Artificial Intelligence Applications in Photojournalism

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Abstract:

Photojournalism is considered one of the most important fields in which artificial intelligence has influenced, as many modern technologies and software have emerged that have given the photojournalist enormous capabilities, and because the nature of the photojournalist's work is different, as he needs speed and rapid control of all elements of photojournalistic production, so **the research problem** was revealing the applications of artificial intelligence in photojournalism and trying to employ them effectively and revealing modern tools and software and their impact on photographic camera settings. Therefore, the main objective of the research is to study these applications and study their role in solving many of the problems that faced the photojournalist, such as the problem of automatic control of focus quickly for moving subjects, as cameras supported by artificial intelligence software have provided many systems, such as: one shot AF, AI Servo, AI Focus AF, predictive focusing, focusing tracking and environment recognizing. Artificial intelligence also helped the photojournalist in solving the problem of automatic control of exposure, as at the time of the event, he does not have time to adjust the exposure factors. Therefore, cameras supported by artificial intelligence software provided systems such as center weight metering, spot metering, high-light weight metering and Matrix metering. One of the most important technologies that also assist the photojournalist is artificial intelligence devices that can be attached to digital cameras, as they provide the photojournalist with a suggestion on the optimal settings for the camera to obtain the best possible photo of the photographed scene, as they give the photojournalist the best adjustment based on many factors such as hyper focal distance, the dynamic range of the sensor, and the transmittance of the lenses. These devices also offer many other features to improve the photo, such as the feature of capturing shots with higher sharpness, giving greater color depth, the ability to remove people from the photo, and obtaining more details in different lighting conditions. Artificial intelligence also provided smart cameras, where it can be installed in a place and take photos from a long distance by means of a computer or by mobile phone, which makes it ideal in the serious events such as wars. The significance of the research is informing the photojournalist about artificial intelligence techniques and their applications in photojournalism. The researcher followed the analytical descriptive approach to study the applications of artificial intelligence in photojournalism. One of the most important results of the research is the photojournalist's understanding of the applications of artificial intelligence and that to produce high-quality photos in the fastest time, with the least effort, and in difficult shooting conditions.

Keywords:

Artificial Intelligence, photojournalism, smart cameras.

References:

- 1- Retrieved from https://www.canon-europe.com/pro/stories/intelligent-autofocus-explained/.
- 2- Retrieved from (www.fotoartbook.com/archives/146952).
- 3- Busch, D. (2005). Mastering digital DSLR photography. Thomson course technology.PRT.
- 4- http://www.mir.com.my/rb/photography/hardwares/classics/NikonF5/metering/.
- 5- https://expertphotography.com/ai-photography/ .
- 6- https://photographylife.com/understanding-metering-modes.
- 7- https://wiki.nikonians.org/3D_Color_Matrix_Metering.
- 8- https://witharsenal.com/features.
- 9- https://www.canon-europe.com/pro/infobank/autofocus/.
- 10- https://www.canon-europe.com/pro/stories/canon-eye-detection-af/.
- 11- https://www.canon-europe.com/pro/stories/intelligent-autofocus-explained/.
- 12- https://www.dpreview.com/techniques/5004008634/subject-tracking-why-it-matters.
- 13- https://www.theverge.com/2018/2/27/17055618/google-clips-smart-camera-review.
- 14- www.fotoartbook.com/archives/146952.
- 15- khetam Hussein zaker (2018), Press photo of the Jerusalem Intifada in daily Palestinian newspapers, Gaza, Palestine: College of Arts Islamic University of Gaza.
- 16- Rakik Abd El-Karim,(2017), The art of photography in the Algerian written press. Algeria: Abi Bakr Belkaid University Tlemcan Faculty of Humanities and Social Sciences.
- 17- Aban Zahra, (2019), The significance of the photograph in the written press. Algeria: Ahmed Draya University.
- 18- Amr Mohammed Abd El-Hamid (October, 2020), Employing artificial intelligence applications in producing media content and its relationship to its credibility among the Egyptian public. Journal of Media Research, Issue Fifty-Five (Part Five), page 2797.

Citation: Samah Ali, Asmaa Romia (2024), Artificial Intelligence Applications in Photojournalism, International Design Journal, Vol. 14 No. 2, (March 2024) pp 175-184

- 19- Ghada Mousa Ibrahim Sakr, (October-december, 2021), The impact of the digital environment and artificial intelligence on electronic journalism in Egypt. Arab Journal for Media and Communication Research, issue 30, page 20.
- 20- Salma Alaa Salah Mohammed, (november2023), The role of the electronic press image in achieving the significance of the media image to the viewer: International Design Journal, Volume Thirteen, Issue 6, page 555.
- 21- Mona Mohammed Said Nasr Amina And El-Gawad Abd El-baky, (November 2023), A comparative analytical study between the innovative thinking of the designer and the applications of artificial intelligence in designing drama decor and costumes: International Design Journal, Volume Thirteen, Issue 6, page 173.
- 22- Mohammed Abd El-Hamed El –Said Bahnasy, (2004), Effects Press Photo theory and application. The world of books.
- 23- Mahmoud Adham, (2006), Studies in photojournalism. Cairo, The World of Books.
- 24- Hala Ahmed El-Husseiny Metwally- Doaa Hesham Farahat, (July- September, 2020), Artificial intelligence techniques and their implications on the content of the media message on foreign newspaper websites. Egyptian Journal of Media Research, Issue Eighty (Part Two), page 11.

Paper History:

Paper received November 20, 2023, Accepted on January 12, 2024, Published on line March 1, 2024