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A case study for the analysis of the rhetoric of crowdfunding communication

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ABSTRACT

In research contexts today, scientists are increasingly using crowdfunding science platforms to make their work visible while inviting donations from the public, as well as to prompt their opinion on scientific topics. Using as a case study an experimental biology project in Experiment.com, the aim of this paper is to analyse and critically assess the rationale for the rhetorical organisation of this digital genre to understand the social demands the construction of crowdfunding projects entail. Results show a point in common between traditional and digital genres, and also a common communicative intention between the analysed project and that of traditional research articles. It is concluded that crowdfunding project proposals requires communicating scientific knowledge in a clear and accessible way but also conveying professionalism and credibility to persuade audiences that may not be specialized in the matter the project deals.

Keywords: crowdfunding science, digital genres, rhetorical organization, English for Academic Purposes (EAP), science communication.

RESUMEN

En los contextos de investigación actuales, los científicos utilizan cada vez más las plataformas científicas de crowdfunding (micromecenazgo) para hacer visible su trabajo al tiempo que invitan a al público a realizar donaciones y a conocer su opinión sobre temas científicos. Tomando como caso de estudio un proyecto de biología experimental en Experiment.com, el objetivo de este trabajo es analizar y evaluar críticamente la lógica de la

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organización retórica de este género digital para comprender las demandas sociales que conlleva la construcción de estos proyectos. Los resultados muestran un punto en común entre los géneros tradicionales y digitales, así como una intención comunicativa común entre el proyecto analizado y el de los artículos de investigación tradicionales. Se concluye que las propuestas de proyectos de crowdfunding requieren comunicar el conocimiento científico de forma clara y accesible pero también transmitir profesionalidad y credibilidad para persuadir a audiencias que pueden no estar especializadas en la materia que trata el proyecto.

Palabras clave: micromecenazgo científico, géneros digitales, organización retórica, Inglés para Fines Académicos (IFA), comunicación científica.

1. Introduction

With the rapid technological developments of Web 2.0 and the promotion of open science, we are currently witnessing a radical paradigm shift in the way in which the advancement of scientific knowledge is communicated and disseminated. Everyday there are more public policies that promote the publication and dissemination of science in open and citizen science, seeking to encourage interdisciplinary collaboration between researchers and the exchange and global flow of knowledge, betting at the same time on making the transfer of interdisciplinary knowledge more evident to social interests and needs (OECD, 2015; European Commission, 2016; EUA, 2018; Foster, 2018; CRUE, 2019). In this context, genres exhibit great versatility and have a multifunctional character. They allow faster access to knowledge through different channels (visual/verbal) and give greater visibility and dissemination to scientific advances, thus reaching diversified audiences (Aalbersberg et al., 2012; Pérez-Llantada, 2013; Luzón, 2017; Mehlenbacher, 2019). Among all new digital genres, crowdfunding genre stands out for its practical, dynamic and participatory nature in digital science, offering researchers the opportunity to interact with a non-specialized public through their entrepreneurial narratives in crowdfunding platforms. It should be noted that this genre has been considered a generic hybrid, adopting rhetorical conventions of traditional genres in the same way other digital emerging genres do (Kelly & Miller, 2016, Bhatia, 2017). The generic antecedent of this new digital genre is the traditional research grant proposal (Mehlenbacher, 2017, 2019; Pérez-Llantada, 2021), but unlike this, the crowdfunding genre grounds its existence on the multimodal resources that the Web 2.0 allows. However, and to the best of my knowledge, little research has been done to explore how written narrative affordances work in this new genre to prompt donation (but see Tirdatov, 2014; Daly & Davy, 2016; Palmieri et al., 2022 for video narratives) and to educate in science, two of the main objectives of the genre (Pérez-Llantada, 2021).

The aim of this paper is to offer an exploratory genre analysis in a science-specific platform as Experiment.com and critically assess the rational for the rhetorical organisation of this digital genre in a case-study for experimental biology to understand the rhetorical demands the construction of crowdfunding project entails. To fulfil this aim, I will apply a move-step analysis on the narrative rhetorical writing structure of a crowdfunding project proposal, considering Mehlenbacher's (2017, 2019) model based on Swales' (1990) previous CARS model for organizing information in article introductions.

The research questions that will be addressed in this paper are the following:

- RQ1. Does this project share rhetorical features with the traditional genre of the research grant proposal?

- RQ2. What rhetorical demands does this chosen narrative text about science crowdfunding entail?

Finally, and more broadly, I aim to deepen our understanding of the writing strategies researchers follow in order to get funding and the affordances of this digital genre to help them fulfil their communicative goals.

2. Theoretical framework

Studies of genres and scientific communication have been highlighting a change and evolution in scientific genres. Traditional genres (such as the research article or the research abstract) have migrated to digital environments, which has resulted in phenomena such as textual fragmentation and the use of hypertextuality, both of them exploiting the possibilities of the digital medium. On the other hand, the literature explains that the new digital genres that have emerged in recent years, such as blogs or crowdfunding projects, adopt some rhetorical conventions from their traditional antecedents and, using the possibilities offered by the Internet, allow co- create and share knowledge beyond expert audiences (e.g., Mandavilli, 2011; Herring, 2012; Buehl, 2016; Luzón, 2013, 2014, 2017; Mehlenbacher, 2019; Luzón & Pérez-Llantada, 2022). That is, they reach heterogeneous and diversified audiences (Luzón, 2013). On the Internet these genres tend to appear in combination with multimodal elements, such as hyperlinks, pictures and videos. Thus, the funding goal of certain entrepreneurial genres, such as crowdfunding proposals, demand the use of these digital affordances in combination with strategic communication, building a trustworthy image, legitimizing societal needs and exposing financial plans that convince potential backers, among others (Agrawal et al., 2011).

In order to know how a genre operates, including crowdfunding genre, which is what interests us for this study, genre analysis has been proven to be useful since it aims to identify the conventionalized uses of language (e.g., linguistic features helping to construe meaning in crowdfunding projects in Vela-Rodrigo 2023), providing descriptions and explanations about the nature of genres. For this, Swales' (1990) CARS model (Creating a Research Space) has served to explain and describe the organizational pattern of writing the introduction section of an article and has also been expanded and adapted to other genres according to the different needs. The model assumes that researchers follow a general pattern to organize information. He proposes three actions or moves that work together with specific steps that basically help to create the model that an effective introduction should follow: Establishing a Territory, Establishing a Niche, and Occupying the Niche. However, although this schema has been abundantly applied to numerous works on the linguistic description of research articles, its application to the study of new digital textual genres has been scarce (Cotos et al., 2015).

The rhetorical organization of digital genres continues to be unclear. This might be, in a certain way, due to the novelty of these genres and their limited history compared to traditional ones (e.g., Bazerman, 1988; Berkenkotter & Huckin, 1995; Gross & Harmon, 2016). Also, the communicative structure of the research proposal genre, as the traditional antecedent of the crowdfunding proposal genre, has been often analysed based on different works of Swales (1990, 2004) and Connor and colleagues (Connor, 1998, 2000; Connor & Wagner, 1998; Connor & Mauranen, 1999; Upton & Connor, 2001). These authors use a Swalesian move-step analysis to understand how the proposal genre organizes and presents information. Based on these works, Mehlenbacher (2017) analyses the structure of a small corpus on ten science-focus proposals on the crowdfunding website Kickstarter focusing on two specific cases for a detailed study. She extends the move-step analytic structure of these previous authors and adapts it to the crowdfunding genre ("establishing a territory – establishing a niche – occupying the niche / presenting the research – justifying expenses – outlining means – claiming importance – claiming benefits – stating achievements – claiming competence"), suggesting it is mainly used for Science, Technology, Engineering, and Mathematics (STEM) projects. Further on, in 2019, Mehlenbacher enriched her analytical framework and applied it to 60 successful crowdfunding proposals in Experiment.com. She concluded that the key factor for a successful funding is the audience, which means that it is necessary to accommodate all rhetorical efforts to a public of experts and amateurs with different backgrounds and knowledge. Therefore, not all moves in traditional funding grant proposals are going to appear in digital ones, much less in the same order.

3. Methodology

This exploratory study adopts a Swalesian rhetorical approach to genre analysis to understand the crowdfunding proposal genre in its rhetorical dimension when structuring a proposal. To carry out this approach I have chosen one successful project in the field of STEM from the website Experiment.com, more specifically on experimental biology. This website is a crowdfunding platform which allows scientists and other researchers to launch their projects in order to get funding for their work in a faster way as the traditional grants by state agencies normally do. For this service the company earns a percentage of successful proposals. Within this digital communicative space, the chosen project is *Squid in Space: Symbiosis and Innate Immunity* launched in 2018 by two PhD students at the University of Florida, Alexandrea Duscher and Maddie Vroom, and was successfully funded with 115% of the goal amount ($8,400) (Figure 1). They aimed to examine the impact of space-related microgravity on the immune response of a simplified model system, namely a squid and its beneficial bacteria.

Figure 1. Homepage of the project 'Squid in Space: Symbiosis and Innate Immunity', by Alexandrea Duscher and Maddle Vroom (doi: 10.18258/9855; https://experiment.com/projects/squid-in-space-symbiosis-and-innate-immunity– accessed 18 December 2022).

On the other hand, no specific motivation regarding the subject has been followed, since all biology projects on the web are the same, they are based on the same constructive pattern determined by the given website template and they belong to authors who use English as lingua franca for scientific communication in Experiment.com. This template serves as a guide to researchers for the presentation of the project narrative and the following sections are explicitly suggested in the website: title, campaign duration, the abstract, the project budget, the funding target, the budget summary, project context, project significance, project goals, to name but a few. This fact has also been decisive in the choice of a case-study approach, since it is a good starting point for analysis as it is a repetitive structure. However, a future detailed analysis of a corpus of projects will be crucial to understand if there are variations in the rhetorical organization of the texts despite the web template.

For the rhetorical analysis of the project the taxonomy of moves and steps by Mehlenbacher (2017, 2019) will be applied. Especially her taxonomy of moves in ten Kickstarter proposals (2017: 4) and her expanded model for the moves and steps taken from her study of Experiment projects (2019: 58-59), as Table 1 shows.

MOVE 1: ESTABLISHING A TERRITORY
> Step 1: Topic generalization

MOVE 2: ESTABLISHING A NICHE
> Step 1A: Indicating a gap *or* Step 1B: Adding to what is known
> *And*
> Step 2 (optional): Presenting positive justification

MOVE 3: OCCUPYING A NICHE / PRESENTING THE RESEARCH
> Step 1 (obligatory): Announcing present research descriptively and/or purposively
> Step 2 (optional): Presenting research questions or hypotheses
> Step 3 (optional): Clarifying definitions
> Step 4 (optional): Summarizing methods
> Step 5 (probable in some fields): Announcing principal outcomes
> Step 6 (probable in some fields): Stating the value of the present research

MOVE 4: JUSTIFYING EXPENSES
> Step 1: Listing expenses
> And
> Step 2: Outlining necessity
> And
> Step 3 (optional): Appealing for support

MOVE 5: OUTLINING MEANS
> Step 1: Stating methods or approach
> *And*

      Step 2: Detailing protocols and/or process
      And
      Step 3: Outlining project timeline and/or tasks

MOVE 6: CLAIMING IMPORTANCE
      Step 1: (Re)Stating significance
      And
      Step 2: Identifying who stands to benefit

MOVE 7: CLAIMING BENEFITS
      Step 1A: Stating intended engagement activities
      And / or
      Step 1B: Stating intended policy influence

MOVE 8: STATING ACHIEVEMENTS
      Step 1: Stating intended research outputs
      And
      Step 2 (optional): Stating previous accomplishments
      And / or
      Step 3 (optional): Stating intended further research

MOVE 9: CLAIMING COMPETENCE
      Step 1A: Stating specialization or expertise
      And / or
      Step 2: Stating credentials such as university affiliation or degrees
      And / or
      Step 3: Highlighting publications, previous studies, and awards
      And / or
      Step 4 (optional): Stating relevant personal history

Table 1. Moves and Steps for crowdfunding proposals established by Mehlenbacher (2019).

This table was manually applied to the selected case study to discuss those steps that contribute to the rhetorical effects of the project (marked with X) and those that do not (marked with -). In this way, it will be able to be known if the rhetorical structure of the genre is always the same, compared to prospective corpora analyses, or still admits variations.

4. Results: a rhetorical narrative perspective

Table 2 shows the results of the presence or absence of the steps of Mehlenbacher's taxonomy (2019) applied to the analysis of this crowdfunding project along the four tabs in which each project is divided, namely Overview, Methods, Lab notes and Discussion.

MOVE 1: ESTABLISHING A TERRITORY	
Step 1: Topic generalization	x
MOVE 2: ESTABLISHING A NICHE	
Step 1A: Indicating a gap or	x
Or	
Step 1B: Adding to what is known	x
And	
Step 2 (optional): Presenting positive justification	x
MOVE 3: OCCUPYING A NICHE / PRESENTING THE RESEARCH	
Step 1 (obligatory): Announcing present research descriptively and/or purposively	x
Step 2 (optional): Presenting research questions or hypotheses	x
Step 3 (optional): Clarifying definitions	-
Step 4 (optional): Summarizing methods	x
Step 5 (probable in some fields): Announcing principal outcomes	x
Step 6 (probable in some fields): Stating the value of the present research	x
MOVE 4: JUSTIFYING EXPENSES	
Step 1: Listing expenses	x
And	
Step 2: Outlining necessity	x
And	
Step 3 (optional): Appealing for support	-
MOVE 5: OUTLINING MEANS	
Step 1: Stating methods or approach	x
And	
Step 2: Detailing protocols and/or process	x
And	
Step 3: Outlining project timeline and/or tasks	x
MOVE 6: CLAIMING IMPORTANCE	
Step 1: (Re)Stating significance	x
And	
Step 2: Identifying who stands to benefit	x
MOVE 7: CLAIMING BENEFITS	
Step 1A: Stating intended engagement activities	x
And / or	
Step 1B: Stating intended policy influence	-
MOVE 8: STATING ACHIEVEMENTS	
Step 1: Stating intended research outputs	x
And	
Step 2 (optional): Stating previous accomplishments	x
And / or	
Step 3 (optional): Stating intended further research	x

Table 2. Mehlenbacher's taxonomy (2019) for move-step analysis for crowdfunding proposals in Experiment.com: number of steps present in Squid in Space project.

MOVE 9: CLAIMING COMPETENCE	
Step 1A: Stating specialization or expertise	x
And / or	
Step 2: Stating credentials such as university affiliation or degrees	x
And / or	
Step 3: Highlighting publications, previous studies, and awards	-
And / or	
Step 4 (optional): Stating relevant personal history	-

Table 2 (cont.). Mehlenbacher's taxonomy (2019) for move-step analysis for crowdfunding proposals in Experiment.com: number of steps present in Squid in Space project.

The first two moves of the Swalesian CARS model ("Establishing a territory" and "Establishing a niche"), correspond to section *What is the context of this research?*, while when it comes to the third move "Occupying the niche" the website template offers a section entitled "What are the goals of the project?". "Establishing a Territory" is possible through the step "topic generalization", which is mandatory in order to situate the reader and to introduce the topic of the proposal in broad strokes with basic information about the state of the question and a review of some theoretical aspects in the field (1) (2). Therefore, the CARS model established for the research article introductions is present here, although altering the order of its moves in the website, since between the two sections mentioned it appears an extra one entitled "What is the significance of this project?" so researchers can state the gap in knowledge in real world and motivate for crowdfunding (Luzón & Pérez-Llantada, 2022) (3). For example,

> (1) Astronauts experience dysregulated immune function in space that may be related to their microbial communities.

> (2) Our lab investigates the impact of space-related microgravity, or near weightlessness, on the immune response of a simplified model system: a squid and its beneficial bacteria.

> (3) Astronauts experience dysregulated immune function in space that may be related to their microbial communities, **but there is a gap** in knowledge on how space impacts microbiomes.

Using the step "Adding to what is known" supplementary information is presented to what is already known based on research and previous publications. This step includes definitions of terms or issues to be addressed and sometimes references to information budgeted by the lay public (4).

(4) The innate immune system is found in all animals, thus **the results of this work may be applied** to better understand how the immune system of astronauts is affected in space flight, and what role the body's microbial consortium may play in these changes.

At same time, step 2 "presenting positive justification" is optional, and it happens to appear not always in the same section of the website template. This means that when completing the different areas of the same, the researchers may have different ideas of where they should place certain information. In example (5), this step is present in the next move "Occupying the niche" in section "What are the goals of this project?".

(5) The funds raised here will be used for state of the art sequencing technology, NanoString, **to achieve high quality and unbiased gene expression data.**

Therefore, it could be deduced from this that the different moves of the Swalesian model do not correspond exactly to any specific section of the Experiment.com template, or that, at least, there is a certain flexibility in terms of the appearance of specific steps. Also, step 1 (Move 3) (Announcing present research descriptively and/or purposively) seems to play a very important role, stating the main objectives or purposes of the research team usually describing what work they do at that very moment (6).

(6) **In our lab,** we use a simplified model system between the Hawaiian bobtail squid, Euprymna scolopes, and its bioluminescent bacterium, Vibrio fischeri, to **investigate how beneficial microbes impact innate immune function** of their animal host in a space-like environment.

This step comes to be repeated or overlapped, since example (2) could also be considered an equivalent, which shows that describing the current investigation carried out by the researcher is crucial. In this way, the repetition serves to make clear what the research work is and its starting point. From there, it seeks to obtain funds that imply a push for research, for which it is linked with the introduction of the research questions or hypotheses too (Move3: step 2), in the same way as the traditional grant proposals and research articles do (7).

(7) By removing gravity as a constant **we can address the question of** whether gravity obscures aspects or cues of bacteria-induced animal development and innate immune response that may otherwise go undetected under Earth-based conditions.

Steps 3, 4 and 5 are optional. This project opts for skipping step 3 ("Clarifying definitions"). Future further research on the analysis of a large corpus of crowdfunding projects could shed light on the reasons behind and whether it is this step tend to be ignored or not. However, in this project step 4 ("Summarizing methods") appear only in Overview tab (8) and is not repeated in the expected Methods tab. This is because the Methods tab is not mandatory and normally serves to offer a detailed description, almost like a blog, which these researchers have not considered necessary. However, although not present in the Methods tab, it appears also in Move 5: "Outlining means" -Step 1: "Stating methods or approach", which shows the importance of emphasizing the explanation of the methodological development of the project to convince potential backers of its scientific viability (8).

> (8) We **will use the monospecific model** between the Hawaiian bobtail squid Euprymna scolopes and its beneficial bacterium Vibrio fischeri to study how mutualistic symbioses are impacted by microgravity. **Specifically, we will examine how** microgravity alters the expression of squid innate immune system genes in the presence and absence of V. fischeri.

To reinforce the previous idea, this project presents Step 5 ("Announcing principal outcomes"). In this way, it is possible to convey the idea that the proposed methodology functions because it has already done so before (9).

> (9) This model system **has been successfully used** in our lab for microgravity experiments and **has already been flown into space** on the Endeavour STS- 134 and the Atlantis STS-135 space shuttle missions!

Similarly, Step 6 (Stating the value of the present research) (10) appears in line with the next move 6 (claiming importance). The presence of said step implies and makes sense together with that of steps 1 (Stating significance) (11a) and Step 2 (Identifying who stands to benefit) (11b) in a triple boost from the researchers for showing the importance of getting their research done.

> (10) **Our lab has designed primers to target up to 50 genes** associated with innate immune pathways that will be adapted to the NanoString CodeSet and multiplexed for sequencing.
>
> (11) (11a, 11b) [...] the results of this work may be applied to better understand how the immune system of astronauts is affected in space flight, and what role the body's microbial consortium may play in these changes.

An intent not too far denotes the next two moves, whose goals are interconnected (claiming benefits and stating achievements). In the first case it is about benefits for the scientific community or society (Move 7, Step 1A: "Stating intended engagement activities") while in the second (Move 8) the repercussions are focused on the researchers themselves (Step 1:" Stating intended research outputs" (12), Step 2 (optional): "Stating previous accomplishments", Step 3 (optional): "Stating intended further research") (13). Although steps 2 and 3 are optional and should not appear, the researchers choose to include them, which denotes the attempt to locate the current research in a continuous and stable line of research, highlighting a previous experience that serves as support for the present work, and with future objectives that will allow its subsequent continuity and validity. In all cases, moves 6, 7 and 8 seek to demonstrate the importance of carrying out the research, the reason for financing it and the benefits reverberated both individually and collectively, in an attempt to convince the audience to back it.

> (12) The results of this study **will be published in a peer-reviewed journal**(s) and presented at national and international meetings. […] Thus, the funding for Nanostring sequencing **will contribute substantially to both** of our individual dissertations.

> (13) **Previous work in our lab** has found that hemocyte migration into the blood sinus of the light organ, the site of symbiosis between the squid and V. fischeri, is delayed in simulated microgravity and never reaches the same levels as gravity controls […]

However, all these previous steps would not be possible if the researchers did not have and, above all, demonstrate their scientific and personal capacity and competence. Therefore, steps 1A ("Stating specialization or expertise") (14) and 2 ("Stating credentials such as university affiliation or degrees") (15) from Move 9 ("claiming competence") are clearly indicated in the discourse, showing the academic certificates and specialization of the researchers and their relationship with prestigious institutions that back them. Therefore, it seeks to convey the idea that supporting their projects is a guarantee of success, since they are demonstrably capable of developing them.

> (14) While my fellow squid-mate Maddie is focused in the specific immune pathway of apoptosis in the squid I am more focused on the response of the squid's innate immune cells, hemocytes, in response to simulated microgravity.

> (15) We work in Dr. Foster's lab **at the Space Life Sciences Lab on Merritt Island, FL near Kennedy Space Center** as Ph.D students of the Microbiology & Cell Sciences Department at UF.

On the contrary, there is a series of steps that have been ignored and that seem to have less importance for the authors. "State your personal story" does not seem to be necessary, as does highlighting publications. When seeking support from the researcher's past, the focus is on their certificates and experience in relation to the current project being funded. However, naming some type of hobby seems to be important for these researchers, in an attempt to humanize their figure and show that they are motivated people with interests that many backers could share. Some of those hobbies can seem not relevant for the project (16) while others are related to it at some point (17).

> (16) Outside of work I try to take advantage of the beautiful FL weather by **surfing, hiking, and camping.**

> (17) Outside of work I enjoy going on **runs, kayaking** around 1000 Islands, and **volunteering** at the local elementary school and health clinic. I am also active in the Skype a Scientist program as well as a **mentoring** pilot program for undergrad women interested in STEM called the Pegasus Express.

Other steps have been avoided or omitted. "Clarifying definitions" seem to be irrelevant for the authors probably for being redundant after "Announcing present research descriptively". Similarly, "Appealing for support" explicitly could be uncomfortable for the reader, since they are techniques more related to traditional advertising and, therefore, to sell products that are not always necessary. Finally, "Stating intended policy influence" do also not appear in this crowdfunding project since they are simple research works to be financed in an alternative way to national grants and therefore without major ambitions.

5. Discussion

Two broad research questions framed the present exploratory study on crowdfunding proposals: First, does this project share rhetorical features with the traditional genre of the research grant proposal? Second, what rhetorical demands does this chosen narrative text about science crowdfunding entail?

The findings reveal that the text written by Duscher and Vroom, the two researchers behind this project, has drawn upon a series of moves and steps important for

communicating their research to diversified audiences on the Internet (Move 1: Establishing a territory, for sharing general information on their topic; Move 2: Establishing a niche, namely, a gap of knowledge about how space impacts microbiomes; Move 3: Occupying the niche, extracting active transcript RNA from the squid in preparation for gene sequencing). Therefore, the presence of these three moves typical of Swales's CARS model for research article introductions in this crowdfunding project suggests a point in common between both genres, traditional and digital, and also a common communicative intention between Duscher and Vroom's project and that of traditional research articles (Swales, 1990, 2004; Cotos et al., 2017; Yang and Allison, 2003) and / or research grant proposals (Miller, 1984; Connor and Mauranen, 1999; Mehlenbacher 2017, 2019). Such intention is to inform about science and to request funding to support research focused on specific interests (Tardy, 2003) respectively. This is the reason why it is possible to observe a similar structure in the first headings of this crowdfunding project (About this project / What is the context of this research? / What is the significance of this project? / What are the goals of the project?) which correspond to the same moves RAs usually present.

It is also worth highlighting the way in which the information about the project methodology is presented in this project. First, it is presented in a synthetic way in the move "Occupying a niche" and later in an extended statement in "Outlining Means", with its corresponding steps "Summarizing methods" and "Stating methods or approach" respectively. This is important because by providing a summary of the methods the potential backer can gain a better understanding of what actions the researcher team is going to take once they receive their money to accomplish the project. It is nonetheless important to bear in mind that the template that Experiment.com provides (for researchers to fill in with information about their projects) guides them in the process of writing with headings such as Budget, Endorsed by, Project timeline, Meet the team, Labnotes and Additional information. All these headings introduce most of other moves and steps apart from those of RAs that Mehlenbacher adapted for crowdfunding genre analysis in 2017 and 2019 (as seen in Table 1). *Squid in space*, at first sight, seems to follow the same structure of the set of crowdfunding projects analysed by Mehlenbacher. Nonetheless, as indicated at the beginning of this section, there are a number of optional steps that the text omits and the researchers of the case study might have decided not to take, either consciously or unconsciously. Knowing the degree of awareness in making these rhetorical decisions is not within the scope of this study, but it could open an interesting future path of qualitative enquiry on crowdfunding writing practices. Among the absent steps stand out those that involve an overtly description of the

personal life of the scientists, or that may be sentimentally ostentatious in the desire to demonstrate personal importance or desperate request for collaboration.

Given that the present study was based on a single case, it is not possible to assert whether this is a specific rhetorical strategy or if, on the contrary, there is a general, or even cultural, tendency to avoid these steps (see Agrawal, 2011). For example, comparing several corpora of RAs in different periods of time, as Hyland and Jiang (2017) did, have already served to observe a certain tendency towards informality in RAs, in a rhetorical attempt to engage readers, which is much more salient in digital genres that researchers compose to communicate science online (Luzón & Pérez-Llantada, 2022). Digital affordances of Web 2.0, in principle, foster this rhetorical tendency towards informality in crowdfunding project proposals too. However, the project analysed here does not include steps formulated with more informal linguistic or discursive features in the Overview section, so a comparison with a corpus of projects would be necessary to know if it is an isolated case or a rhetorical strategy of this genre. Notwithstanding this, the case study seems to indicate that the Overview section could have inherited the research grant rhetoric while the rest of the sections recall other forms of communication online such as the blog and the discussion forum, exponentially increasing the degree of informality in the discourse of the crowdfunding genre. This would serve to make the text more accessible and entertaining, but also more persuasive. It is worth noting that the design of the Experiment.com website also grades the degree of informality in the discourse according to the Overview, Labnotes, Additional information and Discussion tabs, with Labnotes / Additional information acting like a blog and Discussion as an exchange forum of ideas like Twitter. The change of medium, from print to digital, has made it possible to hybridize the genre of traditional RAs and/or grant proposals with the blog and the discussion forum resulting in the new digital crowdfunding genre. That is to say, the genre antecedent can be identified with the research grant proposal, but it should not be overlooked that the crowdfunding genre constitutes a genre on its own, with specific sub-genres (e.g. rewards-based, donation, microblogging). This may account for the particular communicative purposes of this genre, to inform about science and, at same time, to educate in science and create a persuasive appeal to prompt donation (Pérez-Llantada, 2021).

Aligning with previous rhetorical studies of crowdfunding proposals (Mehlenbacher, 2017; Paulus & Roberts, 2018; Pérez-Llantada, 2021) the case study analysed here has sought to illustrate how the genre fulfils several functional goals, as deduced from the presence of certain rhetorical steps. For example, a step such as "Stating significance" or "Stating specialization or expertise" can appear repeatedly in different sections across the proposal as it happens in sections "What is the

significance of this project", "Budget" and / or "Meet the team". In this case they do not only allow the researchers to inform about scientific research but also to create credibility and claim the centrality of research. This seems to indicate that for this genre it is important that researchers know how to transmit accountability of science and social impact within the proposal as well as the ability and professionalism to carry out the project's aims. In other words, the how and why of the project, but also the "by whom" this project will be developed. That is, the rhetorical strategies used seek to make it very clear that the project to be financed is important, with benefits for the development of science and society, and that its process and development will be carried out by a qualified person who has expertise and credibility to engage in what needs to be done.

It is also worth noting the importance of having a research team to indicate the capacities of the project launchers to accomplish their project (Mehlenbacher, 2019: 67-68). Therefore, third parties outside the project organization, in this case committed colleagues, are also responsible for taking several rhetorical steps (Step 1: "(Re) Stating significance" and Step 2: "Identifying who stands to benefit") that seek to help in the purpose of fundraising, as seen in section "Endorsed by". As Mehlenbacher (2019:67) also remarks, "endorsements have similar features to letters of reference or support" and will depend very much on the social and interpersonal language skills of the researchers to involve people in their project. Also attending the mobilization of virtual community ties to obtain fundings is part of the strategic communication which characterizes this entrepreneurial genre (Agrawal et al., 2011).

6. Conclusions and broader implications

The findings of the present study confirm writing digital genres such as crowdfunding project proposals requires communicating scientific knowledge in a clear and accessible way but also conveying professionalism and credibility to persuade audiences that may not be specialized in the matter the project deals with. It is for this reason that rhetorical characteristics typical of traditional printed media are taken up in this digital genre with others born in the digital medium itself.

Many of the moves and steps that researchers give in the process of writing their projects are determined by the very template that Experiment.com provides in order to serve as a guide, and that also helps to unify all the projects around a common structure. Therefore, an analysis of a corpus of science crowdfunding proposals is required to determine if there is a clear trend in the use of certain moves / steps in this type of project and how fixed this structure is in the genre.

Knowing which steps are mandatory for the genre can make it possible to dispense with those optional ones when not required. Although the present findings are limited to a single case study, one might hypothesize in the light of the findings that discerning when and where to use them could help to create a future stable and universal writing for the crowdfunding proposal that can be taught researchers to secure their much-needed funding, as well as focusing their persuasive efforts under the same premises.

All in all, a qualitative analysis contacting the researchers participating in the writing of crowdfunding proposals on Experiment.com would be a prospective area of research. In this way, it would be possible to know what the specific reasons are that move scientists to choose specific steps and dispense with others, whether they consider or not the template offered by the website before thinking about the schematic structure of a proposal, how long they invest in writing them, whether or not they have help in doing so and if they have any kind of final review. All these potential data would help to better understand this genre and open the door to connecting it with other topics such as evaluation in texts.

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