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# Infographics in social media. Selected issues

## Abstract

Technological progress and changes in the lives of contemporary humans have led to a situation in which traditional forms of transferring information by means of text have become too slow, as it takes recipients more time to learn the content of such messages. Researchers emphasise that humans acquire graphic messages better than text. For this reason, presenting information in the form of infographics has become a popular method. The purpose of this article is to present the issue of infographics, including: definitions, types of infographics, and using infographics in different areas of life. An example of their wide use are social media. Based on this example, research was conducted using a searching technique, the purpose being to verify infographics in selected social media. The results of the research allow to acquire information about infographics in terms of popularity in a selected period, scope of topics in infographics and information about sectors and specialists who share infographics in social media most often.

**Keywords:** infographics, visualisation information, social media, searching, designing infographics

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## Introduction

Nowadays it is very important for messages to be communicable and interesting for the recipient (see also Litwic-Kaminska, 2011, p. 177). Traditional forms of transferring information by means of text have become too slow, because recipients need more time to learn the content of such messages. We know that “recipients expect messages to be shorter, more intensive, easier to read and – more importantly – pictorial, because we live in visual times where pictures help to precise, sum up and illustrate facts” (Planeta, 2013, p. 45). Researchers emphasise that humans acquire graphic messages better than text. For this reason, presenting information in the form of infographics has become popular. Szews (2017, p. 124) points out that the existing need for visual presentation of information may have arisen due to the following reasons. The first one is technological development, connected with the layout of magazines, then the Internet, which ensures new forms of presenting information, and finally a last factor concentrating on the needs of recipients who “want to receive as much information as possible and be able to embrace it as soon as possible in the most accessible form” (Szews, 2017, p. 124). In addition, research shows that humans acquire graphic information much better than text (see also Osińska, 2016, pp. 67–70). This is due to the fact that our vision absorbs information that gets to our central nervous system in 87% (Bartos, 2010, p. 160). Pictures can fulfil a very important role in the efficiency of a message, and each message is more attractive for the recipient when it is filled with graphic information (Chorodyński, 2020). One of the most often used data visualisation methods are infographics, which are most popular in a network environment (Wójcik, 2017, p. 161).

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## Definition and origins of infographics

In literature there are different definitions of infographics. Many of them emphasise that infographics are a visual form of presenting information popular in media (Planeta, 2013, p. 46), also sometimes called ‘information graphics’ or ‘explanatory graphics’, connecting textual information and graphic presentation (Iskierka, 2016, pp. 142–143). Infographics let you convey different messages, combining complex information in

such a way that the recipient can easily understand the message (Iskierka, 2016, p. 143). Additionally, infographics, as visual representation of data, let “people learn faster and remember things more efficiently and effectively through the use of text and visuals than using the conventional textual method alone. Infographics can be used in visualisation to enhance data interpretation and knowledge discovery” (Shahbazi et al., 2021, p. 45). The above definitions are combined below by Zimniak-Rucińska (2019):

Infographics (sometimes called ‘information graphics’ or ‘explanatory graphics’) are a visual form of presenting information. In infographics the text and picture coexist with each other – they interpenetrate and complement each other. It should be pointed out that pictures in infographics do not play a solely decorative or simply eye-catching role. Text and picture are equally involved in the process of explaining the message content and facilitating its understanding. The aim of using the infographic form to present the content is to ensure the greatest possible transparency and readability. (p. 10)

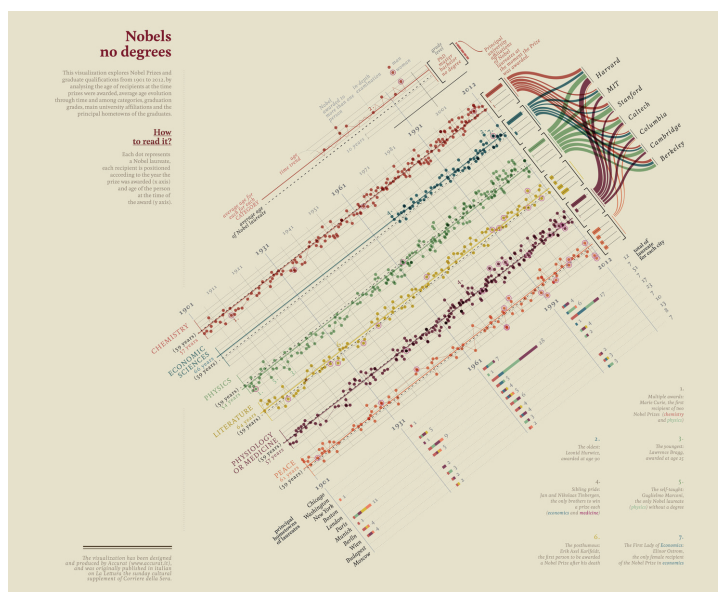
Why are infographics effective? Zimniak-Rucińska (2019) gives a few scientific reasons to explain this. Firstly, our brain is created to transform pictures, because vision reigns over our other senses. Secondly, vision precedes words – since we were young we have been creating connections between visual objects and behaviours, even before we learned to describe these objects or behaviours with words” (Zimniak-Rucińska, 2019, p. 24). Thirdly, our brain does not like boredom – due to large amounts of information from all

around us, we choose eye-catching information that we can focus on. Fourthly, our brain likes emotions in the form of a picture which evokes them. Different emotions can build picture emotions such as shapes, typefaces, colours. Pictures allow emotions to be better remembered by the recipient. Next, in order to interest the recipient, a human being should be at the centre of attention. The final reason is that we remember pictures better (based on Zimniak-Rucińska, 2019, pp. 24–26).

The history of infographics (see also Biecek, n.d.; Szklarek, & Klamka, 2020, pp. 46–50; Zimoląg, 2020, pp. 302–306) dates back to the times of cave paintings, which are the oldest method of telling a story and presenting information. This was followed by the picture letter period, where each picture meant one term, for example in ancient Egypt in the form of hieroglyphs. A variety are pictograms, which nowadays are on road signs or warning signs. “Replacing a written word with a graphic element is more readable and speeds up the understanding of a message. Pictograms allow to avoid language barriers” and are also used in infographics (Zimniak-Rucińska, 2019, p. 14). New forms of data visualisation arose over time – developed for specific purposes. One interesting examples is an illustration by William Playfair, which presents differences between export and import in England (see Figure 1).

Another interesting and novel graphic information form are the infographics made by Florence Nightingale, who created the coxcomb chart (a pie chart with a bar). Nightingale prepared graphic information showing an analysis of the numbers and reasons of deaths during the Crimean War (see Figure 2). “The chart influenced the rulers’ imagination and convinced

**Figure 1**  
Balance sheet chart from *The Commercial and Political Atlas* by William Playfair



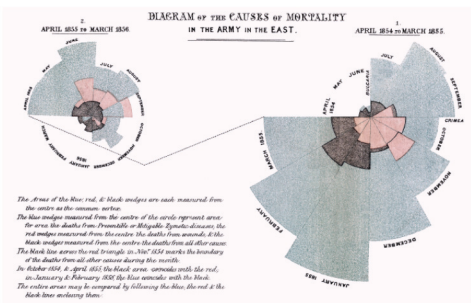
Source: *Odkrywać! Ujawniać! Objaśniać! Zbiór esejów o sztuce prezentowania danych*, P. Biecek. Retrieved September 20, 2021 from <http://www.biecek.pl/Eseje/indexHistoria.html>

them that it was necessary to improve the conditions in hospitals” (Zimniak-Rucińska, 2019, p. 17).

A map is an information visualisation method used by engineers like Ch. J. Minard (see Figure 3). He used a map to show the enormity of the defeat suffered by Napoleon. His graphic contained statistical, geographical and meteorological data. Another interesting example of such use was a map by J. Snow, showing the grouping of cholera cases during the 1854 epidemic. Contemporary figures related to infographics include: Edward Tufte (see more <https://www.edwardtufte.com/tufte>), who advocates message clarity, David McCandless (see <https://informationisbeautiful.net>), and Nigel Holmes (who uses simple drawings, pictograms and humour) (see more <http://www.nigelholmes.com/gallery>).

**Figure 2**

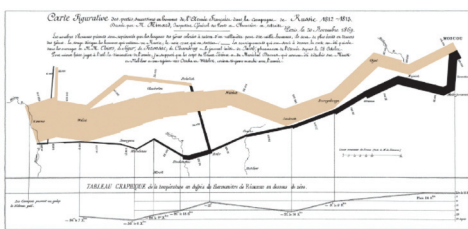
Diagram of the causes of mortality in armies in the East by Florence Nightingale



Source: *Odkrywać! Ujawniać! Objaśniać! Zbiór esejów o sztuce prezentowania danych*, P. Biecek. Retrieved September 20, 2021 from <http://www.biecek.pl/Eseje/indexHistoria.html>

**Figure 3**

Charles Minard's Figurative Map of the successive losses in men of the French Army in the Russian campaign 1812–1813



Source: *Odkrywać! Ujawniać! Objaśniać! Zbiór esejów o sztuce prezentowania danych*, P. Biecek. Retrieved September 20, 2021 from <http://www.biecek.pl/Eseje/indexHistoria.html>

## Type of infographics, designing infographics

Infographics present different kinds of information, such as: knowledge, research results, statistics, processes, instructions, curricula vitae, history, ideas (Zimniak-Rucińska, 2019, p. 11). Various typologies of infographics are proposed in literature. Wildbur and Turk distinguish infographics according to their use: informing travellers, explaining actions, involv-

ing interactions, multi-layered and complex maps and diagrams (Szews, 2017, p. 132). Bojakowski (2020), on the other hand, takes into account the division into explanatory and exploratory graphics. The former concentrate on passing specific messages (Bojakowski, 2020, p. 191). The latter enable the recipients to explore data, while the designer's task is to "present data in such a way that the public could make different discoveries" (Bojakowski, 2020, pp. 191–192). Infographics let the recipient observe different "correlations between data, make comparisons, introduce a hierarchy of individual story threads" (Bojakowski, 2020, pp. 191–192).

Infographics can be distinguished according to the way they present their content. Zimniak-Rucińska (2019) distinguished the following:

- timeline – information is presented in chronological order;
- list – bulleted lists of elements;
- comparison – two objects are compared in order to be compiled, for example to show similarities and differences;
- visualised articles – articles in visual form, where there is a clear division between the article's elements; this type includes different aspects and facts related to the subject;
- process, i.e. visualising steps in a given process, for example in the form of instructions;
- map – can be used to explain aspects related to such things as location points of a company or information about an event and its environment;
- numerical infographics – presenting large sets of numerical data or statistics;
- anatomy – the central point is the discussed object from which particular elements of this object are shown (pp. 40–47).

Infographics can come in static form, as an animation (video) or have an interactive form (Dur, 2014, p. 44).

Designing infographics is a process that consists of such elements as: idea and assumptions, collecting

information and its selection, designing and promotion (Zimniak-Rucińska, 2019, p. 10). It is important to remember for whom the infographic is designed, what is its purpose and context and what we want to achieve. In addition, Juan Velasco underlines features describing practically each infographic:

- visual explaining, which helps to understand or discover things easily,
- using graphics as the main means of operation but, if necessary, also integrating words with the picture in a smooth and dynamic way,

- functioning independently,
- showing information which was previously hidden and invisible,
- facilitating the understanding of presented content,
- being universally understood (Communication Nation, 2007).

Different forms of visualisation are used in infographics, such as charts, tables, maps, illustrations. Their choice depends on the context, recipients and the designer’s idea. Infographics consist of several elements, such as a heading (title), graphic elements, description (short description of graphic elements), background (Chorodyński, 2020). While designing infographics it is useful to have some knowledge about design basics, including structure, composition of elements, hierarchy of elements, colour, typeface and psychological aspects about ordering elements, for example the Gestalt Principles (see also Osińska, 2016, pp. 78–80; Pielużek, 2020, pp. 126–134). These elements are described in detail by Osińska (2016), Smiciklas (2014), Zimniak-Rucińska (2019).

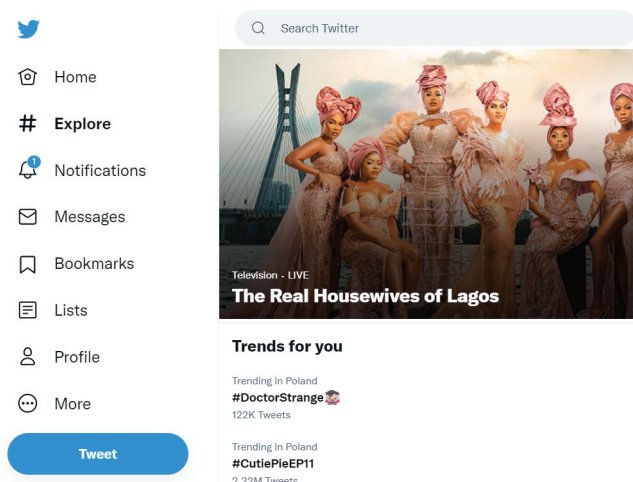
One contemporary designer, Giorgia Lupi (2020a, 2020b, 2020c), describes the process of creating infographics prepared for the magazine *La Lettura* (GiorgiaLupi, 2012) (see also Figure 4). Infographics can be more extensive and less extensive, and of a more or less artistic nature. Lupi describes an example of creating an infographic that is more extensive. In such extensive infographics there are more points, making the process of their creation longer. Lupi claims the purpose of this work is to supply rich visual narration, i.e. complex stories told with the help of data visualisation. The team choose the subject of infographics taking into consideration today’s cases or historical, cultural aspects. They then analyse and compare different data collections. To prepare infographics, questions

are asked which require an answer, and next the data is ordered according to context, revealing new facts and correlations: “We start from a question or an intuition and work from there, then try to put the information in context and find additional facts and material to potentially correlate” (GiorgiaLupi, 2012). The designer emphasises that infographics should include information that is convincing and appealing to the audience: “once the audience’s attention has been ‘caught’ by the aesthetic features of the image, the presentation of the information must be clear” (GiorgiaLupi, 2012).

Infographics can be created using many free edition tools, such as Piktochart, Canva, Infogram, Easel.ly. But to create a more extensive infographic (as in the mentioned example by Giorgia Lupi) of a more artistic nature, the author must use more advance tools for editing.

What does a good infographic look like? Literature stresses that it should be: understandable, attractive, persuasive, readable, substantive and not too long (see also Centrum Cyfrowe, 2013, Ozorowski, 2017, Świącicki, n.d., pp. 3–4; Zimniak-Rucińska, 2019, pp. 55–57). Designers and specialists who prepare infographic messages for the Internet underline three features characterising a good infographic. Firstly, the role of data visualisation in the whole process of message transfer. Next, “a colour palette, adjusted to the overall message, significantly emphasising important elements, hierarchies and dependencies. (...) The third factor influencing the convenience of reading the information contained in the infographic are its physical dimensions, i.e. size” (Nowakowski, 2014, p. 126). Properly selected shapes and dimensions facilitate the reception (traditional form) or reading on a monitor or mobile device (digital form). The digital form of infographics should therefore be customised to the dimensions of monitors or mobile devices.

**Figure 4**  
*Nobels, no degrees*



Source: *Visual Data – La Lettura*. GiorgiaLupi, 2021 (<http://giorgialupi.com/lalettura>).

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## Application of infographics in different areas

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Infographics are used in different areas and sectors. "Infographics help to avoid distortion and ambiguity in a message or communication. They can be used in information visualisation to enhance data interpretation and knowledge discovery in disciplines ranging from computer science, business intelligence to humanities. The current wave of infographics usage is gaining momentum in business (Shahbazi et al., 2021, p. 45). Infographics are a tool that can illustrate complex information limited by text, "commonly used as a visual communication tool in various fields such as marketing, education, healthcare, transportation, and others" (Shahbazi et al., 2021, p. 46).

Infographics can be seen in magazines (see also Leszkowicz, 2020, pp. 31–32), including scientific magazines, for example as graphic abstracts. An example is Elsevier Publishing, which uses this method (Osińska et al., 2016, p. 72). In addition, infographics can also be used independently, for example in La Lettura (GiorgiaLupi, 2021).

Infographics are an important tool in education (see also Kołowska-Gawiejnowicz et al., 2018; Mokwa-Tarnowska, 2019; Ren-Kurc et al., 2018) and science (see also Osińska, 2016), and can be used for educational purposes, for example as a tool for teachers or for providing new information to students as a more accessible form of communication for the younger generation. Teachers can use it to explain new issues, provide important information about the school, for example the school statute or classroom rules. In science we can use infographics for example to illustrate research results or help in scientific considerations.

Infographics can also be used in business (see also Szklarek & Klamka, 2020; Nowakowski, 2014) in two forms. The first one includes information about a company, for example about its products or history. The second form of business infographics is for building a company's image, where "the topic of infographics is not directly the brand or company. (...) The infographics include information related to the company or industry" (Zimniak-Rucińska, 2019, p. 30), for example a visual article in social media. Business infographics can come in different forms, for example statistics, sales indicators, market research, production processes, or product promotion. "Well-designed infographics should bring a specific value to customers and employees and at the same time serve to achieve a specific business goal" (Iskierka, 2016, p. 146). In addition, using business infographics in social media can allow for better interaction with clients. "Infographics are a powerful tool for illustrating extensive, complex information with very little text, for example as a visual communication tool in various fields such as marketing, education, healthcare, transportation, and others" (Shahbazi et al., 2021, p. 46).

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## Social media and infographics

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Social media (see also Matwiejczyk, 2020, pp. 171–173) are a very popular information channel for a large part of society. "In 2020 over 3.6 billion people used social media worldwide, a number projected to increase to almost 4.41 billion in 2025" (Statista, n.d.). Popular social media sites include Facebook, Twitter and Instagram (see also Matwiejczyk, 2020, pp. 174–176). Their popularity is related to the fact that information travels faster on social media than on informative portals (Hrabiec-Hojda & Trzeciakowska, 2019, p. 177). Social media use infographics because they are "an important addition to your social media strategy" (Coppypress, 2020). Social media, such as Facebook and Twitter, allow people all over the world to share information with one another.

### Searching in social media

When it comes to searching information in social media it is important to understand what a hashtag is. "A hashtag is a word or a set of words prefaced by the hash sign: #, for example #article" (Hrabiec-Hojda & Trzeciakowska, 2019, p. 179, see also Bartosz, 2017). In some social media it may occur that searching according to hashtags and classical keywords can show different results (see more Hrabiec-Hojda & Trzeciakowska, 2019, p. 180). When using # in the search, we find not only posts related to the keyword, but also addressed to a given group of recipients searching for the given thematic scope. Hashtags allow you to organise content according to a given topic or related content into thematic cycles. On Twitter, clicking on a hashtag will show all the tweets that have been tagged with that hashtag. By entering the keyword without #, all tweets that contain this word will be displayed in the results, e.g. in the username or in the text of the tweet, while when searching for words with #, we should find tweets that are related to the given topic #, even if the tweet does not contain the word, but relates to the given thematic scope.

While searching information in social media we can use basic search engines, and in selected social media also advance search engines.

On Twitter having an account is not required to search published content, e.g. Google. Twitter offers an option of searching in posts with the use of hashtags, which can be searched by means of the Explore search engine. You can also narrow the searched information and use the advance search engine form, with results ordered according to access tabs: top, last, people, photo, video (see Tab. 1).

Facebook (FB), on the other hand, requires you to have an account if you want to search more information. After logging in you can choose the FB basic search engine, which is located on the left side of the interface. The results might be incomplete, because some users may set access limits to their content and not every user has hashtags in their posts. The results can be filtered according to the following criteria: ev-

**Table 1**

Searching without an account			Searching with an account				
	Searching in Google keywords: #infographic Twitter/ Facebook – effect	List of results without an account	Basic search	Basic search with #	Basic search – filters	Hints in search words	Advanced search form
Twitter	In the results you can get a list of tweets with # and you can filter: 1) users (from everyone, from people who you observe – you should log in or register on Twitter) 2) localisation (everywhere or near you)	+	Tab: Explore and search engine	+	+ 1) Filters: People, Location 2) Sorting the results: Top, Last, People, Photos, Videos	+	+ In the Advanced search form you can narrow your searching to: words including hashtags, language, accounts, filters, engagement, date from/to. You can save searches and change search settings (Hide sensitive content, remove blocked and muted accounts)
Facebook	In the results you can see one profile with these keywords and information to log in or register	-	search engine	+	+ 1) Filters: Everything, Posts, People, Photos, Video, Marketplace, Pages, Places, Group, Events 2) Sorting results: Each filter can be sorted according to selected criteria (they can differ according the selected filter, eg. Posts can be sorted by: newest, displayed by the user, date posted, posts from, location)	+	-

Source: author's own work.

everything, posts, people, photos, video, marketplace, pages, places, group and events. On the results list you can see a specified list of the latest results (see Tab. 1).

### Infographics in selected social media – research

Infographics are an interesting visual form of presenting information, but are they a popular form of publication in selected social media?

The aim of the research was to obtain information in the range of publishing infographics in selected social media, such as Twitter and FB. The results of the research allowed provided information about

infographics in terms of popularity in a selected period, scope of topics in infographics and information about sectors and executives who share infographics in social media most often. For this research we used some search techniques, including basic search and advanced searches, searching with hashtags, which were used to search information about infographics (general) and infographics for a selected area (UX – User Experience, Science) in the selected social media.

The research attempted to answer the following questions:

- Will the searching of infographics with the use of hashtags allow to get relevant results with this form of publication?<sup>1</sup> (Twitter)

<sup>1</sup> You can write a post using words and hashtags connected with the post subject. But, on the other hand, you can also write a post on a completely different topic and use an off-topic hashtag. And this could be the reason why some results are completely unnecessary. For: Hrabiec-Hojda, P. (2017, May 5). *Wyszukiwanie informacji na Twitterze krok po kroku*. Rynek Informatcji. <https://rynekinformacji.pl/twitter>

## Infographics in social media. Selected issues

- Are hashtags (#) used to post infographics? (Facebook)
- What is the scope of infographic topics in a selected period? (Twitter, Facebook)
- Which executives / professionals share infographics in social media most often? (Facebook)
- What languages are used to access infographics in selected social media? (Twitter)
- Are UX and science infographics available on Twitter? (Twitter).

### Twitter – data analysis, research results

The first part of the research focused on searching on Twitter. For this purpose a search engine in the Explore tab was used. The first searched keyword was: #infografika (Polish for infographics). The results list contained different forms of infographics, part of them were enclosed as links to materials in social media posts, while others were presented directly as social media posts. Some of them had photographs with text. Others were presented in a more classical form providing data in the form of different types of visualisations, such as charts, maps, graphs, diagrams. The infographics on the results list deal with different topics. The topics concerned: COVID (preparing a vaccine, vaccines), the economy (e.g. investments, development), information from different countries, e.g. the speed limit in Paris in 2021, road repairs, rape statistics, extradition of terrorists, number of people injured in accidents, maximum and minimum air temperatures, nuclear power plants around Poland, exhaust emissions, forests, information on financing programmes (SMEs), and EURO2020. They also included business information, such as a company's client satisfaction, stakeholders of the digital environment for the implementation of tachographs (product / service promotion), developed technologies of mobile operators, e-commerce, information on a given issue (10 things about basketball). Some of the topics concerned humorous issues. The infographics represented the following languages: English, Polish, Latvian, Czech, Serbian, Uzbek, Croatian, Slovenian, Bosnian.

Searching on Twitter was then narrowed and the used keyword was #infografika in the period 01.07–31.07 for several years (2021, 2020, 2019). The results were checked in the order of their popularity. The most results were obtained for 2019 (31 results), then for 2020 (20 results) and the least for 2021 year (13 results). The range of topics changed over the selected years. The results list of 2019 included information about: product promotion (e.g. Nike), blog promotion, event sponsors (Runmageddon), tips about publishing content in social media and issues concerning internet marketing, popular authors, the anniversary of a taxi company, the number of workers in a company, product development (car brands, app systems), political issues (authorities of the Balkans), farm finances, reports about health and e-clients. The infographics were in: English, Czech, Croatian, Polish (more than in the following years), Latvian.

In the results list for 2020 infographics connected with the global situation regarding COVID were common. The disseminated infographics presented information about COVID: number of those infected, information about the COVID situation in selected countries (e.g. Slovenia), travelling in a selected country and information about it (Czechia), information about rescuing an industry (e.g. Slovenia). In 2020 infographics showing information from a selected country were less popular, such as police data (infographics with statistics of police officers), information about the number of people in a selected area, saving water, finances (Latvia), money of unknown origin, tragic events in Srebrenica (Czechia), business information (reports), and health issues (jogging, fruits). The languages in which users provided infographics were: Croatian, Czech, Polish, Latvian, Slovenian.

In 2021 fewer infographics included COVID information. There was information about history icons, changes in temperature, interest rates, the price of petrol (last 20 years) as well as reports on hate crimes, on the extradition of terrorists, court proceedings for an attempted terrorist attack, tourist traffic (Czechia). The infographics were available in: Czech, Polish, Uzbek, Hungarian.

The next part of the research on Twitter concerned verifying infographics according to a selected criteria – User Experience. We checked if the infographics available on Twitter can help to remember important information regarding a selected criteria. The first searched keywords were #infografika #UX, without an indicated period. The result were eight posts, and among them were infographics with information of the process of designing a website, internet use by seniors, touch screen (easy and difficult to use), factors which influence the conversion in a website, the profile of a Polish UX Specialist. The information was mainly prepared in Polish, but also in Czech. Due to the low count of results in previous searches, we decided to connect infographics and UX and search for the keywords #infographic #UX. The results were too numerous, so we decided to narrow the period (10.08.2021–10.09.2021). The result was 11 posts. The obtained infographics were mainly in English and showed UX issues, which were shared by UX specialists and one company (twice). The issues which were on the list of results included: tips – how can the User Experience team become more useful for the company, information about the elements taken into account in the experience design, as well as information on architecture, UX strategy, UX vs UI, 70 Features for a Successful Small #Business Website, information about changes in electronic banking. The results also covered favourite visualisation tools from #infographic, so it was on the list of results.

The next part of the study was searching information about infographics on Twitter in concerning science, so we decided to use keywords with a Boolean operator AND narrowed to a specific period



(10.08.2021–10.09.2021): #infographic AND #science. It gave 12 results in English. The infographics concerned issues from chemistry, biology, astronomy, research and included: The Botanical Classification of fruits, structure of a mushroom, elements of an astronaut's outfit, Bunsen burner, reasons why humour and comedy are important, interaction with elements, COVID vaccination rate.

The analysis and results of this part of research indicated that searching for infographics with # allowed to find this form of publication on Twitter using a basic search, as well as narrowing down the search to a certain time period using an advanced search. In addition, searching for selected thematic ranges (UX and Science) was possible with the use of keywords with # and the Boolean operator to the second search area in order to obtain a higher search result. In the case of searching for UX infographics, a better result was obtained when using an English-language word (as #infographic). To sum up, Twitter is a source of infographics also in the scope of the UX discipline and science. Using keywords with hashtags and narrowing the searching scope (for example narrowing the time period) are helpful searching tools. You can also use the Boolean operator.

#### **Facebook – data analysis, research results**

Due to the fact that Facebook users can limit access to their page's contents and do not use hashtags, the results could be incomplete. Still, interesting information was obtained in accessible resources. The search was made with the use of the Facebook search engine and a private FB account (Polish version). The first searched keyword was: #infografika. We discovered that 2,500 users published posts on this topic. The results were narrowed to the period from 11.06.2021 to 2.09.2021 (to the end of the page which is displayed). We learned which trades often share infographics and what the scope of topics in infographics is. In this study we could see on the results list that a lot of infographics concern a healthy lifestyle and diets. These infographics are presented by dieticians. The infographics occur as information about products, nutritional ingredients, meal ideas, types of diets, daily caloric requirement, how to stick to a diet (e.g. the 80/20 principle), diet jokes. In addition, we observed the popularity of infographics published on FB pages/fanpages by personal trainers and fanpages concerning a healthy lifestyle, beauty and psychological issues. There were infographics by a personal trainer sharing information about training goals, first workouts, warm-up, daily caloric requirements, looking after oneself. Another fanpage that concerned a healthy lifestyle shared information about seasonal vegetables, fruits, vitamins or pains of different parts of the body. Administrators of pages concerning beauty (e.g. shops selling cosmetics and hairdressing accessories) prepare graphic information about products, beauty issues, e.g. hair care. On the results list there are also posts with infographics concerning psychology and psychotherapy, such as theories, exercises, descrip-

tions of illnesses, causes of psychological problems. These are followed by educational infographics, which include explanations of terms or processes, e.g. in the field of forestry. In addition, the infographics on FB promote companies' tools, and allow for interaction with users and clients. In this type of infographics, for example an art tools shop fanpage, we found instructions for spray painting, a company selling car parts had infographics concerning automotive issues, and a language school shared infographics with words in a foreign language.

The next part of the research covered searching with the keyword #infographic (English version). The results list showed that 41,000 users published posts on this topic. The results (for the period: 22.08.2021–20.09.2021) showed that, as in previous search results (#infografika), a lot of infographics relate to diets, healthy eating and lifestyle, psychology, education and science (e.g. Recommendations for the prevention of exercise-induced muscle cramps; how to become a great programmer). There are also infographics on information and organisation fanpages (e.g. about natural resources, women in the government on high positions, statistics, reports, COVID), promotion of one's own graphic works in the infographics area (e.g. infographics about preparing for pregnancy for people with diabetes, design), promotion of companies and interaction with clients/users (e.g. infographics: fanpages of cafes – promoting the café's offer, a car showroom – infographics about the causes of a broken battery, a real estate agency – presentation of an employee, an IT company – information about a programme, a marketing company – marketing advice). These infographics are in English, Russian, Arabic.

The analysis and results of this part of the study showed that hashtags are used in posts in which infographics are used. Infographics are quite a popular form that is shared and tagged with a hashtag in FB posts. This was observed while searching for the Polish and English versions of the word infographics. In this research the limited period option was helpful.

#### **Research conclusion**

To sum up the research results in selected social media, we observed that infographics are shared on Twitter and FB, represent different scopes of topics and are published in different languages. Thanks to the research on Twitter, we observed that infographics are not only used to present a company or interaction with clients, but also with regard to the changing situation in the world and accompanying events (COVID). This was visible in the results list in selected years. Infographics constitute an educational resource that can broaden knowledge in a selected discipline, as was observed while searching UX and science. On the other hand, thanks to the results on FB, we saw that infographics are used as a communication means in selected industries, e.g. to present a company and its employees, promote products and keep in touch with clients/users. Finally, we saw that infographics are a very popular form of contact in social media.

## Summary

To sum up our research, we can observe that infographics are a powerful form of communication and can be used in different areas and sectors. Infographics can be designed with the use of different types of visualisation of information/elements, such as charts, tables, maps and others. Their choice depends on such factors as the purpose of a given infographic, its context and recipients. Contemporary recipients are demanding and expect information to be both fast and readable. Infographics make this possible. Using infographics was presented by means of a search technique that shows the most popular scopes of topics and the sectors that apply them in selected social media.

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