

Recommendations on the inclusion of accessibility in curricula for higher education programmes

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Part I Executive summary

1. The Content of this Report

This report discusses the findings and recommendations of the ADORE project, which focuses on integrating accessibility training into the curricula of higher education programmes, specifically in the field of communication studies. The report presents the culmination of the project's efforts by connecting to its five Intellectual Outputs (IOs).

The report outlines the creation of six distinct itineraries, each tailored to different professional profiles within the communication sciences field. This approach aims to introduce accessibility and digital accessibility concepts by starting with content that is most relevant to the competencies, interests, and future career development goals of each profile.

Additionally, the report highlights the importance of accessibility and digital accessibility across eleven different disciplines within communication sciences, spanning from media ethics and journalism to media audiences and crisis communication.

The report concludes by presenting a series of policy proposals designed for higher education institutions and policymakers. These proposals are intended to guide and support the inclusion of accessibility training in communication sciences programs.

In this executive summary, we provide a concise overview of the objectives and outcomes of the first four Intellectual Outputs. Furthermore, we summarize the six professional profiles-based itineraries, outline core policy recommendations, and offer a brief insight into how accessibility training can be integrated into different professional profiles.

To conclude, the report underscores the overarching significance of accessibility and digital accessibility within the realm of communication sciences and how it aligns with the curricula of bachelor's and master's programs in communication sciences at higher education institutions.

2. Intellectual Outputs 1 to 4: Summary of Results

The ADORE project is structured into five Intellectual Outputs (IO1 to IO5).

IO1: Gap analysis on accessibility training needs analysis for university teaching and training staff in fields related to communication

IO1 conducted a gap analysis of the accessibility training needs of the university training and teaching staff in fields of communication from three perspectives: (1) that of the teaching staff, (2) the student's perspective and (3) the viewpoint of "end-user groups, such as people with disabilities, older adults and people whose mother language is different from the majority population" concerning the issues faced when accessing digital content (Intellectual Output 1 report, p. 6). To assess each perspective, a distinct quantitative survey was administered to each of the three target groups, for which a specific purpose was defined.

The key findings were as follows. The survey revealed a significant interest among students in learning about accessibility issues in their communication sciences studies (Intellectual Output 1 report, p. 62), while the surveyed teaching staff demonstrated a lack of experience or training in accessibility (Intellectual Output 1 report, p. 62). Furthermore, the gap analysis identified the necessity to clarify the concept of accessibility and its relevance within the field of communication (Intellectual Output 1 report, p. 62), and to raise awareness of the advantages of accessibility for all students, not solely those who identify as having a disability (Intellectual Output 1 report, p. 63). Additionally, it highlighted the importance of using practical examples to enhance comprehension of accessibility, the need to develop competencies for making content accessible, and the teaching staff's preference for a combination of online and offline teaching methods. These insights were central outcomes of IO1.

IO2: Mapping of higher education communication programmes where accessibility training can be included

IO2 aimed to identify university programs within the field of communications suitable for the implementation of accessibility training. This mapping process involved conducting desk research using a predefined template to collect and organize relevant

information. IO2 offers an overview of all potentially relevant courses and programs related to communication at both the bachelor's and master's levels. This overview was derived from a purposeful selection of a European University (University of Maribor, Slovenia, Paris Lodron Universität Salzburg, Austria, Vrije Universiteit Brussel, Belgium, Aalborg University, Denmark, Tallinn University, Estonia, University of Ljubljana, Slovenia, and Siedlce University of Natural Sciences and Humanities, Poland) considering these programs as potential candidates for incorporating accessibility training materials.

IO3: Co-creation of a needs-based accessibility training toolkit for university teaching and training staff working on higher education communication programmes

Intellectual Output 3 comprises a "toolkit for training in digital accessibility adapted for communication programs in higher education." This toolkit is divided into two key components: a handbook designed for university educators with the aim of simplifying the process of incorporating digital accessibility into communication-related courses and programs, and a set of training resources intended for instructors, organized into 12 modules.

The handbook offers a comprehensive understanding of accessibility and its relevance within communication contexts, while also providing practical guidance on its implementation in real-world scenarios. The 12 modules within the toolkit address various critical topics, including: (1) defining accessibility, (2) user needs, (3) policy and legislation, (4) accessibility standards, (5) fundamentals of web accessibility, (6) defining accessible communication, (7) illustrating examples and principles of accessible communication, (8) practical requirements, (9) inclusive communication, (10) strategies for promoting accessible communications, (11) creating accessible content, and (12) ensuring accessibility for events.

IO4: Development of a set of personas representing professional profiles in the field of accessible communication

IO4 has created a collection of personas representing distinct professional profiles within the realm of accessible communication. Drawing from a set of qualitative interviews conducted with professionals in journalism, marketing, public relations, and related fields, IO4 consolidates the interview findings into six unique, fictive professional

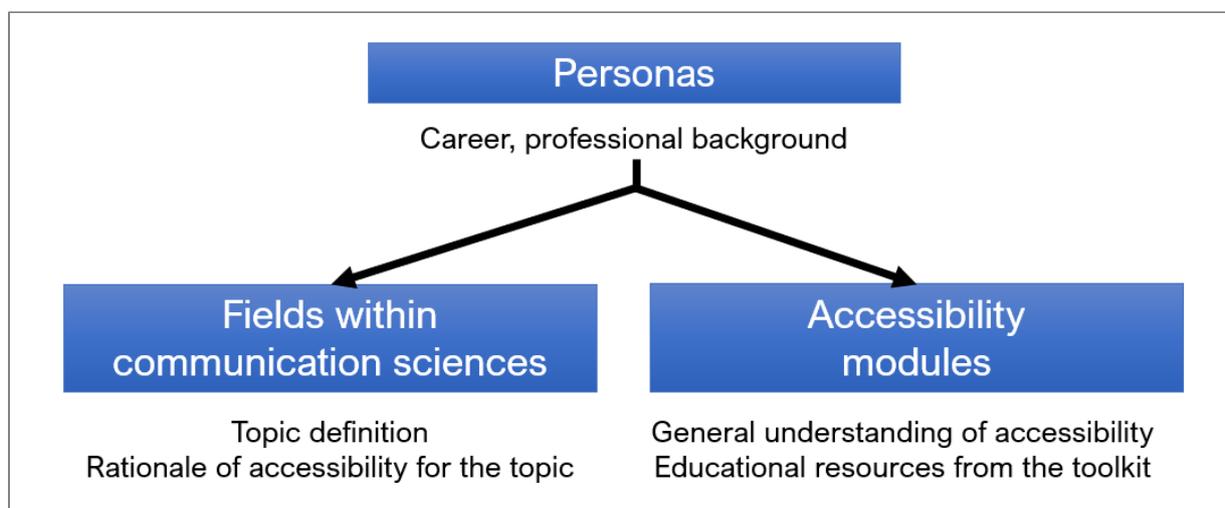
profiles or personas. While these personas are fictional communication tools, they effectively demonstrate the practical importance of accessibility for real individuals working in the communication industry and offer valuable insights into how accessibility plays a crucial role in their respective professions.

3. Educational Itineraries Enhancing Accessibility Training for Six Representative Communication Professional Profiles

Higher education institutions offer a diverse range of Bachelor's and master's programmes in the field of communication sciences. These programmes cater to students aspiring to pursue a wide array of professional roles within the domain of communication sciences, as outlined in the Intellectual Output 2 report.

The development of six educational itineraries is a response to this diverse landscape. Each itinerary connects three essential components: (1) the personas created in IO3, (2) the eleven distinct fields of communication sciences presented (below) in IO5, and (3) the accessibility modules included in the toolkit of IO3. Each itinerary precisely delineates which of the eleven communication sciences fields and which accessibility modules hold greater relevance for shaping specific professional profiles or personas, which are: (1) Public Relations consultants, (2) Digital news editors, (3) Marketing managers, (4) Marketing specialists, (5) Social media managers, and (6) Journalists.

Figure 1. The accessibility itineraries: the conceptual proposal.



Own illustration

This approach equips university faculty with a convenient means of identifying accessibility-related considerations that directly pertain to their instructional portfolios, facilitating the seamless integration of pertinent information into their teaching materials. It is important to note that these fields represent sub-disciplines within the broader spectrum of communication sciences, encompassing a variety of subjects and specialisations. They commonly serve as the primary thematic focus for specialised academic publications or educational programmes.

Table 1 summarises the six accessibility itineraries. For each persona, the relevant fields within communication sciences are listed, starting with the most relevant, and combined with the recommended accessibility modules. The latter are also divided into three tiers: (1) Recommended, (2) Relevant, and (3) Facultative. Modules (A1) and (A2) are the fundamental, introductory modules and are therefore recommended for each itinerary. This table serves as a valuable resource for communication lecturers, enabling them to identify relevant topics within the sphere of accessibility. They can do so by focusing on communication fields pertinent to their curriculum or programme or by addressing the professional roles for which this knowledge transfer is intended.

Table 1. Summary of the accessibility itineraries: fields within communication sciences and recommended accessibility modules for each persona.

Fields	Recommended	Relevant	Facultative
Persona 1: Public relations officer			
9 Marketing & Public Relations 10 CSR -- 7 Media audiences 8 Media Literacy 11 Crisis Communication	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication B10 Communication Strategy	A3 Policy and Legislation B12 Accessible Events B11 Accessible Content	A4 Accessibility Standards A5 Web Accessibility Basics

Fields	Recommended	Relevant	Facultative
Persona 2: Digital news editor			
8 Media literacy	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication B10 Communication Strategy	A3 Policy and Legislation B11 Accessible Content B12 Accessible Events	A4 Accessibility Standards A5 Web Accessibility Basics
Persona 3: Marketing manager			
9 Marketing & PR -- 3 Technology and the media 7 Media audiences	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B9 Inclusive Communication B10 Communication Strategy	A4 Accessibility Standards A5 Web Accessibility Basics B8 Requirements in Practice B11 Accessible Content B12 Accessible Events	A3 Policy and Legislation
Persona 4: Marketing specialist			
9 Marketing & PR -- 3 Technology and the media 8 Media Literacy 7 Media audiences	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> A4 Accessibility Standards A5 Web Accessibility Basics B6/7 Accessible Communication B9 Inclusive Communication B10 Communication Strategy	B8 Requirements in Practice B11 Accessible Content B12 Accessible Events	A3 Policy and Legislation

Fields	Recommended	Relevant	Facultative
Persona 5: Social media manager			
7 Media audiences -- 2 Intercultural communication 3 Technology and the media 8 Media literacy 9 Marketing & PR	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication B10 Communication Strategy	B11 Accessible Content B12 Accessible Events	A3 Policy and Legislation A4 Accessibility Standards A5 Web Accessibility Basics
Persona 6: Journalist			
6 Journalism -- 1 Media ethics 2 Intercultural communication 7 Media audiences 8 Media literacy	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication	A3 Policy and Legislation B11 Accessible Content	A4 Accessibility Standards A5 Web Accessibility Basics B10 Communication Strategy B12 Accessible Events

4. Why is digital accessibility relevant for communication sciences studies?

Article 21 of the United Nation's Convention on the Rights of Persons with Disabilities adopted in 2006 focuses on ensuring the freedom of expression and access to information for individuals with disabilities (Convention on the Rights of Persons with Disabilities, 2006). More generally, this convention outlines numerous principles and perspectives that are central to the study of **media ethics**. Effective **intercultural communication** is rooted in the ability to convey and understand information. Accessibility competencies play a pivotal role in breaking down communication barriers, thereby contributing to individuals' cultural development. Additionally, accessibility is intertwined with the ongoing convergence of **media technologies**. Notably, the *design-for-all movement* aims to make products accessible to everyone.

Technological advancements present abundant opportunities for making communication, including education, more inclusive for diverse segments of society.

Ensuring the accessibility of digital content across national borders, languages, cultures, and socioeconomic strata is imperative to address global disparities in digital access, urban-rural and ethnic **digital divides**, and inequalities. Considering this, those shaping communication **policies and regulations** greatly benefit from understanding how to implement measures at both macro and meso levels to promote inclusivity.

Accessibility is a cornerstone of **media literacy**, empowering citizens to become proficient media creators and consumers while enhancing their civic and political engagement.

Accessibility also plays a central role in marketing, public relations, corporate social responsibility, and crisis communication. Tailoring **marketing** and communication strategies to diverse customer segments extends the reach of marketing efforts and amplifies their success. Effective **public relations** necessitate judiciously engaging with multiple stakeholders, recognizing their varied interests, knowledge, and capabilities. Organizations facing **crises** must communicate and interact effectively with the public to gather and disseminate pertinent information. In emergency and risk communication, it is fundamental that all affected individuals can access and comprehend the authorities' guidance to ensure their safety and well-being.

Accessibility in **journalism** is essential for upholding democratic principles, as it ensures that all individuals and social groups have equal access to news and information. To achieve this, journalism should involve a diverse range of individuals as journalists and claim-makers and strive to make content accessible to various audiences.

In summary, successful communication in its many facets hinges on the capacity of individuals to convey their intentions and access and understand the content transmitted by others. Accessibility is a pillar of meaningful communication, relevant to all members of society. A significant portion of the population will experience accessibility challenges at some point in their lives, such as those related to hearing, mobility, and cognition. Consequently, gaining knowledge and competence in accessibility and digital accessibility is imperative for all those involved in the field of communication sciences, be it professionals, students, researchers, or educators.

5. Policy recommendations

By implementing the following recommendations, one can create a more inclusive and accessible learning environment in communication sciences studies, benefiting all students and enhancing the overall quality of education in every higher education institution.

1. Collaboration:

- Collaborate with disability support services and accessibility experts on campus to ensure a holistic approach to accessibility.
- Engage students with disabilities in the planning and evaluation of accessibility initiatives to incorporate their perspectives.

2. Staff training and development:

- Arrange workshops and or training sessions for teaching and training staff to familiarize them with accessibility principles, guidelines, and tools.
- Encourage teaching and training staff to attend webinars, conferences, and seminars on accessibility in education to stay updated with best practices.
- Provide resources such as accessible teaching guides and online courses for teaching and training staff to improve their accessibility skills.

3. Curriculum integration:

- Integrate accessibility experts into curricula design and discussions
- Review and update the curriculum to include modules or courses on accessibility in communication sciences at all levels.
- Collaborate with experts in accessibility to develop course materials and resources that are inclusive and accessible.
- Introduce case studies, real-world examples, and practical exercises related to accessibility in communication.

4. Awareness campaigns

- Including the topic of accessibility into a variety of different lectures in the way that is proposed in this report, contribute to raise awareness among the student community.
- Organize awareness campaigns and seminars for students and teaching and training staff to highlight the importance of accessibility in communication sciences.
- Showcase success stories and benefits of accessibility, both for students with disabilities and the broader student community.
- Use social media and newsletters to keep the community informed about accessibility initiatives and achievements.

5. Online and offline teaching methods:

- Emphasize a blended learning approach that combines both online and offline teaching methods to cater to diverse student needs.
- Ensure that all online course materials, including videos, documents, and websites, are accessible to students with disabilities.
- Make physical classroom spaces and materials accessible for students with disabilities.

6. Accessibility resources:

- Establish a dedicated accessibility resource centre or website where students and faculty can find information, tools, and best practices.
- Create guidelines and checklists for designing accessible course materials, presentations, and exams.
- Offer support services for students with disabilities, including assistive technology and accommodations.

7. Feedback and assessment:

- Regularly collect feedback from students on the accessibility of course materials and teaching methods.
- Use student feedback to make continuous improvements in accessibility and adapt teaching methods accordingly.
- Assess teaching and training staff performance on accessibility integration as part of their professional development.

8. Monitoring and evaluation:

- Establish metrics and key performance indicators to measure the effectiveness of accessibility initiatives.
- Regularly assess and review the progress of accessibility efforts and make necessary adjustments.

6. The Contribution of this Report

This report makes three primary contributions. Firstly, it offers a conceptual framework and tailored training paths for different educational profiles or personas, as detailed in Chapter 3. Secondly, it provides field-specific definitions and rationales outlining the significance of accessibility in each of the eleven communication sciences sub-domains, which are elaborated in Chapter 4. Lastly, it presents policy recommendations aimed at higher education institutions and policymakers, as clarified in Part III. These three key contributions are designed to assist policymakers and, more importantly, higher education institutions in including and refining their accessibility training programs within communication science curricula at both undergraduate and graduate levels.

Consequently, this report lays the groundwork for enhancing accessibility in communication education and, by extension, society. In other words, it serves to reduce the environmental barriers that impede the participation of individuals and groups from diverse backgrounds and profiles in society on equitable terms.

Part II The Report: Why is accessibility important for communication studies?

1. Introduction: Aims and Structure of the Report

The report for Intellectual Output 5 builds on the previous Intellectual Outputs (IOs). It relies on the results of IO1 to IO4:

- The gap analysis between the training needs for university teachings and training staff in fields related to communication conducted (IO1),
- the mapping of higher education communication programmes where accessibility can be included (IO2),
- the accessibility training toolkit for teaching and training staff of higher education communications programmes (IO3),
- the set of personas representing profiles in accessible communication professions (IO4).

This report serves two primary objectives. Firstly, it aims to offer a practical guide for higher education institutions seeking to integrate accessibility into their communication programs. Part II of the report underlines the significance of accessibility in the context of the eleven distinct fields within communication sciences. In this section, we define each of these fields and explain the relevance of accessibility within them. Next, the report briefly examines the institutional prerequisites necessary for higher education institutions to incorporate accessibility and explores the challenges they may encounter.

Secondly, the report aims to develop policy recommendations for integrating accessibility into higher education institutions. These recommendations target lecturers, university leadership, and policymakers at both the national and EU levels. Part III provides a detailed elaboration of these valuable recommendations.

2. Conceptual framework and methodology

Methodology

The *methods* applied to produce the report are three.

- The project members conducted *literature research* on the essential and current studies, definitions of and approaches to each of the eleven central disciplines of communication sciences.
- We also conducted eleven *qualitative expert interviews* with experts, one for each media and communication's field. The interviews contributed to defining these fields, incorporating the experts' views concerning the relevance of accessibility and potential measures to enhance its inclusion in communication studies.
- Finally, project members organized one workshop and one feedback session.

As a result, the report consists of four central parts:

- 1) **The definition of the accessibility itineraries (see chapter 3).** We specify which of *the central fields of communication sciences* and which *accessibility modules* are more relevant for the persona's knowledge development. These itineraries are based on European standards and legislation, the consortium partners' knowledge of accessibility, and the results of IO3 and IO4.
- 2) **The eleven fields of communication sciences (see chapter 4).** The report identifies eleven sub-disciplines (henceforth, fields) that are essential to communication sciences. The report defines each field, its history, central notions, and current developments in the state-of-the-art.
- 3) **The reasoning of the relevance of accessibility of each of the eleven core disciplines (see chapter 4).** We also argue why accessibility and digital accessibility are essential for each of the eleven fields of communication sciences. The rationale gives teachers and students an idea of the significance of teaching or studying accessibility in relation to each field.

- 4) **The policy proposals to streamline accessibility training in communication studies (see Part III).** The report also lists recommendations at the policy and university level that can help enhance communication science students to acquire knowledge and competencies about accessibility.

The rest of this chapter describes the applied methods and specify their contribution to the report's four core parts.

The Literature Research

The literature research served on the one hand, to identify articles and works central to each field of communication sciences and works that provide an overview of each field's central concepts, definitions, and approaches. Further, literature research of current relevant studies and projects essential to each field of communication sciences was conducted.

The Expert Interviews

Sampling strategy: selection criteria and interviewees

To obtain further insight in each of the eleven fields of communication sciences, eleven experts were chosen to be interviewed, one for each field of expertise. The purposeful sample of experts relied on the following criteria. First, the experts had to have teaching and researching experience in the field and currently have a position as teaching or researching staff in one higher education institution —the field of expertise they would be asked about during the interview—. Second, the sample should include experts from a variety of EU countries. The experts were given the opportunity to contribute to the report publicly or anonymously. Therefore, the report only states the affiliation and name of the experts if the experts declared their agreement to appear publicly in the report.

The countries of origin of the university where the interviewed experts research or text are Austria (2), Germany (1), Finland (1), Estonia (3), Spain (1), Ireland (1), Slovenia (1) and The Netherlands (1). Table 2 below lists the expertise, position and affiliation.

Interview technique and situation

The expert interviews combined the methods of focused interviews and half-standardized interviews. Focused interviews were defined by Merton and Kendall (1946) to analyse the interviewee's perception of a situation or input and the input's effects. To this end, the interviewer introduces at the beginning an input and asks interviewees some questions concerning the input. In our case, the input consisted of the field definition of the fields the expert knows about. Last, half-standardized interviews work with open, semi-structured and structured questions to identify and validate the subjective theories that interviewees may have concerning specific fields (in this research: digital accessibility and its relevance for communication studies).

The expert interviews were conducted between April 2023 and September 2023 in English and, in one case, in German. Each interview was held as a videoconference and automatically transcribed. First, the expert was asked about their academic trajectory. Further, each expert was shown an input –a description of his field of expertise– and asked to comment on the field definition. Last, the interviewer defined accessibility and asked the expert about their opinion concerning the relevance of accessibility for their field of expertise.

Table 2. List of expert interviews.

Field	Name Affiliation (Country)	Academic position
1. Media ethics	Dr. Xavier Ramon Universitat Pompeu Fabra (Spain)	Lecturer & postdoctoral researcher
2. Intercultural communication	Dr. Christopher Joseph Jenks Utrecht University (The Netherlands)	Professor
3. Technology and the media	Dr. Kerli Kirch Schneider Tallinn University Baltic Film, Media and Arts School (Estonia)	Postdoctoral researcher
4. Digital divide/ digital inequalities	Prof. Dr. Marko Siitonen University of Jyväskylä (Finland)	Professor
5. Communications policy and regulation	Dr. Tales Tomaz Paris Lodron Universität Salzburg (Austria)	Postdoctoral researcher
6. Journalism	Dr. Alessio Cornia Dublin City University (Ireland)	Assistant Professor
7. Media audiences	Dr. Philip Sinner Universität Bremen (Germany)	Postdoctoral researcher

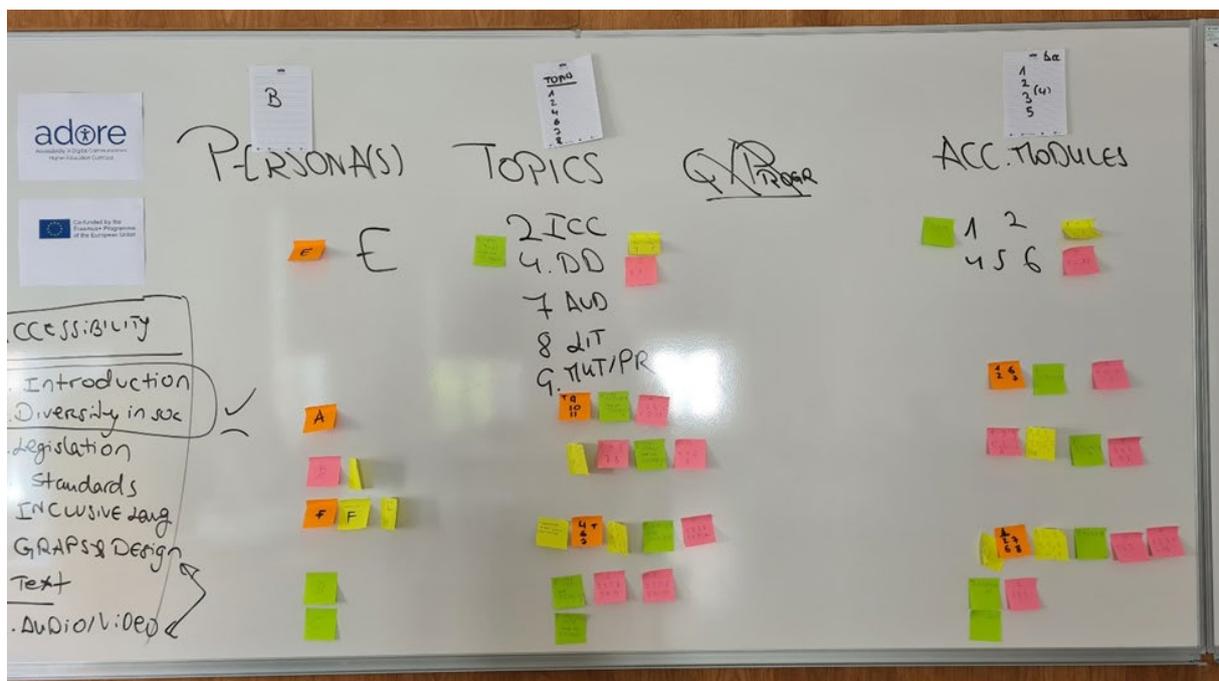
Field	Name Affiliation (Country)	Academic position
8. Media literacy	Prof. Dr. Katrin Tiidenberg, Tallinn University Baltic Film, Media and Arts School (Estonia)	Professor
9. Marketing and Public Relations	Dr. Tina Tomažič University of Maribor (Slovenia)	Assistant Professor
10. Corporate Social Responsibility	Prof. Dr. Peter Winkler Paris Lodron Universität Salzburg (Austria)	Professor
11. Crisis communication	Mart Soonik Tallinn University Baltic Film, Media and Arts School (Estonia)	Lecturer

Analysis and validation of results. The interview transcripts were analysed to update the definition of each central field and the rationale concerning the relevance of accessibility for each specific field. Four weeks after the interview, each expert received a document with the field definition and rationale for their area of expertise. The experts were asked to validate the text and suggests updates accordingly.

The Workshop

On 20 and 21 June 2023, the project members held a workshop at the University of Maribor to discuss the results of the first Intellectual Outputs (IO1 to IO4) and connect them to IO5. On June 21 2023, the project members participated in an internally led 90-minute workshop. The workshop's first part was dedicated to proposing and debating which accessibility modules and fields of communication sciences were more relevant for the personas developed out of IO4. Each participant presented with post-its a connection of *personas, fields and accessibility modules* (cf. image below).

Figure 2. Results of the workshop session to connect IOs 1 to 5 in Maribor on June 21 2023.



Own photography

Subsequently, the group debated about which combinations were more sensible and made a decision about the six accessibility itineraries.

After the proposal of accessibility itineraries, the workshop members brainstormed and debated policy proposals to streamline accessibility in communication science studies.

The Feedback on our Findings from the Multiplier Event

The Multiplier Event was a public gathering, and it took place on October 2nd 2023, online and in person at Tallinn University. It featured presentations of the project's five Intellectual Outputs by the project partners and included a panel discussion focused on the project's topic and its specific results. The panel discussion was carried out by Dr. Christopher J. Jenks, a Professor of Intercultural Communication at Utrecht University in the Netherlands; Maarja Jõgioja, the Disability Coordinator at Tallinn University; and Mikael Becker, a University lecturer at MidSweden University in the Department of Natural Science, Design, and Sustainability.



The feedback gathered during this event has been integrated into this final report, with a particular focus on PART III, titled "Recommendations for Higher Education Institutions and Policymakers."

3. Definition of the accessibility itineraries

Higher education institutions offer a variety of Bachelor's and Master's programmes in communication science, attracting students with aspirations to pursue careers in diverse professional fields related to communication sciences (see IO2). The six proposed itineraries are designed to improve accessibility and accommodate this diverse range of career goals.

Each itinerary connects three elements: (1) the *personas* defined in IO3, (2) the eleven fields of communication sciences in IO5 and (3) the accessibility modules that are part of the toolkit produced in IO3.

The **six personas** are: (1) PR officer, (2) Digital news editor, (3) Marketing manager, (4) marketing specialist in the banking business, (5) Social media manager and (6) Journalist.

The **eleven fields** are: (1) Media ethics, (2) Intercultural communication, (3) Technology and the media, (4) Digital divide / digital inequalities, (5) Communications policy and regulation, (6) Journalism, (7) Media audiences, (8) Media literacy, (9) Marketing & Public Relations, (10) Corporate Social Responsibility, (11) Crisis communication.

The **twelve accessibility modules** are (A1) Introduction to accessibility, (A2) User needs, (A3) Policy and legislation, (A4) Accessibility standards, (A5) Web accessibility basics, (B6/7) Accessible communication, (B8) Requirements in practice, (B9) Inclusive communication, (B10) Communication strategy, (B11) Accessible content, (B12) Accessible events.

The project relies on experts to design and deliver accessibility modules, academic professionals delivering modules in media and communication sciences, and the knowledge generated from the first four intellectual outputs. Therefore, it is through collaborative efforts and the exchange of this knowledge that took place during the workshop described in Chapter Two above that the itineraries were established.

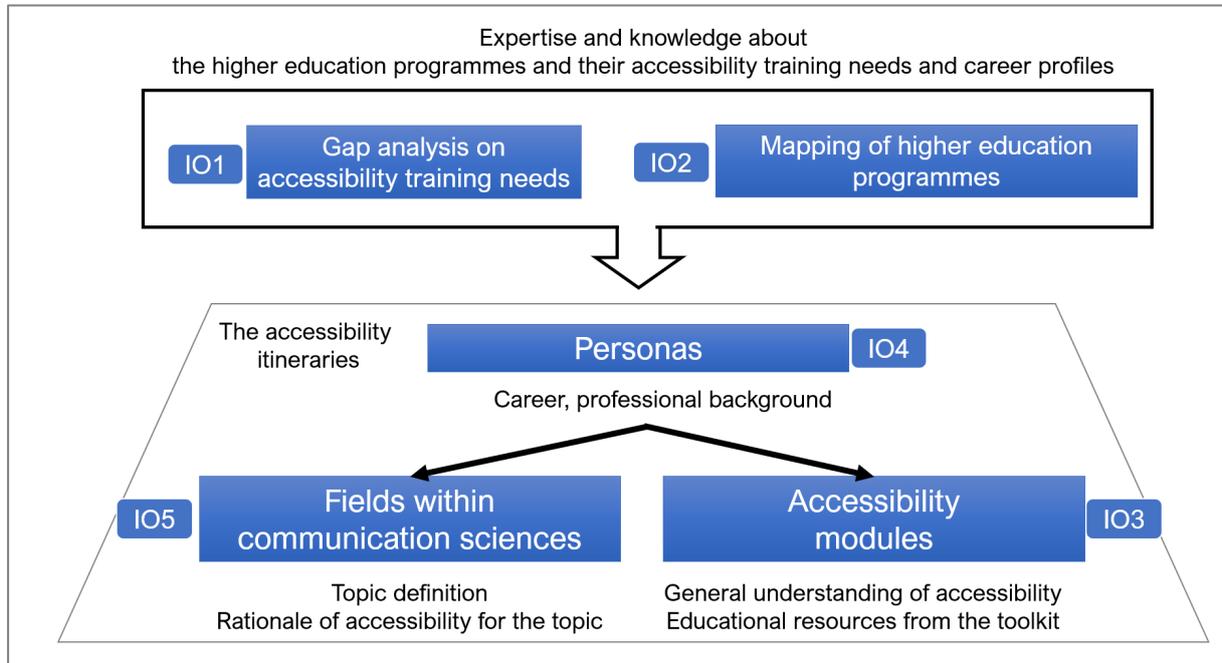
As Figure 3 illustrates, each field consists of a definition and a rationale of accessibility for the field. Based on the project members' above-defined knowledge and the

rationale concerning the relevance of accessibility for each field, the report recommends the accessibility modules for each persona. This way, the itineraries allow teaching staff to ascertain which accessibility modules are more relevant to their teaching fields in communication science higher education programmes.

Table 3. Overview of the personas, fields of communication sciences and accessibility modules.

Personas	Fields of Communication Science	Accessibility Modules
1 PR officer 2 Digital news editor 3 Marketing manager 4 Marketing specialist 5 Social media manager 6 Journalist	1 Media ethics 2 Intercultural communication 3 Technology and the media 4 Digital divide / digital inequalities 5 Communications policy and regulation 6 Journalism 7 Media audiences 8 Media literacy 9 Marketing & Public Relations 10 Corporate Social Responsibility 11 Crisis communication	A1 Introduction to accessibility A2 User Needs A3 Policy and Legislation A4 Accessibility Standards A5 Web Accessibility Basics B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication B10 Communication Strategy B11 Accessible Content B12 Accessible Events

Figure 3. The conceptual framework for the definition of the accessibility itineraries: how the five Intellectual Outputs (IOs) are connected.



Own figure.

Below, the six itineraries are explained through Tables 4 to 9. Each table delineates the pertinent fields and associated accessibility modules for a specific persona. The tables emphasize the fields that hold particular relevance for each persona, categorising training modules as "Recommended," "Relevant," or "Facultative." In this manner, the project seeks to provide guidance on the prioritisation of these training modules for various professions. The first two modules are fundamental and introductory, thus considered relevant for all personas.

Table 4. Accessibility itinerary 1, for Persona 1: Public Relations officer.

Persona 1: Public relations officer			
Fields	Recommended	Relevant	Facultative
9 Marketing & Public Relations 10 CSR -- 7 Media audiences 8 Media Literacy 11 Crisis Communication	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication B10 Communication Strategy	A3 Policy and Legislation B12 Accessible Events B11 Accessible Content	A4 Accessibility Standards A5 Web Accessibility Basics

For Persona 1 (Public Relations consultant or officer), the most relevant fields are *Marketing & Public relations* and *Corporate Social Responsibility*. The modules focused on the planning and creation of accessible content are evidently the most relevant for the Public Relations Officer. Additionally, the foundational modules hold high relevance, as Public Relations Officers may need to create communications and content related to the subject of accessibility.

Table 5. Accessibility itinerary 2, for Persona 2: Digital editor.

Persona 2: Digital news editor			
Fields	Recommended	Relevant	Facultative
8 Media literacy	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication B10 Communication Strategy	A3 Policy and Legislation B11 Accessible Content B12 Accessible Events	A4 Accessibility Standards A5 Web Accessibility Basics

Media literacy is the most pertinent field for Persona 2 (Digital editor). Digital news editors serve as content gatekeepers and thus must possess the ability to identify accessible content and make necessary corrections. While the strategy module holds particular significance, all modules related to content are equally important.

Table 6. Accessibility itinerary 3, for Persona 3: Marketing manager.

Persona 3: Marketing manager			
Fields	Recommended	Relevant	Facultative
9 Marketing & PR -- 3 Technology and the media 7 Media audiences	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B9 Inclusive Communication B10 Communication Strategy	A4 Accessibility Standards A5 Web Accessibility Basics B8 Requirements in Practice B11 Accessible Content B12 Accessible Events	A3 Policy and Legislation

Besides *Marketing & Public Relations*, the most relevant fields for marketing managers (Persona 3) are, *Technology and the media* and *Media audiences*. The latter two fields help marketing managers better understand technological developments and target their marketing campaigns more efficiently. The recommended accessibility modules for Persona 3 are the basic modules and the content related modules. The trainings on accessibility standards and web design are deemed to be relevant, as Marketing Managers are responsible for compliance although they might not be directly involved with the more technical aspects of the implementation.

Table 7. Accessibility itinerary 4, for Persona 4: Marketing specialist.

Persona 4: Marketing specialist			
Fields	Recommended	Relevant	Facultative
9 Marketing & PR -- 3 Technology and the media 8 Media Literacy 7 Media audiences	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> A4 Accessibility Standards A5 Web Accessibility Basics B6/7 Accessible Communication B9 Inclusive Communication B10 Communication Strategy	B8 Requirements in Practice B11 Accessible Content B12 Accessible Events	A3 Policy and Legislation

Persona 4 (Marketing specialist in the banking business) has a more senior profile and specialises in marketing for banks. Therefore, the relevant fields for Persona 4 are those for the marketing manager (*Marketing & PR, Technology and the media and media audiences*) and one more: *media literacy*. Knowledge about media literacy is essential to marketing specialists in the banking business because it allows them to understand better how to communicate with banking clients with various profiles effectively. Recommended trainings include the basic modules, the modules related to accessibility standards and accessible contents.

Table 8. Accessibility itinerary 5, for Persona 5: Social media manager.

Persona 5: Social media manager			
Fields	Recommended	Relevant	Facultative
7 Media audiences -- 2 Intercultural communications 3 Technology and the media 8 Media literacy 9 Marketing & PR	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication B10 Communication Strategy	B11 Accessible Content B12 Accessible Events	A3 Policy and Legislation A4 Accessibility Standards A5 Web Accessibility Basics

The relevant fields for social media managers (Persona 5) are five: *intercultural communication, technology and the media, media literacy, marketing & PR*, and the most relevant, *media audiences*. As other personas above, for this professional role the accessible content trainings are the most relevant.

Table 9. Accessibility itinerary 6, for Persona 6: Journalist.

Persona 6: Journalist			
Fields	Recommended	Relevant	Facultative
6 Journalism -- 1 Media ethics 2 Intercultural communication 7 Media audiences 8 Media literacy	A1 <u>Introduction to accessibility</u> A2 <u>User Needs</u> B6/7 Accessible Communication B8 Requirements in Practice B9 Inclusive Communication	A3 Policy and Legislation B11 Accessible Content	A4 Accessibility Standards A5 Web Accessibility Basics B10 Communication Strategy B12 Accessible Events

Besides *journalism*, four other fields are particularly relevant to journalists (Persona 6). These are *media ethics, intercultural communication, media audiences* and *media literacy*. Journalists need to learn about producing accessible content, but also, about accessibility more in general, including policies and legislation, to be in a better position to report on related issues.

4. Why is accessibility important for communication studies? Definition & rationale for 11 fields of communication studies.

Media ethics (field 1)

Definition

Media ethics addresses how media practitioners sort out various dilemmas and the audience's value judgements about media content and performance (Plaisance, 2008). It also addresses the normative frameworks that should affect the media and the relationship between ethics and the notions of media justice (cf., e.g., Schejter & Tirosh, 2016).

Plaisance (2008) states that ethics helps navigate “grey areas where conflicting or competing solutions may be legitimately argued” but does not offer clear-cut answers concerning the “right” thing to do. In contrast, Baker & Perkins (2003) consider that ethics defines “principles [...] that ought to be adhered to because they are the right thing to do”, and Daniels (2003) asserts that ethics concerns “the enhancement of critical skills for practitioners and philosophical thinking about right and wrong”.

According to Plaisance (2008), some of media ethics' critical questions are:

- What does it mean to be a ‘responsible’ media professional?
- “How should journalists balance the need for sensitivity with their mission to convey accurate, comprehensive” information?
- How should PR practitioners act when a client's interests “conflict with the professional values of public service and transparency?”
- How do news consumers “expect news organizations to minimize potential harm to people without sanitizing the news?”

International media ethics is shaped by cross-country, regional and cultural variations concerning the “expectations about ethical behaviour, etiquette, morals, and esthetics” concerning “the appropriate role of the press”, including the coverage of

“political figures, people accused of crimes, and juveniles” (Baker & Perkins, 2003, pp. 553–554). That hinders the definition of international media ethics.

Media ethics addresses the following standard questions (Baker & Perkins, 2003, pp. 553–554; Ramon, interview transcript).

- The first central question is the search for truth. Accordingly, media ethics ought to deal with the concept of transparency (Ramon, interview transcript). Media ethics should tackle, among others, “distortion and deceptions, conflicts of interest, sensationalism, violence, pornography and indecency, poor taste” (Baker & Perkins, 2003, pp. 553–554).
- How to deal with gender issues, the treatment of underage people or people with mental disabilities (Ramon, interview transcript).
- “exclusion from media of constituent groups of society and their issues”
- misuse of money, space, technology or time, invasion of privacy, “misappropriation of intellectual or creative property”,
- “lack of respect for persons, pandering or appealing to base (rather than noble) human instincts (i.e., greed, hatred, lust)
- “media impact on the vulnerable”,
- media ownership and control problems
- censorship and free expression, propaganda, media obligations to society, and media and government relations (Baker & Perkins, 2003, pp. 553–554).

Digitization and the emergence of various platforms (cf. below) have led to new ethical challenges (Ramon, interview transcript).

Why is accessibility important for media ethics?

From a media ethics perspective, combatting the “exclusion from media of constituent groups of society and their issues” (Baker & Perkins, 2003, pp. 553–554) is essential. That bears two consequences. First, the participation of people with different backgrounds and abilities is vital. Second, accessibility is a central value of ethical media. The

principles acknowledged by the UN Convention on the Rights of Persons with Disabilities (Convention on the Rights of Persons with Disabilities, 2006) and referred to hereupon emphasize the need for accessible media. This is particularly evident in article 21 "Freedom of expression and opinion, and access to information".

The Convention defines that all persons have equal inherent dignity, worth and rights as the basis for global justice, peace, and freedom. In paragraph (e), the Convention defines disability as "an evolving concept [...] [that] results from the from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full, and effective participation in society on an equal basis with others". In other words, disability arises from the environment's failure to accommodate diverse abilities.

The Convention further stresses the importance "of the policies, plans, programmes and actions [...] to further equalize opportunities for persons with disabilities" (paragraph (f)) and the need to mainstream "disability issues as an integral part of relevant strategies of sustainable development". Article 21 of the convention mandates that states should:

- a) Provide information to people with disabilities in accessible formats without additional cost and in a timely manner;
- b) Support the use of sign languages, Braille, and other accessible communication methods in official interactions;
- c) Encourage private entities, including online services, to offer information and services in accessible formats;
- d) Promote accessibility in mass media, including online information providers;
- e) Recognize and promote the use of sign languages.

By stressing the need to erase the barriers affecting people with functional diversity as a relevant field in the agenda, ethical media can make their contribution in this respect. By reflecting on how to make their content accessible to people with various abilities and adapting their content correspondingly, media can contribute to accessibility. They can include all groups in society as recipients, users, claim-makers and creators, hence fulfilling a critical value of ethical media: inclusion.

Intercultural communication (field 2)

Definition

In Communication and Media Studies, the (mediated) communication that reaches beyond national and cultural borders is variously defined. There is a first distinction between intercultural communication and international communication. Intercultural communication concerns mediated or face-to-face communication between people from different cultures —individuals from different national cultures (Gudykunst & Mody, 2002, pp. ix–x) or belonging to different generations, even if they share national culture (Jenks, interview transcript). International communication refers to the power, politics and processes of influencing other national actors.

Hepp, Krotz and Winter (2005, pp. 9–11) distinguish the following four fields:

International communication, i.e. the assessment and cross-country comparison of communication flows, mass communication and media systems. *Development communication* studies the potential of mass communication for cultural change or the alleged development of developing countries.

Intercultural communication focuses on interpersonal communication between two or more members of different (national) cultures. Intercultural communication regards culture as the context of communication and researches cultural patterns.

Transcultural communication, i.e. the analysis of media communication across cultures and of emerging hybrid cultures that exist horizontally to national cultures.

Other definitions of the term intercultural communication consider that it includes “both [...] essentialist notions of culture” and “notions of fluidity within culture” (Jenks, interview transcript). From this perspective, transcultural communication is “something that falls within intercultural communication” (Jenks, interview transcript).

Why is accessibility important for intercultural communication?

Communicating and being understood by others are central to face-to-face and mediated communication between individuals of groups with different cultural

backgrounds or from various countries. From this perspective, accessibility is essential to successful intercultural communication. Accessible intercultural communication can be understood as intercultural communication...

- (1) ...that overcomes barriers at the macro level, i.e. due to differences in media systems or inequalities related to international flows (cf. *international communication* above).
- (2) ...that contributes to the cultural development of individuals and societies (cf. *development communication* above).
- (3) ... allows people belonging to different national or regional cultures or belonging to diverse generations to communicate with and understand each other (cf. *intercultural communication* above).

Accessible communication across cultures is related to other terms such as digital accessibility, the individuals' literacy to understand content and information, and proficiency in using content (Jenks, interview transcript). In this respect, it is essential to consider potential mechanisms of exclusion related to economic barriers to access communication (Jenks, interview transcript).

Technology and the media (field 3)

Definition

The research field of technology and the media assesses the interplay between technological innovations, the media and social transformations. Over history, new technologies have led to media and social changes —e.g., the printing press, the radio, the cinema, the TV and social media—. Digitization and the development of *big data* and artificial intelligence are critical developments at the end of the 20th and the beginning of the 21st century. Digitization and big data have led to redefining the boundaries between the private and the public sphere (Evans, 2018), while the effects of AI are a research field not only of interest to communication scholars but also to sociologists (Joyce et al., 2021; Liu, 2021).

The concept of 'digital media' refers to content stored, created or disseminated "using digital computers or mobile devices (video games, blogs, e-books, etc.), as well as their physical embodiment (hard drives, DVDs, flash memory sticks, etc.)": the content is typically recorded as binary code (Chun & Soderman, 2011, p. 1). Digital media allow for "networks of dispersed media production and reception" (Chun & Soderman, 2011, p. 1).

Big data are large sets of data in different formats obtained from the online use of individuals and computationally processed very fast to produce value (Richter, 2016, p. 211; Tufekci, 2014). The use of big data allows for estimating the attitudes of individuals; the evolution of digitization of social, political and financial activities leads to an exponential rise in data quality and types (Tufekci, 2014). Algorithms are central to big data and artificial intelligence development (Shin, 2021, p. 1).

Most approaches to artificial intelligence rely mainly on machine learning, specifically supervised learning (Goodfellow et al., 2020, p. 139):

"Supervised learning algorithms are given a dataset of pairs of example inputs and example outputs. They learn to associate each input with each output and thus learn a mapping from input to output examples. [...] The most common kind of supervised learning is classification, where the output is just an integer code identifying a specific category [...]"

Why is accessibility important to technology and the media?

Technological developments offer many opportunities to make communication more accessible to each society's diverse individuals and groups. Product design is a critical aspect of accessibility related to technology and the media. The *design-for-all* movement stresses the need "that products are designed for an all-encompassing customer base and that a product is made usable by the widest possible range of people" (Persson et al., 2015, p. 507). The concept "design for all" refers to "design for human diversity, social inclusion and equality" to increase life quality (European Institute for Design and Disability, 2004). Central to accessibility is the notion of inclusiveness, "so we could talk about an inclusive society where everybody could have their voice" and participate (Kirch Schneider, interview transcript).

Specifically, the use of technology can make education accessible for all. Online teaching through videoconferences can include captions of the lectures to make the content better accessible to people with hearing difficulties, or presentation files may include a voice-assisted option reading the text in the file to make it more accessible (Kirch Schneider, interview transcript).

Big data (cf. above) bear opportunities and challenges regarding media accessibility. On the one hand, the information gathered through big data allows for understanding the behaviour and preferences of individuals and tailoring communication to individuals based on the former (Smith, 2020, pp. 16–19). Big data can allow senders to tailor their communication to various profiles and make it more accessible to groups with multiple backgrounds (Smith, 2020, pp. 16–19), including people with functional diversity. The use of big data in this respect is only sensible when combined with a commitment to ethical values (Morris, 2004) and an honest perspective of individuals and consumers (Smith, 2020, p. 4). That includes, above all, strict respect for individuals' right to privacy. Therefore, the care and protection of app users' data, including the users of apps for people with disabilities, is also a central aspect of the interplay between accessibility, technology, and the media.

Digital divide / digital inequalities (field 4)

Definition

The concept " 'digital divide' emerged in the 1990s to define inequalities" regarding access to the ICTS (Ragnedda, 2019, p. 27). Over time, the digital divide has evolved to refer to a multidimensional phenomenon (Vartanova & Gladkova, 2019, p. 195). There are three levels of the digital divide (cf. Ragnedda, 2019, pp. 30–32; Robinson et al., 2015, p. 570) and different types of digital divides.

The three levels of the digital divide. The **first level** refers to inequalities in Internet access and use. The **second level** focuses on how Internet users apply their instrumental "and creative skills and communications abilities" to have "different experiences" and hence considers the digital divide together with "the capacities and digital skills of citizens with

different socio-economic backgrounds.” (Ragnedda, 2019, p. 31). In consequence, digital inequalities are connected to social disparities concerning, among others, “political participation, healthcare, education [...]” (Ragnedda, 2019, p. 32) or socio-economic status (Hargittai, 2010). Further, digital inequalities arise “across a broad range of individual-level and macro-level domains, including life course, gender, race, and class, as well as health care, politics, economic activity, and social capital.” (Robinson et al., 2015, p. 569).

The **third level** (Ragnedda, 2019, pp. 34–36) concerns “the capacity to transform the digital benefits, resulting from a satisfactory use of ICTs, into social benefits that might improve” the individuals' opportunities in the offline world.

The different types of digital divide. Warf (2019, pp. 79–80) distinguishes various types of digital divides. First, **global digital divides** concern cross-national inequality in Internet access and use. Second, there are **urban-rural digital divides**: around “the world, Internet users tend to be concentrated in cities, where incomes, educational levels, and digital access are highest”. Third, there are **ethnic digital divides** in most countries, where “racial and ethnic minorities” tend to have less access to the Internet and use it less than the country's majoritarian population. Fourth, **smartphones contribute to fighting some expressions of the digital divide.**

Other studies address the digital divide and consider **language roles** and **disability**. Further, age is an important factor even in societies with very high Internet penetration. “We still know that elderly people use it [the Internet] significantly less than younger cohorts” (Siitonen, interview transcript).

Why is accessibility important to combat the digital divide and digital inequalities?

Making information and communication conveyed and received through digital media accessible is critical to combat the three levels and different types of the digital divide. Accessibility is central to tackling inequalities of Internet access and use (i.e. to level 1). It, therefore, allows all members of society to develop their abilities and digital skills (level 2), which is a condition to ensure that all members of society enjoy the social benefits (level 3) linked to experiencing digital experiences and developing digital

abilities. Put otherwise, it provides the conditions for all to utilize technologies and benefit from them in their life" (Siitonen, interview transcript). Digital accessibility is central not only to building one's capabilities but also when it comes to leisure time activities, such as online games" (Siitonen, interview transcript).

Making digital content accessible (1) across national boundaries, languages and cultures, (2) in urban and rural areas and (3) to all individuals, including those belonging to ethnic minorities in a society, is critical to combat the global digital, the urban-rural and the ethnic digital divides. As outlined above, smartphones can also help overcome some environmental barriers that hinder the inclusion of people with functional diversity. That is relevant to everyone since a large share of individuals will face situations "during their lifetime [...] where they may need help with accessibility issues, whether it is hearing, eyesight, coordination, mobility"" (Siitonen, interview transcript).

For these reasons, accessibility training should be central to communication professionals, engineers, and software and hardware designers: "Every single choice we make, how we create user interfaces, whether we allow for individual adjustment of you know the way we use our devices, or how computers, indeed, can help people self-present and connect to other people [...] can help everyone" (Siitonen, interview transcript).

Communications policy and regulation (field 5)

Definition

Communications policy and regulation studies how the laws and regulations affecting a given society's media and communications systems affect their functioning. Those norms reflect the power relations between the states and commercial enterprises (van Cuilenburg & McQuail, 2003, pp. 183–184).

Media policy "focuses mainly on newspapers, cable and other similar means of general public distribution" and is concerned "with freedom, diversity, quality of content and public accountability". It is the set of administrative and political norms

regulating how the media industry works and how the consumer's choices are steered (Nieminen, 2018, pp. 1–2). In contrast, telecommunications policy is a specific subfield (Tomaz, interview transcript) that pursues economic objectives and the regulation of content and communication services (van Cuilenburg & McQuail, 2003, pp. 184–186).

The **phases of the media** policy political process are three: **(1) problem formulation** through public debate, **(2) will formation** by political actors, the media, citizens and interest groups, and **(3) decision-making** by the parliament and the government (Nieminen, 2018, pp. 3–4). The crucial elements of communications policy are four (van Cuilenburg & McQuail, 2003, pp. 183–184).

- **the objectives** of media policy, derived from a specific definition of the 'public interest',
- the underlying values and criteria,
- the content and distribution services affected by the policies,
- **the policy measures and implementation means** (mainly embodied in law, regulation, self-regulation or market prices)."

The **main phases of communications policy in Western countries** until the 2000s (van Cuilenburg & McQuail, 2003) are three. (1) An "emerging communications industry policy from the mid-19th century until the beginning of the Second World War", a "public service media policy" between the end of WWII and the 1980s-1990s, shaped by the legitimization of "government intervention in communication markets for social purposes" and (3) a "new communications policy paradigm" focused on regulating media and technological convergence against the background of globalization. In the 21st century, a fourth wave is developing that addresses "**the convergence of the communication system towards platformization**" and the fact that the borders between the various fields (media policy, telecommunications policy) "are blurring" (Tomaz, interview transcript; Picard & Pickard, 2017, pp. 6–7).

Recent fields of interest in communications policy and regulation concern (1) media ownership concentration and transparency (Winseck, 2008), (2) digital platforms, (3) fake news and fact-checking, (4) media accountability, (5) media sustainability (Fengler et al., 2021) —a field that assesses the sustainability of media business models

and their relations with digital platforms (Tomaz, Interview transcript)—, (6) “media independence” and (7) the regulation of Artificial Intelligence (Tomaz, Interview transcript).

Why is accessibility important for communications policy and regulation?

The definition of sensitive norms for the media and for media and communication systems requires understanding the importance, principles, values and objectives of accessibility. Communications policies and norms also require a clear understanding of the publics who still need to be included in society and are not due to language barriers, functional diversity, income, social status or background. To keep a democracy healthy, society needs all citizens to be informed. Democratic decision-making is central to the quality of media and communication systems; simultaneously, systematically excluding people from “opinion making and [...] strengthening the democracy” leads to “a flawed democracy ultimately”. (Tomaz, interview transcript).

Further, communications policy measures and regulations greatly benefit from know-how concerning the technical implementation of measures at the macro and meso levels to foster the inclusion of individuals and groups from various backgrounds.

In the European Union, the Digital Services Act tangentially addresses the field of accessibility: For instance, “the platforms will be obliged, for example, to create a code of conduct in which they have to describe how they are working for accessibility for these, for people with disabilities.” (Tomaz, Interview transcript). In contrast, the Media Freedom Act does not mention accessibility. How digital platforms deal with and prioritize comments and posts is an issue high on the agenda “of discussion and of actual policy making”. For example, the Digital Services Act requires that digital platforms be more transparent about their procedures to define the relevance of posts or take them down (Tomaz, interview transcript).

The moderation appeal processes that digital platforms offer to users who want to complain also signal that digital platforms could be more accessible. Usually, the moderation options are displayed as chains of lists “that might be daunting for a person, for example, who cannot properly see and read by herself the screen and

need, for example, a reader assistant" (Tomaz, Interview transcript). Accessibility is relevant both in digital "platforms and traditional media" (Tomaz, interview transcript).

To conclude, the three dimensions of accessibility mentioned above (the importance, values and objectives of accessibility; the knowledge of the various audiences to be included; the technical know-how) are critical to enhancing the definition of communications policy norms that foster inclusion of all in society.

Journalism (field 6)

Definition

Journalism emerges with the development of the press, and its development is linked to that of society and mass media (Birkner, 2020). The main definitions of journalism (cf., e.g. Kovach & Rosenstiel, 2007, p. 2; (Davis, 2010); Deuze, 2005) coincide in defining journalism's principles and values.

Kovach and Rosenstiel's (2007, pp. 1, 12) normative definition of journalism (Cornia, interview transcript) conceives it as "the system societies generate to supply [...] news", i.e. "to provide citizens with the information they need to be free and self-governing". Further, Kovach and Rosenstiel define ten elements of journalism to fulfil this principle:

- Journalism's first obligation is to tell the truth.
- Its first loyalty is to citizens.
- Its essence is a discipline of verification.
- Its practitioners must maintain an independence from those they cover.
- It must serve as a monitor of power.
- It must provide a forum for public criticism and compromise.
- It must strive to make the significant interesting and relevant.
- It must be presented in a way that is comprehensive and proportional.
- Its practitioners have an obligation to exercise their personal conscience.

- Citizens have rights and responsibilities when it comes to the news as well—even more so as they become producers and editors themselves. (Kovach & Rosenstiel, 2007, p. 5f).

Empirical definitions of journalism take into account that “reality [...] often goes in a different direction” (Cornia, Interview transcript) than the direction determined by normative conceptions of journalism. For example, from a sociological perspective, “there are different versions of the truth”; accordingly, journalists “should do their best in order to provide an objective” account of facts (Cornia, interview transcript).

On the other hand, journalism is “affected also by commercial or political considerations that make their work not fully autonomous. So at the end of the day, journalists are also expected to help the news organisations they work for to pursue commercial objectives and to have a clear editorial line” (Cornia, interview transcript).

A more empirical definition of journalism is provided by Deuze (2005, pp. 443–445), who conceives journalism as a profession shaped by an occupational ideology, i.e. a belief system about the role of journalists in society, consolidated during the 20th century, with the following central values: the idea of the watchdog role, objectivity, autonomy, immediacy and ethics.

Between 2018 and 2023, some of the main fields addressed by academics researching the field of journalism are:

- The values and self-conception of journalists against the background of digitalisation and new business models (Hanitzsch et al., 2019).
- Journalistic and media accountability (Fengler et al., 2021)
- The coverage of crises, among them the COVID-19 pandemic (Hoak, 2023).
- The use of digital storytelling by journalists (Planer et al., 2022).
- How journalists and journalistic media contribute to providing the conditions for the inclusion of citizens from different countries and cultural backgrounds in joint discussions and public spheres (Parrilla Guix, 2022).

Why is accessibility important for journalism?

Accessibility is essential to high-quality journalism, i.e., journalism that contributes to democracy-fostering generalistic public spheres (Eriksen, 2005). If specific individuals or social groups are excluded from journalistic media, the core democratic principle of equality, i.e. the shaping of a forum where all can participate under the same conditions (Trappel & Tomaz, 2021), cannot be fulfilled. That implies that accessibility is central to ensuring the social integration function of journalism. Put otherwise: only generalistic public spheres where all publics in society are included allow for opinion-building, mobilisation, and the control and democratic legitimation of the political framework (Eriksen, 2005, p. 347). If some people "cannot access news content, that deprives them of accessing the news from accessing [...] they need to live to make informed decisions" (Ramon, Interview transcript, 2023). In a nutshell, accessibility is a core characteristic of journalism that contributes to democracy (Journalism expert, interview transcript).

Such a conception of accessibility is at odds with some European journalistic traditions. For instance, "the Italian tradition of political journalists has always been very self-referential, meaning that they normally cover new stories assuming that the members of the audience know everything about the previous elements of the story. This creates a situation by which new generations are actually less and less interested in journalism" (Journalism expert, interview transcript).

To make journalism accessible, a variety of individuals and social groups should be present in journalistic media at different levels, to begin with, as journalists (cf., e.g. K.U. Leuven et al., 2009), given that each journalist's perspective and worldview also depends on their background (Journalism expert, interview transcript). There should also be a pluralism of claim-makers (Koopmans & Satham, 1999) so that their voice is heard (Parrilla Guix, 2022, p. 57), and journalistic media should make their content accessible to various publics.

On the other hand, accessibility, digital accessibility and the environmental barriers hindering the participation of cultural or ethnical minorities, specific social groups, and individuals with functional diversity on equal grounds should be salient fields in the

agenda of journalistic media to make these issues “more noticeable, meaningful or memorable to audiences” (Entman, 1993, p. 53).

Examples of media that make journalism more accessible are media aimed at younger generations that explain news stories without assuming that the readers have previous contextual knowledge or media publishing the same content in different languages, including minority languages (Cornia, interview transcript).

Media audiences (field 7)

Definition

Media studies often study media audiences. The concept of media audiences is difficult to define (Webster, 1998, p. 190; Ruddock, 2001, p. 9). Media audiences are inevitably diverse and fragmented (Picard, 2000, pp. 180–183). Media audiences cannot be analysed like audiences physically attending a spectacle (Ruddock, 2001, p. 9). Central challenges of media studies are how to overcome the gap between what people do and what they say they do, “the relation between text and reader [...], the question of consequences or effects” (Livingstone, 2004, p. 82).

Audience research relies both on quantitative methods (surveys, ratings) and, on the other hand, qualitative methods focused on researching the consumers' motivations or reactions to the content (Ruddock, 2001, pp. 13–16). Audience research relies on various paradigms, from positivism to the paradigm of cultural studies (Ruddock, 2001, pp. 26–36).

Webster (1998, p. 191) categorizes audience studies into three models. The *audience-as-mass* model refers to studies of audience commodities, audience ratings, mass behaviour and media events. Studies based on the Uses and Gratifications approach, Cultural Studies, Interpretive Communities, or Reader Response belong to the *audience-as-agent* model. The *audience-as-outcome* model focuses on assessing media effects on audiences. Many studies are not located neatly in one of the three models. The dominant paradigm of media audiences is situated between the

audience-as-outcome and the *audience-as-agent* model. It comprises studies based on symbolic interactionism, the encoding/decoding model or reception analysis.

A significant contemporary development is a change from passive audiences, considered as members of a mass, to interactive media users (Livingstone, 2003). Recent relevant studies are those issued by the EU Kids Online project (cf., e.g. Livingstone & Haddon, 2009), focused on assessing the opportunities, risks and safety of the Internet for children, and the Digital News Report, which evaluates media consumption and relates it to sociodemographic factors and political values across the EU (cf., e.g. Gadringer et al., 2021; Newman et al., 2020).

Why is accessibility important for media audiences?

Making communication, media and media content accessible across socio-economic and cultural backgrounds and age groups and against the backdrop of heterogeneous individual capabilities requires a thorough understanding of media audiences. Therefore, accessibility should be an essential field for media audience studies based on the abovementioned models. Research that relies on the *audience-as-agent* model can evaluate how far various groups and individuals use the media. Studies based on the *audience-as-outcome* model can assess how far media effects vary according to the characteristics of different target audiences. Given the evolution toward digitization and interactive audiences (cf. above), research can also assess how heterogeneous individuals and groups interact with digital media. *Audience-as-mass* research, including audience ratings and consumption studies, should also consider the variety of audiences and hence consider audience heterogeneity and fragmentation (Picard, 2000, pp. 180–183).

In other words, by understanding accessibility or digital accessibility and researching these issues, media audience studies could provide relevant insight into making media content and the media more accessible.

Media literacy (field 8)

Definition

Media literacy emerged as a relevant academic issue in the 1980s (Potter, 2010, p. 675). The definitions of digital literacy and media literacy abilities vary worldwide (Rasi et al., 2019, p. 6). However, media literacy definitions (Potter, 2010, pp. 677–678) coincide in conceiving media literacy as an ability, competence, or skill to access, critically analyse, decipher and communicate information in various forms and through multiple channels.

Potter (2010, p. 681) defines media literacy based on the assessment of media literacy publications as follows. First, media literacy aims “to help people to protect themselves from the potentially negative effects” of mass media. Second, it is an ability that individuals learn. Third, it is multidimensional and concerns the individuals’ “cognitive, emotional, aesthetic, and moral” dimensions.

Hobbs (2011) criticizes Potter’s (2010, p. 681) protective understanding of media literacy, according to which its primary purpose is protecting citizens from the media’s harmful effects. Instead, Hobbs defines media literacy based on a constructivist and “empowerment perspective” that conceives young individuals as active, capable, resilient media consumers and producers (Hobbs, 2011, p. 422).

Family socialization, the parents’ digital abilities, the “design of digital technologies and contents, adult education opportunities, strong self-efficacy, social networks to support, and work involving the use of digital technologies” affect the individuals’ media literacy (Rasi et al., 2019, p. 9). Further, media literacy is “highly context and age-dependent” worldwide (Rasi et al., 2019, p. 6).

Against the background of mediatization, “digital and media literacy are recognized as tools for strengthening young people’s participation in civic and political life” (Hobbs, 2011, pp. 421–422). Digital literacy refers explicitly to the abilities every individual needs “to be a fully empowered citizen” (Tiidenberg, interview transcript). That makes two other concepts relevant. First, social media literacy is “the ability to access, create, review, and share content on social media, adding other functions

such as those linked to privacy settings” (Polanco-Levicán & Salvo-Garrido, 2022, p. 7). Second, media literacy education refers to the support to people of all ages in developing adequate media literacy” and other abilities, among them news literacy and coding literacy (Rasi et al., 2019, p. 2). To conclude, “media literacy should involve kind of understanding how the media infrastructure and culture and economy work in the broader sense” (Tiidenberg, interview transcript).

Why is accessibility important for media literacy?

As outlined above, media literacy is central to protecting citizens from potentially harmful effects on media and, more importantly, as a means to empower citizens as capable and resilient media producers and consumers and enhance their civic and political participation. Media literacy education is indispensable to achieving media literacy. Further, social media literacy is essential nowadays.

To make the benefits of digital and media literacy available to all individuals and groups in society, an understanding of media literacy that defines accessibility as essential is needed. That implies first considering how far differences in age, cultural heterogeneity or the individuals' functional diversity affect media literacy acquisition. Second, based on the former information, it means defining strategies tailored to various individuals and groups to enhance their media and digital literacy. Given that, among others, “the use of digital technologies” enhances media literacy, a key element to consider from the perspective of media literacy is how digital content and other media content must be designed to allow different groups to use it (cf. the concept “design for all” in chapter 2.1.3 above).

Two essential ways forward in this respect concern (1) teaching materials and resources and (2) the infrastructure provided by digital platforms and apps to make content accessible. “The teaching materials and resources [would] teach people how to be media literate” (Tiidenberg, Interview transcript). On the other hand, digital platforms can define standard procedures to make the content published by users accessible, such as requiring, for each published image, an alt text that describes the image's content as a default option (Tiidenberg, interview transcript).

Marketing and Public Relations (field 9)

Definition

Marketing definitions have varied over time; nevertheless, they stress the following aspects. The scholar Philip Kotler (1980) defined marketing as “satisfying needs and wants through an exchange process”. In 2018, he stated with Gary Armstrong that marketing is “the process by which companies engage customers, build strong customer relationships, and create customer value to capture value from customers in return” (Kotler & Armstrong, 2018). The American Marketing Association (AMA) currently defines marketing as “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (American Marketing Association, 2017). Another definition defines marketing as “the management process that seeks to maximize returns to shareholders by developing relationships with valued customers and creating a competitive advantage” (Paliwoda & Ryans, 2008, p. 25). The marketing process comprises four phases: research, planning, implementation of the marketing plan and evaluation. Target segmentation and identifying the organization's strengths, weaknesses and opportunities—including market gaps—and threats (Houben et al., 1999, p. 129) are central to the research phase of a marketing process.

Recently, digital marketing has emerged as a core dimension of marketing “that is gaining in relevance” (Tomažič, Interview transcript). The digitization of social, political and financial activities has led to an exponential rise in data quality and types (Tufekci, 2014). The use of big data, i.e. large sets of data in different formats obtained from the online use of individuals and computationally processed very fast to produce value (Tufekci, 2014), allows for estimating individual attitudes but provides a partial and fragmented picture of the consumers (Smith, 2020, p. 7). Against this background, digital marketing refers to establishing and maintaining relations with consumers and partners “by creating, delivering and presenting digital values and experiences” (Rakić & Rakić, 2020).

Public relations (PR) is the discipline focused on managing communication between an organization and its publics (cf. Grunig & Hunt, 1984). Put otherwise, PR is “a strategic

communication process that builds mutually beneficial relationships between organizations and their publics." (Elliott, 2012). Historically, the term 'public relations' has been defined in a variety of ways: "corporative communicator, lawyer before the public opinion court, [...], spin doctor [...]" (Xifra, 2011, p. 26). Central to public relations are two concepts. The first is managing reputation (Xifra, 2011, p. 26). Reputation is the public's degree of confidence concerning a person's or organization's to fulfil promises and satisfy the public's expectations (Xifra, 2011, p. 35). The second is the organization's public image (Tomažič, Interview transcript), i.e., the perceptions the organization's publics associate with the organization. Third, the definition of the public or stakeholders with which the organization interacts —internal stakeholders, community members, journalists, and media (cf. Xifra, 2011, pp. 129–246). An essential distinction in PR concerns the difference between internal public relations —which refers to the interaction with internal stakeholders— and external public relations, most importantly media relations —which concern the interaction with stakeholders outside the organization— (Tomažič, Interview transcript). Recently, researchers have tried to establish the links between PR and organizational communication (cf., e.g., Wehmeier & Winkler, 2013). Other fundamental dimensions of PR are sponsorship, donating and lobbying (Tomažič, Interview transcript).

Why is accessibility important for marketing / public relations (PR)?

Marketing and PR specialists can highly benefit from developing abilities and acquiring knowledge concerning accessibility. From a marketing perspective, tailoring the marketing mix and communications to the profiles of various customers enhances the success of marketing and promotion activities. Put otherwise: it makes sense to communicate and interact with all customers to enhance their opportunities to interact with the company's product and brand freely. Therefore, marketing actions should also be targeted to individuals and groups who, due to different social backgrounds, functional diversity or their belonging to specific age or cultural groups, may be considered minorities in society. From a PR perspective, sensibly interacting with various stakeholders —individuals and community members— means acknowledging their variety in terms of interests, knowledge, and competencies.

For these reasons, how to enhance accessibility should be a central element of four phases of the marketing process—research, planning, implementation of the marketing plan and evaluation—as well as a crucial tenet of PR activities aimed at enhancing the confidence that stakeholders with various competencies and from diverse profiles have vis-à-vis the organization.

Corporate social responsibility (field 10)

Definition

The notion of Corporate Social Responsibility (CSR) emerged in the USA in the late 19th century. It turned into a widely-known concept after the end of World War II (Farcane & Bureana, 2015, p. 45). Corporate Social Responsibility is most established in the academic and professional domain of business and management (Winkler, interview transcript). In this domain, CSR relies on the recognition “that business, as a producer of economic wealth, does not only have economic impact” (Dahlsrud, 2008, p. 6). CSR represents an organisation's commitment “to behave ethically and contribute to economic development while also improving the quality of life of its employees (and their families), the local community, and society at large” (Lindgreen & Swaen, 2010, p. 3).

Besides that, an academic discussion is ongoing concerning the objectives and core dimensions of Corporate Social Responsibility. On the one hand, *the most established business-driven view of CSR* Winkler, interview transcript tends to stress three of the following five dimensions of CSR: *environment*, i.e. the contribution to the natural environment; *social dimension*, i.e. fostering the relationship between the business and society or the communities it interacts with; *economic dimension*, i.e. stressing the financial and economic aspects of CSR for the company, *stakeholder dimension*, i.e. the interaction with stakeholders; and *voluntariness*, i.e. the voluntary commitment to ethical values (Dahlsrud, 2008, p. 4).

In line with this view Winkler, interview transcript, Lindgreen and Swaen (2010, pp. 2–3) define the following critical aspects related to CSR. The first is *communication*: organisations tend to inform about their CSR activities online or in annual reports “to

position their corporate brand in the eyes of consumers and other stakeholders". However, communicating CSR activities may sometimes trigger their cynicism and scepticism. Second (*implementation*), there is the need to develop CSR guidelines and quality criteria based on empirical data or theoretical support. Third (*stakeholder engagement*), CSR understands organisations as existing in "networks of stakeholders with potentially contradictory demands. Therefore, successful CSR implementation depends on building bridges with the stakeholders "in the pursuit of common goals". Fourth, *CSR is multidimensional*. Fifth (*business case*), the assumption that CSR is good for companies "drives corporate interest in CSR".

An emergent approach to CSR that contests some of the standard definition's tenets is *political corporate social responsibility*. Political CSR is a normative theory that scrutinizes the narrow focus on CSR as a business case. Instead, it emphasizes that contemporary corporations have to take their influential political role more seriously Winkler, interview transcript. This theory relies on the deliberative theory of democracy to "define the new role of the business firm as a political actor in a globalizing society" (Scherer & Palazzo, 2007, p. 1096). In a globalized world where power gradually shifts from states to business firms, the distinction of roles between the state and corporations blurs (Schrempf-Stirling, 2018, p. 1). In consequence, political CSR contests both voluntariness and the economic dimension (cf. above) as central Winkler, interview transcript. Political CSR argues that companies "have an additional political responsibility to contribute to the development and proper working of global governance" (Scherer & Palazzo, 2008, p. 2).

Another approach is *critical CSR* (cf. Banerjee, 2008; Whelan, 2013). Critical CSR scrutinizes that CSR often serves as an ideological exculpation of profit-driven companies. Accordingly, it needs to take other institutions stronger into account (among others, NGOs or hybrid organisations). Also, critical CSR does not hold that consensus is a goal of CSR and understands that giving voice to those who fundamentally disagree or are not given a voice is an essential aspect of CSR. Accordingly, organisations should provide, in their CSR, room for multiple perspectives and dissent.

Why is accessibility important for corporate social responsibility?

Central to the diverse approaches to CSR is the idea that organisations must act ethically and ought to improve the situation of their employees, their local community or society by interacting with different stakeholders. In order to achieve a potential consensus with stakeholders but also to give room for dissent and give voice to those who typically are not given voice, knowledge and competencies concerning accessibility are critical for two reasons. First, a CSR that is accessible to the different publics by removing environmental or communicational barriers resonates with an ethical approach. Put otherwise, it takes individuals equally into account regardless of their situation, skills or competencies. Second, organisations conducting CSR activities will be able to interact more effectively with their relevant stakeholders, allowing them to participate under comparable conditions.

Crisis communication (field 11)

Definition

Crisis communication is an area of Public Relations whose main aim is to protect an individual or an organization from facing a public challenge to its reputation. From an organizational perspective, a crisis is a series of events that potentially harm “stakeholders and always inflict at least some reputation damage on an organization” (Coombs, 2018, p. 51) and lead to a “perceived violation of stakeholder expectations” (Coombs, 2018, pp. 53–54).

Consequently, crisis communication is “the strategic use of words and actions to manage information and meaning during the crisis process” (Coombs, 2018, p. 51). Its objectives are “protecting stakeholder safety, restricting reputational damage, and limiting the negative effects on purchase intentions and share prices” (Coombs, 2018, p. 51). Crises have one pre-crisis and one post-crisis phase (Coombs, 2018, p. 54) and comprise managing (1) collecting and disseminating information and (2) the management of meaning —i.e., influencing the public's perception of the crisis (Coombs, 2018, p. 54).

Risk and emergency communication is a highly relevant field of crisis communication involving objectives other than those mentioned above. Risk and emergency communication's main aim is effectively communicating with the public in danger. It involves "the real-time exchange of information, advice and opinions between experts and/or officials, and people who face a threat to their survival, health, economic or social well-being." (Savoia et al., 2017, p. S208). Emergency risk communication is a central element of the response to environmental catastrophes or disasters and other public health threats, such as epidemics (Seeger Matthew et al., 2018). Central to effective crisis communication is that the targeted public trusts the source (World Health Organization, 2017). The World Health Organization (2017) defines the following quality criteria for risk communication interventions: "[to] link to functioning and accessible services, be transparent, timely, easy-to-understand, acknowledge uncertainty, address and engage affected populations, link to self-efficacy, and be disseminated using multiple platforms, methods and channels".

Why is accessibility important for crisis communication?

Producing accessible content and conveying accessible information are fundamental aspects of crisis and emergency communication. From a crisis communication perspective, organizations must communicate and interact effectively with their publics to successfully collect and disseminate relevant information and manage the meaning that all publics associate with an organization's crisis. If some publics are left out of the communication process because they cannot access the organization's information, the organization's chances of successful crisis communication decline.

For emergency and risk communication, it is fundamental that all individuals and collectives affected by an emergency become and can interpret the authorities' information and advice aimed at guaranteeing their survival or well-being. Accessibility knowledge and competencies are needed to fulfil the critical aim of emergency and risk communication.

Part III Recommendations for higher education institutions and policymakers

A comprehensive strategy is essential to foster accessibility within communication sciences education at higher education institutions. This approach involves a range of crucial strategies, including staff training and development, curriculum integration, awareness campaigns, innovative teaching methods, the acquisition of additional resources, and the implementation of new procedures. Collectively, these elements foster the embedding of accessibility as an integral component of the educational landscape.

1. Collaboration

To foster a comprehensive and inclusive approach, it is crucial to engage faculty, students, disability support services and accessibility experts within the campus community. Our conversations with various experts have revealed a common trend where Disability Offices in higher education institutions often assume the responsibility of rendering classes and materials accessible, sometimes in isolation from teaching personnel. Moreover, this is often the expected norm. In contrast, this project advocates for a more collaborative and holistic approach.

This holistic collaboration ensures that accessibility is not treated as a standalone effort but becomes an integral component of the educational ecosystem. By also involving students with disabilities in the planning and evaluation of accessibility initiatives, a crucial and enriching perspective is added to the process, thus promoting inclusivity at its core.

2. Staff Training and Development

Faculty development is a cornerstone, beginning with arranging workshops and training sessions to introduce teaching and training staff to accessibility principles, guidelines, and tools. Encouraging their active participation in webinars, conferences, and seminars on accessibility in education keeps them updated with the latest best practices. Further empowering teaching and training staff, resources such as

accessible teaching guides and online courses are provided to enhance their accessibility skills.

3. Curriculum Integration

Embedding accessibility into the educational fabric is vital. This involves the incorporation of accessibility experts into curriculum design and discussions, ensuring that accessibility becomes an intrinsic part of the academic life. Curricula should be reviewed and updated to encompass modules or courses dedicated to accessibility in communication sciences, offering a comprehensive educational experience. Collaboration with experts in accessibility helps craft course materials and resources that are both inclusive and accessible. This inclusivity extends to real-world applicability through the introduction of case studies, practical exercises, and real-life examples related to accessibility in communication.

4. Awareness Campaigns

Raising awareness within the academic community is central to effecting change. This is achieved through multiple avenues, including incorporating discussions on accessibility into a variety of lectures, thereby reaching and engaging the entire student community. To this end, the toolkit delivered with this project facilitates these actions. Organizing dedicated awareness campaigns and seminars for students and teaching staff can underscore the importance of accessibility in communication sciences. It is important to showcase success stories and the broader benefits of accessibility, not only for students with disabilities but for the entire student body. Utilizing social media and newsletters ensures that the entire academic community remains well-informed about ongoing accessibility initiatives and their achievements.

5. Online and Offline Teaching Methods

A blended learning approach, effectively combining both online and offline teaching methods, is pivotal in catering to the diverse needs of students. Moreover, it is crucial that all online course materials, encompassing videos, documents, and websites, are meticulously designed for accessibility, ensuring that no student is left behind.

Additionally, accessibility must extend to the physical classroom spaces and materials, so that all students, regardless of their abilities, can fully participate.

6. Accessibility Resources

Creating a centralized accessibility resource center or website is a practical step, offering students and faculty a readily accessible hub for information, tools, and best practices. Guidelines and checklists for designing accessible course materials, presentations, and exams streamline the process and ensure uniformity. Moreover, offering support services, including assistive technology and accommodations, stands as a pillar of inclusivity, making certain that individual needs are met.

7. Feedback and Assessment

Students' voices are a valuable source of insight, and their feedback on the accessibility of course materials and teaching methods is indispensable. This feedback loop drives continuous improvements in accessibility and enables educators to adapt their methods accordingly. Ensuring accessibility integration, the performance of teaching and training staff is systematically assessed as part of their professional development.

8. Monitoring and Evaluation

The establishment of metrics and key performance indicators is essential to monitor the effectiveness of accessibility initiatives. Regular assessments and reviews of accessibility efforts must be conducted, with the flexibility to make necessary adjustments as needed. A more inclusive and accessible learning environment in communication sciences studies can be forged through the implementation of these recommendations. This benefits all students, irrespective of their abilities, and elevates the overall quality of education in higher education institutions. Accessibility is not merely a requirement; it is a fundamental aspect of equitable education for all.

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