European countries for the samples through its Continental European data published on the usage rates of online news platforms, newspapers, and magazines. According to the relevant information, the highest rate of online news platforms and online newspaper usage in Europe comes from Norway, Finland, and Hungary (to be named EUR1). Türkiye, France, and Romania (to be named EUR2) take the last three places with the least rate of online news platforms and online newspaper usage (Eurostat, 2023).

Within the research framework, the five most visited news-related websites from each country were included in the sample groups, the EUR1 and the EUR2. Both groups had 15 websites each. On the other hand, the United States of America was taken as a different sample group. The 15 most visited online newspapers and news platforms in the USA were selected for comparison against the EUR1 and the EUR2 groups. Thus, three different sample groups were established. Media and news platform listings of SimilarWeb (n.d.), SimilarSites (n.d.), and Feedly (n.d.) platforms were used to select the most visited websites. During selecting the relevant platforms and websites, addresses such as Yahoo, Google, and MSN, known as search engines, were excluded from the samples to preserve the data's homogeneity. Furthermore, to preserve the homogeneous structure among the sample groups, it was

preferred that each selected website publish its content in the official language of that country. In this sense, the languages that enabled the counting of words on websites were shaped as Norwegian, Finnish, Hungarian, Turkish, French, Romanian, and English.

The first group members selected for European Countries (EUR1) are vg.no, dagbladet.no, nettavisen.no, e24.no, aftenposten.no from Norway; iltalehti.fi, yle.fi, hs.fi, mtvuutiset.fi, seiska.fi from Finland and index.hu, origo.hu, 24.hu, blikk.hu, hvg.hu from Hungary. The second group members selected for Europe Countries (EUR2) are hurriyet.com.tr, Sabah.com.tr, milliyet.com.tr, haberturk.com, mynet.com from Türkiye; lefigaro.fr, lemonde.fr, ouest-france.fr, 20minutes.fr, lequipe.fr from France and digi24.ro, libertatea.ro, hotnews.ro, stiripesurse.ro, stirileprotv.ro from Romania. The selected websites for the United States are cnbc.com, wsj.com, fortune.com, forbes.com, nytimes.com, washingtonpost.com, foxnews.com, cnn.com, usatoday.com, cbsnews.com, latimes.com, nypost.com, sfchronicle.com, chicagotribune.com, people.com.

On January 23, 2023, the visuals and words of the home pages of 45 sites were counted, which were visible through the HTML code structures. At this point, advertisement contents, top navigation menus, logos, and similar repetitive images or texts were excluded from the counting. In addition, the counted points of the pages were collected from the sections containing the news, excluding the bands in the top and bottom menus. Javascript-related automatic page refresh actions were temporarily canceled on the browser and kept turned off during the counting processes. The browsers used during the counting processes were Google Chrome and Mozilla Firefox. Also, the analysis was done with a desktop computer with a 1366x768 monitor. The reason portable devices were not preferred is the presupposition of the possibility of late transition to portable devices between countries and the aim of preserving the homogeneous structure of the sample groups within the test tool, which we can assume that it is the most traditional one. In addition, individual screenshots of all home pages were captured for backup. After the image and word counting per 15 websites for each group were completed, distribution tests were applied to get the proper test for comparison.

The websites selected for the three groups were primarily selected from newspapers published as online newspapers or magazines with a counterpart in the physical-printed environment. For some, although there is no physical-print media process, it was based on the fact that they were not used as social share platforms or search engines. For the examination process of distributions in the sample groups and comparing them with each other, IBM's SPSS and Microsoft Office Excel were used in the inference and reporting processes.

2.2. Distribution Tests

It was ensured that the distributions in the sample groups were controlled for parametric or non-parametric test preferences. In this sense, applying a distribution control and control-dependent comparison test was deemed appropriate, as suggested in the study by Santos-Gonçalves and Napp (2022). In their work, we see that they conducted research on social media posts in order to examine local press activities during the COVID-19 Pandemic period. They perform comparative tests on the distribution of COVID-19-related news in local newspapers by grouping five different periods: the onset of COVID-19, the first wave, the second and third waves, the fourth and fifth waves, and the sixth wave and after. Furthermore, it was seen that they provided a similar review of the posts on Facebook in a comparable way to this present study. They propose using the Shapiro-Wilk test to learn distributions in the first step. Their studies recommend using the ANOVA and the Tukey post hoc tests if the results show normality. Also, applying the Kruskal-Wallis and the Dunn post hoc tests was suggested if the results did not show any clues for normal distribution (2022: 2615-2618). From this point of view, similarly, distribution tests were carried out on Shapiro-Wilk first in this present study.

Results were obtained as $p=0.77$ for the EUR1 group, $p=0.01$ (skewness = 1.66; kurtosis = 3.02) for the EUR2 group, and $p=0.37$ for the USA group. Since the EUR2 group, which includes Türkiye, France, and Romania, did not show a normal distribution, it was decided to apply a non-parametric test. At this point, it was planned to use the Kruskal-Wallis test to understand the possible difference between the groups. It is known that the Kruskal-Wallis test is preferred to compare three or more variables through rankings instead of means when there is no assumption of normal distribution between groups (Weiner & Craighead, 2010). After the test, the non-parametric Dunn test was used as the post hoc test. The literature also suggested Dunn's post hoc test to understand how the differences between the groups could emerge as pairwise comparisons (Dinno, 2015; IBM, n.d.).

2.3. Findings

The primary data mining processes obtained in the study are presented in Table 1, Table 2, and Table 3. In the table rankings, the data from the countries' websites are listed in the order of extraction; conditions such as the rate of frequent visits were ignored. Country rankings were made according to Eurostat (2023) data. After removing the advertisements and lower-upper menus, the data consists of the total number of images and words on the main pages of the websites. The findings show that the lowest word-per-image ratio is in the EUR1, followed by the EUR2 and the USA groups. The first striking point of the findings is that the EUR1 group has the lowest number of words but is in the middle in the number of images.

Another critical point is the findings regarding the convergence of Türkiye in the EUR2 to the EUR1 group in terms of averages. The noteworthy part is that the non-normal distribution in EUR2 has also emerged due to Türkiye's statistics. We can say that the platforms in Türkiye prefer a similar number of words and images as the countries in the EUR1 group, which means that there may not be an effect on the number of words and images in the context of online platform usage. This outcome suggests that a separate evaluation should be made regarding different socio-political, economic, or cultural factors.

Table 1. Home Page Statistics of Norway, Finland, and Hungary

| GROUP EUR1 | | | | |
|------------|----------------|-------|-------|----------------|
| Country | Address | Image | Word | Word Per Image |
| NORWAY | vg.no | 158 | 1079 | 6.83 |
| | dagbladet.no | 161 | 614 | 3.81 |
| | nettavisen.no | 108 | 1463 | 13.55 |
| | e24.no | 63 | 632 | 10.03 |
| | aftenposten.no | 109 | 1670 | 15.32 |
| FINLAND | iltalehti.fi | 135 | 1954 | 14.47 |
| | yle.fi | 65 | 2375 | 36.54 |
| | hs.fi | 123 | 2344 | 19.06 |
| | mtvuutiset.fi | 118 | 2350 | 19.92 |
| | seiska.fi | 74 | 1329 | 17.96 |
| HUNGARY | index.hu | 102 | 3463 | 33.95 |
| | origo.hu | 123 | 3471 | 28.22 |
| | 24.hu | 80 | 1628 | 20.35 |
| | blikk.hu | 78 | 1836 | 23.54 |
| | hvg.hu | 66 | 1297 | 19.65 |
| | Avg: | 104.2 | 1834 | 18.88 |
| | Std. Dev.: | 31.5 | 833.5 | 8.808 |

For the EUR1 group presented in Table 1, an increase is observed in the number of words per image as the online news platform usage rates decrease. Although this situation is also seen in the EUR2 group presented in Table 2, once the general pool was created, it was understood that there are significant differences in the downstream usage rates, except for Türkiye, on the image and word ratios. Therefore, it will be more viable to determine whether there will be a real difference by determining the differentiation between the groups.

Table 2. Home Page Statistics of Türkiye, France, and Romania

| GROUP EUR2 | | | | |
|------------|-----------------|-------|------|----------------|
| Country | Address | Image | Word | Word Per Image |
| TÜRKİYE | hurriyet.com.tr | 89 | 938 | 10.54 |
| | sabah.com.tr | 109 | 1004 | 9.21 |
| | milliyet.com.tr | 93 | 1927 | 20.72 |
| | haberturk.com | 188 | 1910 | 10.16 |
| | mynet.com | 144 | 932 | 6.47 |
| FRANCE | lefigaro.fr | 121 | 4320 | 35.70 |
| | lemonde.fr | 67 | 4934 | 73.64 |
| | ouest-france.fr | 158 | 3597 | 22.77 |
| | 20minutes.fr | 117 | 1874 | 16.02 |
| | lequipe.fr | 56 | 934 | 16.68 |
| ROMANIA | digi24.ro | 70 | 3565 | 50.93 |
| | libertatea.ro | 123 | 3076 | 25.01 |
| | hotnews.ro | 92 | 3242 | 35.24 |
| | stiripesurse.ro | 129 | 2803 | 21.73 |
| | stirileprotv.ro | 98 | 2114 | 21.57 |
| | Avg.: | 110.3 | 2478 | 25.09 |
| | Std. Dev.: | 34.45 | 1248 | 17.27 |

When the USA group presented in Table 3 is examined before making the comparisons, it was seen that it is out of the European averages in different aspects. Remarkably, the USA group has the highest word-per-image ratio with the least average for number of images.

Table 3. Home Page Statistics of United States of America

| GROUP USA | | | | |
|--------------------------|--------------------|-------|-------|----------------|
| Country | Address | Image | Word | Word Per Image |
| UNITED STATES OF AMERICA | cnc.com | 55 | 1895 | 34.45 |
| | wsj.com | 46 | 2140 | 46.52 |
| | fortune.com | 67 | 1997 | 29.81 |
| | forbes.com | 48 | 1047 | 21.81 |
| | nytimes.com | 84 | 3302 | 39.31 |
| | washingtonpost.com | 104 | 2268 | 21.81 |
| | foxnews.com | 98 | 3061 | 31.23 |
| | cnn.com | 50 | 1185 | 23.70 |
| | usatoday.com | 40 | 687 | 17.18 |
| | cbsnews.com | 75 | 2005 | 26.73 |
| | latimes.com | 64 | 2131 | 33.30 |
| | nypost.com | 118 | 2771 | 23.48 |
| | sfchronicle.com | 104 | 3191 | 30.68 |
| | chicagotribune.com | 59 | 1171 | 19.85 |
| | people.com | 71 | 1617 | 22.77 |
| | Avg.: | 72.2 | 2031 | 28.176 |
| | Std. Dev.: | 23.52 | 777.6 | 7.6994 |

As a result of the Kruskal-Wallis test applied with SPSS, the significance level was found as $p=0.024$. It was discovered that there were differences between the groups. This result confirms the rejection of the H_0 hypothesis and the acceptance of the H_1 hypothesis. In order to brighten and point out the difference between groups, the Dunn's test with pairwise comparisons (significance value adjusted with Bonferroni Correction) was applied by analyzing the data in SPSS. Significant differences between sample groups according to the Dunn test results are presented in Table 4.

Table 4. Results of Dunn's Post Hoc Test

| Sample Groups | Test Statistic | Std. Error | Std. Test Statistic | Sig. | Adj. Sig. |
|---------------|----------------|------------|---------------------|-------|--------------|
| EUR1 & EUR2 | -4.833 | 4.796 | -1.008 | 0.314 | 0.941 |
| EUR1 & USA | -12.967 | 4.796 | -2.704 | 0.007 | 0.021 |
| EUR2 & USA | -8.133 | 4.796 | -1.696 | 0.090 | 0.270 |

According to Dunn's data in Table 4, European Countries show a high image/word ratio similarity among themselves. Likewise, although there is a similarity between the EUR2 and the USA groups, this similarity is less significant than the results observed between the EUR1 and the EUR2 groups.

The point of differentiation is between the countries of the EUR1 group and the USA. The image and word ratios of the USA group are considerably higher than the EUR1. It has been determined that the use of images in the USA group is at low rates compared to other countries. The results show that while European Countries tend to use more images in the content they offer to users in general, it is understood that they ensured the distribution of the number of words in their publications in line with this. In this respect, they differ from the websites in the USA.

The study also carried out the Kruskal-Wallis test among European Countries. The results showed that the six groups (when all countries were divided into groups of 5 separately) differed among themselves ($p=0.003$). Likewise, after Dunn's test was repeated once again for this process, it was observed that there was a divergence between Norway and France (Test Statistic=-18; Standard Error=5.568; Standard Test Statistic=-3.233; Adjusted Significance=0.018).

Conclusion

Within the scope of the study, the divergence processes of different countries in digital media have been tried to be explained with a quantitative research aspect through internet journalism and platforms. In this context, the samples of different countries were compared in three groups and were measured by the number of words per image on the home pages of online newspapers or news-related platforms. The results show meaningful outcomes where the homepage preferences of the European Countries and the United States of America differ, especially in comparing Norway and USA. The visual and text-based difference shows an essential outcome in terms of media literacy for digital culture. Furthermore, it identifies no association between paying high rates to online news platforms and news platform content. This present study also showed that the page designs of the countries also differed from each other. For example, while larger images were featured in Norway, it was seen that the headlines had short news, and the galleries in them were not interactive. On the other hand, compared to the EUR2 group, Finland also has large images and quite long texts simultaneously. Likewise, these differences are also evident in the column-based distributions in the page layout. Although technology is developing, it does not bring singularity to news platforms. In future studies, it is recommended to provide both current usability processes and more comprehensive content analysis with qualitative data analysis processes since this study is limited to a single category basis. Although there is a quantitative difference in the content offered to users, this also may have some qualitative reflections. We can assume that learning these reflections may provide additional evidence for differentiating consumption habits in digital culture.

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