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Smartphones In Journalism

ABSTRACT

Nowadays the smartphone is an inalienable attribute of the journalist. Journalists use it as a supplement to professional equipment or as a substitute. It depends on the quality of the smartphone and the scope of the work of the journalist. If a journalist works in print media or online media, he can completely refuse the use of professional techniques, because modern smartphones have good built-in voice recorders and a camera that can help record an interview and make a photo of the hero of the material. For online and radio journalists, the smartphone is usually a complement to professional equipment. Special video and audio applications on smartphones help journalists quickly assemble the material and send it to the editor. Smartphones also allow journalists to broadcast live broadcasts from current affairs and be indispensable during journalistic investigations, where the use of professional techniques is impossible. This research analyzed journalistic materials in Ukrainian online media, where a smartphone was used to create journalist material, and also interviewed Ukrainian journalists to find out what features and applications of a smartphone they use for their professional activities.

KEY WORDS

Smartphone. Journalist. Mass media. Programs. Internet media.

1. Introduction

The rapid development of the latest technology enables the instantaneous transmission of text, sound, picture or video at any distance and makes the cardinal review of the principles of work in many spheres, especially in journalism. Marina Ghersetti and Oscar Westlund¹ declare that the future of journalism and media accessing carry much significance for the future of crisis communication. Different generations have formed distinct media habits, and their uses vary in different situations. In journalism, there is a revolution in the use of smartphones instead of the usual laptops, cameras and voice recorders. Even the well-known editions (for example, The Hindustan Times) specifically teach how to use a smartphone in their work. Smartphone (smartphone) is a cellular phone with a built-in computer and other functions such as an operating system, a browser and the ability to run software applications². They have become fully-fledged computers that can fit into our pockets. They can download special professional software and mount video, audio, edit photos and much more, which simplifies the work of the journalist. There is no point in a broadcast journalist standing around the place of event and waiting for the camera crew to arrive when he has what he needs in his pocket. Twan Spierts says „*The best camera is the camera which you have with you.*“³

The New York Times was one of the first to determine the potential of smartphones. It began to equip its reporters with iPhones from February 2011. Ann Derry called the Apple iPhone 4 a „gaming device“ for mobile media production. The Guardian in London began a similar process in June 2012, giving employees 20 iPhones with the opportunity to shoot videos, take photos and send out materials⁴. Unfortunately, this practice has not been used in the Ukrainian media. But in their professional work Ukrainian journalists are beginning to use smartphones increasingly. After all, smartphones allow journalists to report on news wherever it happens, regardless of computers or a large number of expensive cameras and other equipment. The journalist with a smartphone can report from anywhere, armed only with a mobile phone, provided that there is adequate software and a reliable 3G or WiFi connection. But even if there is no Wi-Fi or 3G connectivity, the reporter can save video or audio on his smartphone and transfer content when he finds a reliable connection. A journalist can shoot in places where it is he not allowed to work with a video camera. Also, one can interview people with a mobile phone, when a conversation with a full television team may be an awkward. For example, Yusuf Omar uses a smartphone to cover many events. The most famous of its breed with the help of a smartphone is the material used in the Snapchat application. This is a photo application that allows you to overlay a mask on an image. Omar used it in an interview with victims of sexual abuse. Masks allowed women to defend their identity and for the first time to tell their stories without fear of becoming a subject of public debate about rape. We can hear the voices of these women, see their facial expressions - this is very important for such material. Yusuf commented so: „*Broadcasters blur their faces using silhouettes, and I feel that so much information is lost. Facial expressions are critical when people try to understand. First of all, we must see whose identity was hidden, but we have to see our eyes. You can see a piece of jaw, expressions at the head. It's much more intimate for a viewer who is trying to take a look at history.*“⁵ And

¹ GHERSETTI, M., WESTLUND, O.: Habits and generational media use. In *Journalism studies*, 2018, Vol. 19, No. 7, p. 1040.

² KOLOSKOV, S.: *Smartfon, komunikator, mobilnyi telefon: yak rozriznyty y shcho vybraty dlia sebe.* [online]. [2019-10-01]. Available at: <http://media.mabila.ua/ua/articles/techno/smart_vs_comunic_phone/>.

³ SPIERTS, T.: *Up close and personal? Mobile journalist Twan Spierts on reporting with smartphones.* [online]. [2019-10-01]. Available at: <<https://onlinejournalismblog.com/2017/09/28/twan-spierts-mobile-journalism-tips>>.

⁴ HODGE, K.: *Journalists Creating Killer Content with Smartphones.* [online]. [2019-10-01]. Available at: <<https://contently.com/2012/12/26/journalists-creating-killer-content-with-smartphones/>>.

⁵ BERKHEAD, S.: *Journalist of the month: Yusuf Omar.* [online]. [2019-10-01]. Available at: <<https://ijnet.org/en/story/journalist-month-yusuf-omar>>.

Yusuf himself says: „I managed to record such videos because people simply forgot that I was recording our conversation on their phone. Who wants to talk about rape, if your camera is directed to you? I'm sure that using a smartphone is the best way to tell stories.“⁶

2. Methodology

We also decided to interview Ukrainian media workers if they use their smartphones in their professional activities. The survey was held with the help of the social network Facebook. We sent messages only to those who create materials for the media, so in general 465 respondents were interviewed: radio journalists (6,5%), TV journalists (15,1%), freelancers (28%), journalists working in print media (8,6%), those who work in the Internet media (23,7%), in news agencies (5,4%), press services (8,6%), PR (1,1%), others - 3%. We posted a questionnaire on the social network Facebook, and also sent direct messages to journalists on social media. The age of interviewed respondents is as follows:

18-24 – 19,4%

25-40 – 78,5%

41-50 – 1,1%

51-65 – 1,1%

66 and more - 0%.

The questionnaire contained 11 questions, and almost each of them had the option „Your response“, which made it possible not to limit respondents to our answer variants. This helped a lot, because the respondents via their own answers have enriched our questionnaire and helped us to learn about other programs and features of the smartphone which journalists use in their professional activities. The respondent could choose more than one answer option in several questions.

3. Discussion

Mobile tools and applications can help journalists to reach a more specific audience. At the same time, ordinary eyewitnesses to events with their own smartphones create their own materials, and the media often publish them. That is, this gadget also helps to develop public journalism. Moreover, J. Watkins, L. Hjorth and I. Koskinen⁷, say that smartphones have become a poignant symbol for rethinking cultural and media studies today.

Researchers Eva Lavin de las Heras and Alba Silva Rodriguez⁸ colligate using smartphones in the professional journalism with the emergence and developing of citizen journalism. Accordingly to their exploring, one of the most obvious consequences was the democratization of information with the so-called citizen journalism... But after this step, we are seeing a new change, these media are also beginning to use smartphones with reporters themselves not only informing through social networks but to do their work, photographers take photos with the mobile phone camera and journalists have live signals without help or other tools than their mobile phone. This allows cost savings for the environment and greater speed when reporting from anywhere so many media that are heading towards this change.

⁶ GOSCILO, H.: Russia's ultimate celebrity: VVP as VIP objet d'art. In GOSCILO, H. (ed.): *Putin as Celebrity and Cultural Icon*. London, New York : Routledge, 2013, p. 18-19.

⁷ WATKINS, J., HJORTH, L., KOSKINEN, I.: Wising up: Revising mobile media in an age of smartphones. In *Continuum*, 2012, Vol. 26, No. 5, p. 667.

⁸ HERAS, E. L., RODRIGUEZ, A. S.: The Smartphones: Revolutionizing Journalism. In *2015 10th Iberian conference on information systems and technologies (cisti)*. Aveiro, Portugal : IEEE, 2015, p. 2.

In journalism studies there is a scientific question – what to call journalism, which in mostly done by using smartphones. In the book „Digital Sports Journalism“ (C. MLambert)⁹, the term „digital“ is used to refer to types of journalism that have been made possible by: the invention of the world wide web, the prevalence of smartphones, and the ability to collate and manage large amounts of data. He also considered „smartphone journalism“, as almost all the journalism featured in his book was designed to be consumed on a phone; but this term risks confusion with journalism actually produced on a smartphone.

Another term which is also often used to name journalism made by smartphone is „new journalism.“ In particular Alba Silva Rodriguez and Francisco Campos Freire¹⁰ believe that the information designed for the „fourth screen“ had to meet the patterns of brevity, clarity, concision and accuracy, and mobile editorial platforms such as The Atavist or The Atlantic have demonstrated that the „new journalism“ has also a place on handheld devices.

We believe that the most appropriate qualification for this case is mobile journalism, though during extreme spreading of new technologies, soon there will be no need to single out different kinds of journalism, depending on the sources which were used to make the journalistic material.

Martin Vaz Alvarez¹¹ emphasizes that the latest technical improvements in mobile devices (smartphones and tablets), together with the proliferation of apps and gadgets adapted to these systems open up a new spectrum of possibilities for journalists, it being already possible to film and edit audiovisual pieces simultaneously of broadcast quality and with a much lower budget than standard television equipment needs. The work of journalists requires the fulfillment of many diverse tasks: identifying new topics, conducting research and analyzing them, using social networks, editing photos and videos, and organizing all of this. And there are many smartphone apps that can optimize your work and make it more comfortable and efficient. Attachments for journalists are an important part of the materials released on phones. They can greatly simplify and reduce the same work that we perform on a laptop. A professional journalist often does not have enough standard programs offered by smartphone manufacturers, so there is a need to find new programs that will help them in their professional activities.¹²

On the one hand, smartphones can help professional journalists do their work more quickly and more easily. In particular a lot of specific skills and as a result suitable applications are needed by photojournalists. Stuart Allan and Chris Peters¹³ while examining the new tendencies in photojournalism declare that professional photojournalism's discursive authority is shown to be open to challenge by the alternative ethos of citizen imagery, with respondents' perceptions raising questions over realness, authenticity and truth-value complicating, and at times destabilising, familiar professional–amateur normative binarisms.

On the other hand, as state MV Alvarez and XP Farina¹⁴, some processes in the production of information have been shortened by new media, making epistemological expertise and technical expertise converge in the definition of the multimedia journalist. The relation between the author and the public has also morphed the meaning of authorship, now that the audience

⁹ LAMBERT, C.: *Digital Sports Journalism*. London : Routledge, 2019, p. 28.

¹⁰ RODRÍGUEZ, A.: Reports in and from Smartphones: A New Way of Doing Journalism. In FREIRE, F. et al. (eds.): *Media and Metamedia Management*. Santiago de Compostela, Spain : Springer, 2017, p. 149.

¹¹ ALVAREZ, M. V.: The Future of Video-Journalism: Mobiles. In FREIRE, C. F. et al. (eds.): *Media And Metamedia Management*. Santiago de Compostela, Spain : Springer International Publishing, 2017, p. 463.

¹² VERCLAS, K., MECHAEAL, P.: *A Mobile Voice: The Use of Mobile Phones in Citizen Media*. [online]. [2019-10-01]. Available at: <https://pdf.usaid.gov/pdf_docs/Pnadm040.pdf>.

¹³ ALLAN, S., PETERS, C.: The "Public Eye" Or "Disaster Tourists". In *Digital Journalism*, 2015, Vol. 3, No. 4, p. 477.

¹⁴ ALVAREZ, M. V., FARINA, X. P.: New Technologies and New Experts An Insight on the Idea of Expertise in Relation with New Media. In ROCHA, A. et al. (eds.): *Recent advances in information systems and technologies*, Porto Santo Island, Madeira, Portugal : Springer International Publishing AG, 2017, Vol. 3, No. 1, p. 214.

plays an active role in the stories. Furthermore, using the smartphone in different spheres of life, in particular, as a means for self presentation has led to such phenomenon as selfie journalism. Undoubtedly, there are several important aspects in the area of 'selfie journalism' that require further research. For instance, the socio-economic aspects of such a practice and the qualitative alteration of the news content; on the one hand, 'selfie journalism' includes the element of citizen journalism in terms of amateur practices of sharing witnessing tokens and, as such, may pose a real threat to professional journalism.¹⁵

We definitely agree with Karin Wahl-Jorgensen, Andrew Williams, Richard Sambrook, Janet Harris, Iñaki Garcia-Blanco, Lina Dencik, Stephen Cushion, Cynthia Carter and Stuart Allan¹⁶, who say that for both citizen journalists and professionals, the increasing sophistication of smartphones for news production and sharing might offer new possibilities which are particularly significant in enabling reporting in distant locations, and often empowering disenfranchised groups.

One more opportunity for journalists using smartphone is chat apps. V. Belair-Gagnon, C. Agur and N. Frisch¹⁷ find that there are differences of trust depending on the functionalities of individual chat apps, and that interactions in journalistic sourcing in face-to-face and online environments affect the generation and output of news stories. Chat apps allow reporters to use open or closed networks, and adopt one of several approaches: trust the network, master the network, or abandon the network. HMSGonzales and MSGonzalez¹⁸ accent on one more kind of the app chats such as chat bots. They say that journalism has tools that use artificial intelligence and instant messaging systems to send filtered and personalized information to users. These systems are known as chatbots, or conversational applications. While big media companies are developing their own applications via Messenger or Telegram, there are other companies that provide this type of service as well.

So, as we see, smartphones can help journalists in their professional work, so it is worth examining in detail the possibilities of modern phones and their use by mediaworkers.

4. Results

A journalist in their professional work can use any smartphone that allows them to connect accessories (tripod, lighting, etc.). The choice of a smart device usually depends on four key factors: platform, manufacturer, smartphone capabilities, cost and functionality.¹⁹

As for the types of smartphones, in the publication *Smartphone Buying Guide Part 2: Types of Smartphones*²⁰ they are divided by price level, screen size and operating system.

The price of a smartphone, as a rule, depends on the brand name and its features. So, smartphones at the price range can be divided into such levels: base, medium and high. Base-level smartphones are smartphones that do not offer anything more than a basic set of features and cost less than \$ 200. The use of a base-level smartphone usually will not be effective for

¹⁵ MANIOU, T., VEGLIS, A.: Selfie Journalism: Current Practices in Digital Media. In *Studies in Media and Communication*, 2016, Vol. 4, No. 1, p. 111.

¹⁶ WAHL-JORGENSEN, K. et al.: The Future of Journalism. In *Digital Journalism*, 2016, Vol. 4, No. 7, p. 809.

¹⁷ BELAIR-GAGNON, V., AGUR, C., FRISCH, N.: Mobile sourcing: A case study of journalistic norms and usage of chat apps. In *Mobile media & communication*, 2018, Vol. 6, No. 11, p. 56.

¹⁸ GONZALES, H. M. S., GONZALEZ, M. S.: Bots as a news service and its emotional connection with audiences. The case of Politibot. In *Doxa comunicacion*, 2017, Vol. 25, No. 1, p. 122.

¹⁹ BURUM, I. M.: *The Mobile Journalism Handbook: How to Make Broadcast Videos with an iPhone or iPad*. [online]. [2019-10-01]. Available at: <https://play.google.com/store/books/details?id=n9osCgAAQBAJ&rdid=book-n9osCgAAQBAJ&rdot=1&source=gbs_vpt_read&pcampaignid=books_booksearch_viewport>.

²⁰ ASHBURNER, J.: *Smartphone Buying Guide Part 2: Types of Smartphones*. [online]. [2019-10-01]. Available at: <<https://smartphone.ninja/smartphone-buying-guide-part-2-types-of-smartphones/>>.

journalist work, because of the low quality of camera, small amount of memory etc. This is a good option if a journalist needs a temporary phone or for a difficult trip, where he does not want to risk taking his expensive high-speed smartphone. It can also be used simply as a method of communication.

Mid-range smartphones cost not less than \$ 200. We categorize their price from 200 to 500\$. Thanks to their powerful dual-core or quad-core processors and sufficient memory, they are capable of running programmes for journalists. They also have plenty of storage space for multimedia files, a large screen and a good camera.

These smartphones are sufficient for journalist work because they have all the necessary features and the ability to run applications.

High-end smartphones are flagship devices that cost more than \$ 500. High-speed smartphones have premium and stylish design, crisp FHD and FHD + displays, powerful processors, huge amount of RAM and megapixel cameras. They are also represented by the latest operating systems and are the first to receive updates after the release of new software. For a journalist, this level of smartphone is really powerful and will be no worse to use than a computer. With all its features it will be possible to create quick material right on the spot and promptly submit it.

Ukrainian journalists often (80,6% of respondents) use smartphones in their professional activities. Very rarely use - 3,2%, do not use at all - 0% (see Chart 1). Usually Ukrainian journalists use smartphones of average price level as the average journalist salary in Ukraine is 200-500 dollars (49,5%). Only 22,6% have smartphones for more than \$ 500, and 1,1% use a phone more expensive than \$ 1000.

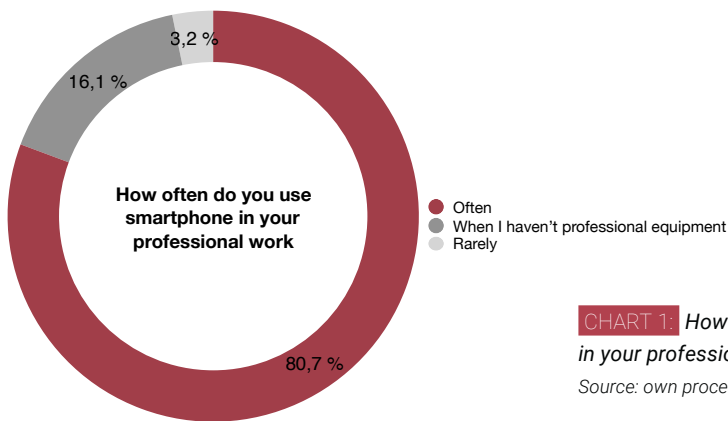


CHART 1: *How often do you use smartphone in your professional work*

Source: own processing, 2019

Smartphones can be also divided by operating system. Android, iOS and Windows Phone are the dominant operating systems among smartphones, which means that any smartphone one buys today is likely to work on one of these three platforms.

Through Google's open source policy, Android is the world's most widely used mobile operating system, which employs about 85 percent of global smartphones²¹. IOS is also a popular operating system. Compared to Android, iOS is a closed operating system that can only be used on Apple devices. Perhaps the biggest advantage of purchasing a Windows-based smartphone is the continuous integration with Windows desktop and laptop computers, where you can sync music, videos, photos and documents on all your Windows devices that will be convenient for the journalist and can save time. However, despite this, Windows Phone still remains in third place among major mobile platforms, particularly because of the low app optimization and a not-too-popular app store.

²¹ TANENBAUM, E., BOS, H.: *Sovremennyye operatsionnyye sistemyi*. St. Petersburg : Piter, 2015, p. 56.

We believe that the best method for a journalist is the Android operating system or IOS. The choice between these two depends on the preferences of the journalist's interface. They have a large number of applications and opportunities for creating materials. Windows Phone can not be called optimal, but it has a significant advantage in the ability to synchronize all documents on Windows devices. Ukrainian journalists mostly use the Android operating system (59,1%), iOS 39,8% and 1,1% use Windows .

So, in order to get acquainted with the choice of a smartphone, one needs to match all the data that is collected. Choosing the perfect smartphone for a journalist is an individual matter. Here it is necessary to take into account how the journalist wants to create materials. Perhaps they want to create professional materials only with a smartphone. Then they need a powerful device, with a great camera, large screen and all other features of expensive smartphones. But the journalist will also have enough opportunities with a smartphone of average price level, which will also be able to create good material. It also depends on where the created materials will be published. In particular, if it is for Internet media, then it is quite possible to deal with a medium-sized smartphone, and it is sometimes impossible to distinguish material which was created on an expensive smartphone from that which was made by using professional equipment. Speaking about smartphones of a low price level, with poor performance, it is better to use them only as a means of communication.

When choosing a smartphone it is important to determine which additional devices or accessories are available for it. Ivo Borum gives examples of devices that he himself uses. He emphasizes that optics are very important. A wide-angle lens will give a wider perspective and make the image from the smartphone more stable. The wide lens also helps to get closer to the subject, which helps to improve the sound quality. For example, MCam, from ALM, has a solid camera lens frame with plenty of mounting points, accessories and removable objects. ExoLens Pro is a new system that uses a Zeiss lens. It is pocket sized, also has points for attachment and comes with six adapters for connecting to six types of smartphones. This wide-angle lens does not give a difference in the corners of the pictures. About the tripod, he recommends a small tripod that is easy to carry and can be used as a handle to stabilize hand-shots. If we need extra height - attach it to the car's roof or to the wall or to the cabinet. Manfrotto Pixi is manufactured with excellent quality, equipped with a rotary connection. If you need a bigger tripod and you are not against extra weight, you can try a monopod with sliding legs. The best choice is the Manfrotto 560B1. Ivo's uses a 6000 mAh Mofa battery, which gives 24 to 100 additional charge hours²².

Ivo Borum also lists his set of additional tools: „*My set consists of a wide-angle Zeiss Exolens lens, which helps to stabilize the image when working with hands. It also means that I can get closer to the subject, which helps to get a better sound recording. I also add a Manfrotto Pixi tripod, Rode Video Micro, Smart Lav + microphone, LUMIE Muse, Airstash USB flash drive, and a headset set.*“²³ Ukrainian journalists often use the following built-in functions of a smartphone in their professional activity: the camera (89,2%), voice recorder (71%), browser for information search (95,7%), social networking (89,2%), GPS- maps (58,1%), MS Office (54,8%), Notes (2,2%), Graphic Editors (1,1%), File Editors (1,1%). This can be both for searching and verifying information, and in order to find the hero of the material, arrive at the meeting place and conduct an interview with him and send the material quickly to the editor.

Undoubtedly, some of the most useful applications for journalists are video applications. If you want to have a career on television or in the online media, creating video content will be absolutely necessary. Often, you will not have access to a professional camera when suddenly an important event may happen in front of your eyes. So, downloading a few video applications

²² BURUM, I.: *Mojo Workin' – Essential Mobile Journalism Tools*. [online]. [2019-10-01]. Available at: <<https://gijn.org/2017/04/11/mojo-workin-essential-mobile-journalism-tools/>>.

²³ Ibid.

is a must. One among such applications today is FiLMic Pro. It should be noted that we will list those programs that are most popular among journalists according to the results of our survey. FiLMic Pro basically transforms our phone into a good HD camera with features including 4xzoom, focus, exposure, white balance, and more. It also has headphones for audio correlations. This program is a great solution if you can not afford a camera. After shooting with FiLMic Pro we will need to edit the material.

Another good application is Adobe Premiere Pro- a professional non-linear video installation program. This program allows you to mount and edit the video to a high quality. It allows you to add special effects and graphics. This program is not difficult to use.

According to the results of our survey, 50,5% of the respondents did not use programs to create and edit videos. Among the other 49,5%, the following programs are used: Adobe Premier (36,6%), FiLMic Pro (11,8%), Quik (2,2%), Sony Vegas (1,1%), Splice (1,1%), Final cut (1,1%). Well-known applications such as Promptware Plus, Bambuser and Voddie are not used by the survey respondents. We would encourage journalists to pay attention to them and use in their professional work. To make a complete and professional video, one of the best video and audio editing programs is Voddie. It gives you the ability to work with two video tracks and four audio tracks and send multimedia files over Wi-Fi after playback. You can also stream videos made by other users and one's own, and share content through social networks Facebook and Twitter.

Bambuser and Ustream allow you to broadcast video directly to private groups of people or to the whole world. You can also stream videos created by other users and share content over social networks such as Facebook and Twitter.

For those who dream of becoming a TV presenter, it's now possible to practice reading with the Promptware Plus program. It is possible to input your stuff directly into the app or copy and paste it there. You can also set the font and the speed of the text, as well as experiment, to see what's right for you. This app is good for bloggers.

Image editing applications for journalists are important, especially when quality images are required that accompany content uploaded to a website or blog. It is worth paying attention to the Snapseed app - it is a photo editor for iOS and Android operating systems. This app is suitable for beginners as well as for professional photographers who need to quickly edit their photos.

Snapseed can be used to quickly edit photos taken on a smartphone. This will be useful before you send it to the editorial office or social network. It has a very simple and intuitive interface. All you need is: 1) run the application, 2) select the photo you want to edit, 3) apply the elements and features you want to work with. Snapseed allows you to choose very precise settings. For example, we can choose the instantly finished style that is already configured and simply overlaid on the photo, their list is large enough. There is for example a photo with a pink tinge or a change from black to white and many others. And you can edit it yourself by using tools such as: editing, detailing, curves, white balance, crop, rotate, perspective, extension, fragments, brush, point correction, HDR effect, gloss, tone contrast, drama, vintage, grainy, retro, grange, white-black, eclipse, potret, blur, vignette, double exposition, text, frames. Next, we can quickly transport the image, wherever we need it.

Another interesting photo editing application is Taggly. It allows you to quickly add names, logos, addresses, time stamps and more to the photo.

It's also convenient to edit photos on your mobile device with Adobe Photoshop Fix. Fix can remove unwanted moments from your photos. You just need to select and cut the object that we want to remove, and the combination of surrounding pixels will fill the empty space. Fix saves these edits in layers so that the product is dimensional rather than flat. These images can be transported through the Creative Cloud for later use. However, you need to be careful and understand what can be edited, and what can not.

According to results of the survey, respondents most often use the following image editing applications: Adobe Photoshop (62,4%), Inshot (20,4%), Taggly (1,1%), Snapseed (32,3%), Adobe Lightroom (2,2%), Photofox (1,1%), VSCO (1,1%), Light room (2,2%), standard image editors that are embedded in the phone (2,2%). In general, software for image editing is not used by 18,3% of respondents. The respondents did not use the program Touch Blur. Touch is a notably useful program because it allows you to blur a person's face or brand simply by clicking on the screen of your smartphone. Sometimes your sources may not want to be called, or sometimes you should blur your face and hide your identity for your own safety. This photo editing application gives us a simple brilliant solution to these problems, and the best thing is that it happens in seconds.

Audio applications are no less important than video applications, especially if we are interested in radio. Even if you work in other types of media, sound recording is important, and we will need to do it during a journalistic career. Here are some of the most useful audio applications for journalists: one of the most cool and useful apps - Sound Cloud - is an application for sharing audio files. We can view sound recordings, songs and interviews. Also, many records can be freely used and shared by their own creators. We can keep track of celebrities and discover popular audiofilms or view tracks by genre.

Adobe Premiere and Audio Editor are simple and easy to use audio editors that will help journalists cut and send the necessary audio fragments to editors (for example, an official comment).

The interviewed respondents most often use Sound Cloud (20,4%), WaveEditor (2,2%), Adobe Premiere (30,1%), Audio Editor (24,7%), Adobe Audition (1,1%). 45,2% of respondents do not use it - mostly those who do not work with audio materials. Unfortunately, interviewed journalists do not use SaidWhat. This application allows you to record shortenings of your records, organize them in any order you want and share them on social networks or email. This app has many features and is ideal for recording interviews, podcasts, music and any other sounds we need. You can also import files using Wi-Fi and edit them using sound tools.

Apart from these programs, journalists can use others which can help them in creating high-quality journalistic material, and some even save time and effort. One such application is Cube ACR (6,5%), Automatic Call Recorder (19,4%), CallU (4,3%), TapeACall (1,1%). These applications allow you to record all incoming and outgoing calls. This is very convenient when you are interviewing by phone. And it is free. Unfortunately, 61,3% of respondents do not record their interviews with this program.

Respondents also said that they mostly decipher audio / video recordings on working computers, only 14% of the respondents decipher on the smartphone. Of those 14% of respondents, 4,3% use Transcribe, 8,6% use Audio to Text, and only 1,1% use corporate applications.

Writing a script can be one of the most time-consuming tasks, for example, for a documentary film. Here Transcribe can make our life much easier. This application translates the language into written text, so you can dictate everything to your phone and it will write it. This will definitely save time, it also supports over 16 languages.

AudioBoom is an application that allows us to listen, record, and edit applications, all in one place and in one application.

Shozu - is a commercial application that allows users to easily transfer content from their mobile phone to various social networks. Shozu users can also publish their media. For example, BBC, CNN, Reuters and iTV.com - all of them are integrated with the smartphone application Shozu. Also, a journalist can simply publish the photo that has just been made online on the media page.

Also a good application is Layar, as it uses a camera from a mobile device to overlay multimedia on real images to create animations, videos and webpages. Also, this application can scan images, videos and even QR codes.

Our respondents also use such applications in their professional work: AudioBoom (12,9%), AudioCopy (10,8%), Shozu (2,2%), Layar (1,1%), Movavi (25,8%), PDF Scanner (50,5%).

So, after all of the listed applications, we see that their number is extraordinary, and the variety of functions that they perform is impressive. And this is far from a complete list of what our smartphone is able to do.

Journalists have more options than ever before. Nowadays the right combination of applications and tools makes it possible to create unique material. Most of these applications can be obtained free of charge or at a minimal cost.

After analyzing the content of the Ukrainian media, we found out that there is material that was taken using a smartphone. For example, the magazine „XXL“ is the first magazine in Ukraine, which uses photos taken on the smartphone on the cover. Nikita Dobrynin, who is a guest editor of the „XXL“ magazine, says: *„It's possible to say that taking the covers on the smartphone in the world is already a new trend. With the cover photos, made on the smartphone were also experimenting „TIME“, „Billboard Magazine“, „Condé“, „Nast Traveler“, „Bon Appétit“ and other renowned editions. We decided to be the first to do it in Ukraine.“*²⁴ That is, in this regard, Ukrainian magazines are already following foreign models. The photos really turned out to be professional. From the set of features offered by this smartphone it is evident that it is competing with professional technology.

In „BBC Ukraine“, material shot on a smartphone is also frequent. For example, a video on which Saakashvili appears on the roof. The video is just a human being, it is constantly shaking and the maximum convergence is applied, because of this the quality of the video is low. But this is not important because the information is unique. Air Force journalists processed the video by adding subtitles explaining the event and highlighting the author. And the video is taken from Facebook, where the author downloaded it.

It is worthwhile to focus on the typical material from BBC Ukraine. There is material about the Agung Volcano in Bali, which used a timelapse of the eruption itself. Video journalists processed and added subtitles in Ukrainian, which explain everything that is happening. It looks like this dangerous action is really beautiful, since the bottom of the frame is an active movement of people. And in the long run - it's an eruption. You can create such materials in two ways. The first one is with the help of many photos, which are formed by creating a fast video. And the second way is just to speed up the standard video. This material uses a second way, because it is easier to create and edit. To create such a video, we need a reliable tripod because the camera should not move. Also important is a memory card, because such videos for a good effect need to last for a minimum of 10-20 minutes. Of the 20 minutes taken, approximately 10 seconds will be released. Depending on the device and the planned length of the video, an additional battery may be needed. All applications work in roughly the same way, so we will analyze the process of creating the material only by the example of one application - Movavi. First download and install the app. Then create a new project, next choose the files that you want to use. After that, we select the video that we want to speed up and set up as many times as possible. In this add-on, you can speed up the video up to 10 times, which is quite enough. The important thing is that changing the speed of the video changes the sound. Therefore, it is desirable to remove or replace the accelerated sound with another melody. Then we save the received video and distribute it wherever we want.

Mahmudur Rahman, Mozhgan Azimpourkivi, Umut Topkara and Bogdan Carbuнар²⁵ produce one more program for live stream, called Vamos, the first user transparent video „liveness“ verification solution based on video motion, that accommodates the full range of camera

²⁴ *Fashionable Ukrainian gloss shot cover photo on smartphone.* [online]. [2019-09-01]. Available at: <https://espresso.tv/news/2017/06/09/modnyy_ukrayinskyy_glyanec_znyav_foto_obkladynky_na_smartfon>.

²⁵ RAHMAN, M. et al.: Video Liveness for Citizen Journalism: Attacks and Defenses. In *Ieee transactions on mobile computing*, 2017, Vol. 16, No. 11, p. 3250.

movements, and supports videos of arbitrary length. Vamos uses the agreement between video motion and camera movement to corroborate the video authenticity. Vamos can be integrated into any mobile video capture application without requiring special user training.

Ukrainian journalists use streams (live broadcasts of current affairs), live streams are often conducted from the smartphone. In Ukraine, live broadcasts from smartphones began when the Euro-revolution started (2014). One could see what actually happens on the Maidan, watching events as if we were present on the spot. A team of volunteers from Spilno.TV organized broadcasting of EuroMaidan. Streamers not just stopped showing the picture, but took part in these events, communicating with people. Various applications are used for live broadcasts, including Ustream, Livestream, and live streaming services provided by Facebook, Twitter and YouTube social networks.

72% of respondents do not use apps for strides in their professional activities. We can assume that these respondents do not keep track of events, and therefore do not use special applications. Those who are bouncing are using Ustream (5,4%), Livestream (20,4%), and the rest use tools provided by the social network Facebook .

Thus, Ukrainian journalists are actively using smartphones in their professional activities, but this is mostly done by journalists who work in the Internet media and who are freelancers. Speaking about radio or television journalists, then for them a smartphone is just an addition to professional activity and it is used quite rarely. Also they almost never take a smartphone camera because they are afraid that the quality of the video will not be sufficient for TV. Also, according to our research, few respondents use programs for audio and video and stream, this is primarily due to the fact that among our respondents only 21,6% are radio and television journalists.

On Ukrainian TV channels, a video shot on a smartphone appears, but very rarely. This is usually videos of eyewitnesses, or investigative journalists who were able to document the event or fact when hidden, only with the help of a smartphone.

There is also data about using smartphones by professional journalists abroad. For example, the Irish television company RTÉ, which explores the potential of smartphones in journalism since 2010. On its account there is a lot of smartphone material. Particular attention should be paid to the reportage. Journalist „RTÉ“ Philippe Bromwell filmed a report „Wind Phone“ by intriguing passers-by in the Dublin Mountains²⁶ on iPhone. This is a story about a phone box, taken completely on the iPhone. Phone Fon Gaoithe - The Wind Phone - this is an installation that appeared in the Dublin Mountains. The project team says it is a private place for meditation and reflection on life and loss. Broadcasts on this were broadcast on RTÉ on 10.08.17. It was shot on an iPhone 6S Plus with the FiLMiC Pro application, which we mention above. Journalists partly edited the colour. A tripod and an optional microphone were also used to record audio. So in this report the simplest technologies were used, and the effect is impressive.

The following is an extraordinary reportage of this TV channel: „Meet the Ancestors of the Book of Kells“, about four rare Irish manuscripts from the Dark Ages that were retained by Trinity College Dublin after a three year program. This special report by RTÉ News was filmed and edited on the iPhone 6S Plus.

When we analyze material made on smartphone, we must remember that the phone is a powerful tool. We can create a whole range of high-quality products, as did Al Jazeera. The program „People and Power“ is a complete documentary made by smartphones. Syria is a difficult place to work as a journalist, so they used the iPhone to be able to work there more safely and easily. The news agency itself writes about this program and about using the phone by a journalist: „*With Al Jazeera cameras banned inside Syria, it was too difficult and dangerous*

²⁶ BROMWELL, P.: 'Wind Phone' intriguing passers-by in Dublin Mountains. [online]. [2019-10-01]. Available at: <<https://www.rte.ie/news/dublin/2017/0810/896531-wind-phone-dublin-mountains/>>.

to openly use a camcorder, but it was ok to use a mobile phone. On his tiny camera, taken off the secrets from the streets, through car windows and behind the closed door, he was able to assemble images depicting ordinary people demonstrating extraordinary courage.²⁷ This is the case when the phone made safer work for journalist and was able to bypass what is prohibited.

Some stories happen so fast that they need to be shown before the camera crew team gets there. Then smartphones and journalists who can use them will be extremely useful.

Harriet Hudfield is a „Sky News“ reporter, who runs live broadcasts using the smartphone. Harriet, in her reportage, uses the following auxiliary tools: a microphone with an iPhone cable, a lightweight headband headrest, a case (which the smartphone attaches to a tripod), lights, microphone, external charger, iPhone 6+ and an optional phone.²⁸

Of course, this toolkit helped Hudfield to broadcast urgent news repeatedly. When in February 2014, Flight 702 „Ethiopian Airlines“, which flew to Milan and was hijacked and landed in Geneva, Hudfield was the first to report this. She was just there, was the first on the scene and broadcast for two hours, ahead of all competitors.

So, the smartphone is a multipurpose and powerful tool that can be used for a wide range of content. But it is a good tool only for a smart journalist. One that will be able to use it correctly. And examples of such use exist in the material listed above. This is what modern journalism should strive for.

5. Conclusions

So, nowadays smartphones play important roles in the new journalism. With the fast spread of technologies and convergence in journalism, demand for using smartphones in the professional work of journalists increases. It is also worth noticing that smartphones and their applications can help future journalists in their work. On this idea focusses Lily Canter²⁹. In turn I. Burum and S. Quinn³⁰ declare that as journalism becomes increasingly competitive, students and emerging professionals need a broader skillset to make themselves more employable, whether as mainstream or entrepreneurial journalists.

Using smartphones in the work of journalists is especially relevant while spreading convergence, when one worker should make material for different kinds of media. You never know what information you will get and what media is the most appropriate for this reason, so smartphones can replace the absence of professional equipment.

However, we should also remember that the facility of using smartphone in journalism should not become a tool for the neglect of the professional standards or for bad intentions. We shouldn't use and publish photos and videos of people without their agreement, make montages of different frames to distort the content, make hidden photos and so on.

Thus appears a demand to provide new study courses and programs in the universities where future journalists study. Students should be taught how to use smartphones in their future work, to test different programs, which could be helpful for them while working as a journalist.

For practicing journalists it is worth providing different training, where experts should teach how to use such functions of smartphones, which are of high quality and could help to improve the work of journalists.

²⁷ Syria: *Songs of Defiance*. [online]. [2019-08-09]. Available at: <<https://www.aljazeera.com/programmes/peopleandpower/2012/03/201231213549186607.html>>.

²⁸ FAIRWEATHER, T.: *How a Sky News reporter uses her mobile phone to 'go live' in 90 seconds*. [online]. [2019-10-01]. Available at: <<https://www.newsrewired.com/2016/03/16/how-a-sky-news-reporter-uses-her-mobile-phone-to-go-live-in-90-seconds/>>.

²⁹ CANTER, L.: Online journalism: the essential guide. In *Journal of Media Practice*, 2015, Vol. 16, No. 2, p. 171.

³⁰ BURUM, I., QUINN, S.: *MOJO: The Mobile Journalism Handbook*. New York : Routledge, 2016, p. 212.

Also an important part of preparing future journalists is educational materials. In Ukraine there are no books, textbooks, which expose the possibilities of smartphones for professional work by journalists. But there are foreign books, which could be recommended for future journalists.

So, the digital transformation of the media industry should involve changes in the professional education and training of journalists.³¹ However as predicted by Tatjana Vulic and Marta Mitrovic³², since mobile technologies continue to evolve, no one is able to predict with certainty the future shape of communication channels and which will be preferred by the young.

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