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JOURNALISTIC INVESTIGATIONS IN THE DIGITAL AGE OF POST-TRUTH POLITICS: THE ANALYSIS OF BELLINGCAT'S RESEARCH APPROACHES USED FOR THE (RE) CONSTRUCTION OF THE MH17 CASE

Abstract

This article focuses on the analysis of approaches and technologies used by Bellingcat journalists while investigating the MH17 crash. The Boeing 777 flying from Amsterdam to Kuala Lumpur crashed on July 17, 2014 near the village of Hrabove (Donetsk Oblast) in Eastern Ukraine. The responsibility for the crash was placed on the participants of the military conflict, which was at its height in the region at the moment of the catastrophe. Not only the event became an international tragedy covered by media all around the world, but it also provided a new context for the information war between Russia, Ukraine and the West. Bellingcat positions itself as an independent website for investigations based on open source data. Their MH17 investigation provides a rich case for analysis of effective digital investigation tools in a situation of polyphonic reality. Using primarily digital cartographic tools and data found on social media, Bellingcat were able to create their own narrative of the MH17 crash, which has changed the way the event was discussed in the media. The conclusions that Bellingcat made during this investigation were cited by various mass media outlets all around the world and were taken into consideration by the Joint Investigation Team that was responsible for the official investigation of

the catastrophe (Zijistra and Smit 2016). Thus, the aim of this paper is to analyze and systematize the methods (technologies and narrative tactics) used by Bellingcat for (re)constructing the MH17 crash.

Keywords: digital investigation, social media, post-truth politics, communicative power shift, open-source data, multi-platform approach, free digital labor and crowdsourcing

Theoretical Framework

A defining feature of information conflicts today is that due to the development of communication technologies information flows go far beyond the media system of one particular country. The desire to defend national interests can still guide citizens, but the access to information by people is not limited by the territorial borders within which they happen to live (Tumber and Webster 2006:2). Previously, discourses around military conflicts were mainly shaped by the TV news networks that belonged to states and served their geopolitical interests. With the development of global media outlets and, later, the Internet, the mix of the old and new media allowed a more critical coverage and more diverse perspectives to appear. In conceptual terms, the key shift that happened in the information space was the change of the communicative model from the analogue "'top-down" to digital networks (McNair 2016), which facilitated the dilution of the communicative power and allowed many new actors to gain visibility. Looking at these processes from the perspective of the cultural chaos paradigm, McNair argues that "the balance of communicative power has shifted from elite to non-elite, from governments to protesters, from mainstream media to peripheral but clearly powerful outlets such as WikiLeaks" (McNair 2016:161).

The media power is more often seen as not belonging to anyone but shifting. Moises Naim writes that "power is shifting from brawn to brains, from north to south and west to east, from old corporate behemoths to agile start-ups, from entrenched dictators to people in town squares and cyberspace" (Naim 2013:45). Nico Mele mentions the "radical redistribution of power" in the age of connectivity (Mele 2013:5). However, the abundance of voices also means a polyphonic reality, which journalists have a challenge to work through to deliver reliable and accurate information to the audience. It also means that new

technologies can be used by the governments as much as by ordinary people and independent journalists, and the former may well have more resources for pursuing their communication strategies (McNair 2016). This is what one can clearly observe by looking at the Russian army of trolls, which have played an important role in the escalation of the conflict surrounding the MH17 case.

The situation becomes even more complex when one realizes that we live today in a world that is characterized by a post-truth politics mode of communication. In attempts to define what it actually is most researchers tend to stress the diminished role of facts and rising importance of feelings for the perception of what is right or wrong:

> …*"Post-truth" politics — a reliance on assertions that "feel true" but have no basis in fact. (Higgins 2016)*
> *Post-truth refers to blatant lies being routine across society, and it means that politicians can lie without condemnation. (The Economist 2016)*

The key idea here is that if previously politicians lied as opposing to telling the facts, today there is simply no concept of honesty as the default position. According to William Davis, this stems from the combination of rising populist movements and social media: the latter give individual users a unique possibility to shape the information space around their opinions and prejudice, while populists are here to support this process (Davis 2016).

With that in mind, journalists and media are forced to adapt to the changes that are going on in the information space. New instruments available allow journalistic materials to be produced through the interaction of professionals with ordinary users, and ordinary users with each other. Transparency of sources and reproducibility of conclusions became a crucial element of digital journalism, allowing establishing credibility with today's increasingly mistrustful audiences (Karlson 2010).

The notion of transparency itself, however, has to be reconsidered in an age of digital media. While traditionally transparency is seen as a complete opposite to secrecy (increasing secrecy means decreasing transparency and vice versa), Weber proposes to look at these terms from the perspective of a supplementary structure (Phillips 2011, 161). With the growing trend to transparency, the best way to hide something secret becomes to display it deliberately. Digital media provide an unprecedented display of the world, but they also neutralize distances, context, relationship — and this is something that is often skillfully

used within post-truth politics communication. The aim of digital investigations thus becomes to navigate in the world of ostentatiously displayed data and find lost structures and processes within it.

Bellingcat as a media source chosen for analysis shows an attempt to bring transparency to the level that meets the needs of digital age. Most of the researchers of Bellingcat focus on their use of free digital labor in a form of crowdsourcing (Sienkiewicz 2015), which further develops in the discussion of the credibility of citizen journalism vs. traditional media (Truscott 2015). While crowdsourcing stands at the basis of Bellingcat's investigations, there are other elements of Bellingcat work that need to be paid attention to and a more holistic approach to their phenomenon can be fruitful for understanding the new model of digital investigations. In this paper, I would like to approach a phenomenon of Bellingcat from a more holistic perspective and define the key techniques and technologies they apply in their investigations. This endeavor is important, because Bellingcat stood at the roots of a new format of digital open-source investigations and became a reference point for many media and bloggers around the world.

The Description of the Empirical Material and Research Methodology

The crash of MH17 in the Donetsk region in July 2014 has become the principal point of information war, due to its strong emotional background and international relevance. The conflict that started as a domestic military confrontation between armed forces of Ukraine and supporters of self-proclaimed NDP (the Donetsk People's Republic) and LNR (Lugansk People's Republic) has soon turned to be the tool of proving geopolitical superiority as international actors stepped in. Though Russia was constantly denying the presence of its armed forces on the territory of Ukraine, it has never concealed their support of rebels and desire to unite the Russian world. Having noticed Russian attempts to gain power in the region, Western parties (the USA, EU, NATO, OSCE, the Council of Europe) got involved in the conflict accusing Russia of the military intervention.

On 17 July 2014 the Boeing 777 of Malaysia Airlines crashed on the territory of Ukraine. The passenger aircraft was on a scheduled flight from Amsterdam to Kuala Lumpur when it suddenly crashed in the eastern part of the Donetsk

region near the Hrabove village. There were 283 passengers on board including 15 members of the crew, most of whom were citizens of the Netherlands. It is known that the liner left Schiphol airport in the Netherlands at 10.31(UTC). The plan for the flight was created by Malaysia Airlines and approved by all air traffic control centers. The recording from all the recording devices stopped at 13.20:03(UTC). There were no alert signals from the crew. Last seconds of the recording show that the crash happened unexpectedly and very fast ("Preliminary Report: Crash Involving Malaysia Airlines Boeing 777-200 Flight MH17" 2014).

Besides the fact that the MH17 crash became the biggest 21 century airplane catastrophe in the post-soviet region in terms of the number of victims, the choice of this incident for the research was guided by its importance for the escalation of information war between Russia, Ukraine and western media. One of the key weapons of this information war was disinformation and falsified evidence that were not only distributed in the Internet space, but also were used for the expression of official government positions. On the other hand, the conflict revealed a huge potential of accessible digital technologies, crowdsourcing and open data sources for finding and fact-checking information in the circumstances of post-truth politics.

Due to the fact that the airplane crash took place on the territory of Eastern Ukraine, the responsibility for the catastrophe had been assigned to the participants of the ongoing there military conflict. The question remained, however, who was guilty of the accident: Ukrainian military forces, separatists or, maybe, the Russian army that was accused of intervention in Ukraine, but denied it. The official investigation into the MH17 crash was entrusted to the Dutch Safety Board. However, the first versions and interpretations of what had happened in the Donetsk region appeared in the media on the very day of the disaster.

As the crash happened in the middle of the flight, the key scenarios of the accident were based on an assumption that the plane was shot down either from the air or the land. The Ukrainian media source LB.ua published the official position of the Ukrainian government that their military forces did not hit any air targets on that day ("Украинская армия не имеет отношения к катастрофе Boeing-777, — СНБО" 2014). They also provided visual evidence (photo and video) showing a Buk missile system, which supposedly was guilty of the catastrophe, on the territory of DPR ("В районе падения "Боинга" видели установку "Бук", — Тымчук" 2014). The material also included a link

to the post from the separatists" group on the social networking site vkontakte (VK.com), which claimed that they had shot down the plane near the area of the Malaysian Boeing crash.

On the next day after the catastrophe, the Ukrainian news channel 24 TV reported that the USA have irrefutable evidence that Russia had financed the terrorists guilty of the MH17 crash. It was also said that the USA sent this evidence to the UN Safety Board for their consideration ("Трагедія "Боїнга-777": США має беззаперечні докази, пошук загиблих триває" 2014). The 24 TV showed two videos from the Internet as evidence of a supposedly Russian Buk moving through the territory of Ukraine and also mentioned intercepting a recording of negotiations between the separatists (the content of the recording was not revealed).

The version of a Russian Buk to be involved in the air crash was supported by many Western media outlets. A video was published on the BBC website reporting that the Malaysian Boeing was most likely shot down by a Buk ("Malaysian plane crash: Impact on aviation industry" 2014). It was also said that the plane was shot down not by the Russian military forces, but by the DPR rebels that had received the missile launcher from Russia. The fact that experienced militants would have recognized a passenger liner was used as a proof of this statement.

A few days after the crash, on July 23, 2014, The New York Times published an article in the format of explanatory journalism, in which they systemized the key facts about the MH17 crash. Again, the Buk missile system was presented as the most likely reason for the tragedy. However, there were no direct accusations of the Russian side ("Two More Key Sightings of the MH17 Buk Missile Launcher" 2014). The article included pictures of debris, the post from the rebels' group on the social networking site vkontakte and lots of infographics (the flight scheme, the model of the Buk, various kinds of maps).

In his interview for the Russian information agency RIA Novosti, the prime-minister of DPR Alexander Borodai denied the claim that the plane had been shot down by the rebels, for they didn't have any weapon that could have reached such a high target ("Бородай: у ДНР нет оружия, чтобы сбить самолет на высоте 10 км" 2014). In another material from July 17, 2014 RIA Novosti published the evidence from eyewitnesses who supported the version that MH17 had been shot down not from the land, but by another airplane from the air ("Очевидцы: перед авиакатастрофой в небе был виден боевой самолет" 2014).

This version that argued for the guilt of the Ukrainian air forces was widely promoted by the Russian media. The "Russia-1" TV channel later conducted an experiment, in which a plane was fired by a fighter jet, to show the similarity between the damage it got and the photos of the MH17 debris. As an additional version of the catastrophe, "Interfax" reported about the failed attempt to shoot down the plane, in which Vladimir Putin was flying ("«Интерфакс» сообщил о попытке сбить самолет Путина" 2014).

From a quick overview of the first media reports on the MH17 crash, it becomes clear that user-generated content from open sources was strongly incorporated into Ukrainian and Western media strategy from the first days of the disaster. Already at this point, such an approach allowed them to provide versions and build, though not very consistent, but a narrative. Russian media reports relied more on claims of the witnesses and experts and empirical experiments. However, later on they also turned to open data approach and rather effectively incorporated the Internet to pursue their communication strategy.

Their investigation comprised a series of articles, in which a particular question related to the catastrophe was addressed or new evidence was presented. Each of the articles served as a piece of a puzzle, a step towards building the chain of events, which was afterwards presented in the Bellingcat summary reports. All of the articles were written by Elliot Higgins, founder of Bellingcat, or volunteers.

In this context, Bellingcat made an attempt to (re)construct the chain of events related to the Boeing crash. Bellingcat is an independent website for investigations, founded by a British journalist Eliot Higgins and known for its investigations into the use of weapons in the Syrian civil war. The choice of Bellingcat as a source of materials for the current research was guided by its specificity as a relatively new phenomenon that established the principles of digital open source investigations. Bellingcat's approach fits naturally into the new realities of journalistic practice, which is being influenced by the development of digital technologies and the democratization of data on the Internet. In new circumstances of media production, Bellingcat became a key channel between social and mainstream news sources, combining the flexibility and the novelty of approaches of the former and the professionalism of the latter. Bellingcat journalists relied on data from the social media rather than news agencies, which increased the speed and allowed them to get exclusive materials first-hand. On the other hand, it also increased the chances to come across fake or unreliable information. To comply with the professional journalistic

standards, throughout the investigation Bellingcat were developing fact-checking techniques, which will be an important subject of investigation in this article.

Overall, 75 Bellingcat's articles devoted to the MH17 investigation have been analyzed within the empirical part of the research. These were articles written during the period from July 17, 2014 to May 3, 2016. Among them, there were pure investigations as well as news, overviews of the materials published in other media sources, and posts asking the audience to help with finding new evidence. The analysis included the description of the articles' content, tools and sources of the investigation, the structure of the conclusions and the ways of presenting materials to readers. For this purpose, a short summary of each article devoted to the MH17 was written as part of analysis. Then from these summaries the most common approaches and tools were identified. At this stage these elements could be very specific, for instance, they could include the name of the tool/website. The collected data was then grouped into four general thematic blocks, which are included in this article (the "'Key approaches and technologies of Bellingcat digital investigations" part).

The Bellingcat investigation started with a video that appeared on social media right after the catastrophe. It was posted by an anonymous user and later deleted. However, as Eliot Higgins mentions in the article from July 17, 2014, he managed to download the video before it disappeared ("Geolocating the Missile Launcher Linked to the Downing of MH17" 2014). The video featured a Buk missile moving in the area of the city Snizhne (Donetsk Oblast). There was nothing specific that could prove that exactly this Buk downed the Boeing, but it became the starting point of the investigation and an important element in the further revealed chain of events. Later on, new data related to the case was found on the Internet, mostly on social media. Photos, videos and text posts were showing the presence of Buks (or the same Buk) in different places both in Russia and Ukraine, before and after the catastrophe. Based on this constantly appearing evidence, it was possible to re-create the route that the Buk that supposedly downed the Boeing had undertaken from Russia to the place of the catastrophe and back to Russia. However, firstly, it was necessary to find out whether it was a Buk (and not any other weapon) that downed the MH17. Secondly, in case it was a Buk, it was necessary to find out to which side of the conflict it belonged.

Taking into account the height at which the Boeing was flying and the damage it received, it was possible to build the two main versions of what

had happened. The first version involved a Buk missile launcher as a powerful weapon that theoretically could have reached such a high target. The second version was based on an assumption that it could have been a jet that shot the Boeing from the air. In order to prove the second version of events, the Russian television network "Russia-1" carried out an experiment where the jet fired the plane. According to the report, the pattern of damage resembled the damage observed on the debris of the MH17. However, in the article from October 11, 2014 Bellingcat looked in more detail at the images provided by Russia, and came to the conclusion that while the pattern of the damage may resemble the MH17, the direction of the holes and their size differed ("Russian TV Inadvertently Demonstrates MH17 Wasn't Shot Down by Aircraft Cannon Fire" 2014). This conclusion was made during the collaborative work with the Internet users on the Checkdesk platform and allowed them to discard the version of the MH17 being downed from the air.

An additional proof of the MH17 being downed from the land was the photo of a smoke trail in the sky that was posted online right after the catastrophe. The form and direction of the smoke allowed to assume that it was most likely left by the Buk after the missile had been launched (the process of the analysis of this evidence will be presented in detail in the next section of this article). After discarding the alternative versions of the catastrophe and presenting the evidence of the MH17 most likely being downed from the land, it was possible to continue the investigation based on the assumption that the Boeing was shot by a Buk. Thus, the further work of journalists was focused on identifying the Buk that downed the MH17, understanding which military forces it belonged to, and tracking its route to the place of the catastrophe and afterwards.

Among some of the visual evidence found online, it was possible to notice the numbering on Buks, which helped to identify the Buk that supposedly downed the MH17 from other military vehicles and track its route. Where it was impossible to see the numbering due to the poor quality of the media files, journalists and Internet users came up with special methods to distinguish different Buks from each other. Finally, they were able to make the conclusion that it was most likely Buk 332 of the Russian 53rd brigade that downed the MH17, as well as describe its route before and after the catastrophe. All conclusions made throughout the investigation were presented by Bellingcat in the form of reports and translated into different languages.

Key Approaches and Technologies
of Bellingcat's Digital Investigation

The aim of this section is to define the formula of Bellingat's investigations, which gained relevance in the context of the Internet democratization and post-truth politics discourse. The mode of Bellingcat's digital narration will be described through the analysis of its key approaches and technologies used within the MH17 investigation.

* Open Source Data
and Its Fact-Checking

One of the main arguments of Bellingcat is that they find relevant data for the investigation in open sources available to any Internet user. This means that it is not necessary for a journalist to be at the scene of events anymore, because their sphere of activities has been relocated into the digital space. Today journalists can gather the most relevant and up-to-date information from blogs and microblogs, video hosting services and social networking sites. It all became possible due to the development of web 2.0, which enhanced the development of the participation culture and allowed users to be involved in the process of content production. Subsequently, the term "prosumer" has been coined to describe the situation when the user is a producer and consumer of digital content simultaneously (Ritzer and Jurgenson 2010:17). Such type of users made important contributions to the investigation of the MH17crash.

The fact that Bellingcat make their conclusions through the analysis of accessible evidence from open sources has been stressed by them many times as a factor strengthening the credibility of their conclusions. The key point behind this idea is that any user has access to data and tools used by journalists and can reproduce their findings. To facilitate this feature of their investigations, Bellingcat were sharing step-by-step investigation process with readers, mentioning tools used and providing relevant links.

One of the numerous examples of relevant user generated content used in the investigation of the previously mentioned photo showing the column of smoke, which could have appeared after the launch of a Buk missile ("Examining the MH17 Launch Smoke Photographs" 2015). Initially, this photo was posted on Twitter by some user, whose name is not revealed by Bellingcat for security concerns. But what is important is that the author of the image was

able to provide it in a RAW format, which allowed concluding that it had not been modified and was taken on the date and time of the catastrophe. This metadata made it possible to use the picture as important evidence in the Bellingcat's investigation.

Lots of relevant evidence was found by journalists and other interested in the investigation users on Russian soldiers' personal pages in the social networking site VK.com. For example, it was noticed that the numbering of the vehicle in the photo posted by a Russian sergeant from the 53rd brigade of Russian troops in 2013 matched the numbering of the vehicle from the convoy noticed in Alexeyevka (a Russian city along the route of the Buk that was considered to down the MH17flight) ("Images Show the Buk that Downed Flight MH17, Inside Russia, Controlled by Russian Troops" 2014). This comparison allowed assuming that the 53rd brigade of Russian troops was involved in the transportation of the Buk missile launcher to the conflict territory in Eastern Ukraine.

Comparing different photos with Buks made up a considerable part of the investigation. Knowing the numbering of the Buk that supposedly downed the MH17, it was possible to find the same Buk in photos and videos posted online. Bellingcat journalists examined a lot of visual evidence with different Buks, both Russian and Ukrainian, that had been taken before and after the catastrophe. They looked at some peculiar details of their appearance, including the numbering, and thus were able to specify the locations and time where the MH17 Buk was noticed and recreate its route.

It is important to note that from open sources Bellingcat received not only evidence regarding the crash of the MH17, but also complete investigations that were conducted by Internet users or other journalists. Some of the evidence proving that MH17 was downed by a Buk was borrowed from the German nonprofit investigative newsroom CORRECTIV. The organization was founded in 2014 with the aim to respond to the media crisis and provide citizens with access to information that is often hidden by the major media outlets.

Some relevant conclusions were taken by Bellingcat from the Ukrainian blog Putin@war. The blog by an anonymous author was created with an aim to produce investigations revealing Russia's crimes in the time of war in Eastern Ukraine. He used similar to Bellingcat's methods of data gathering and analysis, which made it easy to borrow and incorporate these conclusions into the Bellingcat's investigation. For example, in the Bellingcat's article as of July 28, 2014 Higgins refers to the investigation conducted by Putin@war, in which its

author recreated the route of the Buk's movements across Donetsk, based on phone recordings and posts from Twitter that appeared just a couple of hours before the catastrophe. ("The Buk That Could — An Open Source Odyssey" 2014).

The specificity of work with open sources implies high probability of finding falsified evidence. There are no filters and fact-checking tools on social media platforms (that exist in professional media), which means everyone can create and distribute any kind of information they want. This sometimes caused an important discussion about whether Bellingcat's conclusions can be considered accurate and reliable. Therefore, Bellingcat were always fact-checking the evidence with the help of accessible digital tools and developed special techniques for doing this.

The previously mentioned article containing a video with a Buk in the area of Snizhne ("Geolocating the Missile Launcher Linked to the Downing of MH17" 2014) can serve as an example. The video did not give any obvious signs confirming the location where it had been made. Therefore, the journalist had to check the reliability of the data stated in the description of the video. Focusing on some peculiar features of the location shown in the video (the road, the houses, the trees) and using Google Maps as a reference source, the journalist was able to define the location where the video was made.

Pic.1 and Pic. 2 The comparison of the shot from the video with the Buk and satellite images of Snizhne, made to prove the fact that the Buk travelled through this location. ("Geolocating the Missile Launcher Linked to the Downing of MH17" 2014)

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* Accessible Digital Toolkit
for Analyzing and Presenting Evidence

The Bellingcat's investigation was conducted using various digital tools that are available to any Internet user: search engines (Google, Yandex), free cartographic services (Google Maps, Yandex Maps, the online map based on the principle of free editing WikiMapia, websites with satellite imagery (Google Earth, Digital Globe), the online-service that allows to track flights in real-time Flightradar24, websites for route planning, the application SunCalc that allows to find out at what time the photo was made based on the phases of the sun and shadow direction in a given location, online services for downloading video from the Internet (Keepvid, TubeOffline), the free raster graphic editor for Windows Paint.NET, the platform for creating customized maps MapBox and the service for creating interactive maps StoryMap. All these tools were used by Bellingcat during the process of investigation starting with searching for data and finishing with presenting the prepared material.

Due to the accessibility of the aforementioned tools, their reliability and potential usefulness for investigations can be sometimes underestimated. The Bellingcat practice shows that even Google search can be a source of valuable details for the investigation. A good example of this is the Bellingcat's article as of July 18, 2014, in which the journalist identified the location of the Buk in the photo posted online by some user ("Buk Transporter Filmed "Heading to Russia" Sighted in an Earlier Photograph" 2014). First the journalist managed to recognize the writing on the shop's signboard depicted in this image. He then found the exact address of the shop by searching it in Google. While searching for the shop's name, the journalist found several videos on YouTube made in the same city and on the same street, and compared them to the location depicted in the photo. This helped to check the accuracy of the details of the identified location.

Cartographic services and satellite imagery played an important role in the investigation. The article of July 28, 2014 demonstrates a peculiar way of using Google Maps in combination with other tools in order to find the location and time when the Buk and its transporter were captured in the photo ("Two More Key Sightings of the MH17 Buk Missile Launcher" 2014). The article describes the method of Chris Postal who created the route of the transporter from Snizhne to Donetsk using a website for planning routes. He thoroughly checked the images of the whole route with the help of Google Maps street

view and, finally, found the location in which the photo with Buk was taken. After checking the accuracy of these conclusions by comparing the original photo of the Buk with the image from Google Maps, the Bellingcat journalist used the SunCalc service to find out approximate time when the photo was taken.
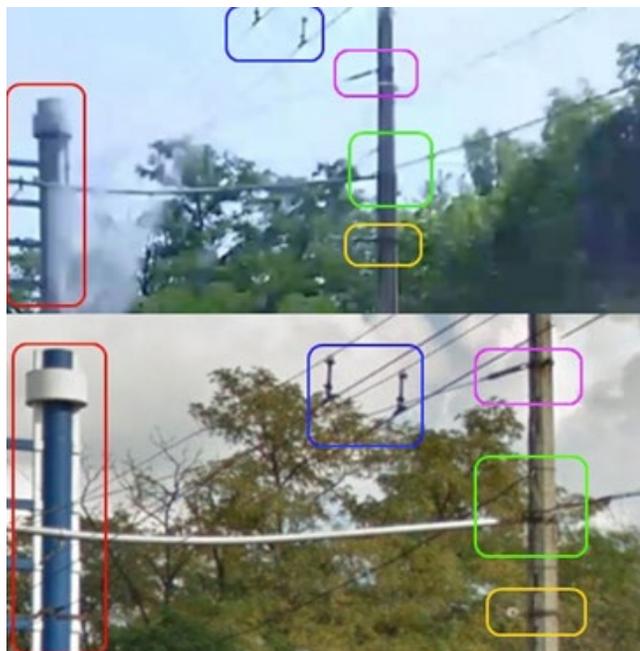
Pic 3. Comparison of the part of the Paris Match photo with the Buk and Google street view image of Donetsk, which proves that the photo published by Paris Match was made in Donetsk. ("Two More Key Sightings of the MH17 Buk Missile Launcher" 2014).

Accessible digital tools were used not only during the process of investigation, but also to present the conclusions to the audience in a convenient format. One of the Bellingcat's reports described the route of the 53rd brigade on the Russian territory from Kursk to Millerovo in June 2014. To present the reconstructed route in an interactive format, Bellingcat used the service called StoryMap ("Exploring Russia's 53rd Brigade's MH17 Convoy with StoryMap" 2015). This service allows attaching media files to locations in the map and writing text descriptions. Each point marked in the route contained visual evidence (photos and videos) of the Buk with other military vehicles moving in the identified locations.

* Free Digital Labor and Crowdsourcing

The use of various forms of digital labor was the key element of Bellingcat's investigation. This included borrowing visual evidences uploaded to the Internet by users, crowdsourcing for finding answers to questions that appeared throughout the investigation, involving journalists into the investigation on a voluntary basis. Bellingcat position themselves as an independent website headed by one journalist (Elliot Higgins), which means it has to turn to free labor and crowdsourcing. This approach defined the success of the project, because the network was able to produce quality materials without requiring huge budget for this purpose as the mainstream media usually do.

By contributing to the Bellingcat's investigation people did not expect to get any profit from that, they were guided by completely different motives: ideological ("citizen surveillance"), interest in such kind of labor as entertainment ("playbor"), hope to get the job in the future. Supporters of free digital labor stress that involvement in prestigious projects on a voluntary basis outweighs any material profits one can get from a paid job (Ross 2013:14). Thus, the devotion of a young journalist Aric Toler to Bellingcat investigation of MH17 was caused by his desire to enter the field of investigative journalism and gain experience for the future career.

The first article by Bellingcat devoted to the MH17 was published on the very day of the catastrophe, and in this article Higgins already turned to crowdsourcing in order to identify the location where the video with the Buk was taken ("Geolocating the Missile Launcher Linked to the Downing of MH17" 2014). The journalist asked his followers on Twitter to help with finding the location and received answers from several people. They mentioned the area to the south from the center of Snizhne. Higgins checked this assumption with the help of Google Earth (Pic. 1 and Pic. 2) and was convinced that the location was correct. Thus, crowdsourcing allowed the journalist who had never been to the place where the video was made to find out the exact coordinates of the Buk at a particular time in the past. The help of Twitter followers was free labor and was based only on their personal interest in the process of investigation.

In order to make the work with crowdsourcing more organized, Bellingcat started using a new tool, Checkdesk, the website, which allows working in a team for exploring and checking visual evidences related to the case. The advantage of Checkdesk is that it enables storing information from various

sources in one place and has an interface created for such kind of teamwork.. Rather than being distributed over different social media (Twitter, Facebook, etc.), now all the evidence was gathered in one place and structured by topics. This innovative format of digital labor makes it possible to define one more feature of Bellingcat's investigations — creating an argument in real time on the basis of consensus between several participants of the investigation.

The tool was used the following way: for instance, in the article published on September 20, 2014 Bellingcat turned to their readers with the call to join the search for all the accessible visual evidence of the Buk and upload them to Checkdesk ("Crowdsourced Investigation — Was the MH17 Linked Buk Sighted in Ukraine and Russia Unique?" 2014). This was an important step in organizing the whole available but distributed among different platforms evidence in one place. In the next article of September 22, 2014 Bellingcat presented the results of the work done on Checkdesk, reporting that no Buk had been found with the same marking as the one suspected in the downing of the MH17 ("More Evidence of Russia Supplying the Buk Linked to the Downing of MH17" 2014). However, one of the readers noticed a peculiar damage on the MH17 Buk — the evidence that played an important role in further investigation. The work with Checkdesk is a great example of how ordinary Internet users become involved for free in the search for necessary data and its verification.

An interesting fact is that while turning to crowdsourcing, Bellingcat provoked an international investigation, for people all around the world who had never been to Eastern Ukraine before started being involved in the process of investigation. Partially, this was caused by the open character of Bellingcat's argumentation: journalists did not hide any methods or tools they used during the investigation. For instance, in the article of July 11, 2015 they presented a whole list of tools and guides on their usage, which explained how to make investigation based on open data ("Geolocating MH17 Crash Videos with Checkdesk" 2015). In the article published on June 5, 2015 the journalist offered a step-by-step instruction with screenshots on how to use the Digital Globe tool while conducting the investigation ("Who to Trust, Google or the Russian MoD? A Guide to Verifying Google Earth Satellite Image Dates" 2015). Digital Globe provides satellite images of the highest quality, which allowed having a close look at the location where the catastrophe happened.

Not only the process of data collection implied collaboration and voluntary support from ordinary users, but also the financial basis for the investigation

was created by crowdfunding. Bellingcat position themselves as an independent network funded not by organizations or governments, but by ordinary people. It all started with Kickstarter where Eliot Higgins managed to collect $50,000 for his idea and launched the website. There were new rounds of crowdfunding organized on the same platform when it was necessary. One such round was covered in the article of June 12, 2015, in which Bellingcat thanked their readers for the collected money that had been spent on buying Digital Globe's satellite imagery. Later on these images were used to prove that some satellite images presented by the Russian officials in the media had been falsified.

* The Method of Comparing Data
from Different Platforms

While working with visual evidence Bellingcat used different methods for their verification:

· the analysis of the source (where the material has been taken from, and whether it is a trustworthy source);
· the metadata analysis (allows to find out the date when the shot was taken and whether it has been modified);
· the error level analysis (allows to identify areas in an image that have different levels of compression, which means they have been modified);
· the analysis of references (implies comparing the analyzed images with images from other sources).

All these methods were used by Bellingcat, for example, when working with satellite imagery published by the Russian Ministry of Defense ("MH17 – Forensic Analysis of Satellite Images Released by the Russian Ministry of Defense" 2015). The analysis of the references provided evidence that this imagery had been falsified. By comparing satellite images published by the Russian Ministry of Defense with images form Google Earth, the journalist came to the conclusion that dates on images presented by the Russian side were incorrect. The vegetation depicted in the Russian images corresponded to Google Earth images from May rather than July as it was stated by the Russian officials (Pic. 4).

Pic. 4. Comparison of the Google Earth images with images presented by the Russian Ministry of Defense, which demonstrates that the Russian image (the second in the row) was made not in July as it was stated by the Russian officials. ("MH17 — Forensic Analysis of Satellite Images Released by the Russian Ministry of Defense" 2015)

The method of comparison implies a multi-platform approach and works not only in case of analysis of visual evidence, but also with audio and text materials. When transcripts of the supposedly CIA agent David Stern's phone calls were uploaded to Pressbox.co.uk, it followed from them that David Stern had been involved in the planning of the Buk missile launch. This evidence was used by the Russian side to prove that they are not involved in the downing of MH17. Based on the analysis of references, Bellingcat in their article of July 29,
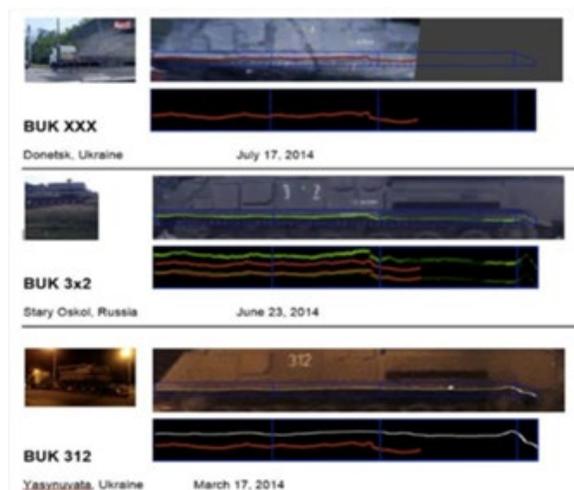
Pic. 5. Demonstrating the method of comparison of damage to the rubber side skirts for identifying Buks. ("Did This Ukrainian Soldier Prove Ukraine Shot Down MH17?" 2015)

2015 proved that this version was most likely wrong. The journalist compared the voice of David Stern in the Pressbox.co.uk recording with the BBC video that featured the agent and noticed the difference in the accent of the voices in the audio and video ("The Strange Story of the Ten Million Dollar MH17 Investigation" 2015). In this case the BBC video can be considered a reliable reference material, because it was taken from a trustworthy source (BBC) and made before the catastrophe in Donetsk Oblast.

When it was impossible to find reference sources to check the data accuracy, Bellingcat worked with all the materials available, even if the level of their reliability was not high. The value of such a comparison of all available data lies in a fact that it makes possible to identify important patterns or contradictions, which open new possibilities for deeper investigation. A good example can be the interesting method invented by Bellingcat in order to identify different Buks. It was not always possible to identify the marking on Buks in photos and videos, because some of them were of poor quality. However, each of the Buks had a unique damage to the rubber side skirts, which was developing throughout their use. In the article of January 2, 2015 Bellingcat introduced the method of comparison of damage to the rubber side skirts for Buks identification ("Did This Ukrainian Soldier Prove Ukraine Shot Down MH17?" 2015). The results of the comparison (Pic. 5) demonstrated that the Ukrainian Buk 312 (which could also be suspected of the MH17 downing) was actually not the Buk that was captured in the visual evidence that appeared online right after the catastrophe.

Conclusion

The information war between Russia and Ukraine that unfolded around the MH17 case can serve as a bright example of how each side of the conflict promotes their own narrative of events creating the situation of post-truth reality. In essence, we have one fact — the crash of the plane in Donetsk Oblast — and a variety of interpretations that surround it. The website of independent investigations Bellingcat has been analyzed in this article as an example of a consistent and systematic attempt to shed light on the highly confused context, which has set out new principles of digital investigations.

By analyzing all of the Bellingcat materials devoted to MH17 we have defined the tools, narrative tactics and templates that can be used during the

process of digital investigation. While often criticized for non-conventional and, therefore, unreliable sources and tools, Bellingcat's approach is characterized by transparency and possibility of step-by-step verification, which became key points that ensured credibility of the increasingly mistrustful audiences.

It turned out that the whole Bellingcat investigation was based solely on open data sources and accessible digital toolkits, which were used to collect and analyze relevant data, as well as to present conclusions. This peculiar approach to the investigation process along with the use of crowdsourcing and free digital labor strengthened the journalists' argumentation and became indicators of reliability of the investigation in the new realities of data production.

Among various interpretations Bellingcat found facts while applying the aforementioned approaches to the materials from different sources and of different formats (photos, video, and satellite imagery), which allowed them to identify important matches and contradictions. Thus, the multi-platform approach to journalistic work can be seen as the key direction of development of investigations that allows to (re)construct facts in the situation of post-truth politics.

Literature

Art of the lie, 2016 / [Electronic Resource]. Available from: https://www.economist.com/leaders/2016/09/10/art-of-the-lie

Davis, W. The Age of Post-Truth Politics, 2016 / [Electronic resource]. Available from: https://www.nytimes.com/2016/08/24/opinion/campaign-stops/the-age-of-post-truth-politics.html

Higgins, K. Post-truth: a guide for the perplexed, 2016 / [Electronic resource]. Available from: https://www.nature.com/news/post-truth-a-guide-for-the-perplexed-1.21054

Jenkins, H. Executive Summary. Enabling Participation. In: *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Cambridge: The MIT Press, 2009. P. xi–xv, 5–14.

Karlsson, M. Rituals of Transparency: Evaluating Online News Outlets' Uses of Transparency Rituals in the United States, United Kingdom and Sweden. Journalism Studies № 11, 2010. P. 535–545.

McNair, B. Communication and Political Crisis: Media, Politics and Governance in a Globalized Public Sphere. New York: Peter Lang Publishing, 2016.

Mele, N. The End of Big: How the Internet Makes David the New Goliath, New York: St Martins Press, 2013.

Naim, M. The End of Power: From Boardrooms to Battlefields and Churches to States, Why Being in Charge Isn't What It Used to Be. New York: Basic Books, 2013.

Preliminary Report: Crash Involving Malaysia Airlines Boeing 777-200 Flight MH17, 2014 / [Electronic resource]. Available from: https://wikispooks.com/w/images/e/ed/MH17_preliminary_report.pdf

Phillips, J. Secrecy and Transparency: An Interview with Samuel Weber. *Theory, Culture & Society*, vol. 28, 2011. P. 158–172.

Ritzer, G.; and Jurgenson, N. Production, Consumption, Prosumption; The Nature of Capitalism in the Age of the Digital "prosumer". *Journal of Consumer Culture*, vol.10, no.1, 2010. P. 13–32.

Ross, A. In Search of the Lost Paycheck. In: Scholz T., ed. *Digital Labour: The Internet as Playground and Factory*. NY: Routledge, 2013. P. 13–32.

Tumber, H.; Webster, F. Introduction: a new kind of war. In: Journalists Under Fire: Information War and Journalistic Practices. London: SAGE Publications, 2006. P. 1–7.

Truscott, S. In the era of Citizen Journalism is media credibility becoming irrelevant? 2014 / [Electronic resource]. Available from: https://sandratruscott.wordpress.com/2015/07/11/in-an-era-of-citizen-journalism-is-media-credibility-becoming-irrelevant/

Zijistra, J. Smit, M. Onderzoeksgroep: twintig Russen in beeld voor neerhalen MH17, 2016 / [Electronic resource]. Available from: https://nos.nl/artikel/2078421-onderzoeksgroep-twintig-russen-in-beeld-voor-neerhalen-mh17.html

Media Sources (research part)

Buk Transported Filmed "Heading to Russia" Sighted in an Earlier Photograph, 2014 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2014/07/18/buk-transporter-filmed-heading-to-russia-sighted-in-an-earlier-photograph/

Crowdsourced Investigation — Was the MH17 Linked Buk Sighted in Ukraine and Russia Unique? 2014. / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2014/09/20/crowdsourced-investigation-was-the-mh17-linked-buk-sighted-in-ukraine-and-russia-unique/

Did This Ukrainian Soldier Prove Ukraine Shot Down MH17, 2015 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2015/01/02/did-this-ukrainian-soldier-prove-ukraine-shot-down-mh17/

Examining the MH17 Launch Smoke Photographs, 2015 / [Electronic resource]. Available from: https://www.bellingcat.com/resources/case-studies/2015/01/27/examining-the-mh17-launch-smoke-photographs/

Exploring Russia's 53rd Brigade's MH17 Convoy with StoryMap, 2015 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2015/10/08/exploring-russias-53rd-brigades-mh17-convoy-with-storymap/

Geolocating MH17 Crash Videos with Checkdesk, 2015 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2015/07/11/geolocating-mh17-crash-videos-with-checkdesk/

Geolocating the Missile Launcher Linked to the Downing of MH17, 2014 / [Electronic resource]. Available from: https://www.bellingcat.com/resources/case-studies/2014/07/17/geolocating-the-missile-launcher-linked-to-the-downing-of-mh17/

Images Show the Buk that Downed Flight MH17, Inside Russia, Controlled by Russian Troops, 2014 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2014/09/08/images-show-the-buk-that-downed-flight-mh17-inside-russia-controlled-by-russian-troops/

Malaysian plane crash: Impact on aviation industry, 2014 / [Electronic resource]. Available from: http://www.bbc.com/news/world-europe-28359345

MH17 — Forensic Analysis of Satellite Images Released by the Russian Ministry of Defence, 2015 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2015/05/31/mh17-forensic-analysis-of-satellite-images-released-by-the-russian-ministry-of-defence/

More Evidence of Russia Supplying the Buk Linked to the Downing of MH17, 2014 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2014/09/22/more-evidence-of-russia-supplying-the-buk-linked-to-the-downing-of-mh17/

Russian TV Inadvertently Demonstrates MH17 Wasn't Shot Down by Aircraft Cannon Fire, 2014 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2014/10/11/russian-tv-inadvertently-demonstrates-mh17-wasnt-shot-down-by-aircraft-cannon-fire/comment-page-1/

The Buk That Could — An Open Source Odyssey, 2014 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2014/07/28/the-buk-that-could-an-open-source-odyssey/

The Strange Story of the Ten Million Dollar MH17 Investigation, 2015 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2015/07/29/the-strange-story-of-the-ten-thousand-bitcoin-mh17-investigation/

Two More Key Sightings of the MH17 Buk Missile Launcher, 2014 / [Electronic resource]. Available from: https://www.bellingcat.com/news/uk-and-europe/2014/07/28/two-more-key-sightings-of-the-mh17-buk-missile-launcher/

What Happened to Malaysia Airlines Flight 17, 2014 / [Electronic resource]. Available from: https://www.nytimes.com/interactive/2014/07/18/world/europe/malaysia-airlines-flight-mh17-q-a.html?mcubz=3

Toler, A. Who to Trust, Google or the Russian MoD? A Guide to Verifying Google Earth Satellite Image Dates, 2015 / [Electronic resource]. Available from: https://www.bellingcat.com/resources/how-tos/2015/06/05/google-earth-image-verification/

Бородай: у ДНР нет оружия, чтобы сбить самолет на высоте 10 км, 2014 / [Electronic resource]. Available from: https://ria.ru/world/20140717/1016427976.html

В районе падения "Боинга" видели установку "Бук", — Тымчук, 2014 / [Electronic resource]. Available from: https://lb.ua/society/2014/07/17/273263_rayone_padeniya_boinga_videli.html

«Интерфакс» сообщил о попытке сбить самолет Путина, 2014 / [Electronic resource]. Available from: https://lenta.ru/news/2014/07/17/president/

Очевидцы: перед авиакатастрофой в небе был виден боевой самолет, 2015 / [Electronic resource]. Available from: https://ria.ru/world/20140717/1016451269.html

Трагедія "Боїнга-777": США має беззаперечні докази, пошук загиблих триває, 2014 / [Electronic resource]. Available from: http://24tv.ua/tragediya_boyinga777_ssha_maye_bezzaperechni_dokazi_poshuk_zagiblih_trivaye_n465839

Украинская армия не имеет отношения к катастрофе Boeing-777, — СНБО, 2014 / [Electronic resource]. Available from: http://society.lb.ua/accidents/2014/07/17/273256_ukrainskaya_armiya_imeet_otnosheniya.html