TEACHING GUIDE VISUALIZATION AND COMMUNICATIVE NARRATIVE WITH DATA 2025-26

GENERAL DATA

Number:	VISUALIZATION AND COMMUNICATIVE NARRATIVE WITH DATA
Code:	801878
Course:	2025-26
Degree:	Master's Degree in Communication of Technology and Innovation
Number of credits (ECTS):	
Location in the curriculum:	2nd semester
Department:	
Department manager:	
Date of last revision:	July 2025
Faculty:	Prof. Ferran Caldés Camprubí

1. GENERAL DESCRIPTION

This subject enables future Dircoms to analyse, interpret and communicate information based on data through comprehensible visualizations and reports, rigorous and adapted to the strategic objectives of the organization. The course offers tools to detect narrative opportunities from data, produce efficient visualizations and apply design and storytelling principles in institutional, corporate or social communication.

It also addresses the critical analysis of visualizations and the application of ethical and transparency criteria. The semi-face-to-face approach allows independent work to be combined with practical and dynamic case resolution sessions. The student will develop skills to lead visual communication projects, develop dashboards or strategic reports and communicate data to internal and external audiences in corporate, institutional or social environments.

2. OBJECTIVES

- Integrate data into corporate, institutional and social communication strategies.
- Analyze visualizations with a critical spirit and from an ethical and strategic perspective.
- Design comprehensible, useful and adapted visualizations for different audiences.
- Apply principles of visual design and storytelling in data communication.
- Master digital tools for visualization and narrative with data (Datawrapper, Flourish, Excel...).
- Develop data-based communication projects for internal and external audiences.
- Assess the potential of data in the construction of stories for reputational positioning.
- Know the social and journalistic applications of data-based communication.

Euncet
Business
School

centro adscrito a:
UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH
UPC

3. LEARNING OUTCOMES

<u>Knowledge</u>

K7.1 Apply the most relevant data measurement and visualization tools and methodologies.

K7.2 Recognize the importance of data visualization principles in the creation of data-related communication projects.

<u>Skills</u>

S01 Communicate effectively orally, in writing and graphically with other people about learning, thinking and decision-making, and participate in debates, making use of interpersonal skills, such as active listening and empathy, which favor teamwork.

S02 Develop the ability to contribute to innovation in new or existing business institutions and organizations, through participation in creative projects and have the capacity to apply skills and knowledge on entrepreneurship, organization and technology-based business development.

S03 Understand advanced digital technologies, so that they can be applied with a critical perspective, in various contexts, in academic, professional, social or personal situations.

S4.1 Design innovative strategies that incorporate creative approaches and disruptive solutions.

S6.2 Integrate complex technological concepts into visualizations that facilitate understanding and analysis by diverse audiences.

S10.1 Interpret and make sense of different sets of data for use in visual narratives.

<u>Competencies</u>

C01 Integrate the values of sustainability, understanding the complexity of systems, in order to undertake or promote actions that restore and maintain the health of ecosystems and improve justice, thus generating visions for sustainable futures.

C02 Identify and analyze problems that require autonomous, informed and reasoned decisions to act with social responsibility, following ethical values and principles.

C03 Develop the ability to evaluate inequalities by sex and gender, to design solutions.

C6.1 Interpret relevant data and metrics to develop effective visual narratives that facilitate the understanding of the information.

C12.2 Generate creative and effective visualization and storytelling strategies with data, experimenting with innovative approaches according to different types of audience.

08/07/2025 REV02

4. CONTENTS

SUBJECT 1. Data, power and narrative in organizational communication

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Understand the strategic value of data in institutional and corporate communication.
- Identify narrative opportunities based on indicators and quantitative evidence.
- Analyze the impact of transparency and story management on reputation.
- Relate the data narrative to the construction of trust.

Content

1.1 The role of the story and the symbolic value of the data.
1.2 Data, power and public opinion.
1.3 Transparency, trust and reputation.

SUBJECT 2. Data literacy for communicators

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Distinguish types of data, metrics and relevant indicators in corporate environments.
- Adequately interpret KPI and other key performance indicators.
- Detect frequent errors in the use and communication of data.
- Apply criteria of ethics and reliability in the selection of sources.

Content

2.1 Data types, metrics, KPIs and qualitative and quantitative indicators.
2.2 Critical reading of data.
2.3 Data sources and reliability criteria.
2.4 Data ethics and biases.

SUBJECT 3. Effective visualization in corporate communication

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Select the most suitable visual formats for each communicative objective.
- Apply design principles to create clear and understandable visualizations.
- Use basic digital tools to create graphics and interactive visualizations.
- Assess the adequacy of the visual format according to the target audience and the channel.

Content

3.1   Principles of visual design and legibility.
3.2   Types of graphics and visualizations.
3.3   A digital archive (Excel, Datawrapper, Flourish).
3.4   Adaptation of the format to the public.

SUBJECT 4. Storytelling with data

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Build stories with data that connect with different audiences.
- Integrate visualizations in multimodal narratives (infographics, dashboards, reports...).
- Apply storytelling techniques in institutional and brand communication.
- Identify effective narrative structures in visual communication.

Content

4.1   Fundamentals of data narration.
4.2   Visual reports for clients, media, investors or staff.
4.3   Hybrid narratives and multimedia formats.
4.4   Techniques of structure and emotion in the visual story.

SUBJECT 5. Applied project of corporate communication with data

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Develop a complete data-based communication project.
- Justify narrative and visual decisions from a strategic perspective.
- Integrate visualizations and texts in professional formats (reports, dashboards, memos, etc.).
- Apply criteria of communicative efficiency and audience suitability to the final proposal.

Content

5.1. Elaboration of an applied visualization and reporting project with data.
5.2. Corporate reports, *control panels,* annual reports and internal communication.
5.3. Planning and execution of campaigns with data support.

SUBJECT 6. Critical visualization and social responsibility

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Analyze visualizations from a critical and responsible perspective.
- Detect graphic manipulations or biased uses of data.
- Link data visualization with transparency and accountability.

Content

6.1. Ethics and responsibility in data communication.
6.2. Graphic manipulation and visual biases.
6.3. Visualization for accountability and transparency.

SUBJECT 7. Social and journalistic applications of data

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Identify uses of data in journalism and in the communication of NGOs and public institutions.
- Explore open data sources and cases of data journalism.
- Compare visual strategies in corporate, social and media contexts.

Content

7.1. Data journalism: media and formats.
7.2. Data communication in the third sector.
7.3. Open sources, transparency and public data.

SUBJECT 8. Visual communication and digital reputation

Specific learning outcomes

After studying the subject and performing the exercises, the student will be able to:

- Understand the role of views in the online reputation of brands and institutions.
- Integrate data into digital communication and SEO strategies.
- Analyze the impact of visualizations on social networks and digital media.

Content

8.1. Visualization and digital reputation.
8.2. SEO, social networks and *commitment* to data.
8.3. Visual strategies for communication in digital environments.

5. TEACHING AND LEARNING METHODOLOGY

The subject is organized to promote learning through active participation, practical application of concepts and critical reflection. The sessions combine theory and practice, with case resolution, visualization redesign and data-based corporate story analysis.

The main activities that will be carried out are:

- Study and autonomous preparation of the contents in the virtual campus.
- Debate sessions, solving cases and practicing digital tools.
- Collaborative work in teacher feedback.
- Resolution of practical cases and guided discussion.
- Group dynamics and presentation of results.
- Redesign exercises and visual storytelling with digital tools.
- Development of an applied project based on a real or simulated briefing.
- Follow-up tutorials for the final project.

6. EVALUATION

According to the Bologna Plan, the model rewards the constant and continuous effort of the students.

40% of the grade is obtained from the continuous evaluation of the directed activities and the remaining 60% from the final face-to-face exam. The final exam has two calls.

The final grade of the subject (NF) will be calculated based on the following formula:

- **NF = Final Exam Grade x 60% + Continuous Evaluation Grade x 40%**
- The minimum mark for the final exam to calculate the NF will be 40 out of 100 points.
- The subject is approved with an NF equal to or higher than 50 out of 100 points.

Type of activity	Description	% Evaluation	
Deliveries:			**30%**
	Practical group exercises	40 %	
	Applied project	60 %	
Questionnaires:			**10%**
	Topic 1. Questionnaire	1.25 %	
	Topic 2. Questionnaire	1.25%	
	Topic 3. Questionnaire	1.25%	
	Topic 4. Questionnaire	1.25%	
	Topic 5. Questionnaire	1.25%	
	Topic 6. Questionnaire	1.25%	
	Topic 7. Questionnaire	1.25%	
	Topic 8. Questionnaire	1.25%	
Final exam			**60%**
	Test of theoretical knowledge.	30 %	
	Individual practical exercise	70%	

For the practical group exercises and the project applied during the continuous evaluation, the use of AI is allowed as a mere assistant only when/if it's cited and justified its use when the activity is presented.

7. BIBLIOGRAPHY

7.1. BASIC BIBLIOGRAPHY

- Cairo, A. (2019). *How Charts Lie: Getting Smarter about Visual Information.* WW Norton & Company.
- Dykes, B. (2020). *Effective Data Storytelling: How to Drive Change with Data, Narrative and Visuals.* Wiley.
- Evergreen, SDH (2016). *Effective Data Visualization: The Right Chart for the Right Data.* WISE.
- Knaflic, CN (2015). *Storytelling with Data: A Data Visualization Guide for Business Professionals.* Wiley.

- Wexler, S., Shaffer, J., & Cotgreave, A. (2022). *The Big Book of Dashboards: Visualizing Your Data Using Real-World Business Scenarios.* Wiley.

7.2. COMPLEMENTARY BIBLIOGRAPHY

Theme 1 – Data, power and story

- Kennedy, H., Hill, RL, Aiello, G., & Allen, W. (2016). *The Politics of Data Visualization: How Visualizations Affect Public Understanding.* Information, Communication & Society.

Theme 2 - Data literacy

- Bounegru, L., Gray, J., Venturini, T., & Mauri, M. (2021). *Data Journalism Handbook 2: Towards a Critical Data Practice.* Amsterdam University Press.

Theme 3 and 4 – Visualization and storytelling

- McCandless, D. (2014). *Knowledge is Beautiful.* HarperCollins.
- Murray, S. (2017). *Interactive Data Visualization for the Web.* O'Reilly.

Topic 5 - Corporate projects

- Berinato, S. (2016). *Good Charts: The HBR Guide to Making Smarter, More Persuasive Data Visualizations.* Harvard Business Review Press.

Theme 6 and 7 – Ethics and social uses

- O'Neil, C. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy.* Crown Publishing Group.

Theme 8 - Digital communication

- Pulizzi, J. (2020). *Content Inc.: Start a Content-First Business.* McGraw-Hill Education.