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The role of sustainability in media and communication studies' curricula throughout Europe

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Abstract

Purpose – This research aims to analyze to what extent sustainability and its related core aspects are integrated in media and communication's curricula of higher education institutions in Europe.

Design/methodology/approach – A total of $n = 1068$ bachelor and master's degree programs, as well as their related curricula/program specifications, from 28 European countries were analyzed by means of content analysis.

Findings – Results show that the level of curricular integration of sustainability aspects in the field of media and communication is low (14%) to very low (6%) on module level. In most cases, sustainability remains an abstract guiding principle that is not translated into a dedicated course offer. This can indicate the difficulty of operationalizing such a concept as sustainability, which is experienced by not only higher education institutions but also policy and society as a whole. In addition, the results leave space for a reflection on the social and educational responsibility of higher education institutions.

Research limitations/implications – The authors are aware that not all teaching (content) is depicted in curricula. Especially where teaching is research-based, The authors assume that sustainability (communication) is more present as the curricula' analysis can represent it. In addition, the fact of solely investigating English language curricula can be seen as a further limitation.

Originality/value – This research is one of the few attempts to verify the actual integration level of sustainability aspects in the curricula of a specific sustainability-relevant discipline, which is neither conducted as a case study nor as a single-country analysis.

Keywords Sustainability, Higher Education, Curricula, Sustainability communication, Media and communication

Paper type Research paper

Introduction

Sustainability has progressively developed from the "buzzword" of the past decade to a fundamental concept in the process of finding a new balance between the ecosystem and society. This is not surprising in times of climate crisis, ecological deterioration and

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associated social and health problems. Considering that within the next 20 years, the world's population will experience a massive resource scarcity – think for example of water scarcity that an estimated two-thirds of the world's population will face as early as 2025 (UN – United Nations, 2018) – and which (political, social and ecological) problems this scarcity will cause, then the question of why sustainability and sustainable development (should) matter, should be self-explanatory.

Sustainable development aims at meeting the needs of the present without compromising "the ability of future generations to meet their own need" (WCED – World Commission on Environment and Development, 1987, p. 51). It is "[. . .] the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance" (Ki-Moon, 2013). Today, there is a widespread consensus that sustainability is one of the key questions for both the present and the future realization in our globalized society with highly and extensive resource consumption. This is evident from the debates about climate change and their related implementation of political measures, as well as from the individual transformation of our everyday life (Neverla, 2020, p. 335). Indeed, sustainability has established itself more and more as a moral compass for individual, societal, as well as organizational and institutional action in the search for a new, regenerative relationship between humankind and nature (Weder *et al.*, 2021b). As one of the main challenges of our time, the debate on sustainability, sustainable development and the achievement of the 17 Sustainable Development Goals (SDGs) has also reached the field of media and communication studies. Sustainability communication is considered an emerging field, which integrates a multitude of research approaches and practices (Godemann and Michelsen, 2011; Cox, 2012; Anderson, 2014; Fischer *et al.*, 2016; Weder *et al.*, 2021a) and is constantly challenged by not only the increasing amount of communication *about*, *of* and *for* sustainability (Newig *et al.*, 2013) but also the need to communicate "inconvenient truths of de-growth and abandonment" (Weder *et al.*, 2021b). While textbooks, handbooks and journals cover and reflect the state of the debate with a clear research focus, the role of higher education is largely ignored in this context.

To this purpose, the study at hand examines to what extent sustainability and its core aspects are integrated into media and communication's curricula of European post-secondary institutions. Thus, $n = 1068$ bachelor and master's degree programs, as well as their related curricula from 28 European countries, were analyzed by means of content analysis. Looking at curricula is relevant from a heuristic point of view and helps verify whether Humboldt's ideal model of education is maintained in tertiary education. Communication as a core dynamic of social behavior plays a fundamental role in the process of sustainable development, mainly due to its possibility to change attitudes and behavior. Against this background, examining the degree of integration of sustainability in media and communications' curricula can be considered as not only desirable but also essential. Therefore, the present paper initially explains the essential role communication plays in the process of sustainable development, then the relevance of curricular integration is discussed before the empirical study is presented.

Communication and sustainability

The principle of sustainability with its underlying concepts has developed a kind of virulence in the past 25 years, which led to a discursive debate in various areas of society – not least, because the public perception was reinforced by mobilization, in particular by NGOs (Fischer, 2019; Schäfer and Bonfadelli, 2017). There are basically three decisive arguments explaining the fundamental relevance of communication for sustainable

development: First, if we understand sustainable development as procedural, social discourses – i.e. communication – they are the key to ensuring the legitimacy of sustainable development (Newig *et al.*, 2013). Second, sustainability and its related issues are typically characterized by a high level of complexity and uncertainty, which require overcoming specific aspects of social communication (Newig *et al.*, 2008). Sustainability issues are often unobtrusive, high complex, long-term issues that are not perceived as direct experiences but reach people rather through communicative means (Schäfer and Bonfadelli, 2017). The knowledge most people have about many sustainability issues is based on information communicated through mass media, as Luhmann (1989) puts it in a nutshell in one of his most famous quotes:

> Fish may die, or human beings swimming in lakes and rivers may cause illnesses, no more oil may come from the pumps, and average temperatures may rise or fall, but as long as this is not communicated it does not have any effect on society (pp. 28–29).

The constitutive role of communication in the social debate on sustainability-related issues can be clearly deduced from this quote: what is socially perceived and addressed as a problem depends on how people perceive and view their social and natural world. Against this background, communication can be understood as a social process in which perspectives, standpoints and orientations are (communicatively) exchanged (Fischer, 2019). Furthermore, the goals of sustainable development imply both conflicts of interests and values. Here (third), communication becomes essential to create a common understanding of societal values on sustainability and set some concrete objectives (Newig *et al.*, 2013).

One of the most recent attempts to formulate concrete goals toward a sustainable development are the SDGs of the United Nations: 17 sustainability-related objectives, which should be implemented by all United Nations members by 2030 and represent "an urgent call for action by all countries – developed and developing – in a global partnership "(UN – United Nations, 2020). However, to achieve these ambitious goals, a certain degree of self-regulation is necessary, which in turn requires again effective sustainability communication. Communication does not only play a central role in the transfer of knowledge and information or creating awareness on sustainability by placing it on the political and public agenda. It is rather necessary to initiate a social change process towards a sustainable society and lifestyle, as communication and behavior are interrelated, and behavior cannot change without proper communication (Karmasin *et al.*, 2021). Sustainability communication, therefore, faces the challenge of improving its information and knowledge sharing process, as well as to link the idea of sustainability to different areas of society. Thereby initiating and establishing a communication process on what kind of values should lead societal development and, therefore, encourage and stimulate stakeholder engagement (Servaes, 2013; Fischer, 2019).

Creating public engagement and thus contributing to sustainable development seems problematic due to several factors. First of all, the complexity of the concept of sustainability itself, which leads to doubting its feasibility (Grunwald and Kopfmüller, 2006). Second, the concept of a "sustainable development" seems to be inherently contradictory: sustainability implies a lack of change, while development requires change (Stables, 2013). Third, the concepts of sustainability and sustainable development question all current existing hegemonic paradigms, structures and practices at all societal levels (Sterling, 1996; Lozano, 2007; Tilbury, 2011). Indeed, current patterns and paradigms that are deeply anchored in our (economic and social) system contribute rather to an unsustainable development. Here, education can play a decisive role because of its ability to create and deconstruct paradigms and regulatory schemes – as historically demonstrated several times – but mainly because

higher education has always driven and shaped social change both through scientific breakthroughs and the opportunity to train and educate the next generation of intellectuals, leaders and future makers (Cortese, 2003; Tilbury *et al.*, 2005; Tilbury, 2011). Especially universities – as educational institutions and in the sense of a comprehensive responsibility – are required to recognize current, future and socially relevant issues – as sustainability is – and to integrate these in their teaching programs (Mintz and Tal, 2013). Consequently, if universities are willing to make a meaningful contribution to sustainable development, such relevant issues have to be integrated as teaching content in university's curricula, as teaching forms together with research the core of the university experience (Tilbury, 2011). This also fully applies to teaching in the field of media and communication studies, as the relevance of public communication in this context is undeniable in theory and practice. Sustainability communication is seen as an emerging field that integrates various research approaches and practices (Godemann and Michelsen, 2011; Cox, 2012; Anderson, 2014; Fischer *et al.*, 2016; Weder *et al.*, 2021a, 2021b). While handbooks and journals represent and reflect the state of the debate in research, the role of higher education in this context is largely overlooked so far.

Role of higher education

The central role of higher education for the promotion of sustainable development was addressed and identified by the United Nations as early as 1972 at the "United Nations Conference on the Human Environment" (UNCHE) (UN Documents, 2020). This was followed by numerous other conferences and official documents that further emphasized this role, such as the "Belgrade Charter" 1975 (UNEP – United Nations Environment Programme, 1975), the "Tbilisi Declaration" 1977 (UNESCO, 1977) and the well-known Brundtland Report, which particularly emphasizes the teacher's role: "the world's teachers [. . .] have a crucial role to play in helping to bring about the extensive social changes needed for sustainable development "(WCED – World Commission on Environment and Development, 1987, p. 14). The crucial role of education was further recognized in Agenda 21, "for promoting sustainable development and improving the capacity of the people to address environment and development issues "(UN – United Nations, 1992, Kap. 36, p. 2). Further and more recent examples are the so-called "Ubuntu Declaration" 2002, which for the first time addresses the need to integrate sustainability aspects in curricula of all educational levels (UN – United Nations, 2002); the global plan of action "Education for sustainable development" 2005 (UNESCO, 2005) and the above-mentioned SDGs, especially with the formulation of Goal no. 4 "quality education," which, among other things, aims at ensuring that "all learners acquire the knowledge and skills needed to promote sustainable development" (UN – United Nations, 2015a).

The assignment to (higher) education to contribute towards sustainable development did not come exclusively in the sense of an attribution of responsibility from policy. Instead, there has been a significant increase in self-commitment since the 1990s, within the meaning of higher education's "third mission" [1]. The Talloires Declaration 1990 – the first official statement made by university presidents for incorporating sustainability in teaching and research (ULSF – University Leaders for a Sustainable Future, 1990) –; the COPERNICUS Charta 1993 – a self-commitment in leading change for sustainability, renewed in 2011 (COPERNICUS, 2020) –; or the Turin Declaration on Education and Research for Sustainable and Responsible Development 2009 (IAU – International Association of Universities, 2009) are just a few examples of this. All these international conferences and declarations can undoubtedly be seen as a visible (self-)commitment by higher-education institutions to support and promote sustainable development that has led to significant initiatives such as "greening the campus" (Shepard, 2010; Tilbury, 2011). However, it has been repeatedly alleged that these kinds of non-binding commitments are not sufficient to change

significantly and permanently neither institutional nor disciplinary practices in higher education (Bekessy *et al.*, 2007). Various studies on graduates have further confirmed this: Although there are different "Education for Sustainable Development" (ESD) initiatives. Graduates neither have sufficient knowledge of environmental issues nor does the study they completed influence their attitude toward sustainability (Azapagic *et al.*, 2005; Kagawa, 2007; Yavetz *et al.*, 2009; Mintz and Tal, 2013). In addition, the question of how and to what extent these ideas and initiatives are actually implemented remains unresolved. The present study sees itself as an attempt to examine the extent to which sustainability and its core aspects are integrated into media and communication's curricula of European post-secondary institutions.

Curriculum integration toward sustainable development

Previous studies show how researches in the field of curricular change processes on a higher education level can refer to a long-standing tradition that especially emphasizes the relevance of curriculum development as an essential decision-making process in and for higher education management (Drake, 1998; Barnett *et al.*, 2001; Lattuca and Stark, 2009). Here, the curriculum is mostly perceived as an educational project that is developed in a specific historical, social and political context and has the ability to form identities in the "knowledge," "action" and "self" area. Even if these studies examine the process of changes in curricula in general, they provide a valid theoretical basis also for research works on curricular changes and development processes in the ESD area. These works are primarily conducted as case-studies (Weiss and Barth, 2019), and they focused mostly on the change process itself (de La Harp and Thomas, 2009; Ferrer-Balas *et al.*, 2008; Lozano, 2006), identifying barriers to the implementation of sustainability aspects in curricula (Lidgren *et al.*, 2006; Leal Filho *et al.*, 2017), as well as on developing strategies to overcome them (Cebrián, 2017; Lozano and Yung, 2013; Junyent and Geli de Ciurana, 2008). Here, less attention was paid to the proof of the actual integration of sustainability aspects in curricula. Indeed, there are only a few studies one can refer to in this context that generally criticize the low extent of integration of sustainability in the curricula regarding individual institutions or disciplines in single-country studies (Albareda-Tiana *et al.*, 2018; Poon, 2017; Etse and Ingley, 2016; Thomas, 2004). As Etse and Ingley (2016) point out, the reason for the low extent of implementation is mostly due to the conception of the curriculum itself. As already mentioned, the paradigms deeply anchored in our scientific and educational system tend to contribute rather to an unsustainable future (Tilbury, 2011). Traditionally curricula are more likely formulated to impart (subject) specific knowledge than to convey knowledge and skills that contribute to designing a sustainable development (Etse and Ingley, 2016). Although the fundamental difference between working and academic knowledge is repeatedly claimed (Bernstein, 2000), we argue that curricula must - or at least should- be designed in such a way that both academic and work-related knowledge is considered and the requirements of both areas are adequately met (Garraway, 2010). As one of the key challenges of the 21st century, sustainability needs, therefore, to find a place in curricula of higher education, namely not only within the field of environmental sciences or those disciplines included in the area of sustainability sciences but rather has to be integrated into all fields of study and made accessible to all students (Mintz and Tal, 2013). Accordingly, media and communication sciences should also be included – quite apart from the need to communicate and convey relevant research findings from the pertinent research field. In this context, the fundamental role of the media is repeatedly pointed out by literature: mass media play a decisive role in the construction and communication of risks and crises, as well as of those topics that have risk or crisis potentials (Kitzinger, 1999; Roche and Muskatvitch,

2003; Ma, 2005) – such as climate change and other sustainability-related issues. The way media cover and report on these issues is a major factor in responding to these threats as well as in perceiving them as risks and/or crises (Glik, 2007; Holmes *et al.*, 2009). Media acts as a filter through which "information is amplified, distorted, muted, or half-truthed before reaching the public" (Parton and Morrison, 2011, p. 4). Accordingly, it is of fundamental relevance to impart basic knowledge of sustainability to media and communication students and raise their awareness about their crucial role as media professionals in relation to communicating sustainability to achieve sustainable development so that they can take responsibility in their duty. If we understand communication as a core dynamic of social behavior and take into account the importance of communication – especially through media – in the attempts to achieve attitude and behavioral change, as well as to convey inconvenient truths, then the investigation of how sustainability is integrated into media and communication curricula should be seen as essential.

A similar comment can be made if we consider media and communication studies as core disciplines in relation to digitization processes. Digital changes are one of the fundamental driving forces behind social change. Thus, change toward sustainable development is only achievable if both risks and opportunities, as well the dynamics of digitization, are brought into harmony with the SDGs of the 2030 Agenda (Ordieres-Meré *et al.*, 2020; TWI2050 – The World in 2050, 2019; Kiron and Unruh, 2018; Bonilla *et al.*, 2018). Here, digitization can act as an instrument to solve sustainability-related challenges, as the United Nations (indirectly) explain: "The spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy" (UN – United Nations, 2015b, para. 15). On the other hand, digitization as a driver for societal changes, potentially carries strong disruptive power. Therefore, if digitization is not designed, structured appropriately – i.e. in line with the SDGs and the principles of sustainability – and not handled with caution and innovativeness, it could exacerbate existing problems in society, such as inequalities related to the digital divide and even multiply the alarming trends of a degraded social cohesion (TWI2050 - The World in 2050, 2019). Accordingly, courses and lectures dealing with issues of sustainability have the potential not only to convey relevant sustainability-related knowledge, but they also create a basis of knowledge and understanding of and for its concepts and principles, which students can apply in their later professional fields (Etse and Ingley, 2016). Thus, both the demand for a curricula reorientation and the examination of the extent of such restructuring are essential. This article addresses the latter aspect. The investigation of curricula is not only heuristically relevant but further helps to verify whether the Humboldt's ideal model of education is maintained in tertiary education. In addition, sustainability-related formal changes – such as curricular changes – are considered to be more successful than informal, non-binding measures (Cortese, 2003).

Research design

The study at hand aims to examine to what extent sustainability, and its core aspects are integrated in media and communication's curricula of European post-secondary institutions. Thus, $n = 1068$ bachelor and master degree programs and their related curricula/program specifications from 28 European countries were analyzed by means of content analysis. The designation "European" refers here not to a country's membership in the European Union but to Europe's geographical borders.

The sample of $n = 1068$ English language degree programs and related curricula results from a keyword search on the leading study choice platforms at European level. The search

for bachelor and master study programs was performed separately on two different platforms www.bachelorsportal.eu for study programs on a bachelor level, www.masterportal.com for master's degree programs. Both platforms are affiliated with studyportals.com and provide information on more than 200,000 study programs offered by more than 3,750 educational institutions (Studyportals, 2020). The keywords used to identify media and communication science study programs were: "communication," "media," "journalism" and "public relations," including its abbreviation "PR." As a result of this procedure, a total of $n = 525$ English language bachelor and $n = 543$ master study programs in the media and communication science's field in 28 European countries [2] were included in the sample.

After completing the sampling process, the official website of each study program was consulted and analyzed together with its related curriculum. We applied the documentary method as an appropriate approach. This means the analysis of documents containing information about the investigated phenomenon (Bailey, 1994). As the present study aims at investigating to what extent sustainability aspects are integrated into media and communication's curricula, the documentary method seems an appropriate choice. In addition, as the main object of research, the curriculum satisfies the quality control criteria for document sources: credibility, authenticity, representativeness and meaning (Scott, 1990). Moreover, the research design is loosely based on the study by Sharp and Brumberger (2013), who analyzed corporate communication curricula at 50 high-level business schools, which was later applied by Koinig *et al.* (2016, 2017) for the study of convergence (2016) and CSR Communication (2017) in curricula. For this purpose, we ran a second keyword search. The Keywords used for this purpose on the website, as well as in the curricula, were: sustain*, environment*, clima* and ecol*.

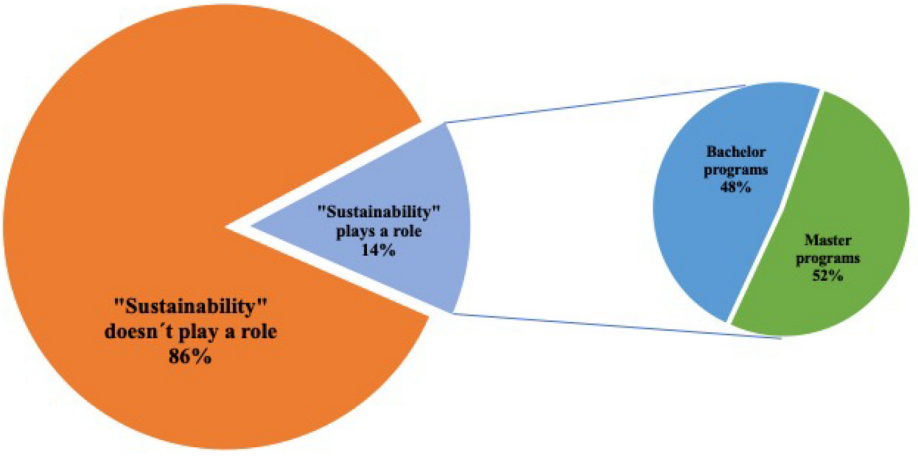
In order to investigate to what extent sustainability aspects are integrated into media and communication's curricula, we also took a closer look at online content. We analyze the study program's description on the official website and the curriculum/program specification, including the detailed course descriptions by means of a content analysis. For each hit, the corresponding paragraph was included in the analysis to understand the word in its context. The results obtained by this analysis are presented in detail in the next section.

Findings

The aim of the presented paper is to examine to what extent sustainability aspects are integrated into media and communication's higher education curricula on both bachelor and master degree level in Europe. For this purpose, $n = 1068$ English language degree programs, and their related curricula from 28 different countries were analyzed through a qualitative content analysis.

The results reveal that the level of curricular integration of sustainability aspects in the media and communication's field is not (yet) far advanced. On analyzing 1,068 study programs and their related curricula, the analysis identifies only 153 curricula integrating sustainability aspects. This corresponds to 14% (Figure 1). The relationship between bachelor and master degree programs is balanced: out of $n = 153$ curricula that integrate sustainability aspects, $n = 74$ are bachelor and $n = 79$ are master's study programs.

The result of $n = 153$ relates to the presence of one of the keywords (sustain*, environment*, clima*, ecol*) either in the study program's description on the official institution website or in the related curriculum itself. As mentioned in the *Research Design* section, we also analyzed the corresponding paragraph for every keyword found to understand how and in what context the keyword was used. To this purpose, all paragraphs



Note: Total n = 1,068 "Media & Communication" curricula

Figure 1. Sustainability in media and communication's curricula

presenting at least one keyword were analyzed using a qualitative analysis, following an inductive approach (Mayring, 2014 – see Appendix 1). The analyzed text passages containing at least one of the keywords are grouped into eight main categories (Table 1). These reveal how and in relation to what topics sustainability and its related issues are addressed in the respective study program. Accordingly, they are discussed in relation to media, policy, education or other (more) specific topics; they are embedded in the curricula in the sense of communication "of and about" or "for" sustainability (Newig *et al.*, 2013); they are used as buzzwords, or it is explained how sustainability and its related issues are understood in the respective study program.

As shown in Table 1, the category "Understanding of Sustainability" is the one that combines the most coding (37.3%). Under this category, all text passages that provide information about how sustainability or other related keywords are understood in the respective degree program were coded. Our analysis shows that sustainability is mostly understood in its environmental dimension or embedded in the field of Corporate Social Responsibility. Other understandings focus on sustainability's economic or social dimension or combine all three pillars (economy, environment, social) (see Appendix 1). The second most frequently coded category, "Sustainability as Buzzword" (20.3%), can be named here as a direct counterexample. Here, study descriptions and curricula do not

Main Category	Rel. frequency(%)
Communication of and about Sustainability	6.8
Communication for Sustainability	2.5
Sustainability as Buzzword	20.3
Understanding of Sustainability	37.3
Sustainability and the Media	11.9
Sustainability and Policy	5.5
Sustainability and Education	10.2
Other Issues of Sustainability	5.5

Table 1. Sustainability in context – main categories

provide a broad(er) explanation about how sustainability is understood or integrated as a study program topic. On the contrary, sustainability, climate change and the SDGs are used as keywords, among several others, as examples of special issues taught in the program (see Appendix 1). However, the aim of the study at hand is to investigate whether and to what extent sustainability aspects are actually integrated into higher education teaching. For this purpose, in a second step, the analysis started at a lower level, investigating whether there are specific, single modules dedicated to sustainability and/or one of its central aspects. The analysis at module level reveals that out of $n = 153$ study programs and related curricula that integrate sustainability issues, $n = 68$ (44%) also offer a total of 56 modules dedicated to sustainability or one of its core aspects.

At this point, it is important to mention that out of these 56 modules, only 16 (i.e. 28,6%) are listed as compulsory modules in the curricula or program specifications, while the large majority (71,4%) are listed as elective/optional modules. Six different main focuses can be identified thematically: environmental, business, communication and media-related issues, sustainability as topic *per se* and other more specific topics, in relation to which sustainability is taught (Figure 2).

As shown in Figure 2, most modules can be assigned to the "environment" and its related issue area. Here one finds modules dealing with topics such as environmental policy, the human-environment relationship as well as climate change concerning society and consumption patterns. The category "others" then includes modules that deal with sustainability in relation to more specific topics such as design, fashion, culture and food.

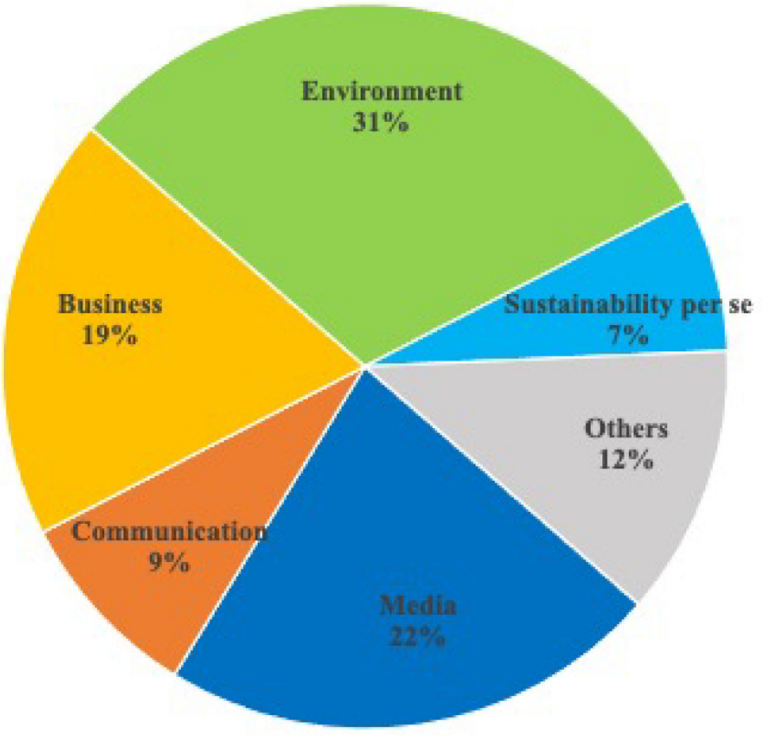
To recapitulate: out of overall $n = 1068$ analyzed study programs and their related curricula, only a total of 68 study programs were identified that offer at least one module where one of the keywords were found in the title, 30 on bachelor and 38 on master degree level (Figure 3, for the full list of modules, see Appendix 2).

Out of the 68 study programs and curricula, there are 5 English language study programs integrating sustainability (aspects) directly into the media and communication science field, namely in the form of a dedicated specific bachelor or master's degree program (Table 2).

Summarizing, this means: the analysis on a modular level reveals that the extent of the integration of sustainability and its core aspects into higher education teaching is equal to 6% (Figure 4).

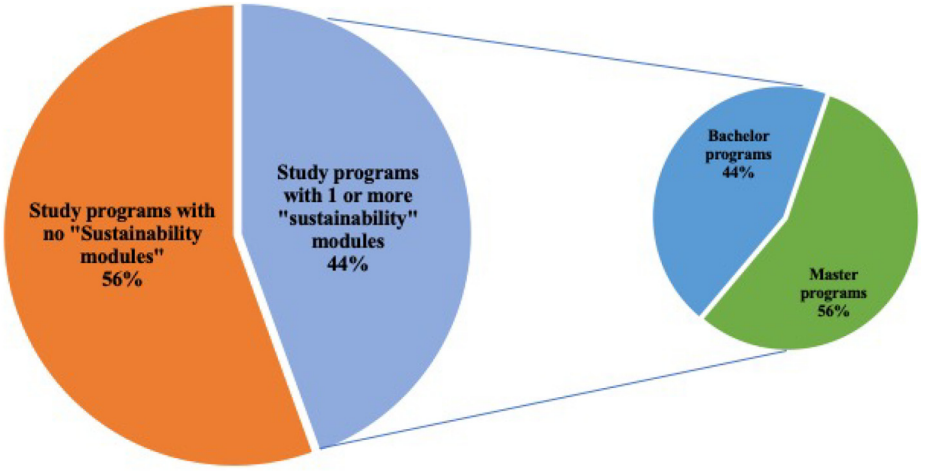
Discussion

The present study aimed to examine the extent to which sustainability aspects are integrated into media and communication curricula of European post-secondary institutions. The analysis reveals a low (14%) or – at module level – very low (6%) degree of integration. This is in line with the results of previous, comparable studies in this area (Albareda-Tiana *et al.*, 2018; Poon, 2017; Etse and Ingley, 2016; Thomas, 2004) – we mentioned in the literature review section of this paper (see Curriculum Integration towards Sustainable Development). Although study programs that integrate sustainability aspects in any manner ($n = 156$) also integrate them into teaching offers in 44% of the cases, it can be stated that in the majority of cases, sustainability remains an abstract guiding principle that is not translated into action, i.e. not implemented in a dedicated course offer. This is further supported by our content analysis of all paragraphs presenting at least one keyword to understand how and in which context sustainability is integrated and addressed in the curricula: In more than 20% of cases, sustainability remains a buzzword among many others. This can indicate the difficulty in operationalizing such a concept as sustainability,



Note: Total n = 56 Modules dedicated to sustainability

Figure 2.
Sustainability modules' issues



Note: Total n = 153 "Media & Communication" curricula, where sustainability plays a role

Figure 3.
Sustainability modules

which is experienced by higher education institutions and by policy and society as a whole, as aforementioned.

It should be noted here that the authors are aware that not all teaching (content) is and can be depicted and described in curricula or program/course specifications. Especially where teaching is research-based, we assume that sustainability (communication) is more present as a (peripheral) topic of other modules and courses than it can be represented by the analysis of curricula. For example, as an application example in the area of framing, issue management, crisis PR, science reporting, journalism, media ethics, etc. Nonetheless, such an analysis is one – if not even the only – possibility to empirically test the extent to which sustainability and its core aspects are integrated into (media and communication studies) curricula. An analysis of what is actually taught in the single modules would be possible only in terms of participatory observations, which is simply not feasible based on research economic reasons due to the large number of curricula in the sample and, consequently, single modules and lectures/courses. Therefore, our analysis offers a tendency

Table 2.
Specific media and sustainability study programs

Study program	Institution	Level
Media and Environmental Communication	University of Brighton (England)	Bachelor
Sustainable Communication	Jönköping University (Sweden)	Master
Strategic communication, Leadership and Sustainability	University of Huddersfield (England)	Master
Environment, Culture and Communication	University of Glasgow (Scotland)	Master
Climate Change: Policy, Media and Society	Dublin City University (Ireland)	Master

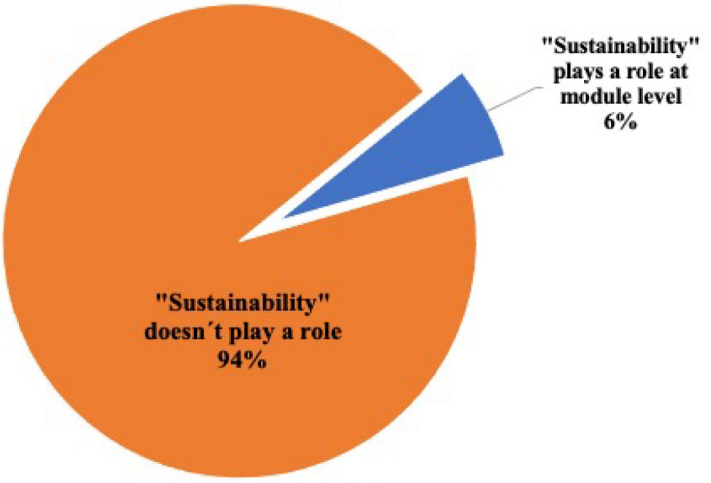


Figure 4.
Sustainability in media and communication's curricula – module level

Note: Total n = 1,086 "Media & Communication" curricula

representation, which, however, can be considered valid and meaningful, in line with the tradition of curricular change process research.

In addition, the implications of investigating solely English-language study programs and curricula have to be addressed. As sustainability is generally communicated with a strong local reference (Weder *et al.*, 2019), it can be assumed that the integration level of sustainability aspect in curricula would have been higher if we would have conducted the analysis also of study programs and curricula taught in the respective national language. Further research in this direction in order to confirm or reject such an assumption is needed. Nonetheless, our results show that the process of formal integration of sustainability aspects in media and communication's curricula is still in its infancy. Reasons for this lack of integration or the difficulty in a concrete operationalization of the sustainability concept can be various. On the one hand, as (exaggeratedly) formulated by Shepard (2010), "universities can only do what they are funded to do" (p. 17). If sustainability and its related core issues are not in the financing interest of a specific institution, it is not on the agenda – neither on an institutional nor a faculty level. Because universities and higher education institutions generally think in terms of faculties and institutes, we presume that maybe sustainability communication plays a more significant role and is integrated to a higher extent where sustainability is already institutionalized and established – i.e. in the framework of sustainability sciences. Further research in this area is therefore needed to verify this assumption. In addition to this, teachers and lecturers – or at least those who have been socialized in the spirit of critical rationalism – are always cautious about imparting knowledge that aims at a behavioral change or leads to social rethinking, as can be in the case of sustainability. This is mostly out of concern regarding the criticism and/or accusation of "brainwashing" and indoctrination (Shepard, 2010) and the debate about the connection between public communication and social change. Especially when it comes to communicating "inconvenient truths," which essentially do not only aim to impart knowledge and changing attitudes, but also at changing behavior in a complex, mediatized social environment characterized by divergent interests (Karmasin, 2020). For this, reconstructing the mechanism of public and especially political communication is a necessary but by no means a sufficient condition that represents a didactic and curricular challenge. For this, however, both teaching and learning experiences have to be questioned and redesigned so that students can understand, convey and implement both relevance and effects of sustainability in their area of influence (Galang, 2010). A procedure that goes far beyond conveying key aspects of sustainability communication. One of the main reasons for the hesitant integration of sustainability and its related key issues at curricular level could therefore be traced back to the fact that "sustainability is more a journey than a checklist [. . .] it engages university in a quest for interdisciplinarity, participatory pedagogies [. . .] as well as the opening of institutional boundaries "(Tilbury, 2011, p. 19).

Conclusion

The status quo depicted by our analysis shows that the journey in this direction will be a long one – also for media and communication studies. What it does not show is that it should not be undertaken. Quite the contrary: the here presented analysis should be understood as an opportunity to reflect on the self-conception of media and communication studies, especially regarding the social relevance and responsibility of the discipline. In addition to topics like mediatization and digitization, as well as the associated structural change of public communication, sustainability communication should be more strongly institutionalized, both in terms of curricular integration and the consequent development of respective study programs and in terms of consolidating the object area – certainly also in

the sense of funding dedicated sections (Karmasin *et al.*, 2021). Not only to make a substantial contribution to the "third mission" of universities and higher education institutions generally or to position the subject itself as a relevant part of sustainability sciences, but also and above all to contribute to one – if not *the* – key challenge facing humanity.

Notes

1. For a definition and further information, Zomer and Benneworth, 2011; Trencher *et al.* 2014; Pinhero *et al.* 2015.
2. These are: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, England, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Iceland, Latvia, Lithuania, Malta, Northern Ireland, the Netherlands, Poland, Romania, Scotland, Sweden, Switzerland, Spain and Wales.

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Further reading

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Appendix 1

Table A1. Sustainability and related issues in context: main and subcategories formation

Text passage	Category	Main Category
"…As we transition from an industrial model of media distribution to networked communications, corporations and grassroots environmental activists are vying to define environmental opinion in an evolving media landscape. . . . How can we better understand and communicate the realities of globalisation and sustainable development?"	Communication of sustainability in the media	Communication of and about sustainability
"This module will introduce students to some of the key concepts and debates surrounding the communication of environmental issues. It will examine how organisations, institutions, and individuals communicate about the environment and the impact these efforts have on public understanding and political debate"	Communication about the environment	
"In a time where anthropogenic climate change threatens some of the conditions we depend on, and where inequality and armed conflicts remain global problems, the need for relevant communication on global sustainability becomes urgent."	Communication of and about sustainability	
The following questions guide learning in the module: What is climate communication? How do people communicate and think about climate change? How can messages about climate change and the environment be crafted to change people's attitudes and behavior? Why is climate communication important?	Communication for sustainability	Communication for sustainability
"Presentation of future themes and megatrends (e.g. connectivity, mobility, sustainability, demographic change, care and cure etc.), and reflection upon these trends in the context of digital media technologies and developments."	Sustainability as buzzword	Sustainability as buzzword
"An innovative dimension of this course is the investigation of change agents that will significantly influence the behaviours of customers in the future, for example neuroscience, climate change and technology innovation."	Climate change as buzzword	
You will design and create products for use in a range of social media contexts including the United Nations' Sustainable Development Goals and community fundraising.	SDGs as buzzword	
This module introduces the concept of water as a finite resource, examines the impacts of man' *s* current usage patterns and looks at how use might be made more sustainable to preserve the resource for future generations. We will look at both current and future issues of global importance: topics such as drought, pollution, dam construction, declining fisheries and habitat destruction, along with emerging issues such as climate change, water wars and fresh drinking water availability.	Environmental dimension of sustainability	Understanding of sustainability
"The module seeks to inform your thinking in relation to sustainability issues, be they environmental, social or economic, in local and global contexts."	3 pillars of sustainability	

(*continued*)

Table A1.

Text passage	Category	Main Category
"Businesses around the globe are becoming more aware of their role in helping to build a more sustainable future. Consequently, this module will aim to provide you with an integrative understanding of the role of business in overcoming the challenges of sustainability. Utilising both theory and practice-based frameworks related to business responsibility, corporate sustainability and sustainable development, you will have the opportunity to identify, and assess the challenges associated with the responsibilities of business."	Sustainability as CSR	
"This module will introduce students to sociological thinking on climate change. Debates about climate change are shifting, and beginning to make much stronger links between a vast and complex planetary perspective (a globe in crisis) and the private sphere (the home, low-carbon lifestyles, urban living, consumer demand, etc.)"	Sustainability as climate change	
"In a time where anthropogenic climate change threatens some of the conditions we depend on, and where inequality and armed conflicts remain global problems, the need for relevant communication on global sustainability becomes urgent."	Anthropocene	
". . . the impact of the global market on the value chain and sustainability of the sector in consideration of social, cultural, economic and political influences." "If you're concerned about pressing global crises (such as food security, environmental change, conflict, inequality) and the everyday experiences of people living in globalised communities then this is the perfect course for you."	Economic dimension of sustainability Social dimension of sustainability	
"This course examines a growing subfield of cinema studies, ecocinema, which is devoted to exploring the intersection between film and environmental issues."	Ecocinema	Sustainability and the media
"From climate change, fracking, and pollution of the environment to genetic modification and the safety of our food, the media are a major source of public information about everyday risks. Public images and understanding are drawn not only from expert advice and information in news, documentary and factual media output, but from the vast pool of cultural constructions of fear and environmental risk in film, advertising and entertainment media."	Role of the media	
"This module aims at enabling students to better understand the strategic nature of stakeholder communication on the environment, the challenges that journalists and other content providers face in communicating the complexities of environmental issues, and the variegated effects different modalities and frames of environmental communication can have on audiences."	Role of journalism	
"This module critically examines international/national climate change governance, policy and societal impacts from and responses to climate change and climate change policy."	Climate change and policy	Sustainability and policy

(*continued*)

Text passage	Category	Main Category
"This course will critically investigate ideas and theories of environmental politics, their applications and implications for society and the environment. It will scrutinise how environmental politics operates in orthodox or conventional ways such as gaining and maintaining control of the executive and legislature to enact environmental policies. It will also examine and assesses novel or alternative forms of environmental politics such as direct action, green consumerism and enlightened business behaviours."	Environment and policy	
"This module examines the politics and practice of sustainable development, paying particular attention to the dilemma of how to balance economic, social, and environmental goals."	Sustainable development and policy	
"We are committed to providing skills and knowledge to help prepare you tackle global challenges. We have mapped our undergraduate degrees for learning which aligns to the 17 UN Sustainable Development Goals. This degree includes learning which relates to the following UN Sustainable Development Goals: Goal 4: Quality education; Goal 5: Gender equality; Goal 8: Decent work and economic growth . . ."	Integration of SDGs in study program	Sustainability and education
"We are committed to integrating sustainability into the curriculum"	Commitment to integrate sustainability in the curriculum	
"Additionally, with the growing importance of sustainable marketing communications, the programme embeds elements of the UN Sustainable Development goals implicitly and explicitly to develop reflective, critical citizens who are globally aware and understand how political, societal, cultural, and economic systems are interconnected."	Skills to promote sustainability	
"You and your team design a concept for a (public or consumers) campaign on sustainable energy. . . . Your professional product is an advise report on a sustainable brand campaign for a client in the energy sector"	Sustainable energy	Other issues of sustainability
"We approach design as an agent of change . . . a strategy for positively transforming behaviours in desirable and sustainable ways"	Design for sustainability	
"This course will provide students with an understanding of . . . Sustainable Fashion. Students will learn about the dirty side of the fashion industry (health, economic, labor, and environment) and how companies and supply chains are addressing these problems by going sustainable. We will examine trends in the sustainable fashion industry and the ways in which such labels and items are communicated to consumers. We focus on value creation and the ways in which digital communication can be used to effectively sell sustainable fashion."	Fashion and sustainability	

Table A1.

Appendix 2

Table A2.
Sustainability related modules in media and communications' curricula

Study program	Module(s)	Level	Institution
(1) Media and Culture	Green Media	Bachelor	Utrecht University (NL)
(2) Communication, Health and Life Sciences	• Globalization and Sustainability of Food Production and Consumption • Teaching, Learning and Capacity-Building for Sustainable Development • Methodologies for Reading Sustainable Foodscapes	Master	Wageningen University and Research (NL)
(3) International Business and Communication	Business Ethics and Sustainability	Bachelor	ISM University of Management and Economics Vilnus (LTU)
(4) New Media Language	Sustainable Development	Bachelor	Kaunas University of Technology (LTU)
(5) Communication Studies and Information Management Technologies		Bachelor	
(6) Public Relations and Brand Communication	Stakeholders, Sustainability and social Responsibility	Bachelor	Leeds Beckett University (ENG)
(7) Public Relations with Journalism		Bachelor	
(8) Advertising and Marketing	Social and Sustainability Marketing	Bachelor	University of Lincoln (ENG)
(9) Journalism	Environmental Journalism	Master	
(10) Journalism Science and Environment		Master	
(11) Creative Advertising	Climate Crisis and the Media	Bachelor	University of Winchester (ENG)

(*continued*)

Table A2.

Study program	Module(s)	Level	Institution
(12) Public Relations and Journalism		Bachelor	
(13) Media and Cultural Studies	Climate Change and Society	Bachelor	Lancaster University (ENG)
(14) Film and Media Studies	Environmental Communication	Bachelor	University of Leicester (ENG)
(15) Media and Communication		Bachelor	
(16) Media and Society		Bachelor	
(17) Digital Marketing and Social Media	Enterprise Sustainability and Business Ethics	Bachelor	University for the Creative Arts Canterbury (ENG)
(18) Journalism and Politics	Environmental Politics	Bachelor	University of Essex, Colchester (ENG)
(19) Media, Industry and Innovation	Sustainability and Innovation in Digital Culture	Bachelor	University of Brighton (ENG)
(20) Media and Sociology	Environmental Politics and Policy	Bachelor	Keele University (ENG)
(21) Media and Communication	Consumption in the Age of Climate Change Crisis	Bachelor	University of Sussex, Brighton (ENG)
(22) Film Studies		Bachelor	
(23) Media and Journalism		Bachelor	
(24) Journalism	Reporting Science and the Environment	Bachelor	City University of London (ENG)
(25) International Journalism	Health, Science and the Environment	Master	
(26) Journalism	Science, Technology, Environment and Health Journalism	Bachelor	London Metropolitan University (ENG)
	Media, Politics and Climate Change	Bachelor	University of Liverpool (ENG)

(*continued*)

Table A2.

Study program	Module(s)	Level	Institution
(27) Communication and Media			
(28) Business Communication for Leadership	Strategies for Sustainable Leadership	Master	University of Portsmouth (ENG)
(29) Corporate Communications, Marketing and Public Relations	Corporate Social Responsibility and Sustainability	Master	University of Leeds (ENG)
(30) Communication and Media	Climate Communication	Master	
(31) Film, Photography and Media		Master	
(32) International Communication		Master	
(33) International Journalism		Master	
(34) Media Industries		Master	
(35) New Media		Master	
(36) Political Communication		Master	
(37) Promotional Media		Master	
(38) Film Studies	Postcolonialism, Animals and the Environment	Master	
(39) Media Leadership	Tackling Global-Local Challenges in Ethics, Responsibility and Sustainability	Master	University of Cambria (ENG)
(40) Media and International Development	Climate Change and Development II	Master	University of East Anglia, Norwich (ENG)
(41) Management with Communication	Managing Sustainable Challenges	Master	University of Huddersfield (ENG)

(*continued*)

Study program	Module(s)	Level	Institution
(42) Film and Television Studies	Ecocinema	Master	University of Warwick, Coventry (ENG)
(43) Public Relations and Corporate Communications	Managing Corporate Social Responsibility and Sustainable Development	Master	Kingston University (ENG)
(44) Media and Communication Industries	Sustainability and the commons	Master	University of East London (ENG)
(45) Media, Communication and Global Development	Global Environmental Politics	Master	
(46) Global Media Management	Sustainability in business and Design	Master	University of Southampton (ENG)
(47) Media and Communication	Green Criminology: Environmental Crimes and Harms	Bachelor	Loughborough University, Edinburgh (SCO)
(48) International Management and Business Communication	Intercultural Perspective on Sustainable Development	Master	
(49) Film and Media	Our thirsty planet: man and the aquatic environment	Bachelor	University of Stirling (SCO)
(50) Film and Television	Environmental Design: Materials, Ecologies, Future	Bachelor	The University of Edinburgh (SCO)
(51) Political Communication	Environmental Policies and Problems in China	Master	University of Glasgow (SCO)
(52) Environment, Culture and Communication	Environmental Communication	Master	
(53) Journalism, Communication and Politics	• Local to Global Sustainable Development • Global Environmental Politics	Bachelor	Cardiff University (WAL)
	Visioning Sustainability for Change	Bachelor	Cardiff Metropolitan University (WAL)

(*continued*)

Table A2.

Table A2.

Study program	Module(s)	Level	Institution
(54) Public Relations and Marketing Management			
(55) Communication Studies	Communication, Culture and the Environment	Bachelor	Dublin City University (IRL)
(56) Journalism	Climate Change and the Media	Bachelor	
(57) Journalism		Master	
(58) Climate Change: Policy, Media and Society		Master	
(59) Sports Journalism and Communication	Social Marketing and Sustainability	Master	National University of Ireland, Galway (IRL)
(60) Sustainable Communication	Sustainability and Communication	Master	Jönköping University (SWE)
(61) Media Management	Sustainability and Media Technology	Master	KTH Royal Institute of Technology, Stockholm (SWE)
(62) Communication Design	System Design for Sustainability	Master	Politecnico di Milano (ITA)
(63) Digital Fashion Communication	Sustainable Fashion	Master	Universitá della Svizzera Italiano, Lugano (CHE)
(64) Intercultural Communication	Culture and Sustainability	Master	Adam Mickiewicz University Poznan (POL)
(65) International Studies on Media, Power and Difference	Environmental Justice and Communication	Master	Pompeu Fabra University, Barcelona (ESP)
(66) Literature, Culture and Media	Toxic Discourse: Environmentalist Literary Narrative and Ecocriticism	Master	University of Iceland, Reykjavik (ISL)
	Environmental Journalism	Master	Aristotele University of Thessaloniki (GRC)

(*continued*)

Study program	Module(s)	Level	Institution
(67) Digital Media, Communication and Journalism			
(68) International Corporate Communication and Media Management	Sustainability and CSR Communication	Master	Hochschule für angewandte Wissenschaften Neu-Ulm (DE)

Table A2.

About the authors

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