DIGITAL TRANSFORMATION IN JOURNALISM AND NEWS MEDIA

Curriculum on how to use DRONES (IO3)

PROJECT NUMBER: 2021-1-PT02-KA220-YOU-000029077

Co-funded by the Erasmus+ Programme of the European Union

MODULE 3:SKILLS AND CAREER (AEVA)

Learning Units:	Unit 1: Introduction: drones in journalism Unit 2: Entrepreuneurship Unit 3: Good practices
Ttotal n. hours	6 hours (2h/module)
Objectives	• Understand how drones are transforming the journalism industry • Develop entrepreneurial skills, attitudes/postures and soft skills necessary to be able to successfully undertake a Professional Drone Pilot training. • Identify examples of drones use and good practices in Journalism.
Target group	Young people (18-30 years old) and interested stakeholders in understanding the benefits of knowing how use a Drone in order to find a job (namely, as journalists, bloggers, etc).
Outcomes:	
• Knowledge	• Assesses how Drones are transforming the journalism industry • Gives examples of applicability of using Drones and best practices of how media professionals are using them • Lists the entrepreneurial skills needed to use a drone
• Skills:	• Highlights different uses of Drones in Journalism • Documents case studies of the use and importance of drones in journalism and in other professions. • Gathers the Skills needed to attend a Drone Pilot Course with success.
• Attitude	• Shows learning ability. • Is alert to differences in the use of drones in journalism • Selects good practices using Drones in Journalism
Method of training /learning	Learner-Centered and Constructivist Approach; individual and group work.

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Training material and tools needed	Computer, access to the Internet.
More information	DRONES Platform: https://drones-programme.web.app/ DRONES Website: https://drones-programme.netlify.app/
References	• Singh, I. (2021). What is drone journalism? How are drones changing news reporting? DroneDJ. https://dronedj.com/2021/05/03/drone-journalism-101/ • Admin. (2019, March 4). How Drones are Transforming the Media Industry - DRONITECH. DRONITECH. https://www.dronitech.com/how-drones-are-transforming-the-media-industry/ • Vieira, G. V. (2021). Drones: a simple tool or serious piloting skills required? MundoGEO. https://mundogeo.com/en/2021/09/16/drones-a-simple-tool-or-serious-piloting-skills-required/ • Time, T. G., & Time, T. G. (2021, September 16). What are the skills required and Job opportunities in Drone segment. THE GPS Time. https://www.thegpstime.com/what-are-the-skills-required-and-job-opportunities-in-drone-segment/

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LEARNING UNITS

UNIT 1

Title	Introduction: drones in journalism
Aims	• Know when the media started using drones; • Understand the advantages of drones for the media; • Understand how the drones are transforming the media sector; • Know their applicability.
Description of the activities	**PREPARATION** of the students **(30 minutes)** Brain Storming: After introduction of the module objectives, participants are asked what they know about drones, their purpose , etc. Then, trainer shows the Powerpoint presentation, 1st slide, and ask participants to go to www.menti.com to collect their ideas and experience, if any, on the use of drones. The information is collected and saved. Discussion and analysis are done after this exercise to get to a conclusion. Then, they watch the video on the topic to conclude the discussion. Real-life applications of drones - YouTube **IMPLEMENTATION (80 minutes)** Then, the trainer (or a youngster) mentions Journalism as one of the possible use of drones, the trainer asks: "In what journalism is concerned, what are the advantages of using drones?". After collecting the learners' ideas, they are asked to watch another video: MC1100E: Drones in Journalism and Communication - YouTube Drones as new tool for journalism - YouTube Then, the trainer shows the slides 6-9 related to the use of drones in Journalism. **1) When Drones started being used in journalism:** Drones, also known as unmanned aerial vehicles (UAVs) or remotely piloted aircraft systems (RPAS), have opened up new opportunities across a multitude of industries. And journalism is no different. Drone journalism refers to the use of drones for newsgathering purposes. Drone photos and videos lend a unique aerial perspective to

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everyday news coverage, allowing journalists to make their reports more insightful and innovative.

The use of video in journalism is not new. In the 1950s, a Los Angeles television station modified a Bell 47, the light single-engine helicopter, by fitting it with broadcasting equipment. And so the world's first Telecopter - a television news helicopter - was born. In short, having a unique vantage point empowered the television channel to turn local news into a cash cow.

Quickly, every television station in the major media markets of the United States was clamouring for a helicopter. And Bell became a synonym for electronic news gathering.

In 2008, Jay Gormley, then a reporter for CBS 11 in Dallas, said: "With 24-hour cable stations, 190 channels, and the Internet, the news is about immediacy. We're in an instant gratification generation. People want it right away. Without a helicopter, you're out of luck. You won't be able to compete because you won't be able to provide news right away."

Then, the trainer asks the following question? Why are helicopters being replaced with drones? After collecting the learners' answers, they show slides 11, 12 and 13.

2) Why are newsrooms replacing helicopters with drones;

The biggest advantage of using drones in journalism is their affordability. Renting a helicopter costs hundreds of dollars per hour and only companies in the media sector with money can afford to do so. On the same budget, even a freelance journalist can easily buy a drone and have a permanent smart resource for news coverage. DJI's new Air 2S, for example, costs less than $1,000 and can shoot incredible 5.4K video.

But their moderately low costs are not the only reason why more and more drones are finding their way into the press. Unlike helicopters, using drones means that human life is not being put at risk. Capturing hazardous locations, for example, is exponentially safer than using a manned aircraft for the same purpose.

Easy access to drones is also allowing private citizens to contribute to journalism more easily. A citizen can capture, or even broadcast live, newsworthy footage of an event and contribute to the reporting of media organisations.

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	Then, the trainer using menti meter or other app toask the learners their opinion on how drones are transforming the media sector. After analysing all answers, the trainer shows slides 15, 16, 17 and 18. **3) How are Drones transforming the Media Sector.** The use of drones is transforming the media industry - for example, action sequences in films can now be filmed from the air without any problem, journalists can cover news in areas where human entry may be dangerous or forbidden, photographers can take dream photographs of places in nature that might otherwise be inaccessible, etc. Here are some examples of how drones can be used in the media industry: **Filming movies and television series:** Today's filmmakers, use drones to capture incredible panoramas and action that they witness sitting in their living room. Films like the *Expendables 3*, *Transformers*: *Age of Extinction*, *The Wolf of Wall Street*, and *Captain America* have been filmed using drones to provide a real-life experience to viewers. Drones are being used to film footage that requires adrenaline-filled action sequences, literal bird's eye views, dramatic panoramas, or 360-degree views of subjects. No other filming method can start a sequence inside a building and end it at 120m altitude. Drones not only allow you to build a better picture of the lay of the land, but they can also descend to ground level, with smaller shadows and less air disturbance, unlike helicopters. **Journalism:** Due to the capabilities of drones, their popularity has increased, particularly in journalism and documentary filming. A news story comes to life when viewers see the journalist moving towards the forbidden or dangerous area to cover the action live on the ground and in real time. This not only increases the clarity of the footage, but also the credibility of the news. **Aerial photography:** Drones have propelled the art of photography and video to new heights. They have created a plethora of possibilities for photographers, videographers and casual hobbies alike. The great thing about using a drone for photography is that it allows you to shoot from a superior perspective. This can instantly transform old, simple photographs into something truly spectacular. Drones have built-in cameras that can rotate and pan to allow the operator to shoot photos and videos from all angles. This is very useful for photographers as it gives them more freedom in creating the perfect shot. Nature and wildlife photographers no longer need to trek dangerously through jungles and rainforests or hike up steep mountains to take

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	pictures. Photojournalists no longer need to place themselves in the middle of disaster zones and war zones. With the help of drones, photographers have the option to document events in inaccessible locations. **FOLLOW-UP (10 minutes)** Trainer and learners may conclude the following: The use of drones is undoubtedly changing this industry, however not everyone is able to handle them correctly : you need certain skills to do so.
Resources	Videos: Real-life applications of drones - YouTube MC1100E: Drones in Journalism and Communication - YouTube Drones as new tool for journalism - YouTube Links: What is drone journalism? How are drones changing news reporting? *DroneDJ*. https://dronedj.com/2021/05/03/drone-journalism-101/ *How Drones are Transforming the Media Industry - DRONITECH*. https://www.dronitech.com/how-drones-are-transforming-the-media-industry/ See the Best practices mentioned in Drones Transnational Report.
Evaluation	Short Quiz

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UNIT 2

Title	Entrepreneurship
Aims	• Understand that in drone journalism you need to be resilient and it is a constant learning process; • Recognise which soft skills and entrepreneurial skills are necessary to be able to successfully complete a Professional Drone Pilot course, namely to pursue a career in journalism.

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Description of the activities	**PREPARATION (40 minutes)** The trainer asks the learners to summarise unit 1 and then asks them to think of important skills, competencies and attitudes someone must have to use drones. Then, they ask the learners if they know what soft skills are. After they answered, they are invited to watch the following video: What Are Soft Skills? - YouTube Then, the trainer asks the learners to watch the following video: Top 6 Soft Skills for the Workplace - YouTube After that, they ask them to name essential skills to have in the labour market and to relate them to a job using drones. They discuss the importance of these skills in job such as a professional pilot of drones. **Brainstorming:** Trainers collects youngsters' ideas, writes the skills pointed out and collects the importance of each in a job using drones. **IMPLEMENTATION (70 minutes)** Any person willing to pursue a career in journalism using drones need, first, to be resilient and able to life-long-learn. Drones will improve a job in the journalism sector by enhancing better reporting and news writing. Experience in filming, shooting and photography on the ground is an advantage too. Then, it is necessary to practice a lot. It is very important, though, at the beginning, to practice in an uninhabited area. The trainer **shows the Powerpoint presentation** with the following information and interesting images related to the topic: It is important that the person learns the technical components of the drones. Improve your communication skills is relevant when flying a drone for an efficient operation. Only this way, can they take photos and do videos using drones properly. Strong interest in aviation, good concentration skills, ability to remain calm under pressure, IT and Math's skills, the ability to make quick decisions in emergencies, give accurate instructions and accept considerable responsibility when managing and using the drone, as well very good domain of its software pre-, during, and post-production is very important in any person willing to work using drones. Last but not least, all interested parties in using drones must be aware of the respective local laws which are usually covered in the courses available to complete license A1/A3 and A2.

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At this point, the trainer asks the learners to clarify or explain each of the following piece of knowledge, skills and attitudes needed to fly a Drone. They explain that according to a survey done in DRONES project partners' countries, an drone pilot must be able to:

Knowledge:

- Identify the different visual workflow of journalistic pieces.
- List the different pieces of the aircraft, its capabilities and limitations and respective software.
- Name the procedures of using drones properly.
- Give instructions to cameramen when it is needed specific interaction.
- Recall the law governing the operation of drones and current data protection law.
- Identify the regulations and laws of the country where the drone will be used.
- List ethics issues.
- Underline the weather conditions.

Skills:

- Manage and apply images, plane framing, image formats, photos, lighting, film language, basics of filming and editing.
- Manage and assemble the different pieces and/or tools/resources.
- Perform calibration and system setting on set.
- Handle the aircraft properly (manage procedures such as not flying over a crowd, not exceeding the maximum permissible flight altitude, avoid restricted zones, etc.).
- Coordinate, pilot and guide drones, operate aerial videography.
- Implement administrative skills (for the requests the authorization for public spaces). For basic flight scenarios, beginners tend to undercharge and underestimate the administrative preparation and editing time (which is a real professional skill) not to mention the charges.
- Apply deontological procedures.
- Recognize suitable conditions to use the aircraft.

Attitudes:

- Show capacity of map reading
- Reveal social skills.
- Show capacity of adaptation to different settings,tools and resources.
- Show resilience and patience.
- Reveal strictness and persistence.
- Communicate accurately for an efficient drone operation.
- Be careful and focused when using the drone.

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- Be able to remain calm under pressure. Take quick decisions in emergencies, give accurate instructions and accept considerable responsibility.
- Respect people on the ground regarding privacy and do not create situations of physical danger on the ground and in the air.
- Reveal resilience. Fly with the notion that the pilot is civilly responsible in case of an accident.
- Show compliance with the rules for the use of drones.
- Show responsibility in the use of drones.
- Show respect towards privacy and the others.
- Show responsibility for the environment where the drone is being operated, preventing possible situations (loss of GPS signal, loss of visibility of the aircraft to the naked eye).
- Reveal compliance with weather forecasts.

The learners have to explain each sentence.
Then, the trainer asks the learners to watch this video:
10 BIGGEST Drone MISTAKES New Pilots Make - YouTube

and asks them to point out the 10 mistakes one should avoid when using drones. They should be the following:

- Not knowing the law in your country
- Not updating software and firmware
- Losing a propeller
- Flying out of sight (always fly VLOS – it's the law)
- Flying backwards
- Not knowing your stopping distance
- Don't watch out for power lines and cables
- Get caught out by the wind
- Not knowing how long 'RTH' takes
- Don't update 'RTH' location when you have moved

The trainer gives them time to discuss around each mistake.
FOLLOW-UP (10 minutes)

Discussion is organised to collect the most important conclusions of this unit. Each learner writes their own impressions on the topic. Trainer collects all papers.

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Resources	Other videos: DJI MINI 3 Pro - 12 BIGGEST Drone MISTAKES New Pilots Make - YouTube 4 Tips for New Drone Pilots - Less Stress, More Fun! - YouTube Links: Vieira, G. V. (2021). Drones: a simple tool or serious piloting skills required? MundoGEO. https://mundogeo.com/en/2021/09/16/drones-a-simple-tool-or-serious-piloting-skills-required/
Evaluation	Short Quiz

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UNIT 3

Title	Good Practices
Aims	• Recognise how to build a successful career in journalism using drones; • Identify practices that may be transferable to their field and respective interests.
Description of the Activities	**PREPARATION (30 minutes)** The trainer prepares a Powerpoint presentation with the following information and engaging copyright-free images: **Building a successful career in journalism using drones:** Over the last few years, drones have become a common tool in journalism, with aerial shots captured by drones helping us understand how a flood has damaged an area or capturing the size of a crowd, or the scope of a wildfire. In general, drones are used in journalism as one more vantage point for helping to tell a story, since aerial stills and video footage can add an extra layer of drama to news coverage. As with film, drones are much, much cheaper than using a helicopter, which makes aerial shots available where before there simply wouldn't have been the budget to include them. One thing to keep in mind about flying drones for journalism is that there is a spectrum of use cases, with a spectrum of quality required. For breaking news or disaster coverage, having the very best camera out there may not matter so much as having the footage at all. On the other hand, if you're trying to capture an artistic still to accompany a written article or documentary-type footage for a longer video-based story you're helping to cover, you may want a more expensive drone that allows for a customised payload so you can attach your own high-end camera, and get the very best shots possible. The skill sets required to use drones in journalism also vary with your particular use case. If you're working as a documentarian, you may need a high level of expertise in video and photography, whereas your skill level may not need to be quite as developed for breaking news coverage.

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That being said, in all scenarios related to journalism your flying skills will probably need to be top-notch, given that you may be flying under pressure in difficult situations, and you may only have one chance to get your shot.

Learners and trainer discuss the shared information and summarise the main conclusions.

IMPLEMENTATION (75 minutes)

Drones can give you many different opportunities of finding a career.

If you decide to go on a career in journalism using drones, and want to buy a drone, be aware of the following:

Best drones for work in journalism:

The type of drone you might need will vary greatly depending on the type of journalism you're doing. For breaking news coverage you could probably do fine with a DJI Mavic 3, but if you're trying to capture stunning images for a print story or a documentary, you may want something more high-end. An Inspire 2 with a ZenMuse x7(a camera DJI created specifically for making movies)could do the trick, or you may want to push your quality even higher than that, and look into the FreeFly Alta, which will allow you to customize your payload so you can choose the camera you use for a given shoot.

How Much Money Can I Make as a Drone Pilot in Journalism?

Most of the people we've met who use drones in journalism already work in journalism in some other capacity, either as a videographer, a photographer, an anchor, or in some other role.

Based on estimates from Payscale, the average starting salary for journalism majors is about 35,000€ a year, with photojournalists making about 30,000€ a year and news anchors making about 50,000€ a year. Of course, location is a big factor in how much you'll make in journalism—a big city is going to pay more than a smaller city—and it would

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certainly help to have multiple skill sets (like being able to fly a drone and write well).

That being said, there are some drone pilots out there who do freelancing work in journalism. Here is what one of them who told us about how he prices his services:

Half-day rate for our photography/videography for a news-based project is 400€ for the first 4 hours or any increment thereof. 750€ for an 8-hour day or any increment thereof beyond the first 4-hours. Each half-hour beyond 8-hrs is 50€ per. If a spotter is needed, that adds another 50€ per hour for both rates. – Elliott Francis, Drone Pilot and Owner of ReelView Aerial

Types of Missions Drone Pilots Typically Fly in Journalism

- Disaster reporting - Filming fires, floods, storms, hurricanes, tornadoes, and other disaster scenarios.
- Breaking news - Filming active shooter or hostage scenarios, collapsed buildings, and other live reporting events.
- Traffic reporting - Aerial footage of traffic and accidents.
- Documentary work - Landscape/wildlife work, cityscape work, or other scenarios where an aerial perspective can help to tell a story.
- Investigative reporting - Using a drone to collect key information for a story (i.e., about labour conditions in a factory, or whether the mayor is using his sprinklers illegally during a drought, etc.).
- Photojournalism—Artistic, high-quality stills, and video capture to tell a story.

Good Practices:
The trainer shows examples of good practices found in the Drones Partners' countries, identified in R1 in a PowerPoint

List of the top companies in the drone industry, where you'll find jobs that don't necessarily require you to know how to fly.

- **AgEagle** provides software to help people use drone technology in agriculture. They are singularly focused on agriculture, with the goals of helping farmers increase yields and maximize the bottom line while reducing their environmental footprint.

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	Their core business is making data processing software to analyze drone-collected agricultural images. • **AirMap's** cutting-edge technology transforms airspace below 500 feet to provide accurate, reliable, and trustworthy low-altitude navigational data and communication tools to the drone industry. Their software was developed by experts in GIS, aviation, and policy. AirMap collaborates with industry leaders such as DJI, Intel, senseFly, and others, sharing their data in the flying apps those companies provide. • **Bentley** is the creator of ContextCapture, which allows users to produce large and challenging 3D models that incorporate complex real-world conditions, including scales as large as entire cities, from simple photographs or point clouds, in order to easily and quickly provide context for design, construction, and operations decisions for all types of infrastructure projects throughout the world. • **DJI** is one of the top consumer drone manufacturers in the world. Their Phantom 4 Pro is a go-to drone for many new drone service providers. According to data provided by the FAA, DJI's Mavic, and Phantom series drones are among the most used purchased for commercial work. • **DroneBase** is a service that allows you to either hire a drone pilot to complete a project or become a freelance pilot for them. They match up each job and pilot based on location, availability, and equipment required. • **DroneDeploy** offers powerful cloud-based drone software that's compatible with any drone. It allows you to map and create 3D models and analyze and share the data right from your device. **FOLLOW-UP (15 minutes)** Discussion is organised to collect the most important conclusions of this unit. Everyone writes their own impressions on the topic. Trainer collects all papers.
Resources	How Drones Change Reporting ft. Gail Orenstein | Seneca Drone Journalism - YouTube Links:

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	What are the skills required and Job opportunities in Drone segment. THE GPS Time. https://www.thegpstime.com/what-are-the-skills-required-and-job-opportunities-in-drone-segment/ See the Best practices mentioned in Drones Transnational Report.
Evaluation	Short Quiz

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