

Video Abstract: A Brand-new Approach to Information Dissemination: Production & Evolution Process

Esmaeil Vaziri

Associate Prof., Department of Knowledge and Information Science, Faculty of Humanities, University of Zabol, Zabol. Iran.

evaziri@uoz.ac.ir

ORCID iD: <https://orcid.org/0000-0003-0155-5852>

Mansoureh Feizabadi

Ph. D. in Knowledge and Information Science, Sabzevar University of Medical Sciences, Sabzevar, Iran.

Corresponding Author: feizabadi_mns@ut.ac.ir

ORCID iD: <https://orcid.org/0000-0001-5083-946X>

Received: 09 May 2023

Accepted: 26 December 2023

Abstract

With the development of the Internet and information technologies, new communication tools have been created that allow researchers to present their research results and communicate with each other. Using visual and audio resources to share research results is a new type of scholarly communication essential for disseminating knowledge and has recently been the focus of journals. Our objective was to help authors, journal editors, and publishers become familiar with the criteria they should consider when producing standard video abstracts. This descriptive study used content analysis. We systematically searched the Web of Science Core Collection and Scopus to identify journals with video abstracts and analyzed their authors' guidelines to extract the criteria needed for producing and evaluating video abstracts. The research community comprised 209 journals with video abstracts. After reviewing their authors' guidelines, we found that only 90 journals mentioned video abstracts in their authors' guidelines. Of 90 journals, 22 dedicated authors' guidelines and 68 journals belong to nine different publishers. Therefore, 31 authors' guidelines were examined in this study using MAXQDA 12. We identified six main categories, six subcategories, and 87 criteria for producing and evaluating video abstracts. The six main categories included the type of video, technical features, provider features, presentation features, legal aspects, and criteria for publishing and sending video abstracts. Most criteria were related to the technical characteristics of video abstracts, and the least number of criteria were related to attention to legal aspects during the production and evaluation of these abstracts. The scientific community now uses video abstracts as a complementary medium to articles. Researchers can use this type of abstract to share their research results with others. Authors and journals should pay attention to the production criteria when planning to use this type of abstract so that by preparing a suitable video abstract, they can more effectively convey the results of their research to the audience and lead to the promotion of science.

Keywords: Video Abstract, Scientific Communication, Information Dissemination, Research Visibility.

Introduction

Scientific articles are the most well-known way to disseminate research results (Ferreira, Lopes, Granado, Freitas & Loureiro, 2021). Every year, researchers publish new findings in various research fields in articles and journals worldwide, which audiences do not use as much as they should. These audiences are active in various social and organizational environments and journals, and the authors should convey various types of research evidence through different communication channels (Bennett & Slattery, 2022). Nowadays, it is impossible to disseminate information only through simple and traditional communication channels, and providing ease of access to the information they need for various stakeholders is necessary. In recent years, with the advent of the Internet and information technologies, researchers have witnessed fundamental changes in how they present their research results and communicate with each other. Using the advantages of new communication tools, publishers can provide their audience with research results beyond scientific articles containing text, tables, and images (Ferreira et al., 2021; Liu, 2022; Spicer, 2014). Visual and audio resources in this field have become particularly important (Ferreira et al., 2021). The multimedia learning principle suggests combining images with text enhances understanding more effectively than using text alone (Mayer, 2014). Sharing research results through visual and audio sources is a new type of scholarly communication that plays an essential role in disseminating information and has recently been the focus of journals (Bennett & Slattery, 2022; Coccetta, 2020; Liu, 2022; Zong, Xie, Tuo, Huang & Yang, 2019).

COVID-19 demonstrated the extent to which social networks can play a role in disseminating medical research results among the audience (Gupta, Joshi & Gupta, 2021). In this regard, video abstracts that show the article's main content have provided a new platform for scientific communication (Ferreira et al., 2021). A video abstract is usually a video of less than 5 minutes (Bredbenner & Simon, 2019; Zong et al., 2019) and is presented in various forms such as narration, animation, PowerPoint, group discussion, interview, and documentary (Coccetta, 2020). The author usually gives the main idea of the study, the framework of the study, methodology, findings, research results, and future goals of the study. A video abstract is an audio-visual scientific article summary (Ferreira et al., 2021; Gupta et al., 2021; Reupert, 2017; Spicer, 2014; Zong et al., 2019). These types of abstracts have almost the same purpose as textual abstracts; however, various video formats are used for this type of abstract. Their distribution platform is an online video broadcasting space, allowing researchers to use social media.

Furthermore, a person can share the research results with others, which affects the impact and use of the article (Jakhar & Kaur, 2018; Reupert, 2017). In addition, unlike textual abstracts, these types can provide a visual view of the test method, work process, clinical process, and equipment (Liu, 2022). Authors usually produce a video abstract after the article is accepted, and journals publish this abstract at the same time as the article is published (Zong et al., 2019).

Most publishers publish their articles online, and most readers read them online. Researchers increasingly use social media platforms to share their findings (Pferschy-Wenzig, Pferschy, Wang, Mocan & Atanasov, 2016; Zong et al., 2019). We are currently creating a generation of film-making researchers. The researcher can turn scientific subjects into films and use them as educational videos to maximize students' learning. The growth of such initiatives reflects the scientific community's demand to transmit research results in a visual, modern, and attractive way to increase the scope and impact of scientific publications. Using

videos for scientific communication has many advantages (Ferreira et al., 2021; Lê, Rees, Dennis, Petit, Jones, & Smith, 2015).

The ability to describe complex scientific processes more effectively increases the visibility of scientific research, increases accessibility, strengthens the reproducibility of processes and approaches, and reduces the costs of training and experiments. Video abstracts allow researchers to contribute to societal changes by conveying the research message to a broader audience (Ferreira et al., 2021; Lê et al., 2015) and help journals increase the visibility of their authors and articles (Reupert, 2017). Another advantage of creating a video abstract is that it helps researchers to look at their research from a new angle during creation (Reupert, 2017). In some scientific fields, the text of the articles is full of explanations of almost impossible reforms to understand without using images, and even understanding the author's point of view with one or two images is difficult. In these cases, if the reader shows interest in continuing to read the article, the paper will lose its effect on the reader (Jackson, 2017; Jakhar & Kaur, 2018). Addressing this problem, utilizing video presentations is an optimal method for conveying educational methods and disseminating research findings, as it significantly engages the audience and heightens their focus on the content. In general, video abstracts can be beneficial and improve the article's readability in scientific fields that are more image-oriented than text-oriented (Jakhar & Kaur, 2018).

Cell Journal published its first video abstract in 2009, and since then, it has been one of the leading forerunners in video abstract support (Bredbenner & Simon, 2019). Currently, several publishers such as Cell Press, Springer, Nature, Elsevier, Wiley, IOP Science, Sage, IEEE Xplore, American Chemical Society, and world-famous journals (New Journal of Physics, Journal of the American Chemical Society) use video abstracts and encourage authors to prepare a video abstract along with the text abstract to increase the impact of their articles (Ferreira et al., 2021; Pferschy-Wenzig et al., 2016; Zong et al., 2019). Some publishers offer a service for authors on their website, in which different types of video abstracts are made for authors for a fee (Ferreira et al., 2021). However, some journals and publishers are hesitant to meet users' expectations of this abstract type (Liu, 2019). Among its reasons, we can point out the lack of appropriate instructions in the field of preparing this type of abstract (Jakhar & Kaur, 2018), logistical problems (such as planning, preparation, moving and storing, and services and information), and the lack of transparency of the benefits of this abstract and the cost of its production (Lê et al., 2015).

On the other hand, preparing a video abstract is a time-consuming process, and producing an abstract can take approximately 20 hours, and special equipment and facilities are needed to prepare it (Bredbenner & Simon, 2019). Nowadays, according to the progress of smartphones, all kinds of applications can help researchers produce and edit videos (Gupta et al., 2021). Maintaining patients' confidentiality in medicine is one reason publishers and Journals do not like to move in this way (Jakhar & Kaur, 2018). Despite these problems, publishers and journals should not ignore the emergence of this type of abstract. The surveys also indicate increased attention to this abstract type recently (Liu, 2019). Despite the many advantages of using video abstracts, there are still limitations to their use by publishers, journals, and authors. When using this type of abstract, journals, authors, and publishers should be careful about whether the video abstract is helpful for all subjects, the guidelines they follow for producing this abstract, and the impact of using this type of abstract on disseminating research results. To what extent and how can these impacts be measured? (Ferreira et al., 2021).

Some researchers, including Spicer (2014), believe traditional criteria for measuring scientific impact are insufficient to evaluate and credit producers of non-traditional forms of scientific communication, such as video abstracts. In response to this problem and other issues related to citation indices, Altmetrics indices as criteria based on the social web should be used. The popularity of videos is currently measured by indicators such as the number of views, viewing time, and video retention time. Some of these indicators are visible to the public, but some are only on the video author's management page. It can be retrieved using tools such as YouTube Analytics (Ferreira et al., 2021). It is possible to provide a general picture of the article's impact when the number of video views is used, along with impact indicators such as citations (Lê et al., 2015; Spicer, 2014). Some research results indicate that scientific articles with video abstracts are downloaded more than others, and their citation rate is higher than those without abstracts (Ferreira et al., 2021; Zong et al., 2019). In some studies, no difference has been reported between the number of article citations in articles with and those without video abstracts (Zong et al., 2019).

In some studies, the relationship between the number of video abstract views and the number of views of the article's full text has been reported (Rees, Lê, Prevost & Smith, 2015; Spicer, 2014; Zong et al., 2019). In Spicer's (2014) study, the viewing rate of video abstracts on the journal's website and YouTube was directly related to the number of views of the full text, and the articles with the highest reading rate often had video abstracts. Of course, it should be noted that because of the involvement of various factors in the reading rate of an article, the reading of an article cannot be attributed only to having a video abstract. However, this type of abstract in the article creates the opportunity to provide access to the article in new and different ways and encourages the potential reader to read the article (Reupert, 2017).

In the study by Rees et al. (2015), there was a weak correlation between viewing the video abstract and viewing the full text of the article, but there was no difference between the number of citations and altmetrics scores of articles with and without video abstract. In some studies, no significant relationship has been observed between the existence of video abstracts and altmetrics indicators and citations. In Aggarwal's (2021) study conducted in clinical articles, no significant difference was observed between the presence of video abstracts and altmetrics indicators, including page views. Also, in the technical sciences study by Bennett and Slattery (2022), there was no significant relationship between the presence of video abstracts and altmetrics and citation indicators in the articles of this field.

A group of studies investigated the opinions of authors regarding this type of abstract. In Bredbenner and Simon's (2019) study, the results showed that video abstracts are ranked higher in terms of comprehensiveness, importance, and enjoyment compared to other types of abstracts, such as graphic abstracts, simple language abstracts, and scientific abstracts. A study by Le et al. (2015) showed that authors consider the existence of a video abstract as an added value for their article and are interested in producing this abstract, but there are obstacles to its products, such as the lack of appropriate tools and cost. They stated that if given the necessary tools and sufficient guides, they would produce this type of abstract for their articles. When entry points to the video abstract production space are promising, journal authors' guidelines are the primary source of attracting authors who can determine the appearance, performance, and effectiveness of video abstracts. Analyzing them allows themes and patterns to be identified and used for semiotics in line with the desired genre. The analysis of the guides by Liu (2022) showed that their content included the definition of video abstract, quality, promotion, and

approval of the abstract.

The research analysis results show no unified standards in abstract video production between publishers and journals, which increases the need to review guidelines for journal authors. Despite the advantages and importance of video abstracts and the attention of publishers and journals to this type of abstract, the reviews showed that only a few studies had evaluated authors' guidelines in journals on video abstracts.

The present research has analyzed the Author guidelines of journals to answer the following questions:

1. What are the criteria for producing and assessing video abstracts?
2. Which journals and publishers have author guidelines on video abstracts?
3. What types of video abstracts are supported by journal authors' guidelines?
4. Which group of criteria related to video abstracts has the most frequency?

The results of this research can help authors, journal editors, and publishers become familiar with the criteria they should consider in producing standard video abstracts.

Materials and Methods

This study is an applied-descriptive type using the content analysis method. The research community in this study consisted of 209 journals indexed in the Web of Science and Scopus databases with video abstracts. To retrieve these journals in these databases, we searched the term "Video Abstract" in the abstract field, and by using the search limiters in both databases, conference articles, books, and book chapters were excluded. Until July 15, 2022, 1022 articles were retrieved in the Web of Science database and 1760 in the Scopus database, whose output was taken and entered into the Endnote software. At this stage, duplicate articles and articles that reviewed video abstracts and did not have video abstracts were excluded from the study. ALL 2235 articles were published in 209 journals, constituting the research population. Out of the 209 reviewed journals, video abstracts were mentioned in the authors' guide of 90 journals, and among these 90 journals, 22 journals had specific authors guidelines, and the other 68 journals belonged to nine publishers; therefore, a total of 31 authors guidelines was included in the study and analyzed (Figure 1).

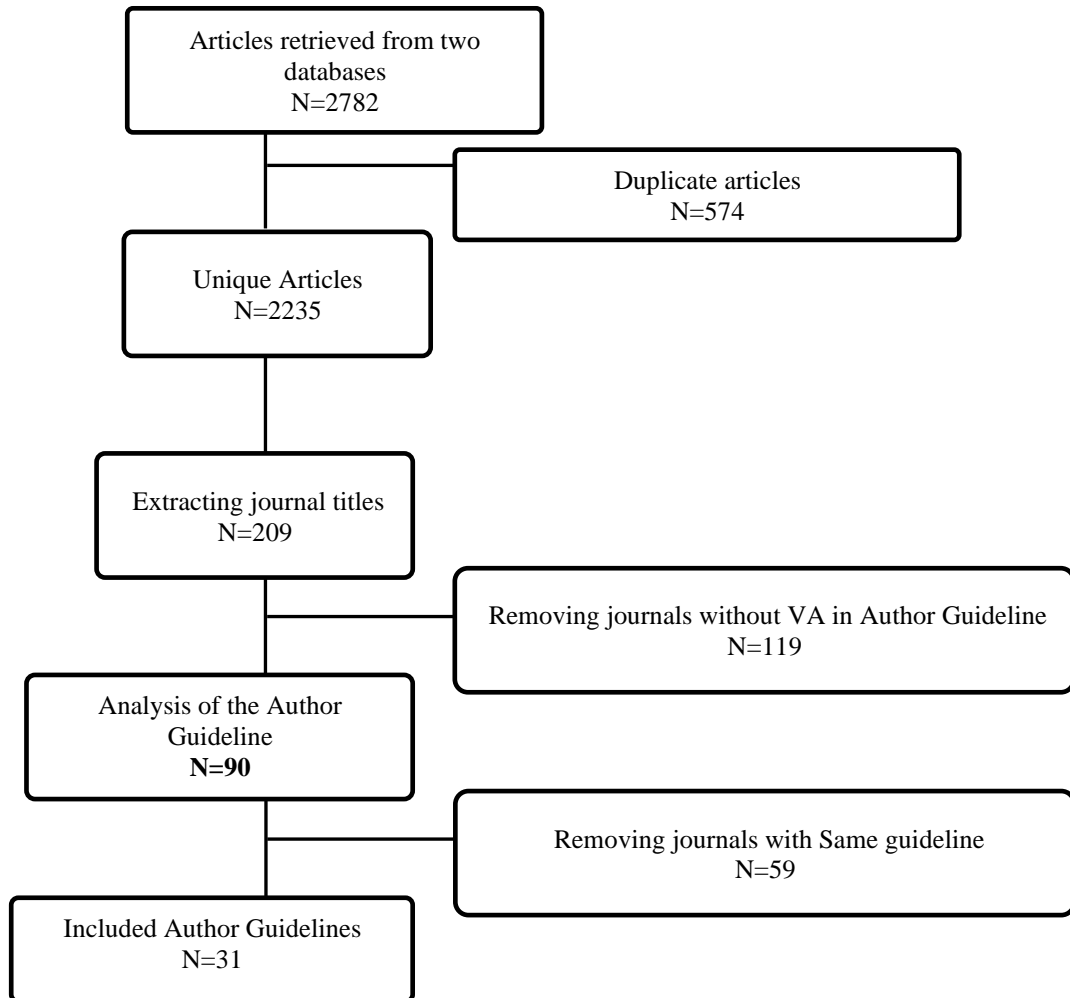


Figure 1: Steps for selecting Authors Guidelines

In the next step, referring to the journal's website, its authors' guide, if there is a file, is downloaded, and if there is no file, it is entered into a Word file and saved with the name of each journal so that it is possible to code using MAXQDA 12 software. For each journal, the publisher's name and the existence of the video abstract in the guide were collected. If several journals from the same publisher had the same guidelines for authors, only one journal was used in the analysis. Initial coding was done based on the unit of analysis, which was sentences. The categories and the relationship between the concepts were formed in the research coding process. Finally, after completing the categorization, the codes and the text of the guides were reviewed separately by two researchers, and finally, although the codes were based on the similarity and primary meaning in this section, they formed a concept and gave the concepts to form the categories.

Results

In total, out of 209 reviewed journals, 90 journals mentioned video abstracts in their authors' guidelines, and among these 90 journals, 22 journals have dedicated authors' guidelines and 68 other journals, from the general authors' guide prepared by nine of their publishers. We examined the guidelines of nine publishers with 22 journals with dedicated guidelines for authors. The guidelines of 31 journals and publishers were analyzed (Table 1). The analysis of

these instructions showed six subcategories and 87 indicators. The six categories include video type, abstract content, technical features, provider features, sending and publishing videos, and legal aspects. More information is provided in

Table 1.

Table 1

Journals and publishers have guidelines for authors regarding video abstracts

Symbol	Journal/publisher	IF(Q)	ISSN	Symbol	Journal/publisher	IF(Q)	ISSN
J1	British Journal of Learning Disabilities (Wiley)	1.5(Q3)	1354-4187	J16	Journal Of Number Theory (Elsevier)	0.7(Q3)	0022-314X
J2	Personalized Medicine (Future Medicine Ltd).	2.3(Q3)	1741-0541	J17	Inflammatory Bowel Diseases (Oxford Univ Press Inc)	4.9(Q2)	1078-0998
J3	CNS Drugs (Springer)	6(Q1)	1172-7047	J18	Disability and Rehabilitation (Taylor & Francis)	2.2(Q2)	0963-8288
J4	Brain (Oxford University Press)	14.5(Q1)	0006-8950	J19	Diabetes Obesity Metabolism (Wiley)	5.8(Q1)	1462-8902
J5	JTCVS Open (Elsevier)	-	2666-2736	J20	British Journal of Management (Wiley)	5.6(Q2)	1045-3172
J6	Global Strategy Journal (Wiley)	7.6(Q1)	2042-5791	J21	Annals of Medicine (Taylor & Francis)	4.4(Q2)	0785-3890
J7	Clinical Neurosurgery (Lippincott Williams and Wilkins Ltd)	-	0069-4827	J22	Current Opinions in Anesthesiology (Williams & Wilkins)	2.5(Q3)	0952-7907
J8	Cell (Cell Press)	64.5(Q1)	0092-8674	J23	Clinical Kidney Journal (Oxford University Press)	4.6(Q1)	2048-8505
J9	BJOG: An International Journal of Obstetrics and Gynecology (Wiley)	5.8(Q1)	1470-0328	J24	Biomolecules (MDPI)	5.5(Q1)	2218-273X
J10	Pediatrics (American Academy of Pediatrics)	8(Q1)	0031-4005	J25	Clinical Journal of Sport Medicine (Lippincott Williams & Wilkins)	2.7(Q2)	1050-642X

Symbol	Journal/publisher	IF(Q)	ISSN	Symbol	Journal/publisher	IF(Q)	ISSN
J11	Research Politics (Sage)	2.7(Q2)	2053-1680	J26	Journal Of Wound Ostomy and Continence Nursing (Lippincott Williams & Wilkins)	2.6(Q1)	1071-5754
J12	Respirology (Wiley)	6.9(Q1)	1323-7799	J27	Clinical Ophthalmology (Dove Medical Press Ltd)	2.2	1177-5467
J13	Review of Education (Wiley)	2.4 (-)	2049-6613	J28	Journal of Functional Programming (Cambridge University Press)	1.1(Q4)	0956-7968
J14	Symbolic Interaction (Wiley)	1.6(Q3)	0195-6086	J29	Cell Communication and Signaling (Bio Med Central Ltd)	8.4(Q1)	1478-811X
J15	Therapeutic Advances in Medical Oncology (Sage)	4.9(Q2)	1758-8340	J30	Aids (Wolters Kluwer)	3.8(Q3)	0269-9370
				J31	2d Materials (IOP Publishing Ltd)	5.5(Q2)	2053-1583

Presentation method

Table 2 shows the types of videos accepted in the author guide section of the journal. Videos include documentaries, silent films, monologues, educational films, group discussions, slideshows with audio, and more. Depending on the journal's strategy and capabilities, authors can create one of these types of films for their articles.

Table 2

Types of videos identified in journals' author guidelines

Category	Concept	Source	Freq. (%)
Presentation method	Background story/Documentary	J10	1 (2.8%)
	Silent films	J7 ,J31	2 (6.5%)
	Talking head/Monologue	J3 ,J2 ,J7 ,J29 ,J15	5 (16.1%)
	Group discussions	J1	1 (2.8%)
	Lab tour/educational/experiment	J27 ,J25 ,J10 ,J3 ,J31	5 (16.1%)
	Interviews	J30 ,J25 ,J7,	3 (9.7%)
	Slides presenting	J30 ,J28 ,J25 ,J23 ,J20 ,J15 , J12 ,J11 ,J10 ,J2 ,J7 ,J29	12 (38.7%)
	Animations	J31, J27, J15, J3, J4, J7	6 (19.35%)
	Total		35 (100)

Video content

One of the critical parts of creating a video abstract relates to the content of the abstract, which is discussed in this section. As a result, we found that information types such as PowerPoint slides, animations, equations, and tables/images/figures can be used in abstracts in the guide area for journal authors and editors. Also, the design and structure of video content, such as usage patterns, challenging audiences, research questions, research innovations, conclusions, limitations, methodology, and researcher background, is one of the most important issues to consider. More information on concepts related to video summary content is in Table 3.

Table 3

Criteria for the structure and content of the video abstract

Category	Sub Category	Concept	Source	Freq. (%)
Video Content	Information type	PowerPoint Slides	J30 ,J28 ,J25 ,J23 ,J20 , J15 ,J12 ,J11 ,J10 ,J2 ,J7 , J29	1(3.2%)
		Animation	J31, J27, J15, J3, J4, J7	1(3.2%)
		Equations	J31	1(3.2%)
		Table/Image/Chart	J18 ,J12 ,J10 ,J21 ,J3 ,J7 , J29	7 (22.6%)
		Minimizing the amount of raw data	J29	1(3.2%)
	Video Structure	Use schematics	J29 ,J11	2 (6.5%)
		Encourages further reading	J11 ,J2	2 (6.5%)
		Challenging viewers	J30 ,J25	2 (6.5%)
		Research problem	J18 ,J28 ,J21 ,J15	4 (12.9%)
		Innovation in research	J31 ,J30 ,J25 ,J12 ,J10 ,J5	6 (19.3%)
		The key idea of the research	J28 ,J27 ,J25 ,J23 ,J21 , J20 ,J18 ,J15 ,J14 ,J13 , J12	11 (35.5%)
		Results and main findings of the research	J27 ,J17 ,J15 ,J10 ,J9 ,J3 , J5 ,J1 ,J29	9 (29%)
		Practical and clinical applications	J30 ,J25 ,J4 ,J31 ,J10	5 (16.1%)
		Suggestions for future studies	J30 ,J27 ,J25 ,J20 ,J15 ,J9	6 (19.35%)
		Conclusion	J27 ,J21 ,J5	3(8.6%)
		Limitations	J10	1(3.2%)
		Necessity and importance	J27 ,J5 ,J1 ,J10 ,J30 ,J25	6 (19.35%)
		The objectives and goals	J10 ,J9 ,J27 ,J5 ,J1	5 (16.1%)
		Background of the article	J13 ,J10	2 (6.5%)
		Methodology	J15 ,J13 ,J10 ,J5 ,J1	5 (16.1%)

Category	Sub Category	Concept	Source	Freq. (%)
		Researchers' backgrounds	J15 ,J10	2 (6.5%)
		Contact information	J1	1(3.2%)
		Introduce yourself	J9	1(3.2%)
		Introduction	J5	1(3.2%)
		Title screen	J5 ,J7 ,J9	3(8.6%)

Characteristics of the Presenter

This group of concepts refers to the manner of presentation, behavior, voice, and movements of the presenter. As a speaker and a presenter, she/he must have characteristics for his speech to be effective in people. Among these characteristics can be personal and appearance characteristics such as well-groomed appearance, expressive voice, and manner of speaking, as the glossary pointed out. One of the essential things when producing a video abstract is the presenter or, in other words, the actor. The form and content of the video are directly related to the context of the production and its actors. Some of the criteria mentioned in the guidelines of the Journals are presented in Table 4.

Table 4

Criteria and characteristics of the video summary presenter

Category	Concept	Source	Freq. (%)
Characteristics of the Presenter	Body movement	J31	1(3.2%)
	Speak understandably	J30 ,J25 ,J31 ,J15	4 (12.9%)
	Mastery of presentation	J31	1(3.2%)
	Speak Naturally	J31 ,J30 ,J25 ,J21 ,J18 , J15 ,J14 ,J10	8 (25.8)
	Addressing the audience	J31 ,J1, J20 ,J14 ,J31 ,J25 , J23 ,J15 ,J11	9 (25.7)
	Do not read from a script or read out text abstract	J30 ,J25	2 (6.5%)
	Speak clearly	J27 ,J11 ,J10 ,J2 ,J7 ,J31	6 (19.35%)
	Avoid using too many acronyms	J15 ,J2	2 (6.5%)
	Neutral Wear	J10	1(3.2%)
	Sound energetic	J10	1(3.2%)
Total: 31			

Technical properties

One of the critical parts considered in every video abstract author's guideline is the technical points related to the abstract. This section provides information about audio and video properties, equipment needed for production, and accessibility. When talking about the popularity of a video, attention should be paid to the channel in which the video is to be published and the fields of its production. Technical features for producing a video abstract must be considered, presented in

Table 5.

Table 5
Criteria and technical features of video abstract

Category	Sub Category	Concept	Source	Freq. (%)
Technical properties	Audio Properties	Not using music in the background of the video	J31 ,J12 ,J10 ,J5	4 (12.9%)
		Minimizing side sounds and noise pollution	J7 ,J31 ,J30 ,J25 ,J21 , J14 ,J11 ,J10 ,J9 ,J2	10 (32.3%)
		Prevention of sound reflection	J7	1(3.2%)
		Using common audio codecs	J5 ,J7	2 (6.5%)
		Audio bitrate	J5 ,J7	2 (6.5%)
	Video Properties	Orientation	J10 ,J9	2 (6.5%)
		Not using logo, brand name, and watermark	J10 ,J9 ,J5	3 (9.7%)
		The presenter be at the center of the screen	J11 ,J10 ,J9 ,J2 ,J14 , J31	6 (19.3%)
		Size	J27 ,J26 ,J24 ,J22 , J15 ,J12 ,J10 ,J9 ,J5 , J7,	10 (32.3%)
		Length	J31 ,J30 ,J28 ,J27 , J25 ,J24 ,J23 ,J21 , J20 ,J29 ,J18 ,J15 , J13 ,J12 ,J11 ,J10 ,J9 , J3 ,J2 ,J4 ,J5 ,J1 ,J7 , J1,	24 (77.4%)
		Shooting location	J31 ,J3 ,J2	3 (9.7%)
		Vibration	J31 ,J11	2 (6.5%)
		lighting	J31 ,J15 ,J11 ,J2 ,J1 , J7	5 (16.1%)
		Frame rate	J31 ,J16 ,J15 ,J10 ,J5	5 (16.1%)
		Video Background	J31 ,J15 ,J12 ,J11 ,J9 , J1 ,J7	7 (22.6%)
		Encoding/Video codec	J16 ,J7 ,J5 ,J7 ,J15 , J31	6 (19.35%)
		Video Format	J27 ,J26 ,J24 ,J23 , J18 ,J17 ,J16 ,J15 , J14 ,J12 ,J10 ,J9 ,J3 , J2 ,J5 ,J7,	16 (51.6%)
		Resolution	J23 ,J16 ,J15 ,J12 , J10 ,J9 ,J7 ,J29	8 (25.8%)
		Video bitrate	J5 ,J7 ,J29	3 (9.7%)
		Aspect ratio	J7 ,J29 ,J9 ,J10	4 (12.9%)
	Render Quality	J7	1(3.2%)	
	Equipment	Smartphone	J2 ,J30 ,J9 ,J10 ,J11 , J12,	6 (19.35%)
Tripod		J2 ,J31 ,J11 ,J12 ,J15	5 (16.1%)	

Category	Sub Category	Concept	Source	Freq. (%)
		Internet connection	J20 ,J11 ,J1	3 (9.7%)
		Professional video equipment/camcorder with a stabilizer	J31 ,J14 ,J27 ,J9 ,J2 , J15	6 (19.3%)
		Webcam	J20 ,J15 ,J14 ,J11 ,J9 , J1 ,J12	7 (22.6%)
		Microphone	J31 ,J30 ,J25 ,J21 , J20 ,J14 ,J12 ,J11 , J10 ,J9 ,J2 ,J1 ,J7 ,J15,	14 (45.1%)
	Accessibility	Insert the article link in the video	J11 ,J2	2 (6.5%)
		Font of text	J7	1(3.2%)
		Subtitle	J15 ,J3 ,J7 ,J31 ,J12 , J2	6 (19.35%)
		Subtitle font size	J27 ,J21 ,J15 ,J8	4 (12.9%)
		Audio-Visual quality	J31 ,J27 ,J21 ,J31 , J13	5 (16.1%)
		Avoiding distracting images and colors	J10, J31 ,J1	3 (9.7%)
		Clear sound	J21 ,J31 ,J9	3 (9.7%)

Send and publish the video

Another criterion publishers and authors in video abstracts should consider is the issues related to sending and publishing the video. Among the essential information that should be considered in this section is the language of the video, the recording, the address and place of uploading the video, and how to judge them. The criteria related to this category are shown in Table 6.

Table 6

Criteria and features related to sending and publishing video abstract

Category	Concept	Source	Freq. (%)
Send and publish the video	Language	J27 ,J15 ,J9 ,J7 ,J31	5 (16.1%)
	Mention the location to upload and storage	J4 ,J6 ,J1 ,J30 ,J3 ,J5 ,J18 ,J25 ,J15 , J2 ,J13 ,J20 ,J28 ,J12 ,J14	15 (48.4%)
	File name	J17 ,J5	2 (6.5%)
	Document Type	J27	1(3.2%)
	Peer-reviewed	J27 ,J10 ,J13 ,J9 ,J2 ,J5 ,J7	7 (22.6%)
	Mention the stage of sending abstracts	J30, J3, J5, J18, J25, J15, J2, J9, J1, J28, J12, J14	12 (38.7%)

Legal and ethical aspects

The criteria of this group refer to paying attention to intellectual property rights when using resources and files such as images, music, etc. Questions regarding protecting intellectual property are also raised whenever films, images, and other communication media are discussed.

These issues are also considered in the authors' guidelines, presented in Table 7.

Table 7

Criteria and legal and ethical issues related to video abstracts

Category	Concept	Source	Freq. (%)
Legal and Ethical aspects	Informed consent of the patients and subjects shown in the video	J10 ,J12 ,J9	3 (9.7%)
	Attention to copyright when using images, music, and other information items	8J27 ,J28 ,J14 , J12 ,J10 ,J31 ,J2	7 (22.6%)

Discussion

This research aimed to identify the criteria and indicators for producing and evaluating video abstracts. The results showed many instructions and guides for producing video abstracts, each with criteria that guide the authors' preparation. The analysis of the authors' guide showed six main factors for preparing these types of videos: the type of video, abstract content, technical features, provider features, how to publish and send the video, and legal issues. Most of the mentioned criteria are related to the technical features of the video, such as video length, volume, and format. In a small number of journal authors' guidelines, they also refer to legal issues during video production, such as paying attention to copyright during the time of using images, music, and videos and the satisfaction of the people shown in the video, including the patients, have been paid.

One of the main technical issues is identifying the optimal time for a video abstract. The determination of this period should be based on the target group and subject area. Regarding video length, some studies have mentioned the average length of YouTube videos to be 11.7 minutes (Ferreira et al., 2021). The duration of the video on YouTube varies depending on the subject area. The recommended video length mentioned in most instructions was three to five minutes, depending on the journal's policy and the author's preference. This duration seems ideal because a long video makes people stop clicking and watching it and reduces the amount of reading the full text of the article (Gupta et al., 2021); when determining the duration of the video abstract, things such as the subject area and the target community should be considered (Ferreira et al., 2021). For example, in the field of physical sciences, the American Journal of Physical Sciences considers the duration of the video abstract to be two minutes and recommends it to be less than two minutes (Jackson, 2017).

Different guides have mentioned different video file sizes. It should be noted that the size of the video file must match the quality mentioned in the guide. If a journal considers the video quality high, but only 100 MB is considered for the files, this work will be practically impossible (Liu, 2022). The following important factor is sound quality. Paying attention to sound quality is one of the indicators for evaluating video abstracts, and having a good sound quality is considered beneficial for researchers in evaluating and using abstracts. It indicates the level of professionalism, the use of professional equipment, and Valorize to the audience during the production time.

In the review of videos, two categories of criteria are often raised: content criteria that include issues related to video production, such as the duration of the video and its topic, and independent factors that include criteria such as sharing on the network. It includes social and recommendation systems. Most of the conducted studies have emphasized the content factors

and, according to them, having an idea about the content of the movie that will be made and understanding what kind of content can be effective and popular (Ferreira et al., 2021).

The next factor regarding these videos is their presentation and the person providing them. The video summary should be short, and the person should speak clearly. A person's talkativeness prevents the audience from understanding the main content of the video (Rahimi & Imanpour, 2017). It is better to use a combination of different media types, such as photos, sound, animation, slides, tables, and graphs, to attract the audience better and understand the viewers' content. It should be of sufficient quality because otherwise, it prevents the correct understanding of the content (Gupta et al., 2021).

It is a group of criteria related to video accessibility. If text is used in the video, its font should be large enough to be readable by most people and with mobile phones, and the text used should not be too big or too small. The sound of the video should be clear and transparent, and there should be no side sounds in the background (Ferreira et al., 2021; Gupta et al., 2021; Jackson, 2017). Regarding the quality of the sound and image, although some studies have emphasized the quality of the sound of the video in the study conducted by "Ferreira et al.," the relationship There was no difference between video sound quality and viewing rate (Ferreira et al., 2021). Regarding increasing accessibility, there should be a link to the full text of the article in the video so that the audience can easily access the full text (Gupta et al., 2021).

Based on the authors' guidelines analysis, different types of video abstracts, such as animations, slide presentations, and lectures by the author, were identified. A video abstract allows authors to present their research results in several formats, including interviews, monologues, documentaries, infographics, or a combination. Monologues are videos in which the researcher talks about a subject directly in front of the camera. Animations are videos that use animation techniques such as motion graphs, stop motion or whiteboard animation. Documentary live film in which the author presents his research realistically, similar to a television documentary. Presenting in the form of PowerPoint, using simple images, or presenting a simple slide with talking are other types of video abstracts. Most experts agree that online science videos should be concise, visually appealing, and easy to watch (Ferreira et al., 2021).

Unlike video conferences and lectures such as TED talks and videos demonstrating experiments and protocols like those published in the Journal of Visualized Experiments, video abstracts allow authors to present their abstracts in multiple formats. Present the research results, including interviews, monologues, documentaries, infographics, or a combination (Ferreira et al., 2021). Today, all age groups widely use animations. The Department of Human Services and Health of the United States widely produces various animations related to medicine and health and provides them to users on YouTube (Gupta et al., 2021). The author's guidelines suggest incorporating a range of animations and visuals to engage a wider audience and spark interest in reading the entire article. The study conducted by Ferreira et al. (2021) showed that most types of videos observed in environmental journals were documentaries, followed by simple presentations in the form of slides and animations.

Before using the video abstract for their articles, the publishers should specify the dedicated space for the depository of videos, or they want to use public video-sharing platforms such as YouTube or Vimeo, or a combination of both (Ferreira et al., 2023). The noteworthy point is that the use of both dedicated sites and public sharing platforms, although it increases the channels of video access, should also be noted as it makes the possibility of statistical analysis

more difficult. Because the altmetrics indicators of platforms and dedicated websites are calculated separately for each video, integrating them is challenging.

Another group of criteria is those related to the privacy of the people shown in the video and paying attention to intellectual property laws. In the authors' guidelines, journals should state copyright issues and obtain legal permission to use all the media used in the video (Liu, 2022; Spicer, 2014). Although the use of music in the context of the video can help the appeal of the video, due to the issues related to the intellectual rights of the work, the work becomes difficult, and to use it in the video, the author must obtain the necessary permissions, which itself causes complications (Jackson, 2017). Despite the importance of copyright and intellectual property laws, few authors' guidelines have paid attention to this issue, and most of them focused on authors' attention to the use of music, video, and images (Liu, 2022).

The importance of social networks in communication and the trend of the scientific community towards using these networks for scientific communication and disseminating the results of their research to a broader range of audiences has led to the consideration of video abstracts as a complementary medium for scientific publications. Journals are particularly beneficial to authors in disciplines where text is insufficient for explaining ideas, and many images are essential for illustrating concepts or conducting experiments (Mayer, 2014). They help the subject better and can benefit enough from these abstracts. It seems necessary to formulate policies and guidelines for authors to move in this direction. Authors should also consider the mentioned criteria, such as format, quality, and volume. While producing these types of abstracts, they can attract the intended audience and help increase their research's impact due to heterogeneities in different journals' guides in various technical, content dimensions, and even copyright issues.

Conclusion

We tried identifying the criteria for producing video abstracts in our research that publishers and authors should consider. Identifying these criteria will help publishers, editors, and writers step forward with an open mind toward producing video abstracts. The present study only examined author guidelines of journals indexed in Web of Science. This means there may be other journals that are not indexed in this database but have policies regarding video abstracts. Therefore, we recommend that researchers also review journals indexed in other databases, considering the novelty of this topic. Another limitation of this study was the small number of studies conducted to analyze the characteristics of standard video abstracts. For this reason, we propose to research and analyze the indicators and characteristics of video abstracts with considerable views on social networks.

References

- Aggarwal, V. (2021). Visual abstracts do not increase some impact scores more than conventional abstracts of clinical research: A retrospective cohort study. *Health Information & Libraries Journal*, 38(4), 259-267. <https://doi.org/10.1111/hir.12376>
- Bennett, H. & Slattery, F. (2022). Graphical and video abstracts are not associated with increased Altmetric attention score or citations in sport science. *SportRxiv* <https://doi.org/10.51224/SRXIV.147>

- Bredbenner, K. & Simon, S. M. (2019). Video abstracts and plain language summaries are more effective than graphical abstracts and published abstracts. *PLOS ONE*, 14(11), e0224697. <https://doi.org/10.1371/journal.pone.0224697>
- Cocchetta, F. (2020). A corpus-based approach to the analysis of the video abstract genre: A phase-based model. *Lingue e Linguaggi*, 40, 45-65. <https://doi.org/10.1285/i22390359v40p45>
- Ferreira, M., Lopes, B., Granado, A., Freitas, H. & Loureiro, J. (2021). Audio-visual tools in science communication: The video abstract in ecology and environmental sciences. *Frontiers in Communication*, 6, 596248. <https://doi.org/10.3389/fcomm.2021.596248>
- Ferreira, M., Lopes, B., Granado, A., Siopa, C., Gaspar, H., Castro, H., Castro, S. & Loureiro, J. (2023). Video abstract production guide. *Frontiers in Communication*, 8, 1060567. <https://doi.org/10.3389/fcomm.2023.1060567>
- Gupta, R., Joshi, M. & Gupta, L. (2021). An integrated guide for designing video abstracts using freeware and their emerging role in academic research advancement. *Journal of Korean Medical Science*, 36(9), e66. <https://doi.org/10.3346/jkms.2021.36.e66>
- Jackson, D. P. (2017). Video abstracts now available. *American Journal of Physics*, 85(2), 85-86. <https://doi.org/10.1119/1.4973116>
- Jakhar, D. & Kaur, I. (2018). Editorial: Video abstracts in dermoscopy: Moving beyond text. *Research in Clinical Dermatology*, 1(2), 20. <https://doi.org/10.35841/clinical-dermatology.1.2.1>
- Lê, S., Rees, T., Dennis, N., Petit, S., Jones, A. & Smith, S. (2015). Video abstracts: Publication professional's and academic author's perspectives. In *11th annual meeting of the international society for medical publication professionals (ISMPP)*.
- Liu, J. (2019). Research video abstracts in the making: A revised move analysis. *Journal of Technical Writing and Communication*, 50(4), 423-446. <https://doi.org/10.1177/0047281619894981>
- Liu, J. (2022). Video or perish? An analysis of video abstract author guidelines. *Journal of Librarianship and Information Science*, 54(2), 230-238. <https://doi.org/10.1177/09610006211006774>
- Mayer, R. E. (2014). Multimedia instruction. In J. M. Spector et al. (eds.) *Handbook of research on educational communications and technology*, (pp 385-399). Springer Science+Business Media New York. https://doi.org/10.1007/978-1-4614-3185-5_31
- Pferschy-Wenzig, E. M., Pferschy, U., Wang, D., Mocan, A. & Atanasov, A. G. (2016). Does a graphical abstract bring more visibility to your paper? *Molecules*, 21(9), 1247. <https://doi.org/10.3390/molecules21091247>
- Rahimi, Gh. & Imanpour, Gh. (2017). How to give a good speech. *Journal of New Research Approaches in Management and Accounting*, 1(2), 83-94. [in Persian]
- Rees, T., Lê, S., Prevost, L. & Smith, S. (2015, April). Video abstracts: Do the metrics stack up. In *11th annual meeting of the international society for medical publication professionals (ISMPP)* (pp. 27-29).
- Reupert, A. (2017). Promoting research through video abstracts. *Advances in Mental Health*, 15(1), 1-3. <https://doi.org/10.1080/18387357.2017.1312761>
- Spicer, S. (2014). Exploring video abstracts in science journals: An overview and case study. *Journal of Librarianship and Scholarly Communication*, 2(2), eP1110. <https://doi.org/10.7710/2162-3309.1110>

Zong, Q., Xie, Y., Tuo, R., Huang, J. & Yang, Y. (2019). The impact of video abstract on citation counts: evidence from a retrospective cohort study of *New Journal of Physics*. *Scientometrics*, 119(3), 1715-1727. <https://doi.org/10.1007/s11192-019-03108-w>