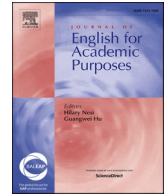




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'Excited to see our latest work published': Recontextualizing research results in biomedical tweetorials

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ABSTRACT

Tweetorials, long Twitter threads to communicate complex concepts, are becoming increasingly popular among medical experts. While a few studies have analyzed tweetorials which serve to communicate scientific information to a general audience, no attention has been paid to how tweetorials are used to report on and publicize research and results published in an article or preprint. In this study move analysis was conducted to analyze a corpus of 50 such biomedical publication-promoting tweetorials, in order to understand how the paper/preprint is recontextualized in this online genre. The analysis reveals that the moves in these tweetorials work together to draw attention to the publication and highlight the key findings and contributions. In addition to moves adapted from the research article, tweetorials incorporate some moves and steps intended to attract and engage the readers. The way these moves are realized is determined by the (semi-)expert audience, the promotional purpose of the genre, and the affordances of the medium. Features typical of the research article are combined with resources intended to create intimacy and solidarity and make authors more visible. The results suggest that these tweetorials are a suitable tool for researchers to promote their work and meet the challenges of the attention economy.

1. Introduction

Social media and specifically Twitter have become a powerful platform to facilitate knowledge exchange and networking, increase the visibility of research findings, promote collaboration within and beyond the discipline and reach diverse audiences (Choo et al., 2015; Darling et al., 2013; Luzón, 2023; Luzón & Pérez-Llantada, 2022). For the biomedical community Twitter is the most popular social media for disseminating their scientific articles, discussing their research, continuing medical education, expanding their academic networks and reaching public audiences (Choo et al., 2015; Grossman et al., 2021; Soragni & Maitra, 2019; Tardy, forthcoming). One of the advantages of social media for this community is that everybody has a voice: not only experts in the discipline, but also trainees, novice researchers or practitioners can promote their research and publications, contribute to the conversation and build relationships with other members of the community (Soragni & Maitra, 2019).

However, despite the usefulness of Twitter for rapid and real-time interaction with experts and with wider audiences, one of its limitations when discussing new research or explaining complex concepts is the length of the tweet (limited to 280 characters). In order to overcome this limitation, researchers are using tweet threads or tweetorials (Soragni & Maitra, 2019; Tardy, forthcoming). The term "tweetorial" (tweet tutorial) is used to refer to a set of threaded tweets with an educational purpose: tweetorials are used to explain complex concepts (Gero et al., 2021; Graham, 2021; Soragni & Maitra, 2019). The tweetorial is particularly popular within the medical

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community (Gero et al., 2021), where it emerged as a tool “for medical communication and knowledge dissemination” (Breu, 2020). The website medtweetorials.com collects medical tweetorials classifying them not only by specialty, but also by type (e.g. #Case, #Advocacy, #Lecture, #Publication, #Research, #Question), which reveals the great variety of tweetorials that members of the medical community are composing.

Most publications on tweetorials are by medical researchers (or journal editors), who write about the importance of tweetorials in their specialty or provide advice on how to write them (e.g. Albin & Berkowitz, 2021; Breu, 2020). However, this is general advice, since there is little research on the rhetorical choices made by tweeters when composing their tweetorials. Exceptions are Gero et al. (2021), who analyze the “writing techniques” of informational tweetorials (i.e. tweetorials used to explain one main concept) in several disciplines, and Tardy (forthcoming), who uses a genre approach to analyze the rhetorical structure of informational tweetorials focused on COVID19, mainly intended for non-specialist audiences. However, there is no research on tweetorials intended to promote and present the main points of published papers or preprints (which I will call “publication-promoting tweetorials”), despite evidence that this is an increasingly popular practice among medical researchers (Tomblinson et al., 2021).¹ This study seeks to fill the gap, by exploring the rhetorical choices made by researchers when presenting their research in this digital genre. Composing these tweetorial involves processes of recontextualization (Luzón, 2013), through which the contents of the article are adapted to fit the new context. In this paper I analyze 50 biomedical publication-promoting tweetorials to answer the following questions.

1. What is the rhetorical structure of publication-promoting tweetorials and how are the moves realized?
2. How is the content of the research article (RA) recontextualized in this genre?

Answering these questions can shed light on the processes involved in the composition of these tweetorials, which can help researchers to produce these texts successfully.

2. Literature review

2.1. The tweetorial genre

A tweetorial is a series of threaded tweets from a single author which together explain a complex scientific or medical concept or present new research findings (Gero et al., 2021). The tweetorial harnesses all the technological affordances of Twitter (e.g., multimodality, hyperlinking, wide reach, spreadability, interactivity) and makes it possible for tweeters to discuss issues in more detail by just adding tweets to the thread. It is a “parascientific genre” (Kelly & Miller, 2016, p. 231): a genre that “borrows scientific authority and knowledge structures from the realm of science but operates without the gatekeeping and traditional reporting forms of internal science communication”. The versatility of the genre has facilitated its evolution into various subgenres to cater for different audiences and respond to various social needs. Graham (2021) identified four subgenres: (i) “article or preprint review”, which reports on or analyzes emerging scientific findings; (ii) “misinformation corrective”, which seeks to provide “evidence-based refutation of a recent claim”; (iii) “clinical experience report”; and (iv) “literacy support tweetorial”, i.e. informational tweetorials. Related to the “article or preprint review” subgenre, tweet threads are also being used to summarize conference presentations (Grossman et al., 2021) or to present results in Twitter conferences (Villares, 2023).

Several authors have highlighted the usefulness and increasing popularity of the article or preprint review tweetorial (Grossman et al., 2021; Soragni & Maitra, 2019; Tomblinson et al., 2021). These tweetorials are often posted by authors of published papers or preprints to promote and highlight their findings in a digestible format. Tweetorials are also an effective tool to promote and summarize preprints and thus obtain feedback that can help the authors to revise the manuscript before peer review (Soragni & Maitra, 2019).

Article review tweetorials are now frequently posted on journal Twitter accounts. For instance, the journal *RadioGraphics* incorporated this feature in January 2021, and in July 2021 16–20 tweetorials were published by issue (Tomblinson et al., 2021). The Editors to Social Media of the journal state that “this new social media feature aims to distill the essential information from 20–25 pages of article text to a series of 10–15 tweets and to leverage the continually expanding international reach of the journal’s social media accounts to deliver this content for rapid on-the-go consumption by our readers” (Tomblinson et al., 2021: E103). This genre seems to have emerged therefore to make research noticeable by others in a research context dominated by the “attention economy” (see Hyland, 2023). Article review tweetorials may have two different forms depending on who writes them. They may be written by one of the authors of the article (or by a journal’s social media team), to promote it. They may also be composed by other researchers to review and analyze a publication. This is a form of post-publication peer review where both experts and trainees can critically assess published work, thus democratizing the process (Soragni & Maitra, 2019). The object of the current study is the first type (“publication promoting tweetorials”).

Previous studies have focused on informational tweetorials, analyzing how they are organized and the rhetorical strategies used (Gero et al., 2021; Graham, 2020, 2021; Tardy, forthcoming). Typical tweetorials have three parts, which Graham (2021) calls “invitational opening” (“a quick hook to attract the reader”), “multi-tweet data dump” and “closing metacommentary”, and Gero et al. (2021) call “lede”, “body” and “conclusion”. In her genre analysis of tweetorials, Tardy (forthcoming) distinguishes between moves in

¹ An example of a publication-promoting tweetorial, which is part of the corpus for this study, can be found in Appendix I.

the introductory tweet and in the remaining thread. All the introductory tweets analyzed by Tardy (forthcoming) use one or more of these four moves: *Announcing the topic*, *Establishing exigence* (e.g. identifying a problem or announcing a position), *Establishing credibility*, *Building curiosity* (e.g. raising a question or announcing purpose). The remaining tweets used the following moves (in addition to the moves found in the introduction): *Expanding on the issues* (e.g. by sharing findings or raising possibilities), *Proposing actions or solutions*, *Closing the thread*, *Promoting the thread*. Gero et al. (2021) do not analyze the moves of tweetorials, but what they call “writing techniques”, some of which are labeled in terms of function and are similar to Tardy’s moves/steps, e.g. correcting the record, showing authority to discuss the topic, or posing an intriguing question (lede); statement of significance, summary of information, call to action (conclusion). Another recent academic genre based on Twitter threads whose rhetorical structure has been analyzed is the Twitter conference presentation (TCP). Villares (2023) found that these presentations adapt the structure of traditional presentations by focusing on the central moves (*Results*, *Background* and *Methods*), and harness the affordances of Twitter to realize these moves while complying with the space restrictions of the genre.

2.2. Recontextualization of scientific content in digital genres

Publication-promoting tweetorials are an example of digital genres that have emerged to summarize and promote published research and thus gain attention and increase the impact of such research. The wide variety of digital summary genres, including graphical abstracts, visual abstracts, video abstracts, lay summaries/author summaries or science podcasts (Cocchetta, 2020; Hartley & Cabanac, 2017; Ye, 2021), shows the suitability of the online medium to increase the visibility and reach of research results, and make science more accessible. These digital summary genres remediate the traditional article abstract, i.e. they harness the affordances of the digital medium to render the key results of a publication more visible, easier to digest and/or more engaging. In all these summary genres the scientific discourse of the research article is recontextualized to fit the new context, which sometimes involves making use not only of textual resources but also of audio and visual resources. Bezemer and Kress (2008: 184) define recontextualization as follows:

moving meaning material from one context with its social organization of participants and its modal ensembles to another, with its different social organization and modal ensembles. (...) [R]econtextualization involves the re-presentation of the meaning materials in a manner apt for the new context in the light of the available modal resources.

According to Bezemer and Kress (2008), recontextualization involves four rhetorical principles: “selection” of content that is relevant in the new context and of modal resources which are available in the new context; “arrangement” of the content in a way that is best for the audience and for the purpose; “foregrounding” of elements and modes that are particularly significant in the new context; and “social repositioning”, or reconstruction of social relations between the rhetor and the audience of the new context.

Given the proliferation and growing popularity of digital genres to boost the visibility and reach of research results, there is an increasing interest in exploring the structural features and rhetorical strategies of these new genres and analyzing how they compare to related traditional academic genres, such as the RA, the abstract or the conference presentation. Researchers have studied the rhetorical structure and linguistic features of science blogs (Luzón, 2013), author summaries (Breeze, 2016), podcasts (Rowley-Jolivet & Carter-Thomas, 2019; Ye, 2021), TED Talks (Xia, 2023), Three-Minute Thesis (3MT) presentations (Carter-Thomas & Rowley-Jolivet, 2020; Hu & Liu, 2018), visual abstracts (Plastina, 2022), video abstracts (Cocchetta, 2020), among others. These studies provide insights into how the rhetorical principles discussed by Bezemer and Kress (2008) are applied when recontextualizing scientific discourse into these genres. Some digital genres used to recontextualize research are intended to attract a wider audience, which is reflected in their typical moves. In her analysis of research-commenting blogposts, Luzón (2013) found that these texts combine rhetorical features from specialist genres and popularizations. As in popularizations, the main claim of the research discussed in the post is typically foregrounded at the beginning, and moves such as *Implications for the daily life of people* or *Calling the readers to action* are frequent. Similarly, the Bigger Picture (Katsampoxaki-Hodgetts, 2022), a part-genre addressed to an interdisciplinary audience in the *Chem* journal, includes moves which contribute to demonstrating how the research findings will benefit society (e.g. *Announce key findings as benefits*, *Evaluate findings*).

Recently, particular attention has also been paid to audio (visual) summary genres (Cocchetta, 2020; Rowley-Jolivet & Carter-Thomas, 2019; Ye, 2021). Many of these genres follow the rhetorical structure of RAs or traditional abstracts, but foreground some moves or incorporate some rhetorical functions from other genres. In his study of science podcasts, Ye (2021) found a dominant rhetorical pattern (*Orientation*, *Foregrounded claim*, *Establishment of credibility*, *Introduction*, *Methods*, *Results*, *Discussion*, *Termination*), with components of abstracts, research presentations, and science news report. In 3MT presentations, a competitive genre where speakers need to impress the judges, the most frequent moves are *Orientation* (a move whose function is to engage the audience’s attention from the outset) and *Implications* (a move intended to persuade the audience of the value of the research) (Hu & Liu, 2018). Research on video abstracts and visual abstracts has also explored how multimodal affordances are exploited to recontextualize the article and increase its visibility (Cocchetta, 2020; Plastina, 2022). Video abstracts have incorporated new moves with a clearly promotional and interpersonal function, such as *Claiming authorship* or *Entertaining viewers* (Cocchetta, 2020). In addition, one distinctive feature is the multimodal realization of the moves and the high presence of visuals to establish credibility or improve comprehensibility. In visual abstracts, resemiotization through non-verbal resources contributes to facilitating experts’ rapid access to the content of the RA and information retention (Plastina, 2022).

In sum, previous studies of how scientific research is recontextualized in new digital genres (and particularly summary digital genres) suggest that most of these genres are hybrid, often combining elements of various expert academic genres and features of more popular discourse. Although these genres tend to replicate some of the moves of the RA or the abstract, they may also incorporate new

rhetorical functions (e.g. attracting the audience's attention) or foreground some moves/steps of their traditional antecedent genres (e.g. *Implications*, *Main claim or Stating the value of the research*), in order to achieve the specific communicative purpose(s) of the genre. In addition, these genres differ from traditional academic genres in how these moves are realized, and many of them display a high frequency of linguistic features intended to engage the audience (e.g. questions, inclusive pronouns) and evaluative language.

These studies have also shown that, although all these digital genres summarize research, they may differ in their purpose and/or the intended audiences, and the semiotic resources available in the genre to make meaning. All these contextual factors determine the rhetorical choices made by authors when composing these genres. Although there is relatively abundant research on the rhetorical structure and strategies used in many of the genres discussed above, the publication-promoting tweetorial is still an unexplored genre, probably because of its recent emergence (Breu, 2020).

2.3. Medical discourse

An aspect that may be particularly relevant when analyzing tweetorials is discipline, because it may have an influence on the intended audience and communicative purposes. Since the current study analyzes tweetorials in medicine, it is worth noting that some medical genres are targeted at various audiences: research peers, practitioners, other social actors such as governments or hospital administrators (Carter-Thomas & Rowley-Jolivet, 2014; Giannoni, 2008). In this regard, Carter-Thomas and Rowley-Jolivet (2014) posit that medical discourse has three agendas: a research-oriented agenda (i.e. reporting new research), a socio-political agenda (i.e. taking a stand on issues such as public funding, medical education or legal and ethical issues) and a praxis-oriented agenda (i.e. informing medical practitioners of the implications of research for medical practice and making recommendations). These agendas may be reflected in the discourse features of tweetorials.

3. Corpus and method

3.1. Corpus

The data for this study consisted of 50² biomedical publication-promoting tweetorials, written in English and posted in 2021–2022. For the purposes of this study, the term “publication-promoting tweetorial” is used to refer to “a collection of threaded tweets aimed at summarizing and promoting published research (or a preprint) and written by one of the authors of the publication”. All tweetorials were selected to ensure that (i) they made explicit reference to a specific publication; (ii) they consisted of at least 4 tweets-following Tardy (forthcoming), although there was no tweetorial with only 4 tweets; (iii) only one tweetorial per author was selected.

The collection of tweetorials for the corpus began on December 8th. As Gero et al. (2021) and Tardy (forthcoming) point out, finding tweetorials is a difficult task, because they are not always tagged or marked, so two search strategies were combined. First, since there is a high variety of tweetorials, in order to find publication-promoting tweetorials, I entered several keywords (i.e. “tweetorial + paper”, “tweetorial + publication”, “tweetorial + preprint”, “tweetorial + our work”) in the Twitter search engine. The results were limited, since these searches did not yield tweets beyond a particular date. From these results I selected biomedical tweetorials which met the above criteria. The second strategy was to use the website <https://medtweetorials.com/>, where medicine tweetorials can be browsed by specialty or by category. Browsing by category facilitated the search since two categories (#publication, #research) included publication-promoting tweetorials, although most tweetorials, even in these categories, were of other types. For instance, there were tweetorials discussing others' research (#HowIReadThisPaper tweetorials), which were therefore not selected. Browsing this website, I selected the most recent tweetorials which met the criteria, until the corpus of 50 tweetorials was completed. Table 1 presents an overview of the corpus.

3.2. Method

The analysis aimed at identifying the moves of the sampled tweetorials and how these moves are realized. Tweetorials were converted into individual pdf files and analyzed with the qualitative software program Atlas. ti. The rhetorical structure of the tweetorials was analyzed by coding for steps and moves. A move is a functional unit, defined by Swales (2004: 28) as “a discursal or rhetorical unit that performs a coherent communicative function in a written or spoken discourse”. Steps are the different options through which moves can be realized. Following other studies of digital academic genres (e.g. Hu & Liu, 2018; Tardy (forthcoming); Ye, 2021), the first step of the analysis was pilot coding. In order to develop a preliminary coding scheme a sub-set of 20 tweetorials was used. The tweetorials were segmented into functionally meaningful fragments, which were coded according to their communicative function at the step level (see Moreno & Swales, 2018). After that, steps were grouped into broader functional categories (i.e. “moves”). This coding scheme was iteratively revised and refined (e.g. some steps and moves were merged) by analyzing the remaining 30 tweetorials. The final coding scheme, consisting of a set of steps and moves clearly defined, was used to re-analyze the whole corpus (see Tables 2 and 3). To achieve intra-coder consistency, another round of coding was conducted after a month. The few discrepancies which occurred were solved by defining some steps more clearly. A distinction was made between the first tweet (or “lede”) and the remaining tweets (or “body”). The procedure described above was used to analyze first the ledes of the tweetorials and then the bodies.

² The size of the corpus is similar to other studies of tweetorials (Gero et al., 2021; Tardy [forthcoming]).

Table 1
Features of the corpus of 50 tweetorials.

	Lowest	Highest	Average per thread	Total in corpus
n° of tweets per tweetorial	5	35	12.8	640
n° of words per tweetorial	134	1374	434.2	21,710
n° of images per tweetorial	1	25	7.32	366

After the move analysis, all the fragments of text coded under each step were examined together in order to find patterns regarding the semiotic resources that realized the step.

4. Results

4.1. Analysis of the lede

As other authors (Gero et al., 2021; Tardy (forthcoming)) have noted, the first tweet in a thread is particularly important because often readers see first this tweet in their feed and they only view the whole tweetorial by clicking on “Show the thread”. Following Gero et al. (2021), this first tweet is referred to here as “lede”. Table 2 lists the moves (and their frequency) and common steps in the ledes in the corpus.

The move *Announcing the publication* occurs in all the ledes. In 92% of the ledes there is an explicit reference to the publication, where the authors inform of a new paper or preprint, often including information about the journals where the work has been published (e.g. “In our paper out now in @NatureComms”). The text usually includes reference to the currency of the paper (“new publication”, “latest publication”, “most recently published”) or informal expressions that emphasize recency (e.g. “hot off the press”). In 32% of the ledes (n = 16) the author expresses his/her positive feelings regarding the publication of the paper (example 1a). This is done by using attitude adjectives, the most frequent ones being “excited”, “happy” and “proud”, although other adjectives or creative expressions may also occur (e.g. “over the 🌟”). Celebration emoji (🎉, 🥳, 🎊) and attention-getting emoji (e.g. 🔔, 📣) are also frequent in this move (examples 1a and 1 b). These expressions of emotion help the authors to create solidarity with the audience by alluding to shared feelings regarding the publication of research.

- (1) a. 🎉 Immensely grateful and overwhelmingly joyful that my 1st first-author paper is out now in MCMedicine 😊!!! 🎉 (Tweetorial 1)
- b. 🔔 New paper published in @npjDigitalMed npj Digital Medicine 🔔 (Tweetorial 32)

All the ledes but four provide access to the publication by incorporating the URL (n = 32), a quote-card³ (n = 20) of the publication (see Fig. 1 below) or both. It should be noted that all the tweetorials, but one, included a link to the summarized paper/preprint, either in the lede, or in the last tweet. Finally, some ledes (n = 7) include referencing information for the paper in the form of a “digital quotation”: the fragment of the first page of the paper where this information occurs (authors, title, journal) is copied and embedded in the tweet.

The move *Establishing a need for research* occurs in 38% of the ledes, in the form of a problem to solve, or, more frequently, a question which may be of interest to the readers (34% of the ledes) (e.g. “Do solid tumors undergo spontaneous regression?”). The move *Presenting research* occurs in 90% of the ledes. Ledes very often inform of the topic of the paper (42% of the ledes) (example 2), sometimes including hashtags, which help to spread the tweet and gain attention. The authors may also state the aim of the research paper, inform that they will answer the question posed in the previous step, or present the main finding or contribution of the research (example 3). Interestingly, both in this move and in move 1 (*Announcing the paper*), there is a high incidence of self-mentions (first person pronouns and possessive determiners), which contribute to promoting the authors by emphasizing their impact in the discipline (see Hyland, 2023).

- (2) Tweetorial on our latest work on glioblastoma immunity, just the main findings @NatureComms @UniFreiburg (Tweetorial 29)
- (3) In our new paper @npjDigitalMed, we design models that convert raw wearable sensor data into cardiorespiratory fitness (VO2 max) estimates (Tweetorial 44)

The move *Giving credit* is used to acknowledge others’ contribution to the research. The authors of the tweets tend to mention or thank co-authors or their research groups (e.g. “Monumental effort led by @fran_muyas”, “New paper of our Dijon Bain-Heart team”), collaborators (e.g. “Our 2+year of collaboration with @Putrinolab”), and PhD supervisors. This is therefore a highly interpersonal move, where the authors present research as the product of collaboration, make others visible and strengthen their links in the

³ A quote card is a combination of a visual quotation and a written quotation extracted from a previous text and recomposed for recirculation on social media (see Pfurttscheller, 2020).

Table 2
Moves and steps in the lede.

Move	% of ledes with this move	Steps
1. <i>Announcing the publication</i>	100%	<ul style="list-style-type: none"> • Making reference to the new publication • Providing access to the paper • Providing referencing information
2. <i>Establishing a need for research</i>	38%	<ul style="list-style-type: none"> • Presenting a problem to solve • Asking a question
3. <i>Presenting research</i>	90%	<ul style="list-style-type: none"> • Informing of the topic of the paper • Announcing aim or answer to question • Presenting the main finding or contribution
4. <i>Giving credit</i>	54%	
5. <i>Embedding an abstract</i>	76%	
6. <i>Announcing the tweetorial</i>	74%	
7. <i>Other</i>	22%	

Table 3
Moves and steps in the body.

Move	% of bodies with this move	Steps
1. <i>Presenting research</i>	24%	<ul style="list-style-type: none"> • Announcing aim • Presenting the main finding or contribution
2. <i>Contextualizing the research</i>	56%	<ul style="list-style-type: none"> • Providing background information • Emphasizing interest or importance of research • Situating the reported paper in relation to current research
3. <i>Establishing a need for research</i>	40%	<ul style="list-style-type: none"> • Stating a research question • Stating a problem or a gap
4. <i>Meeting the need</i>	36%	<ul style="list-style-type: none"> • Filling the gap • Solving a problem
5. <i>Describing the method</i>	84%	<ul style="list-style-type: none"> • Providing general information on methods • Giving credit for methods, techniques or tools • Describing experimental/study procedures
6. <i>Presenting results</i>	96%	<ul style="list-style-type: none"> • Presenting the main results • Presenting experimental observations or findings • Providing visual evidence • Comparing results with the literature
7. <i>Presenting the contributions of the study</i>	94%	<ul style="list-style-type: none"> • Highlighting the main finding(s)/answer to study • Significance of the research • Implications for practice • Applicability • Presenting open questions
8. <i>Stating limitations</i>	6%	
9. <i>Appealing directly to readers</i>	36%	<ul style="list-style-type: none"> • Calling to action • Expressing hope that research is useful • Sharing the “story” of the publication • Other
10. <i>Giving credit</i>	70%	
11. <i>Providing access to the paper</i>	22%	
12. <i>Directing the reader to more detailed information</i>	16%	

community. Two prominent features of this move are @mentions, used both to refer to and address others, and markers of positive evaluation (e.g. “fantastic colleagues”). In two cases, the move is realized not only with text, but also visually with a picture of the co-authors smiling, which conveys intimacy.

The lede often embeds an abstract or a representation of the paper (76% of the ledes), which may take different forms. It may be a multimodal representation of the paper (70% of the ledes): a video abstract, a visual abstract, a graphical abstract or a graphic from the paper that acts as an abstract (Fig. 2), or a quote-card. Three of the ledes also embed the section of the first page of the paper which includes the abstract.

Announcing the tweetorial is a metadiscursive move, to make readers aware that the lede is part of a larger text. Authors may encourage the readers to read the tweetorial by using directives (e.g. “Scroll through our #tweetorial to learn more”), but the move is often realized by just a word or hashtag (e.g. “Tweetorial”, “#tweetorial”), an emoji (usually 📖), a number, or a combination of these resources, e.g. “Tweetorial 📖”, “📖 (1/n)”, “time for a #tweetorial 📖👉”, “tweetorial 📖📄”.

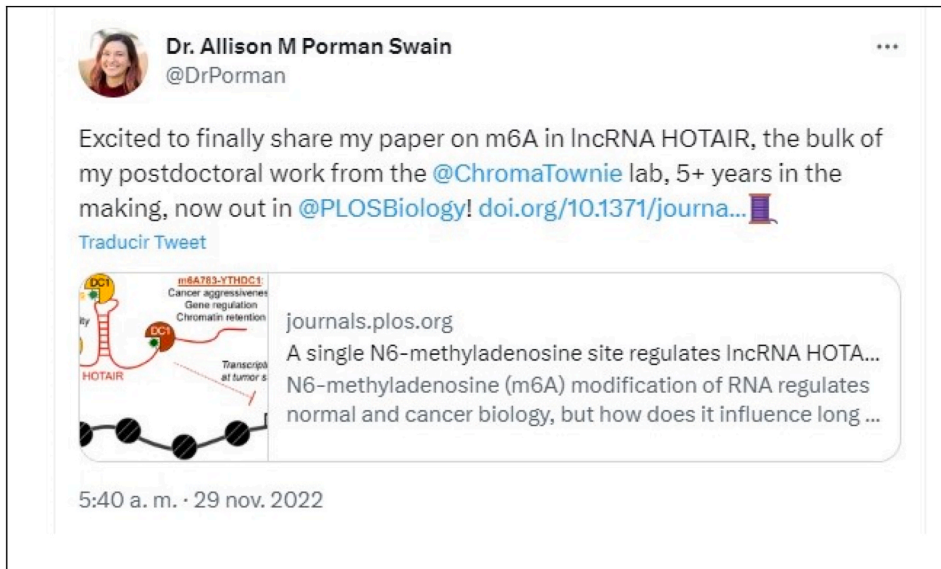


Fig. 1. Lede with a quote-card of the publication (Tweertorial 8).

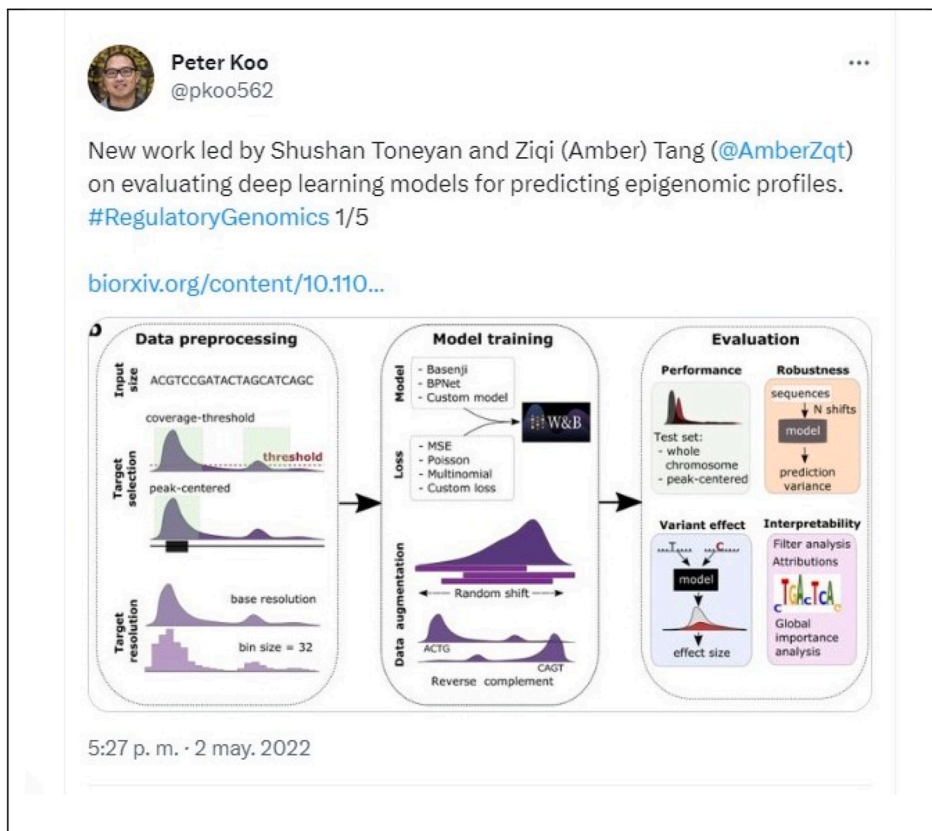


Fig. 2. Lede with an abstract of the paper (Tweertorial 48).

The lede may also be used by the authors to perform any other action that they consider important, e.g. to explicitly encourage the readers to access the paper, to explain the beginning of the research (e.g. “5 years of research”), to emphasize the importance of the research, to provide a link to a data repository, or to specify audience (e.g. “of interest to all those who like Diagnostic Reasoning!!!”).

The most frequent moves (*Announcing the publication, Presenting research, Embedding an abstract*) suggest that the main functions of the lede are to attract attention and provide access to the publication and to entice readers to read the full tweetorial. All the moves work together to build the audience’s curiosity and persuade them to find more information not only in the tweetorial but also in the paper (see example 2). The lede selects and foregrounds the most promotional move(s) in the introduction of the RA, particularly the move *Occupying the niche* in Swales’ (1990) Create a Research Space model (CARS), which is recontextualized as move 3. *Presenting research* in the tweetorial.

Regarding move sequencing, there is some variability, depending on the specific moves and steps that occur in the tweetorial, but some moves/steps seem to occur in fixed positions. When Move 2 (*Establishing a need for research*) is realized with a question, it is always placed at the beginning of the tweetorial, to start the tweetorial by arousing curiosity (see Tardy (forthcoming), for a similar strategy in informational tweetorials). In the other cases, the move *Announcing the publication* is always the first move, although, due to space constraints, it is very often conflated in a single sentence with the move *Presenting research* (see Fig. 1) or *Introducing the tweetorial* (see example 2). Move 6, *Embedding an abstract*, was the last move in all the tweetorials where it occurred.

4.2. Analysis of the body

As with other summary digital genres (e.g. Hu & Liu, 2018; Ye, 2021), the body of the tweetorial reproduces the IMRAD structures of RAs, foregrounding some moves and steps and incorporating new moves. Three of the moves occurring in the lede also occur in the body (*Presenting research, Establishing a need for research, Giving credit*), which shows the flexibility of the genre. Table 3 lists the moves and common steps in the body of the tweetorials in the corpus.

The first moves in the body of the tweetorial bear resemblance to moves in RAs introductions. The body of the tweetorial may begin with move 1. *Presenting research* (although this move is much less frequent than in the lede). This move occurs in all the tweetorials, either in the lede or the body, and in some tweetorials (n = 7) the move occurs in both parts. Move 2, *Contextualizing the research* is a much less frequent move, occurring in 56% of the tweetorials. The authors sometimes provide background information, i.e. general statements about knowledge or practice in the discipline or definitions of concepts that are important to understand the research (example 4 below). The explanation of concepts in some tweetorials reveals the authors’ awareness that the tweetorial may be of interest to a diversified audience, with various degrees of expertise (e.g. experts in other disciplines, trainees, novice researchers). The

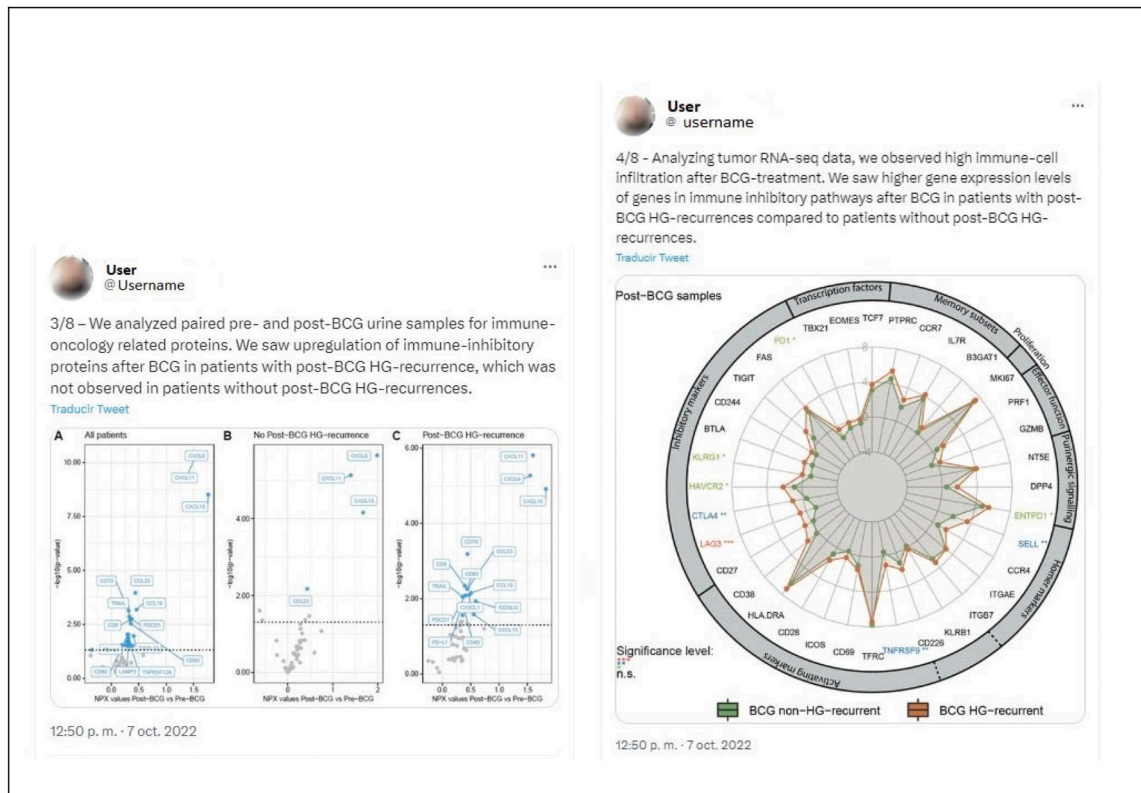


Fig. 3. Tweets presenting methods, results and evidence (Tweetorial 43).

research reported in the paper may also be contextualized by establishing its relation to their own or others' previous research. The authors may explain why they decided to carry out the research (e.g. upon an experimental observation when conducting previous research) (example 5), or present it as a response to others' claims or research. Therefore, even if this move resembles the move *Establishing a territory* in RA introductions (Swales, 1990), there is stronger focus on facilitating comprehension and justifying research from a more personal position. While in RAs researchers draw on the empiricist repertoire, based on formal and objective reporting of research (Gilbert & Mulkay, 1984), in tweetorials, the contingent repertoire, more typical of informal academic interactions such as laboratory conversations, is prominent. As in example 5, tweeters often use a narrative style, presenting the development of research as related to researchers' decisions, so as to engage the audience and create solidarity.

- (4) First, a short primer on MR—it's one of the most popular applications of instrumental variable (IV) analysis. In essence, it's using genes as a natural experiment. (Tweetorial 26)
- (5) When I joined the lab in 2017, we thought m6A might play a role in (...), but this project took on a life of its own when my first experiments identified a single m6A site in HOTAIR ... (Tweetorial 8)

Move 3. *Establishing a need for research* takes up the move *Establishing the niche* in RAs' introductions (Swales, 1990). This is done through stating one or several research questions ("our main questions were") and more frequently through pointing to a problem (example 6), or a gap in knowledge or deficiency of existing methods or approaches. After establishing the need for research, authors often state how the research reported in the paper intends to fill the gap or solve the problem (Move 4. *Meeting the need*).

- (6) Of all #kidney transplants, half are still lost in the first decade after #transplantation. (Tweetorial 45)

After these "Introduction" moves, move 5 is *Describing the methods*. This is often quite a technical move, which relies on the readers' knowledge of techniques and tools in the discipline. Many tweetorials (n = 30) provide general information on particular aspects of the method (Step "Providing general information on the methods"), which may consist in simply mentioning or describing very briefly the methods or techniques used, and/or the data or the participants, and/or the methodological approach, with little elaboration. The step usually takes one or two tweets where the methods of the article are recontextualized concisely, providing information that typically occurs in the methods section of articles (see Cotos et al., 2017), but in a condensed form, foregrounding only what the authors consider more relevant for the audience. In this step the textual description of the method can be accompanied by a figure from the paper illustrating or elaborating on this textual description.

The step "Describing experimental/study procedures" (38% of the tweetorials) provides a sequenced description (with various degrees of detail) of the different experimental steps. The authors usually present a narrative of the experiment, where each tweet provides a description of a step and the observation or result of the experimental procedure, usually accompanied by a figure providing evidence. Thus, the steps "Describing experimental procedures", "Presenting results" and "Providing visual evidence" are often combined in this order in a single tweet and recycled as many times as necessary in the tweetorial. The information taken up from the paper is therefore not only condensed but also rearranged, to make it easier for the reader to understand. Fig. 3 below displays two tweets in an 8-tweet tweetorial, each of them presenting one step in the procedure, the result/observation, and figures taken from the

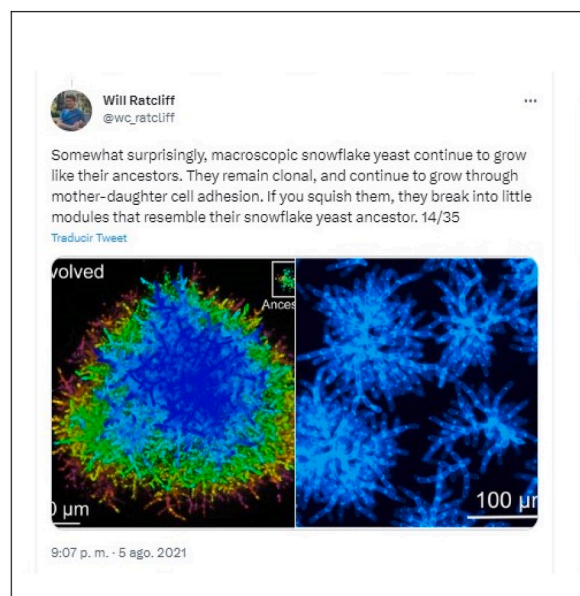


Fig. 4. Step "Providing visual evidence" (Tweetorial 15).

paper to provide evidence. The tweets in Fig. 3 bear a strong resemblance to the results sections of conference posters, where figures and short explanatory texts are integrated to report results and attract attention (see Persky, 2016). As Fig. 3 shows, first person pronouns are used in this move to make the authors of the article visible as researchers.

Some threads (n = 11) also include the step “Giving credit for methods, techniques or tools”, sometimes overlapping with the other two steps. The authors indicate when the methods or techniques they are using have been developed by other researchers or groups, this way giving them credit and strengthening their relations with these researchers and at the same time indicating competency and knowledge of methods in the field (example 7).

- (7) Utilizing mitochondrial DNA SNPs, pioneered by @vangalenlab, @CalebLareau and @bloodgenes, we were able to ... (Tweeetorial 46)

Although this step resonates with the step *Referencing previous works* in the methods section of RAs (Cotos et al., 2017), it has a more interpersonal nature, mainly serving to network with other researchers. In example (7) the use of @mentions enables the author to foreground other researchers, and draw the readers’ attention to their work. In addition, the @mention feature serves to address the mentioned researchers/labs and ensure that they see the tweet and are aware that they are being credited.

Move 3, *Presenting results* occurs in all but two tweeterials. This move consists of four steps: “Reporting the main results”, “Presenting experimental observations or findings”, “Providing visual evidence”, “Comparing results with the literature”. Some threads only present the main results, after describing the methods, in one or two tweets. This is explicitly indicated in the tweet (e.g. “Results:”, “Key findings (part 1)”, “... main findings”, “The bad news; The good news”). Very often (38% of tweeterials), however, the authors provide a detailed description of the experimental results (see Fig. 3). As pointed out above, several tweets can be used to describe the different experimental procedures/techniques and the results of each experiment. The step “Providing visual evidence” is also very frequent (62% of tweeterials) (see Fig. 3 and Fig. 4 below). The tweets presenting results in written form often embed also a visual (a table or figure, usually taken from the paper) providing evidence, having therefore the same function as visuals in RAs (Miller, 1998).

The placement of the visual evidence immediately after the textual presentation of the results makes it very easy for the reader to establish the connection between textual-visual information and process this information quickly. This step is not reported in previous rhetorical analyses of results in RAs (e.g. Cotos et al., 2015), probably because only textual material is considered for analysis in those studies. In some threads (n = 7) the authors make reference to findings in other studies (Step “Comparing results with the literature”), and link to these studies, to provide support for their results. This is not, however, a prevalent step in tweeterials, where authors seem to prefer to use the limited space to focus on their own findings.

In the move *Presenting the contributions of the study*, the tweeters present (or restate) the main findings or contribution of the study. The authors may summarize the main finding or answer the question posed at the beginning. This step is signaled with signposting language such as “in summary”, “in conclusion”, “Conclusions:”, “our findings reveal that”. Again, first person pronouns are used to draw attention to authority and thus promote the researchers (e.g. “In conclusion, we find”). Many threads also highlight the significance of the research, by stating the implications for research (e.g. “This finding demonstrates that ...; raises the possibility of ...; emphasizes the need to”), emphasizing its importance or relevance or indicating how it contributes to knowledge (e.g. “We think this work adds to”; “Our paper is a step towards understanding”; “This data pave the way to”). This step is similar to the move *Claiming the value* in the discussion of RAs (Cotos et al., 2015) and the move *Implications* in 3MT presentations (Hu & Liu, 2018). Some threads (n = 8) also include the step “Implications for clinical practice”, where directives (in the form of imperatives or deontic modals such as “should” or “must”) (example 8) and inclusive “we” (which helps to construe solidarity) (example 9) are used to persuade others to act in a specific way.

- (8) Physicians should maintain suspicion for cardiac metastasis when a patient presents with fatigue. (Tweeetorial 31)
 (9) We need to use the clinical evidence we have to make diagnosis more scientific. (Tweeetorial 22)

This step resembles the move *Recommending actions or solutions* in informational tweeterials on COVID19 (Tardy forthcoming), which asks readers to respond to the information in the tweeterial by taking particular actions. However, as examples (8) and (9) show, in the tweeterials in the corpus, recommendations are not addressed to the general public, but to experts or practitioners, appealing to their responsibility towards their patients. The step “Implications for clinical practice” is in fact similar to recommendations present in medical editorials, where editorialists use deontic modality to give advice to practitioners, thus bridging “the gap between research and praxis” (Carter-Thomas & Rowley-Jolivet, 2014, p. 71).

Only three threads included reference to the limitations of the study. However, what is more frequent is making reference to aspects that are still unknown or posing questions for which there is still no answer (Step “Presenting open questions”), thus helping to arouse curiosity about the research of the authors (“This opens just questions about ...” “Open ?”). Although this resembles the move *Proposing directions* in RAs (Cotos et al., 2015), the main purpose seems to be to encourage the readers to “stay tuned” for more news on the authors’ research, as example (10), in the last tweet of the tweeterial, illustrates.

- (10) Could inhibitors of TDG alleviate some of the neurological complications associated with anticancer drug therapies? Stay tuned (Tweeterial 34)

The last tweet is often used for networking and interacting with readers by appealing directly to them in several ways (Move 9. *Appealing directly to readers*). The most common way is by inviting them to read, share and cite the paper ($n = 6$), or by indicating that their data or research product (e.g. tools) are accessible and free to use ($n = 3$). Authors may also express hope that their research is useful to the readers ($n = 3$) or create intimacy by sharing the “story” of the publication, usually emphasizing how long it has taken to conduct the research ($n = 3$). The last tweet may be used by authors to engage with the readers in other ways, such as asking for feedback, advertising positions, or inviting readers to contact them (example 11). This is a very flexible move (in terms of content), where authors can appeal to readers in any way that they wish. Given the interpersonal nature of this move, elements of interactive discourse, such as directives, reference to the reader, or first person pronouns are frequent.

- (11) Come work with us! DM me or @noambeckmann1 if you're interested! (Tweeterial 50)

A frequent move in the last tweet of the thread is *Giving credit*. The authors of the thread do not only acknowledge or thank their co-authors, but also anybody who has contributed to the research or publication or has helped them in some way (i.e. collaborators, funders, reviewers, patients), usually referring to them through @mentions. The last tweet may also include the move *Providing access to the paper* ($n = 11$), realized with a link, but most frequently with a quote card. In all cases but three the author had already incorporated a link in the lede. The link is probably repeated here to make it quicker for readers to access the paper.

A move that occurs in different parts of the thread is *Directing the reader to more detailed information elsewhere*. The authors may direct the readers to the preprint for more detailed information on some aspects of the methods or results ($n = 5$), or to other works by the authors providing similar information ($n = 3$).

Regarding move sequencing, as in the ledes, there is some regularity, with most the tweets following the sequence reflected in Table 3, except for move 12 which may occur in various places in the tweeterial. The first moves are similar to moves in RAs introductions, and sequenced in the same way, but *Presenting research*, when it occurs, is always rearranged and foregrounded at the beginning of the body.

5. Discussion

This study aimed to determine the move structure of publication-promoting tweeterials and how these moves are realized (RQ1) and to explore how the contents of the RA are recontextualized in these tweeterials (RQ2). The move analysis has revealed that the publication-promoting tweeterial is a hybrid genre which combines elements of the RA, other academic genres (e.g. conference posters) and other types of tweeterials. As in other tweeterials (see Gero et al., 2021; Graham, 2021; Tardy forthcoming), the first tweet acts as an invitational opening intended to attract the reader. However, in publication-promoting tweeterials the first tweet also has the purpose of enticing the reader to read the whole paper. Actually, researchers often compose tweets to promote their papers (Luzón & Pérez-Llantada, 2022), and the tweeterials analyzed here could be regarded as an expansion of these tweets, which helps authors to provide more detailed information on the paper, thus overcoming the space limitations of a single tweet. When considering the whole tweeterial, the lede is a reader-oriented tweet which bears a resemblance in function (i.e. to engage the audience's attention so that they continue reading) to the *Orientation* move occurring in other summary genres (e.g. podcasts, 3MT presentations) (see Hu & Liu, 2018; Rowley-Jolivet & Carter-Thomas, 2019; Ye, 2021), although the lede consists of several moves, all of them working together to achieve this purpose.

The moves and steps in the lede and in the body are different from those found in the informational tweeterials analyzed by Tardy (forthcoming), given the difference in purpose and audience, i.e. to inform and educate the general public, in the case of informational tweeterials, and to promote a publication among (semi-)expert audiences, in the case of the tweeterials analyzed in this study. Publication-promoting tweeterials are actually more similar in the moves and steps to Twitter-conference presentations (Villares, 2023), a genre also intended mainly for (semi-)expert audiences. Like other summary genres, these tweeterials reproduce the IMRAD structure of RAs, incorporating several moves and steps occurring in the sections of the RA, and following the sequence Introduction-Methods-Results-Discussion, but also adding new moves.

The information in the RA is recontextualized through processes of selection, rearrangement and foregrounding (see Bezemer & Kress, 2008) of the RA's moves in the tweeterial, in order to rhetorically present this information in such a way that it gains and retains the reader's attention. Although there is some variability in the moves and steps in the tweeterials in the corpus, the analysis has revealed a prevalence of moves which draw attention to the publications and highlight the key findings and contributions (*Announcing the publication*, *Presenting research*, *Presenting results*, *Presenting the contributions of the study*), in line with the promotional nature of the genre.

Moves and steps are also (re)arranged, foregrounding some of them, to achieve this promotional purpose. Since the moves in the lede receive focal attention, *Announcing the publication* occurs always in this introductory tweet and *Presenting the research* tends to also be foregrounded to the lede position. Likewise, foregrounding of the step “Asking a question” to the first position (when it occurs in the lede) serves a similar purpose to interrogative titles in RAs, i.e., to “grab the reader at the outset with an arresting directness” (Hyland,

2023, p. 3). Other functional elements occurring in the RA are also rearranged in the tweetorial to facilitate quick processing and present the information in a more narrative style. This is the case of the steps “Describing experimental/study procedures”, “Presenting experimental observations or findings” and “Providing visual evidence”, presented in the tweetorials in this order in a single tweet and usually recycled in subsequent tweets.

The tweetorials in the corpus also incorporate some moves not occurring in RAs which contribute to achieving the purpose of the genre. These are meta-commentary moves which draw attention to the RA (e.g. *Announcing the publication*, *Announcing the tweetorial*, *Directing the reader to more detailed information*), and moves with a prominent interpersonal function (*Giving credit*, *Appealing directly to readers*). Although authors of RAs may give credit to funders or reviewers in notes, in tweetorials *Giving credit* is integrated in the text to foreground the contribution of other stakeholders, and evaluate them positively. The moves *Giving credit* and *Appealing directly to readers* reflect the interactive nature of this genre and suggest that the purpose of the genre is not only to publicize a particular publication, but also to establish relations with other researchers and draw their attention to the author’s research. Interestingly, in addition to the frequently occurring moves, many of them adapted from the RA (see [Tables 2 and 3](#)), both in the lede and the body authors perform several other actions, which suggests that this is a very flexible genre, which allows room for any interaction with readers related to the publication. These new moves (not occurring in the RA) show that in addition to selection, arrangement, foregrounding and social repositioning, another recontextualization strategy when composing tweetorials is addition of new content (see [Van Leeuwen, 2008](#)), which helps authors to fulfill new purposes (i.e. promotion, networking and community-building).

Recontextualization is also effected by the author’s selection of the most appropriate semiotic resources available in the new medium to realize the moves and steps and to reposition themselves as both competent and approachable, open researchers. First, visuals (figures and tables) extracted from the RA play an important role in tweetorials, having the same function as in the RA: providing evidence for the results, clarifying or illustrating (e.g. when describing methods), and attracting the reader to the argument ([Miller, 1998](#)). As in the RA, by condensing information, visuals maximize the persuasiveness of the genre ([Miller, 1998](#)). A few tweetorials ($n = 13$) also incorporate images not taken from the paper (mainly GIFs) to express attitude or to attract readers. However, these visuals are much less frequent than in the informational tweetorials analyzed by [Gero et al. \(2021\)](#), where 41.3% of the visuals were used as fillers or for “pictorial purposes”, probably because of the different intended audiences and purposes. Together with the prominent use of visuals from the paper, the use of discipline specific terms and acronyms in publication-promoting tweetorials suggests that the imagined audience consists of experts or semi-experts (trainees, novice researchers, practitioners) and contributes to enhancing the author’s credibility. These elements of expert discourse are, however, combined with features typical of informal, interpersonal and promotional discourses. The authors reconstruct the social relations with the audience through the choice of resources intended to create intimacy and solidarity, e.g. questions, inclusive pronouns, reader pronouns, reference to feelings, beliefs and interests, emoji expressing feelings and emotions, positive evaluation of others, @mentions. These solidarity-creating rhetorical devices, also used in other summary genres (see [Ye, 2021](#)), contribute to enticing the audience to read the tweetorials and the paper. Some of these rhetorical devices also illustrate how addition is used as a recontextualization strategy, e.g. the addition of evaluation or reaction ([Van Leeuwen, 2008](#)) through GIFs, emoji or reference to feelings.

Promotional features are particularly relevant, reflecting that the purpose is not only to summarize the paper but also and probably most importantly to promote and draw attention to it. The authors of publication-promoting tweetorials make use of the rhetorical strategies discussed by [Hyland \(2023\)](#) as resorted to by authors of RAs to gain attention for their work, e.g. explicit focus on implications and positive evaluation of their own work, adjectives to highlight novelty, self-mentions to gain visibility. The moves from the article which are selected and foregrounded also seek to highlight the authors’ findings and their importance (e.g. statements of limitations and reference to others’ findings are scarce). In addition, authors harness the affordances of the genre to incorporate other attention-grabbing resources, such as emoji, @mentions or various types of visuals. This suggests that these tweetorials contribute to meeting new needs such as improving visibility and gaining attention, while at the same time generating new communicative behaviors (e.g. use of informal and self-promotional discourse features).

The features of the genre seem therefore to be determined by the promotional and networking purposes, the audience (experts or semi-experts), Twitter affordances and constraints (i.e. limited space and on-the-go consumption, which calls for condensed and engaging discourse), and audience expectations for Twitter genres (e.g. informality, convivial discourse).

Finally, a finding of this study worth discussing, which probably derives from the fragmentary nature of the genre (i.e. consisting of several individual tweets), concerns the relation between tweets and moves in these threads. While there is not always a one-to-one correspondence between tweets and moves, tweets seem to be used by the authors as meaningful units, organized in such a way to help the reader process the information quickly. The lede consists of several moves, but all of them contribute to the same purpose, i.e. attracting the reader’s attention to the RA. In the body of the tweetorial, many tweets contain a single move. However, two moves may occur within a single tweet if the authors regard them as closely related (e.g. *Giving credit* and *Appealing directly to readers*, both with an interpersonal function; or *Describing the method* and *Presenting results*, when the authors describe an experiment and its results). Finally, some moves span more than one tweet, each tweet acting as a meaningful unit: different steps of the move may occur in different tweets (e.g. steps in move 5. *Describing the method*); or moves may be recycled in several consecutive tweets.

6. Conclusions

The results of this study suggest that publication-promoting tweetorials have emerged as a response to the challenges of the attention economy, in a context where researchers have to compete for attention to their work (see Hyland, 2023). Hyland (2023) shows that the authors of RAs are increasingly doing more rhetorical work to promote their work and make it as noticeable as possible. He discusses changes in the traditional abstracts which seek to increase their persuasiveness. This need to promote research findings, in conjunction with the affordances of social media, has led to the emergence of publication-promoting tweetorials. Due to these affordances (wide reach, multimodality, interactivity, modularity, hypertextuality, spreadability), this genre seems to be a much more apt tool than traditional abstracts to make a publication noticeable and to offer reasons to read it. These tweetorials allow readers quick on-the-go access to the key information of publications. They are spreadable texts, which can be retweeted, reach publics with various levels of expertise and be brought to the attention (through @mentions) of particular readers. The possibility of threading tweets and embedding visuals and digital quotations enables the authors to convey a great amount of precise information. Multimodality also makes it possible to leverage the affordances of the visual mode for making meaning. In addition, the conventions of a social platform such as Twitter (i.e. informal and personal language, emoji, @mentions, possibility of retweeting, replying or liking) make it easy to gain the readers' attention, engage them and strengthen social relations. And very importantly, many tweetorials are composed for preprints, which enables researchers (including novice researchers) to promote their research and gain attention before formal publication. These tweetorial may even take a more prominent role in academic communication in the future if new metrics to assess scientific impact, such as "twimply factor" (i.e. social impact based on Twitter) (Eysenbach, 2011) are adopted.

In the current context, where researchers are increasingly required to re-present their research results in order to adapt them to new audiences or for new purposes, this study contributes to the understanding of processes of recontextualization and remediation of the RA into digital (and particularly social media) genres. The results show that publication-promoting tweetorials seek to achieve their persuasive purpose by simultaneously borrowing features of research-based genres, adding new elements, and reconstructing social relations with the audience through the use of devices that make the authors (and the audience) more visible and the discourse more personal, intimate and engaging.

The present study has implications for the teaching of academic writing in digital contexts. Since tweetorials are a suitable genre to cope with the demands of the attention economy, the results of this study could be used to provide (novice) researchers with support so that they can compose these texts effectively. They can be asked to recontextualize RAs into tweetorials to make them aware of how the way scientific knowledge is presented has to be adapted taking into account purpose, audience, affordances of the medium, and expectations of the genre. They can also be encouraged to critically assess their rhetorical choices and reflect on how the flexibility of digital genres can be exploited to exercise agency in their writing process and negotiate their social relations within the community. In addition, since publication-promoting tweetorials are short multimodal genres to communicate with (semi-)experts, they can be used to provide instruction on the meaning making potential of different modes and on the interaction between text and image in academic communication.

This study is exploratory and, by focusing on the rhetorical structure and on how the genre moves and steps are realized, it provides only a partial picture of publication-promoting tweetorials. Further research is needed to provide a more detailed analysis of the variety of strategies used by authors to adapt the scientific content of the RA to this new context. Future studies could also investigate other questions regarding publication-promoting tweetorials which would be useful for EAP teachers, such as whether the rhetorical features of this genre vary across disciplines, or whether variables such as authors' seniority, degree of expertise or gender have an influence on how tweetorials are composed.

Author statement

I am the only author of the paper, and nobody else contributed to its preparation.

Declaration of competing interest

None.

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Appendix I

Dr. Allison M Porman Swain @DrPorman · 29 nov. 2022

Excited to finally share my paper on m6A in lncRNA HOTAIR, the bulk of my postdoctoral work from the @ChromaTownie lab, 5+ years in the making. now out in @PLOSbiology! doi.org/10.1371/journa...
[Traducir post](#)



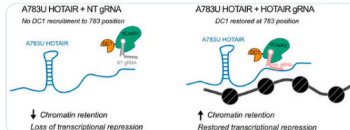
journals.plos.org
 A single N6-methyladenosine site regulates lncRNA HOTA...
 N6-methyladenosine (m6A) modification of RNA regulates normal and cancer biology, but how does it influence long...

5:40 a. m. · 29 nov. 2022

32 Reposts 5 Citas 173 Me gusta 6 Elementos guardados

Dr. Allison M Porman Swain @DrPorman · 29 nov. 2022

We found this m6A site had specific interaction with the reader YTHDC1, mediating HOTAIR chromatin association and repression of target genes. We tethered DC1 to A783U mutant HOTAIR and restored its ability to associate with chromatin, repress genes, and promote growth & invasion



1 3

Dr. Allison M Porman Swain @DrPorman · 29 nov. 2022

Thank you to everyone involved in this work, especially @RNABioUSA for making it all possible with his bioinformatics genius, @ChromaTownie for giving me a chance to return to science, @lenrich3 and @mwilli023 for all the breast cancer insights, Emily Duncan for invasion exp'ts

1 6

Dr. Allison M Porman Swain @DrPorman · 29 nov. 2022

Special thanks to @CUJ CancerBio summer student Michelle Kennedy for pioneering some biochemical experiments before I joined the lab, and my mentees, high school student Ariel Levine and @mabloc summer student Madeline Chrupcala. Your contributions to this work were invaluable!

1 5

Dr. Allison M Porman Swain @DrPorman · 29 nov. 2022

When I joined the lab in 2017, we thought m6A might play a role in the HOTAIR matchmaker mechanism via hnRNP B1 (see: [mjournal.cshlp.org/content/22/7/9... ncbi.nlm.nih.gov/pmc/articles/P.../](https://doi.org/10.1371/journal.pcbi.1005411)), but this project took on a life of its own when my first experiments identified a single m6A site in HOTAIR...

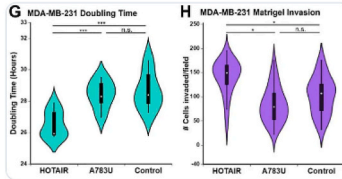


ncbi.nlm.nih.gov
 Global profiling of hnRNP A2/B1-RNA binding on chromatin highlight...
 Long noncoding RNAs (lncRNAs) often carry out their functions through associations with adaptor proteins. We recently identified ...

1 6

Dr. Allison M Porman Swain @DrPorman · 29 nov. 2022

This single m6A site was the only one identified in BC cell lines that express endogenous HOTAIR. We turned to MDA-MB-231 TNBC cells to test effects of overexpressing a single nucleotide mutant of HOTAIR. The mutation totally prevented HOTAIR-mediated cell growth and invasion!



3 7

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