

**Technologies and Systems of Production and
Management of Digital Content**

Code: 43964
ECTS Credits: 6

2025/2026

Degree	Type	Year
Journalism and Digital Content Innovation	OB	0

Contact

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Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

The course requires knowledge -user level- content editing systems in multimedia format

Objectives and Contextualisation

The course responds to the need for the information professional to know the uses and possibilities that technology offers for the development of his daily work related to the management and production of digital content.

Digital content -and the technologies that facilitate its management- imply a technical, critical and practical knowledge on the part of the journalist/communicator based on two basic conditions: the identification of technological possibilities on the creation and management of information within a professional context (media, companies and institutions); and the ability to manage the flow of specific information from an innovative proposal and to take advantage of the available multiplatform tools and formats.

The main objective of the module is to provide the student with skills to be able to appreciate the technological environment that surrounds him and to introduce into his professional informative practice the possibilities that ICTs provide for his development as a journalist/communicator.

Competences

- Apply tools of management, analysis, organisation and planning of information in accordance with objectives and specific information projects.
- Create and manage journalistic publications containing innovative elements from the applied introduction of ICT.
- Know and evaluate the management and production processes for digital information content, proposing innovative solutions which involve the use of ICT.
- That students are able to integrate knowledge and handle complexity and formulate judgments based on information that was incomplete or limited, include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.

- That the students can apply their knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.
- Understand and analyse the trends and dynamics of change in the communicative, informative and regulatory ecosystem of the media company in the twenty-first century.
- Work in teams in a coordinated and collaborative manner and demonstrate skills for contributing to interdisciplinary teams.

Learning Outcomes

1. Collaborate in a coordinated way in journalism production within a simulated news-generation environment.
2. Display the knowledge needed to formulate original ideas regarding the conception of a research project.
3. Identify and use the legal and regulatory mechanisms applicable to communication policies.
4. Integrate knowledge acquired when engaged in solving a research problem.
5. Present the conclusions of a research project clearly in different formats and targeting a variety of audiences.
6. Propose and select applied evaluation methodologies on the use of information and communication technologies in producing and managing journalistic content.
7. Propose, on the basis of the content produced by the news company, different digital positioning strategies for this content.
8. Put forward a research project that, using a relevant scientific method, can help to solve a particular problem related to journalism and digital communication.
9. Recognise the new profiles within the profession and how their roles in the news-reporting context are defined
10. Recognise the specific properties of users' digital news consumption in order to plan a digital-strategy action.
11. Recognise trends and dynamics of change in the communicative ecosystem in order to join in a real professional-development environment rapidly and efficiently.
12. Show the self-reliance and discipline needed to complete and present a master's dissertation.
13. Take on different roles in an editorial team, contributing one's own knowledge.

Content

1. Internet, social media and technology
2. Massive data and the construction of critical technological frameworks.
3. Algorithms and databases
4. Management of digital content
5. Digital information coverage and hierarchies
6. Multiplatform management (transmedia)
7. Digital News Coverage and Informational Hierarchies
8. Display and content management tools
9. Visualization and Content Management Tools

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classes	6	0.24	9, 3, 4, 6, 10, 11

Study cases and exercises	39	1.56	13, 1, 9, 12, 2, 3, 4, 8, 5, 7, 6, 10, 11
Type: Supervised			
Mentorship	30	1.2	1, 9, 2, 4, 8, 7, 6, 10, 11
Type: Autonomous			
Readings and development of papers	75	3	13, 9, 12, 2, 3, 4, 8, 5, 7, 6, 10, 11

The course will use different methodologies for the development of its contents. Mainly, it will focus on the study and resolution of practical-real cases of application and construction of knowledge. Likewise, some master sessions will be given and the students will be invited to carry out different works of practical application that aim to solve specific problems of the journalistic practice.

The calendar will be available on the first day of class. Students will find all information on the Virtual Campus: the description of the activities, teaching materials, and any necessary information for the proper follow-up of the subject. In case of a change of teaching modality for health reasons, teachers will make readjustments in the schedule and methodologies.

The content of this subject will be sensitive to aspects related to the gender perspective.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Assistance and active participation in class	10%	0	0	9, 2, 8, 5, 7, 6, 10, 11
Development and monitoring of study cases	40%	0	0	13, 1, 9, 12, 2, 3, 4, 8, 5, 7, 6, 10, 11
Submission and presentation of works and exercises	50%	0	0	13, 1, 9, 12, 2, 3, 4, 8, 5, 7, 6, 10, 11

The course will have a continuous evaluation with the following tracking methods:

1. Attendance and active participation in class (10%)
2. Submission and presentation of works and exercises (50%)
3. Development and follow-up of the proposed case studies (40%)

The students must pass all the components of the evaluation in order to obtain an approval grade of the subject.

Students will be entitled to the recovery of the subject if the set of activities has been evaluated, the weight of which must equal a minimum of 2/3 of the total grade of the subject. To be able to submit to the recovery of the subject, you will have to obtain the average grade of 3.5. The activities that are excluded from the recovery

process are the development and monitoring of the cases of study raised and the assistance to the mentoring activities.

The main course work is not recoverable, case studies are.

This course does not provide for a single-assessment system.

Not assessable

When it is considered that the student has not been able to provide sufficient evidence of assessment, this subject must be graded as not assessable: failure to present the course work, failure to attend the preparation sessions for the course work and failure to carry out the case studies in the classroom.

Artificial Intelligence

In this course, the use of Artificial Intelligence (AI) technologies is not permitted at any stage. Any assignment containing content generated by AI will be considered a breach of academic integrity and may result in a partial or total penalty to the assignment grade, or more serious sanctions in severe cases.

Bibliography

Basic References

Bradshaw, Paul (2018). *The Online Journalism Handbook*. London: Routledge.

Castells, Manuel (Ed.). (2004). *La sociedad red: una visión global*. Alianza Editorial.

Davenport, Thomas H.; Beck, John C. (2002). *La Economía de la atención: el nuevo valor de los negocios*. Paidós.

Jenkins, Henry (2006). *Convergence culture: where old and new media collide*. New York & London: New York University Press.

Shapiro, Carl; Varian, Hal R. (1999). *Information Rules: A Strategic Guide to the Network Economy*. EE.UU: Harvard Business Press.

Van Damme, Kristin, All, A., De Marez, L., & Van Leuven, S. (2018). Immersive journalism: an experimental study on the effect of 360° video journalism on presence and distant suffering. Presented at the Etmaal van de Communicatiewetenschap.

Additional References

Banis, Davide (2018). Is immersive content the future of journalism?, *Medium*. Available at: <https://bit.ly/2LwQ6IC>

Boyd, Hannah; Ellison, Nicole (2008). "Social network sites: Definition, history and scholarship", *Journal of Computer-Mediated Communication*, 13(1), Pp: 210-203. Doi: doi:10.1111/j.1083-6101.2007.00393.x.

Bounegru, Liliana; Gary, Jonathan (Eds.). (2020). *The Data Journalism Handbook II. Towards a Critical Data Practice*. European Journalism Centre and Google News Initiative. <https://datajournalism.com/read/handbook/two>

Bradshaw, Paul (2017). What changed in 2017 - and what we can expect in 2018 (maybe), *Online Journalism*. Available at: <https://bit.ly/2JqdK2E>

Bull, Andy (2018). Masterclass 9. 2018 essential update for Multimedia Journalism, *Andy Bull*. Available at: <https://bit.ly/2kXublX>

Carr, Nicholas. (2011). *The Shallows: What the Internet is Doing to our Brains*. Norton

Casero, Andreu; Izquierdo-Castillo, Jéssica (2013), "Between decline and a new on-line business model: The case of the Spanish Newspaper Industry", *Journal of Media Business Studies*, 10(1), 63-78
<http://citeserx.ist.psu.edu/viewdoc/download?doi=10.1.1.691.8922&rep=rep1&type=pdf>

Castells, Manuel (1997). *La era de la información: economía, sociedad y cultura*. Vol. I: *La sociedad red*. Alianza Editorial.

Castells, Manuel (2012). *Redes de indignación y esperanza: Los movimientos sociales en la era de internet*. Alianza.

Ciampaglia, Giovanny Luca; Flammini, Alessandro; Menczer, Filippo. (2015). The production of information in the attention economy. *Sci. Rep.* 5, 9452; DOI:10.1038/srep09452.

Chung, T., Anaza, N. A., Park, J., Phillips, A. H. (2016). "Who's behind the screen? Segmenting social venture consumers through social media usage". *Journal of Retailing and Consumer Services*, 28, Pp. 288-295.

Dergacheva, D.; Tous-Rovirosa, A. (2021). [Government's echo. Twitter discussions around news topics in Russian networked authoritarianism](#), *Russian Journal of Communication*, 2, 13. 117-139

Fernández-Rovira, Cristina y Giraldo-Luque, Santiago (2021). *La felicidad privatizada. Monopolios de la información, control social y ficción democrática en el siglo XXI*. Editorial UOC

Frank, George. (1999). The economy of attention, *Telepolis*. Disponible en:
<https://www.heise.de/tp/features/The-Economy-of-Attention-3444929.html>

Fuchs, Christian (2018). *Digital demagogue: authoritarian capitalism in the age of Trump and Twitter*. Londres: Pluto Press.

Fuchs, Christian; Chandler, David (2019). Introduction. Big Data Capitalism - Politics, Activism and Theory. In: Chandler, D. & Fuchs, C. (eds.). *Digital Objects, Digital Subjects: Interdisciplinary Perspectives on Capitalism, Labour and Politics in the Age of Big Data*. London: University of Westminster Press. Pp. 1-20.
<http://doi.org/10.16997/book29a>

Gingras, Richard (2018). News Then, News Now: Journalism in a Digital Age, *Medium*. Available at:
<https://bit.ly/2LwOGri>

Giraldo-Luque, Santiago; Fernández Rovira, Cristina (2020). "The economy of attention as the axis of the economic and social oligopoly of the 21st century". En: Park, Seun Ho; González Pérez, María Alejandra; Floriani, Dinorá (Eds.). *The Palgrave Handbook of Corporate Sustainability in the Digital Era*. Palgrave Mcmillan: Londres. ISBN 978-3-030-42411-4. <http://doi.org/10.1007/978-3-030-42412-1>

Hartley, John (2012). *Digital futures for cultural and media studies*. Chichester: Wiley-Blackwell

Hermida, A. (2013). "#JOURNALISM: Reconfiguring Journalism Research about Twitter, One Tweet at a Time" *Digital Journalism*, 1 (3): 295-313.

Innerarty, Daniel; Champeau, S. (eds.) *Internet y el futuro de la democracia*, Paidós, Barcelona.

Jenkins, Henry: <http://henryjenkins.org/2013/05/is-this-the-end-of-television-as-we-know-it.html>

Jones, Sarah (2017) Disrupting the narrative: immersive journalism in virtual reality, *Journal of Media Practice*, 18:2-3, 171-185, DOI: [10.1080/14682753.2017.1374677](https://doi.org/10.1080/14682753.2017.1374677)

Karhunen, Panu. (2017). Closer to the Story? Accessibility and Mobile Journalism. *Reuters Institute Fellowship Paper*. University of Oxford.

Lara, T. (2008). "La nueva esfera pública: los medios de comunicación como redes sociales". *Telos: Cuadernos de comunicación e innovación*, 76, Pp. 128-131.

Lewis, Paul (2017). Our minds can be hijacked: the tech insiders who fear a smartphone dystopia. *The Guardian*. Disponible en:
<https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia>

Linares, J. (2013) "El 15-M en España y los flujos de información: medios, entornos y relatos. Del 9 de febrero al 19 de junio de 2011". Trabajo de fin de máster dirigido por Javier Díaz Noci. Universidad Pompeu Fabra.

Loader, Brian (ed) (2012). *Young citizens in the digital age: political engagement, young people and new media*. London: Routledge. 213 págs.

Mayer-Schönberger, Viktor, Cukier, Kenneth (2013) *Big data. La revolución de los datos masivos*. Madrid:Turner.

Meeks, Elijah (2018). What Charts Say, *Medium*. Available at: <https://bit.ly/2JwvFo8>

Molina Rodríguez-Navas, P., N Simelio Solà, M Corcoy Rius (2017): "Metodologías de evaluación de la transparencia: procedimientos y problemas". *Revista Latina de Comunicación Social*, 72, pp. 818 a 831.DOI: 10.4185/RLCS-2017-1194

O'Reilly, Tim (2007). What is Web 2.0: Design patterns and business models for the next generation of software. *Communications & strategies*, 65(1), 17-37.

O'Reilly, Tim; & Battelle, John (2009). *Web squared: Web 2.0 five years on*. O'Reilly Media, Inc. Web 2.0 Summit.

Page, Ruth (2012). "The linguistics of self-branding and micro-celebrity in Twitter: The role of hashtags". *Discourse & Communication*, n.6, v.2, pp. 181-201. Doi: 10.1177/1750481312437441

Pariser, Eli (2011). *The filter bubble: What the Internet is hiding from you*. Penguin UK.

Parker, Sean (2017). "Sean Parker: Facebook was designed to exploit human "vulnerability"". Sean Parker interviewed by Mike Allen. Axios, November 9, 2017. Available at:

<https://wwwaxios.com/sean-parker-facebook-was-designed-to-exploit-human-vulnerability-1513306782-6d18fa3>

Peiró, Karma; Baeza-Yates, R. (2021) ¿Puede la IA crear un mundo más justo? CCCBLab,
<https://www.karmapeiro.com/2021/04/03/puede-la-ia-crear-un-mundo-mas-justo/>

Pérez Tornero, José Manuel (2021) *La gran mediatización. El tsunami que expropia nuestras vidas*. Barcelona: Editorial UOC.

Perreault, Gregory & Stanfield, Kellie. (2018) Mobile Journalism as Lifestyle Journalism?, *Journalism Practice*, DOI: [10.1080/17512786.2018.1424021](https://doi.org/10.1080/17512786.2018.1424021)

Perrin, Andrew; Kumar, Madhu (2019). "About three-in-ten U.S. adults say they are 'almost constantly' online". *Pew Research Center*, July 25th, 2019. Available at:
<https://www.pewresearch.org/fact-tank/2019/07/25/americans-going-online-almost-constantly/>

Rahwan, Iyad (2018). Society-in-the-loop: programming the algorithmic social contract. *Ethics and Information Technology*, 20(5), 5-14. Doi: <https://doi.org/10.1007/s10676-017-9430-8>.

Rawnsley, Andrew (2018). "Politicians can't control the digital giants with rules drawn up for the analogue era". *The Guardian*. March 25, 2018. Available at:
<https://www.theguardian.com/commentisfree/2018/mar/25/we-cant-control-digital-giants-with-analogue-rules>

Shyam Sundar, S., Kang, Jin., Oprean, Danielle. (2017). Being There in the Midst of the Story: How Immersive Journalism Affects Our Perceptions and Cognitions. *Cyberpsychology, Behavior, and Social Networking*, 20(11), 672-682

Simelio-Solà, N., Ferré-Pavia, C., & Herrero-Gutiérrez, F.-J. (2021). Transparent information and access to citizen participation on municipal websites. *Profesional De La Información*, 30(2).
<https://doi.org/10.3145/epi.2021.mar.11>

Simon, Herbert A. (1971). Designing organizations for an information-rich world. En: Greenberger M., (ed.). *Computers, communications, and the public interest*, vol. 72, 37-52.

Soto, Idoia. (2014) "La dopamina y las noticas". *Telos*, 98, 100-102.

<https://telos.fundaciontelefonica.com/archivo/numero098/la-dopamina-y-las-no-noticias/?output=pdf>

Stiglitz, Joseph E. (2019) *Capitalismo progresista. La respuesta a la era del malestar*. Taurus.

Sunstein, Cass. (2017): *#Republic. Divided Democracy in the age of Social Media*. New Jersey: Princeton University Press.

Tous-Rovirosa, A.; Dergacheva, D. (2021) [#EsteVirusloParamos Unidos: War-like political communication on Twitter. Creating homogeneous communities in the Covid-19 crisis](#). Estudios sobre el mensaje periodístico 27(4):1227-1241, DOI:[10.5209/esmp.75758](https://doi.org/10.5209/esmp.75758)

Tous-Rovirosa, A; Rivero, D; Meso, K; Larrondo, A. (2015) «Ambient journalism in Spain. How Twitter and NRE's are redefining agenda setting in El País, El Mundo, La Razón, ABC y La Vanguardia». *Revista Trípodos*, 36, pàg. 35-54.

Turkle, Sherry (2019). *En defensa de la conversación. El poder de la conversación en la era digital*. Barcelona: Ático de los libros.

Yang, Guobin (2016). "Narrative Agency in Hashtag Activism: The Case of #BlackLivesMatter". *Media and Communication*, v.4, n.4, pp. 13-17. <https://doi.org/10.17645/mac.v4i4.692>

Software

As this is a completely practical course, the software required is the usual one for the journalistic tasks of content production in different formats.

Specifically, the following tools are required:

Text editing software: Word or similar

Image editing software: Canvas

Data analysis software: Excel or similar

Data visualisation software: Infogram - Datawrapper - CARTO

Multimedia editing software: Wordpress - Blogger - Wix

SNA Software: NodeXL

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
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