# Exploring researchers' professional digital discursive practices: A genre analysis of European research project websites

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### **Abstract**

Academics' professional and discursive practices are becoming more and more varied and demanding. It seems to be increasingly necessary to collaborate and network with international scholars and obtain funding from international institutions and not only to publish research results, but also to disseminate them globally. In this context, international research project websites play an important role and are a relevant object of analysis. Drawing on Genre Analysis this paper presents a text-based rhetorical analysis of a sample of 10 websites from European research projects within the H2020 program. Specific digital genres in the sample are identified and labelled, and some genre relations established between these and other genres. A distinction is drawn between genres that are labelled "website-generated" and "website-hosted". A move analysis of website-generated genres is then presented discerning specific moves and communicative functions bearing in mind the context in which these websites are created. Through the analysis, valuable insights are gained into international researchers' professional and digital discursive practices in English and how these websites are used to gain visibility and promote the research groups' self-branding by disseminating new knowledge, promoting their work and accounting for the funding received.

Keywords: Genre Analysis, research project websites, visibility, genre relationships.

### Resumen

### Estudio de las prácticas discursivas digitales profesionales de los investigadores: un análisis de género sobre sitios web de proyectos europeos de investigación

Las prácticas profesionales y discursivas de los académicos son cada vez más variadas y exigentes. Cada vez parece más necesario colaborar y establecer redes con académicos extranjeros y obtener financiación de instituciones internacionales, y no solo publicar los resultados de investigación, sino también difundirlos a nivel mundial. En este contexto, los sitios web de proyectos de investigación internacionales desempeñan un papel importante y constituyen un objeto de análisis relevante. Con base en el Análisis de Géneros, este trabajo presenta un análisis retórico de una muestra de 10 sitios web de proyectos de investigación europeos financiados dentro del programa H2020. En este artículo se identifican y etiquetan géneros digitales específicos en la muestra y se establecen algunas relaciones entre estos y otros géneros. Se distingue entre los géneros denominados "website-generated" (generados para el sitio web) y "website-hosted" (alojados en el sitio web). A continuación, se presenta un análisis de los "moves" (secciones) de los géneros generados para el sitio web distinguiendo funciones comunicativas específicas a partir del contexto en el que se crean estos sitios web. Este análisis pone de manifiesto cómo son las prácticas discursivas profesionales y digitales de los investigadores internacionales en inglés y cómo se utilizan estos sitios web para aumentar su visibilidad y promover una imagen propia positiva mediante la difusión de nuevos conocimientos generados en el seno del proyecto, la promoción del trabajo realizado y la rendición de cuentas de la financiación recibida.

Palabras clave: Análisis de género, Análisis del Discurso Mediado por Ordenador, sitios web de proyectos de investigación, visibilidad, relaciones de géneros.

### 1. Introduction

Scholarly online communication serves an important function to make researchers and their work visible and accessible to a wide audience, especially at a time when science is acquiring more societal value seeking to empower citizens to participate in scientific debates and advances and also enhancing the accountability for public spending. Gaining e-visibility, which entails establishing one's identity online, sharing one's work, and overall promoting one's scholarship, seems to be more and more necessary for academics (e.g., Barbour & Marshall, 2012; Luzón, 2018; Lorés-Sanz & Herrando-Rodrigo, 2020; Lorés & Diani, 2021). Academics need to produce

primary output, i.e., peer-reviewed research articles, chapters, books, monographs or conference papers, which constitute certified and legitimised knowledge, and currently determine scientists and scholars' credibility and reputation (Puschmann, 2015). However, they also need to disseminate, circulate and discuss such output, which is frequently done online and in English. This online dissemination has important implications, especially as it erodes the boundaries between modes of expert and non-expert communication, between scientists and citizens, and it broadens the range of stakeholders (Puschmann, 2015, p. 26). The Internet has prompted a move from internal to public scientific communication, "facilitating public access to previously private spaces, and thus 'turning science communication inside-out" (Trench, 2018, p. 185).

These evolving digital practices within their communities (Jones et al., 2015) entail a complex professional practice (Sarangi & Candlin, 2011) and diverse, intricate discursive practices for scientists and scholars. Such digital discursive practices require scientists' and scholars to interpret and use professional genres (Bhatia, 2008). They need to respond to social actions, to communicate their research results through different modes and media and interact with diverse audiences, beyond their expert communities of practice, encompassing expert audiences (from other disciplines), stakeholders (funding bodies and beneficiaries), and the general public. Digital genres and practices, thus, respond and adapt to sociocultural and technical change (Miller, 2017) in which researchers find themselves immersed.

Academics are currently prompted to obtain funding not only from local and national bodies but also from international institutions, which entails their collaboration and networking with international colleagues. In this context, the websites of international projects become a relevant object of analysis, especially to gain insights into researchers' evolving professional and discursive practices. Such practices respond to social and institutional exigencies regarding the dissemination and sharing of research and knowledge. Research project websites may help to legitimise and enlist public support of science, research and scholarly work and also to "open up" science in ways that promote broad dissemination of (scholarly) research (Puschmann, 2015). The particular communicative purposes, and the context and medium in which these websites are created and consumed shape their structure and the type of texts constructed and published within them. The present article offers a genre-based analysis of a sample of

websites from H2020 European research projects, which beyond responding to an institutional demand, seek to disseminate and communicate research to a global audience, and foster the project's visibility. The present research examines the following questions:

- What genres are included in the sample of European research project websites? What are their specific communicative purposes? How do they contribute to promoting research groups' results and visibility?

The paper further aims to provide an answer to the following subset of research questions:

- Which genre relations may be established among the genres identified? Can genre relations be determined between these genres and other (non) digital genres?
- What information and/or structure do they present? Can some rhetorical moves be identified?

While the main focus will be on the analysis of the verbal component of these genres, attention will also be paid to the affordances of the medium to determine their purposes and to explore how they respond to international researchers' social practices and communicative demands from institutions and funding bodies, including expectations from a global diverse audience.

The study seeks to unearth how international networks discursively respond to an institutional demand while at the same time projecting their visibility, fostering their credibility and adjusting their texts to diversified, global audiences. In addition, the study presents a situated rhetorical analysis (based on constitutive together with elaborating or expanding moves, and supportive or preparatory moves) of genres in institutional websites, which have not received enough discursive scholarly attention.

# 2. Theoretical background

# 2.1. Genre Analysis

The digitisation of scholarly communication has made research more visible and accessible to wider audiences, opening it to broader scrutiny, with important consequences on how texts and genres are framed and used and how that framing and use also shape scholars' visibility and (online) identity. Digital genres, as a result, need to be further explored especially considering how they are shaped by the context and medium in which they emerge and are accessed. In the digital environment, genres become more dynamic and unstable; thus, ascertaining how they are structured, controlled or determined (Miller, 2015) becomes a more difficult endeavour. Despite their likely elusiveness, it is indeed relevant to conduct genre analyses of digital discourse since "[g]enre analysis -that is, a systematic assessment of how textual artefacts group together- provides an essential and useful way to make meaningful abstractions about online discourse, and to uncover and describe its structural features and their communicative purposes and effects" (Heyd, 2016, p. 88). In describing their structural features, moves can be of special use. A move is defined as a "discourse or rhetorical unit that performs a coherent function in a written or spoken discourse" (Swales, 2004, pp. 228-229), or we could add in a digital discourse. Moves in digitallymediated communication can be realised verbally and non-verbally and will be determined based on the context and medium in which the digital genres take place.

With the advent of Computer-Mediated Communication (CMC) and digital media, Genre Studies and Genre Analysis have necessarily evolved (e.g., Crowston & Williams, 2000; Giltrow & Stein, 2009; Catenaccio, 2012; Luzón & Pérez-Llantada, 2019) to take into account the affordances they bring with them and the subsequent changes in the production, function and reception of genres. Print genres have been remediated, that is, they have been "relocated, transformed, combined, and repurposed to fit in a new context" (Luzón & Pérez-Llantada, 2019, p. 5). Digital media have also enabled embedding and hyperlinking, fostering interconnectedness among digital genres and practices (Luzón & Pérez-Llantada, 2019; Lorés, 2020). The digital medium allows users to apply a navigating and a reading mode (Askehave & Nielsen, 2005). When applying a navigating mode, attention is paid to the reading paths that can be followed in and out of the website; when applying a reading mode, on the other hand, a zoom in lens is applied to the digital genre and the texts to be analysed.

Genres cannot be analysed in isolation. Rather, genres relate to each other, establishing different types of relations, such as sets, i.e., type of texts that a person fulfils (Devitt, 1991); systems, i.e., interrelated texts that portray all parties' interaction (Bazerman, 1994); repertoires, i.e., the genres that are routinely used by members of a community (Orlikowski & Yates, 1994); hierarchies, i.e., genres organised according to the value assigned to each of them (Swales, 2004), and chains, i.e., as being created in chronological order (Swales, 2004); or colonies, i.e., genres with an overriding common purpose (Bhatia, 2004). These possible genre relations will be considered in the analysis of research project websites to show how the genres identified are interconnected and also connected to other (non) digital genres so that a better understanding is gained of the discursive practices embraced by international research groups. In addition, in this study of digital genres the notion of meta-genre (Giltrow, 2002), which encompasses guidelines or written regulations framing the writings and genres in a particular context, will also be taken into account. Meta-genres are tied to their context of use and may contribute to establishing regularities in genres in general and in digital genres in particular. In this case, the EU institutional guidelines may have a bearing on the genres, and should be considered in their analysis within H2020 project websites.

### 2.2. EU research project websites and e-visibility

Research project websites can be a "rhetorical interface between the hypertext medium and specific genres" (Catenaccio, 2012, p. 47). As such, they have specific purposes for project members and those browsing the websites, which constitute a global, diversified audience. These websites, through which scientific knowledge seems to be democratised, may contribute to public engagement. As highlighted by the National Coordinating Centre for Public Engagement in the UK (2020), "websites can be an inexpensive and inclusive way to engage with the public" (https://www.publicengagement.ac.uk/do-engagement/choose-

method/websites). They are a valuable element for current knowledge dissemination, as they "are to be seen as repositories and transmitters of the current values of scientific research" (Lorés, 2020, p. 1) and are a key deliverable of international research projects. In the case of EU projects under the H2020 call, creating and maintaining a website is a requirement, which may have two important implications. First, websites can have a marked accountability function; research projects need to be accountable for the funding received and for meeting the research objectives established, which may lead members to share their work, and emphasise their productivity. Second, making it a requirement entails that such public engagement is encouraged by funding bodies and stakeholders, seeking to

legitimise the research funded and carried out in the eyes of the general public. Indeed, they "attempt to respond to societal demands for good practice in public expenditure and investment in R&D [Research and Development]" (Lorés, 2020, p. 7).

Figure 1 illustrates the multiple functions that EU research project websites may accomplish.



Figure 1. Research project websites' multiple functions.

Research project websites fulfil a relevant role in the dissemination of knowledge (Bondi, 2017) (or policies) to a broad, global audience, including academic, expert readers, such as members of their disciplines or related ones, external stakeholders (funding bodies and beneficiaries), and the lay public, whom they seek to inform and provide specialised knowledge. They also have persuasive purposes, contributing to the research groups' selfbranding. Self-branding is defined by Marwick (2013, p. 166) as "primarily a series of marketing strategies applied to the individual". In this case, the marketing strategies would be applied to a research project. It is intrinsically linked with self-promotion, which technologies make possible on a large scale (Marwick, 2013).

Through these websites, the research group can gain visibility. Visibility is achieved "when people know your name, are familiar with your work, and think highly of your intellectual contributions" (Leahey, 2007, p. 537). Rather than pursuing individual visibility, it seems that these research teams or consortia seek to create a collective identity and gain visibility in the professional and social spheres. This may be the result of institutional guidelines provided in terms of the need to stress the added value of such collaborative research.

### 3. Method

A sample of ten websites was selected from international research projects financed under the Horizon 2020 European programme in which a member of the Universidad de Zaragoza (Spain) participated, thus following a convenience sampling method (see Table 1). This convenience sampling allowed us to maintain a close link between the texts analysed and the context in which they were produced. It ensured that we could get in contact with potential informants close to us and which could provide us with valuable contextual information. This sample constitutes part of the EUROPROWebs (European Project Research Website) Corpus compiled by the InterGedi group (Pascual et al., 2020).

	Research project	Website	N° of words	Project start date	Project end date
1	Indus3es	http://www.indus3es.eu/	13,179	1/10/2015	30/11/2019
2	Medeas	http://www.medeas.eu/	5,556	1/1/2016	31/12/2019
3	Migrate	https://www.h2020-migrate.eu/	12,038	1/1/2016	31/12/2019
4	Supersmart	http://www.supersmart-supermarket.eu/	2,720	1/2/2019	31/1/2019
5	Simpla	http://www.simpla-project.eu/en	2,762	1/2/2016	31/1/2019
6	uP_running	http://www.up-running.eu/	12,014	1/4/2016	30/6/2019
7	Waste2fuels	http://www.waste2fuels.eu/	475	1/1/2016	31/12/2018
8	Wi-5	http://www.wi5.eu/	7,555	1/2/2015	31/5/2018
9	greenGain	https://greengain.eu/	1,745	1/1/2015	31/12/2017
10	Dice	http://www.dice-h2020.eu/	1,754	1/2/2015	31/1/2018
			59,798		

Table 1. Description of the corpus.

First, a navigating mode (Askehave & Nielsen, 2005) was applied to analyse the content and different sections of the websites based on their communicative purpose, which led to the identification of two different types of digital texts and genres: "website-generated" and "web-hosted". On the one hand, "website-generated" genres -adapted (Crowston & Williams, 2000), or reconfigured and emergent phenomena (Herring, 2013) from other digital or analogue genres- were discerned. The label "website-generated" should not lead to assume that these genres were original to the website. They may likely be adapted from previous genres in the genre chain (Swales, 2004) and may stem from the institutional meta-genre demands (Giltrow, 2002). This can be the case, for instance, of Research descriptions formulated as work packages that can actually be an adaptation or a reconfiguration of a required section of the grant proposal submitted. On

the other hand, "website-hosted" genres (and platforms) were identified, which are embedded or linked on the website (Bhatia, 2004; Luzón, 2017) as a way of making them available and downloadable, and can be considered reproduced genres (Crowston & Williams, 2000) or familiar phenomena (Herring, 2013). Applying this navigating mode to the sample of websites led me to identify that genres with specific communicative purposes were recursive in the websites but appeared under different sections and labels, as will be presented in the next section. A reading mode (Askehave & Nielsen, 2005) was then applied to the corpus to carry out a genre-based analysis focusing on their rhetorical structure, discerning specific moves (units with a coherent function) within each website-generated genre. For such identification of the move structure of the website-generated genres, a datadriven analysis was undertaken whereby the content of the texts was carefully read in context and specific communicative purposes determined for each of them. Then, the texts were coded to determine whether they had (not) been included in each of the websites in the corpus. Once the communicative purposes of these website-generated genres were delineated, their constitutive, supportive or elaborating nature was determined. Also, possible genre relations were established among the identified web-site generated genres and between these and other (digital) genres drawing on text-external features and on the social and institutional context.

# 4. Identification and description of digital genres in international research project websites

Website-hosted (reproduced, familiar) genres or platforms were discerned in the research project webs. These are linked or embedded and respond mostly to their accountability function. That is the case of multi-form deliverables (e.g., brochures, research articles, reports, newsletters or technical notes), which are made available and readily consulted and downloaded. They appear in different sections of the website labelled as "Resources", "Downloads", "Documents", "Deliverables" or "Publications"). Table 2 summarises the identified genres and the extent to which they were included in the websites in the sample. They highlight the research projects' productivity and respond to the need to widely disseminate and share the scientific knowledge accrued, duly responding to public spending obtained.

Website-hosted genres and platforms	N° of websites
Research output	9
Applications	3
Blog	1
Website-generated genres	Nº of websites
Research mission statement	10
Research mission statement Research activity description	10 10

Table 2. Summary of genres identified in research project websites.

It is especially through website-generated genres that research groups provide information about their research, to convince readers of the worth and validity of such research as well as to promote the projects' productivity and to project a credible, networked collective identity. The research groups generate these genres to feed in their websites complying with the requirements of the funding body, which consider websites a crucial dissemination activity. These genres appear to fulfil a similar function to showcasing genres in research group blogs, described as "explicitly promotional genres, used to showcase individual, group, community or institutional activities" (Luzón, 2017, p. 454). A summary of the findings can be found in Table 3.

Website-generated genre	Labels and sections associated with	Communicative purpose
Research mission statement	Summary, Overview, About, Home, Mission	To create and project research value and culture
Research activity description	Project, Description, Research, About	To provide details of the aims or objectives, methodology, results, potential benefits or impact of the research undertaken
Research partners' profile	Partners, Consortium, Members, board	To describe, render visible and promote the researchers' institutions
Research news and events	News, Events, News and events	To publicise research outcomes and to highlight productivity

Table 3. Summary of website-generated genres in the sample of research project websites.

First of all, Research mission statements are presented on the homepage and/or under one of the first sections on the website labelled "Summary", "Overview" or "About" (Figure 2). It can work as a presentation card of the research group (it could be seen as a "research card", resembling former business cards), crafted in such a way that a diverse audience (potentially encompassing research fellows, stakeholders and beneficiaries, interested users and the wide public), gets to understand what they do and why they do it.

> P\_running project aims to unlock the European strong potential of woody blomass residues produced by Agrarian Pruning and Plantation Removals (APPR) and to promote its sustainable use as energy feedstock, uP\_running has been constructed with the ambition of being the prejude of a self-expansion of APPR wood utilization in Europe. Its vocation is to increase awareness of agrarian sector and energy sector, that this biomass can be an alternative source for energy, and to reduce a general skeepticism, as regard of the technical difficulties and the occurrence of non-successful experiences. Therefore it aims to firstly demonstrate and produce key tools, then convince the actors to be involved in APPR value chains, and finally expand APPR utilization through the involvement of multiple local actors in 7 EU countries



Figure 2. Example 1: Research mission statement (website 6).

Genre relations may be established with corporate mission statements. It can be argued that just as company or institution mission statements are used "to illustrate the creation and projection of corporate culture" (Swales & Rogers, 1995, p. 226), Research mission statements in these websites are used to project research group value and culture. In this respect, corporate and Research mission statements could be considered to form a genre colony (Bhatia, 2004), sharing similar communicative purposes in different contexts. Also, some degree of interdiscursivity (Bhatia, 2004, 2008) can be traced between them in as much as some established conventions and resources, such as a highly promotional discourse which entails the use of positive evaluative language, -associated with other professional contexts and practices- seem to have been appropriated by international research groups. These borrowed conventions highlight a promotional culture of selfbranding, which is not an innovation, but is very much related to the corporations' marketing (Page, 2012) now appropriated by international funded research projects.

As stated by Petroni (2014), the web is not only characterised by being a huge hypertext but also by its hypermodality and its hypermediality. Pictures, visual representations (Example 1) and logos frequently accompany text in Research mission statements and contribute to creating the research project self-branding. The use of other media is also relevant. In two websites (3 and

10), the Research mission statement is accompanied by a video. In addition, Research mission statements commonly feature links to other parts of the website to promote readers' navigation (Askehave & Nielsen, 2005) through the website as they direct them to other genres.

Further details on the particular research aims or objectives, the methodology, the results and the potential benefits or impact of the research are also provided under different labels, usually in a second section or page within the website. Their specific communicative purposes and situational context can lead to establishing a second website-generated genre, referred to as "Research activity description" (see Table 3). Detailed, positive descriptions of the research undertaken are organised in many different ways, and specific rhetorical strategies (such as visuals which can help readers understand the projects' specificities) are used in the analysed websites. In some of them, reference is made to work packages, and specific objectives are organised in a bulleted list (Figure 3). This digital genre tends to be highly informative, sharing specialised information with peers, expert members in (other) disciplines, or knowledgeable agents.



Figure 3. Example 2. Research activity description (website 3).

A relationship needs to be acknowledged between this digital genre and antecedent or existing genres, likely forming part of the successful project H2020 grant proposal giving way to a genre chain (Swales, 2004). Research activity descriptions can be considered to be adapted, to emerge from or to be reconfigured from the texts drafted in the submission and required by the

call. These texts may have been "re-purposed, re-designed and re-deployed" (Bateman et al., 2014, p. 10) when included in the research projects' websites once granted financial support and responding to a social action required from the funding body. A process of transformation seems to have taken place triggered by the meta-genre (Giltrow, 2002). Research activity descriptions in the project website can be seen to constitute a regularised genre, more situational, tacit and flexible than a regulated, institutional metagenre (Schryer & Spoel, 2005), namely the H2020 call and the research project network ensuing submission.

A third genre was identified in the research project websites: the "Research partners' profile" (Figure 4), which research projects use to present the research institutions of the members participating in the European funded projects. This is a good opportunity to enhance the research institutions' reputation, highlighting their relevance as members of a research network, which has been granted European funding, and therefore, also recognition.



Figure 4. Example 3. Research partners' profiles (website 5).

Finally, Research news and events are included on the website, which help the project publicise their research progress and promote their productivity, fulfilling a clear accountability function. This may be considered one of the most dynamic sections on the website since it continues growing as the project develops. It may be through this section that the audience's attention is not only gained but also maintained, as there tend to be constant updates. News and events may be accessed through the homepage (Figure 5) or the menu (Figure 6), which can have a different format depending on the context in which they are read.



Figure 5. Example 4: Research news and events (website 2).



Figure 6. Example 5: Research news and events (website 2).

Table 4 summarises the occurrence and length of the instantiations of these genres in the corpus. On average, Research mission statements are 179 words long, ranging from 60 to 332 words, and Research activity descriptions are 888 words long, with greater diversity as they could range from 120 to 2,314 words. Research partners' profiles (per website) were, on average, 2,133 words long, but their length was also very different on each website. Their length varied depending on the number of institutions participating in the research group and on whether a section was included in each of the profiles on the specific role or functions taken by the particular institution in the project (as will be discussed in the next section). Finally, not only was the number of Research news and events diverse across the websites analysed (from 2 to 112 news were posted) but also the number of words in each of them, ranging from an average of 73 words to 401 words per piece of news in different websites. These differences can be accounted for bearing in mind the time the project had been running at the time of the corpus compilation,

and also to the open guidelines in the Plan for the Exploitation and Dissemination of Results offered by the EU. This document highlights the need to establish a well-planned strategy and to think constantly and globally about communicating the work carried out within the project. Nevertheless, no specific instructions are given on how such communication and dissemination is to be effectively undertaken. Thus, research project websites may, and in fact do, draw on different verbal and non-verbal strategies to disseminate their research.

	Research project	Mission statement	Activity description	Partners' profile	News and events	Total
1	Indus3es	87	1.91	3.155	8.746	13.179
2	Medeas	209	831	2.775	1.741	5.556
3	Migrate	332	2.314	7.613	1.779	12.038
4	Supersmart	293	351	1.530	1.397	2.720
5	Simpla	60	251	1.054	546	2.762
6	uP_running	127	1.963	1.100	8.824	12.014
7	Waste2fuels	109	120	-	246	475
8	Wi-5	184	512	2.346	4.513	7.555
9	greenGain	171	942	632	-	1.745
10	Dice	219	406	1.129	-	1.754
		1.791	8.881	21.334	27.792	59.798

Table 4. Website-generated genres occurrence and text length in the corpus.

As can be seen in Table 4, most of these website-generated genres appear on all the websites, with some exceptions. One of the websites in the corpus did not include the Research partners' profiles. The section was created, but no information was found directly on the website on them, and, as a result, the specific communicative purposes highlighted do not seem to be achieved, and hence the visibility of the group not highlighted to the same extent. Two of them (websites 9 and 10) did not include Research news and events, at least at the moment when the corpus was compiled.

The genres identified can be seen as individual texts "pursuing rhetorical aims which are both an end in themselves, and at the same time serve higher purposes" (Catenaccio, 2012, p. 45). That is, they serve their communicative intents and also higher purposes of the research project websites in general, i.e., informativity, promotion, and accountability, with the overall intention to gain e-visibility and self-branding (see Figure 1). The rhetorical structure of the website-generated genres identified will now be looked into to explore

further their specific rhetorical aims, looking at the moves usually covered which respond to specific functions and intentions.

# 5. Rhetorical structure of website-generated genres in research project websites

The moves discerned in each of the website-generated genres highlighted above (Research mission statements, Research activity descriptions, Research partners' profiles and Research news and event) will now be presented. This analysis will enable us to look closer into how international research projects undertake the required communication and dissemination of their research results through this digital medium, gaining visibility and increasing the credibility and impact of their research.

Specific moves (Swales, 2004) were determined within each websitegenerated genre paying attention to the particular communicative functions fulfilled by diverse units within each of them. Those moves which were included in all the websites in the corpus were considered constitutive moves, as they can be taken to constitute their generic integrity. The rest of the moves or rhetorical units identified were taken to be supportive or preparatory moves, as they precede and open the path to the constitutive move, or elaborating or expanding moves, as they provide subsequent information.

#### 5.1. Research mission statements

The moves identified in Research mission statements in the project websites are summarised in Table 5.

	Move	N° of websites
	Statement of aims	10
Research	Acknowledging European financing and collaboration	5
mission	Statement of target and beneficiaries	3
statement	Filling a gap/offering a solution	3
	Claiming topic centrality	1

Table 5. Moves in the Research mission statement website-generated genre.

The statement of aims may be considered to be the constitutive move of this website-generated genre (Figure 7). The other moves identified "Filling a gap/offering a solution" and "Claiming topic centrality" have a supportive or preparatory function for the central statement of aims, justifying them. "Acknowledging funding" and "Statement of target and beneficiaries" are rhetorical units commonly found in this website-generated genre with an extending or elaborating function of the main constitutive move.

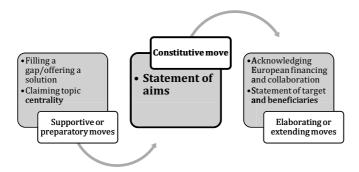


Figure 7. Move structure of the Research mission statement website-generated genre.

- Statement of aims: are included to highlight what is intended to be carried out throughout the international research project. This is a compulsory move, as it has been found in all 10 websites in the sample and can be considered constitutive (see Example 1 above).
- Acknowledging European financing and collaboration: In some cases (5 out of 10 websites), this information is foregrounded from the beginning and appears as part of this Research mission statement (Example 6). It can contribute to gaining prestige and credibility as the financial support obtained from a highly competitive call by a funding body is highlighted.

Example 6. Research mission statement (website 9)

The three-year project, which started on January 2015, is supported by the Horizon 2020, a European program to foster research and innovative solutions in the EU. [...]

- Statement of target and/or beneficiaries: in a few cases (3 websites), the specific beneficiaries of the research are also highlighted as part of this brief, initial Research mission statement (Example 7). As depicted in Figure 2, this move extends or elaborates on the statement of aims.

Example 7. Research mission statement (website 4)

The project reaches all those that make the decisions for new technology, those offering and optimising solutions, those setting the frameworks and those supporting the uptake of greener solutions in Europe's food retail

- Filling a gap/offering a solution: in a number of websites (3) the objectives of the research project are presented as filling a gap or offering a solution to a problem. This frequently entails some negative evaluation of, for instance, existing tools and integration of areas, as shown in Example 8, which is seen as a problem that the research presented will target. As such, it serves to prepare and justify the aims and the central move.

Example 8. Research mission statement (website 2)

Currently, many tools lack sufficient integration of these important areas despite being tightly connected to the energy sector. Furthermore, current modelling tools often lack sufficient documentation, transparency and have been predominately developed for a specialised audience, which makes validation and comparison of results as well as independent review more challenging. The MEDEAS project aims to solve the current challenges of integration and transparency by developing a leading-edge policy-modelling tool.

- Claiming topic centrality: in one of the websites in which special emphasis is placed on the topic of research, this moves paves the way for the statement of aims, and seeking to convince a varied audience of the relevance of the research undertaken by the project.

Through the Research mission statement, the research group briefly presents what they plan to do to bring about benefits to the European Union economy and citizens. This is of utmost importance in the H2020 projects call and submission. Once granted funding, these aims need to be stressed through one of their main dissemination media, their project website.

# 5.2. Research activity descriptions

As readers get "deeper" into the research project websites, more information can be obtained further down on homepages or within the first section of the website. Through a data-driven analysis, five different moves or rhetorical units were delimited within this website-generated genre

corresponding to specific communicative intents (Table 6). The coding of the 10 websites revealed that only one move was consistently performed.

	Move	Nº of websites
	Statement of specific objectives	10
	Indication of benefits or impact	8
Research activity descriptions	Description of methods and procedure and/or steps taken	5
	Statement of dissemination actions	3
	Statement of results	1

Table 6. Moves in the Research activity descriptions website-generated genre.

The statement of specific objectives may be considered the constitutive move of this website-generated genre (Figure 8), as it has been presented on all websites. The other moves identified can be considered extending or elaborating with two different functions. First, they can be mostly informative, providing details on the research development through the description of methods and procedures and/or steps taken and the limited statement of results. Second, they can have an accountability function stressing the value and need of those objectives through indicating benefits or impact and the statement of dissemination actions to be undertaken.

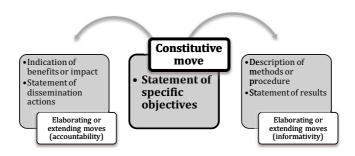


Figure 8. Move structure of the Research activity description website-generated genre.

- Statement of specific objectives: this appears to be an obligatory, constitutive move as is included in all 10 websites in the sample. Example 9 provides an illustration.

Example 9. Research activity description (website 10)

The project aims at delivering methods and tools that will help satisfying quality requirements in data-intensive applications by iterative enhancement of their architecture design. That is, the monitoring data acquired during testing and operation will be deeply analyzed to find quality pitfalls and performance outliers. The goal is to identify quality anti-patterns in the architecture of the data-intensive application and exploit this to accelerate refactoring and iteratively optimise quality characteristics.

- Indication of benefits or impact: through this move, the research group can justify the value of the project and can extend or elaborate on the specific objectives by pointing out who will benefit from them (Example 10).

Example 10. Research activity description (website 9)

Main target groups

regional and local players, who are responsible for maintenance and conservation work and for the biomass residue management in their regions & service providers – including farmers and forest owners, their associations, NGOs and energy providers and consumers

- Description of methods and procedures and/or steps taken throughout the project. This is included in half of the websites and can help to project an image of professionalism of the research participants and of soundness, as they display knowledge of how they will achieve the stated objectives (Example 11).

Example 11. Research activity description (website 3)

Firstly, accurate models for desktop protection studies and HiL tests will be provided and the existing protection functions/solutions under high PE penetration will be assessed. Secondly, new protection solutions allowing 100% PE penetration to be reached will be developed and tested by performing HiL tests with real protection equipment supplied by Schneider Electric in order to check the feasibility (both technical and economic) of the proposed solutions.

- Statement of dissemination actions. This is included in 3 of the websites (Example 12), possibly as a reflection on the high importance given to this aspect in H2020 calls and their role in public engagement intended to reach diverse audiences. It can thus be considered an expanding or elaborating move with an accountability function.

Example 12. Research activity description (website 6)

uP\_running will communicate directly with more than 20 policy makers, and will engage lobbying groups through the celebration of 7 national and 1 EU workshops and through more than 15 lobbying meetings.

- Statement of results: This is surprisingly sparse (Table 6), only found on one website (Example 13). It may be due to the organic nature of these websites. European funded projects under the H2020 program tend to be financed for three years. This information can be fed in as the research develops and results are actually obtained. It may be the case that a chain generic relation (Swales, 2004) is established between primary output (Puschmann, 2015) in the form of research articles and publications and this genre, which may condition its instantiation in the project website. It may also be the case that the research project members prefer to focus on specific results obtained through Research news and events, which tends to be a more dynamic section of the website.

Example 13. Research activity description (website 1)

Results showed that many industrial processes are suitable for integration of AHT technology. Sectors which are especially promising are the petrochemical, pulp&paper, and ceramics sector; followed by water and nonferrous sectors, where it can be integrated in special applications. Cement and steel sectors showed too high temperatures for AHT integration.

Two different digital genres have been discerned within the research project websites in terms of different degrees of detail and specificities. They could constitute a genre set (Devitt, 1991) in that they are texts that the research group create or reconfigure to inform a global readership of their research endeavours. As such, whereas Research mission statements may be directed to the general public, contributing to enlisting public support of science and "opening" science up (Puschmann, 2015), Research activity descriptions (and especially some moves within these) may be addressed to a more specialised or expert readership (scholars in the same or related disciplines, and/or stakeholders), with further background knowledge and specific want or need of detailed information.

### 5.3. Research partners' profiles

As can be seen in Table 3, all websites in the sample but one include a profile of all partners participating in the research project. This website-generated genre can contribute to the overall aim of giving e-visibility not only to the research activity and outcomes, but, most significantly, to the participating partners with promotional intentions. Only in a couple of cases individual bionotes of the specific researchers have been included. This is significant as the research undertaken does not tend to be personalised but is seen as a joint enterprise resulting from a network of institutions, mainly firms, universities, research centres, and institutes. A closer analysis of the genre revealed different communicative intents, which led to establishing 3 moves. The extent of their use is summarised in Table 7.

	Move	Nº of websites
Research	Description	9
partners'	Statement of specific role or function in the project	4
profiles	Highlighting overall characteristics	3

Table 7. Moves in the Research partners' profile website-generated genre.

The description of the partner tends to include background information about the institution, namely, its origin, location, size, or type of institution as well as specific details on its goal or mission, its field(s) of specialisation and/or expertise. In some cases, further details are included regarding awards or accreditations obtained by the institution or its members. This description can be considered a constitutive move (Figure 9).

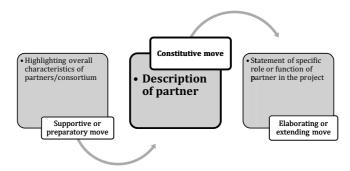


Figure 9. Move structure of the Research partners' profile website-generated genre.

In four websites, the profiles comprise a two-part text; first, a general description of the institution is offered, followed by a statement of its specific role or function in the project, which can be considered an elaborating or expanding move (Figure 4). This second part may be introduced by a heading (e.g., "role in the project", "main task attributed in the project") or just be included without a heading. In three websites, partners' profiles are introduced by an opening text that also highlights the most relevant characteristics of the members (Example 14), which can be a supportive or preparatory move for the description of partners.

### Example 14. Research partner profile (website 4)

The project consortium consists of 9 partners across Europe. Most of the partners possess expert knowledge about the technical solutions for efficient heating and cooling systems in supermarkets. The team - consisting of [...] - is, therefore, best placed to combine research, analysis, training, dissemination and network-building.

This information can be a specific strategy to promote a collective identity and to answer calls from the EU programmes that highlight the need to prove that collaborative research adds value to the research undertaken. The creation of a collective identity pointed out may respond to these institutional guidelines.

#### 5.4. Research news and events

The number of news on each website varies greatly depending very likely on the state of development of the current project and also on the informational and publicising undertakings of the research group. Research news and events in these research project websites refer mainly to the research groups' participation in international scientific events such as conferences, seminars, or talks. Such events tend to be previously announced and then their participation in the event is summarised. Another important feed is events (workshops, meetings, assemblies) organised by the research group. Again, in this case news are posted announcing the events, and information is provided once the event has been held. The research group also publicises their scientific publications in this section of their website. News and events are also used to present other research output, which at the same time constitutes new information (or updates) on the website; that is the case of videos, reports and brochures featuring results from the project.

Thus, Research news and events perform a significant accountability function, stressing the productivity and dissemination of the research group results.

Each piece of news or event presents a headline, which most often includes the project's name and key aspects related to the specific details of the event, when and where it took place, who participated, and what kind of participation it was. This reported information can be considered the constitutive move of the website-generated genre (Table 8; Figure 10) and it may be accompanied by a visual, commonly a picture of the research member(s) participating in the event.

	Move	Nº of websites
	Description of the event or news	8
Research	Headline	8
news and events	Promotion of further reading or navigation through hyperlinks	8
	Invitation to leave comments	2

Table 8. Moves in the Research partners' profile website-generated genre.

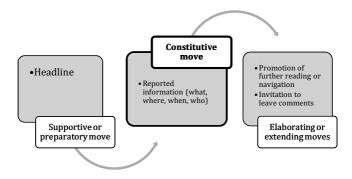


Figure 10. Move structure of the Research news and events website-generated genre.

Hyperlinks are included at the end of the news to engage readers to consult further information on the research output. These hyperlinks can be external (Lorés, 2020) -guiding readers, for example, to the website of the international scientific event or the journal website- or internal -prompting readers to access other parts of the website, consult specific documents, or watch a video featuring the research members' presentation. Finally, two websites promote the audience's participation allowing readers to leave a

comment at the end of the event or piece of news promoting public engagement called for by the social and institutional context and enabled by the affordances of the digital medium. Another website offers more limited participation by just enabling readers to like or share the news.

### 6. Conclusion

This study aims to offer a preliminary analysis of the communicative purposes of international research project websites and determine the genres in which science and knowledge are communicated and shared globally. These digital texts respond to the need to reach potentially diverse audiences (i.e., expert readers in the same or other disciplines, stakeholders, such as funding bodies and beneficiaries and the lay public), and to promote the research project's visibility. Specific genres with particular and overriding purposes have been identified, which respond to social and institutional exigencies placed on funded international research teams. In the analysis, specific attention has been paid to text-internal and text-external factors taking a critical genre analysis (Bhatia 2008) perspective.

The analysis has led to the identification of two different types of genres and platforms. First, those that are hosted or embedded on the website (Bhatia, 2004; Luzón, 2017); second, those which seem to be generated, or adapted and transformed from previous genres in the chain (Bhatia, 2004) to be published on the website. Within the former, website-hosted genres, we find (1) research output in the form of deliverables, leaflets, reports, etc., (2) applications, and (3) blogs. Within the latter, website-generated genres, four have been identified, even if labelled differently and organised under different sections across the sample of websites: (1) Research mission statement, (2) Research description activity, (3) Research partners' profile, and (4) Research news and events.

Specific genre relations have been established, for instance, between the Research mission statement and corporate mission statements, as they fulfil similar communicative purposes, establishing a specific genre relationship, that of a genre colony (Bhatia, 2004), sharing similar communicative purposes even if they are found in different contexts and media. The research activity description seems to incorporate elements from the grant proposal, which in turn responds to a specific call; in this respect, this digital genre can be considered a link in a genre chain (Bhatia, 2004), as part of a genre repertoire (Orlikowski & Yates, 1994) deployed by researchers participating at international funded projects. Finally, all these websitegenerated genres can be taken to form a genre set (Devitt, 1991) with the overall aim of promoting the research groups' e-visibility and self-branding.

The rhetorical structure of each website-generated genre has been discerned, determining constitutive moves together with elaborating and supporting moves. These can provide some coherence to the particular communicative purposes of the genres in these websites and enable meaningful abstractions about this professional digital discourse (Heyd, 2016). It seems that just as corporate websites promote the image of a company through the functionality and versatility of this means of communication (Bolaños Medina et al., 2005), these institutional websites promote the image of research projects, enhancing their visibility and creating their own branding. This may be in line with an increasing marketisation process of academic life and work prompted by digital practices.

The study has focused on analysing international researchers' increasingly complex professional and discursive practices in digital scientific communication in response to social and institutional calls for openness. To do so, they need to be familiar with and use specific offline and online genres (leading them to obtain funding) and be able to transform them into digital genres in response to a meta-genre, in this case, the institutional guidelines provided by the EU as the funding body. International researchers are required to deploy a vast genre repertoire (Orlikowsky & Yates, 1994) and carry out processes of regenring (English, 2011). In this regenring process, adaptations need to be undertaken, as in the new medium, the genre fulfils different, new communicative purposes and a global audience can access it. In such a process of regenting the semiotic modes participating in the medium (Bateman, 2008, 2014) play a significant role with the hypermodality, hypermediality and hyperlinking processes (Petroni, 2014) afforded by the medium. The findings from this analysis of digital genres can inform international researchers' training in, and be used to provide guidelines on, how to craft genres in project websites to present their scientific results to diverse audiences, and increase their visibility online.

Genre analyses should be replicated in a larger sample of research project websites from this and other cultural contexts, which would enable us to determine whether the genres identified and explored in the light of the social and institutional context can be generalised to this type of institutional

research websites. In addition, the non-verbal component of websites also deserves further analysis to ascertain its role in fulfilling the communicative purposes of the digital genres identified. Further analyses could also be undertaken to explore the possible interplay between genres, their verbal and non-verbal realisations, and their understanding and accessibility by diverse audiences. This study has determined specific genres in research project websites and has provided a detailed analysis of their role and function as socially shaped by the current context of global research dissemination practices in English. These are professional and discursive practices that international researchers need to embrace and deserve further scholarly attention from discourse analysts and ESP researchers.

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