



Article

Journalistic Quality Criteria under the Magnifying Glass: A Content Analysis of the Winning Stories of World Press Photo Foundation's Digital Storytelling Contest

Rosanna Planer , Alexander Godulla * , Daniel Seibert and Patrick Pietsch

Institute for Communication and Media Studies, Leipzig University, 04109 Leipzig, Germany

* Correspondence: alexander.godulla@uni-leipzig.de

Abstract: This study explores aspects of journalistic quality in complex digital stories. Based on a tailored overview of the potentials of online journalism and digital long form stories for journalistic quality, all available award-winning stories of the subcategory *Interactive* of the *World Press Photo's Digital Storytelling Contest* from 2011 to 2021 (n = 31) are examined according to their structure and journalistic quality criteria using Grounded Theory. The findings add to the long and ongoing research history in journalism and communication studies on the question of what journalistic quality entails and can be used as a basis for further analyses focusing on the technological and structural nature of digital stories and high-quality journalism. The analysis revealed a differentiation between linear stories and chapter stories with linear elements. While a multimedia nature, continuous text and video content prevailed in both forms, they differed in terms of their complexity as well as certain expressions of quality criteria. Gamification and immersion emerged as new yet debatable aspects of journalistic quality in digital stories.

Keywords: digital long forms; quality criteria; online journalism; storytelling; World Press Photo Foundation; Storytelling Contest



Citation: Planer, Rosanna, Alexander Godulla, Daniel Seibert, and Patrick Pietsch. 2022. Journalistic Quality Criteria under the Magnifying Glass: A Content Analysis of the Winning Stories of World Press Photo Foundation's Digital Storytelling Contest. *Journalism and Media* 3: 594–614. <https://doi.org/10.3390/journalmedia3040040>

Academic Editors: Sarah Jones and Joshua A Fisher

Received: 5 July 2022

Accepted: 14 September 2022

Published: 22 September 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction: Achieving Journalistic Quality through Complex Digital Stories?

News outlets turning to digital have encountered many challenges, among them most outstanding the challenge of staying financially stable when content is either free or to be found elsewhere (see [Chyi and Ng 2020](#); [Fletcher and Nielsen 2016](#); [Myllylahti 2019](#); [O'Brien et al. 2020](#)). One way of addressing this challenge is to enhance and secure journalism's democratic function through cooperation and demarcation ([Esser and Neuberger 2019](#), p. 196), and thereby generating an added value and quality for the readership.

In this paper, we argue that the complex digital story could be a worthwhile object of researching journalistic quality, for it bears great potential within its characteristics: Complex digital stories became prominent with the much-discussed Pulitzer Prize winning example *Snowfall: The Avalanche at Tunnel Creek*, which appeared in the New York Times in late 2012 as a digital long form ([Branch 2012](#)). This journalistic piece is seen as an initiation moment for digital storytelling in online journalism ([Godulla and Wolf 2017a](#)), which led to many imitations due to the widespread attention. What distinguishes this story from others is the combination of multiple media types such as text, photos, audios, videos, graphics, and data visualizations ([Hiippala 2017](#), p. 420) as well as high usability and the use of internet-specific potentials. The use of multiple media elements enables a better and more immersive experience of digital stories ([Radü 2019](#), p. 26). Thus, instead of focusing on assessing the stories' overall degree of excellence, we analyze journalistic quality based on the presence and absence of particular form- and structure-related criteria.

This story-oriented form of multimedia Internet journalism has established itself complementing the short and breaking news presentation of topics ([Godulla and Wolf 2018](#)). It therefore differs from news journalism in both production and reception speed and mode;

therefore, we argue that the digital long form story can be seen as an innovation field that mirrors current trends in digital journalism, both on the technological and content level, and can become one pillar adding value to digital journalism, communicating quality on a new level. News outlets producing such stories could thereby marry digital innovativeness with high-quality content, inform their readership about highly relevant topics in-depth and thereby play towards their individual preferences in digital news consumption.

To investigate the degree to which news outlets can really achieve this added value for their readership through these kinds of stories, current trends in digital long forms must first be identified and their potentials in terms of journalistic quality need to be assessed. Therefore, we used the *World Press Photo Foundation's Digital Storytelling Contest* as a starting point for an explorative investigation and analyzed the respective entries of the subcategory *Interactive*. While *World Press Photo* is originally and mainly known for professional photojournalism in the form of individual photos, the establishment of the *Storytelling Contest* elevates "the storytelling aspect of an image over all else" and calls upon "journalism's focus on storytelling to carve out a unique space within photography" (Lough 2021, p. 317). These interactive stories go beyond the integration of only photos, and rather focus on the compelling visualization of a whole journalistic story. They have already been awarded as high-quality stories by an independent jury within an international competition with global outreach.

Analyzing these stories in-depth gives insights into (a) the elements and structure of these stories, and therefore (b) into the potential they carry in terms of expressing journalistic quality on the Internet. Previous studies in the field of visual communication have analyzed submitted photos to the *World Press Photo* competition (i.e., Godulla 2009), but no comprehensive empirical study is yet known for having analyzed the entire subcategory *Interactive*, covering a time span from 2011 until 2021. We are aiming at filling this gap, and thereby contributing to the wider discourse about journalistic quality on a global level.

Therefore, the paper pursues the goal of analyzing long form stories and identifying related quality criteria. We thereby aim to answer the following question: *Which different approaches to digital long form stories can be revealed through an in-depth analysis of the Interactive subcategory of the World Press Photo's Digital Storytelling Contest, and which journalistic quality criteria can be identified in these stories?*

2. Quality Criteria in (Online) Journalism: A Tailored Overview

2.1. From Journalistic Independence to Innovative Interactivity

Quality in journalism has received research attention for decades and fills whole books and journals. Therefore, we do not make a claim of comprehensively reflecting on the topic in this article. It is, however, necessary to refer to the classic and traditional journalistic criteria such as transparency, objectivity, or diversity (Neuberger 2011, p. 71), which shape the journalistic self-image to a great extent. These criteria apply not only to traditional print or broadcast media, but also to digital offerings and are valued by recipients (Neuberger 2012; Urban and Schweiger 2014). Nevertheless, online journalism has brought additional characteristics to this debate. In this context, Meier (2003) presents a canon of ten quality criteria which is divided into two levels:

The first quality at the level of editorial action deals with *independence* and the journalistic *separation norm* (Meier 2003), which is seen as an essential characteristic of journalistic professionalism. According to this, journalists can only fulfill their public task if they work independently of private or business interests of third parties and of personal economic interests (Meier 2003, p. 249). This is especially important in digital journalism. Due to the new technical possibilities, the separation standard is often circumvented.

The *accuracy, originality* and *research quality* of content are also attributed to the first level and are inescapable for the credibility of journalistic information. However, digitization has an ambivalent effect on this aspect of journalistic quality (Lilienthal et al. 2014, p. 32). While fact checking is possible without problems and at any time for all users of the Internet, this simplicity tempts people to use only search engines for research. According

to Meier (2003), this behavior can lead to duplication of content due to repeated use, which ultimately decreases originality, clearing the way for spreading fake news and developing echo chambers. In addition, sources on the Internet can be manipulated more easily and false reports are spread rather simply (Sturm 2013, p.16). Due to this, a competent and extensive verification of information is essential. In the course of the implied fake news debate on the Internet (Tandoc et al. 2018), and the rise of deepfake technology, which poses numerous challenges to media coverage (Godulla et al. 2021), the public in particular is dependent on good research quality (Nuernbergk and Neuberger 2018, p. 104).

Topicality describes the temporal dimension (Sturm 2013, p. 17) and is thus an essential element in news journalism (Lilienthal et al. 2014). In this context, online media have the advantage that already published content can be constantly updated, and that news tickers can provide the public with information quickly. Within long form stories specifically, topicality or newness of the content is secondary, since the comprehensive and partly even investigative nature of a topic are most important.

At this point, the aspect of *relevance* as a journalistic quality criterion comes into play. For complex digital stories, relevance legitimizes the expense of long production cycles and many required resources. In digital journalism, there is a shift in relevance due to the tabloidization of journalism and through the increasing work with algorithms (Lilienthal et al. 2014, p. 34). Related to that, Lilienthal et al. (2014, p. 39) add *discoverability* as another extended quality in this context. As algorithms determine the content displayed and more and more people use search engines, the published information must also be detectable for users.

Another journalistic quality that can be shaped within the newsroom is *interactivity*. What in traditional journalism was the ability of an editorial team to engage in dialogue (Meier 2003, p. 255) is somewhat different on the Internet: This term refers to the integration of users into the website, which can be based on the user's contribution, for example through blogging (Steensen 2013), commenting (Domingo et al. 2008), participating in reader polls (Peters and Witschge 2015), as well as based on the exchange between user and producer through live chats (Sundar et al. 2014) or a dialogue on the editorial content (Peters and Witschge 2015). Further dimensions of interactivity in digital journalism also exist in terms of a glitch-free consumption (Jacobson et al. 2015), the ease of adding information and the complexity of choice (Massey and Levy 1999), as well as in a time-related dimension of real-time participation (Sundar et al. 2014) or simultaneous contribution (Appelgren 2017). Digital long form stories could make use of a great potential in terms of interactivity.

2.2. From Elaborate Crossmediality to Sophisticated Computerization

With *crossmediality*, Meier (2003) proposes a new quality criterion, which is based on cross-media working methods in an editorial department. The author thus concludes the first editorial level of qualities and turns to the second, which focuses on *product-related qualities*. The first mentioned aspect is the diversity of perspectives and the information content. Both are necessary to be able to speak of a democratic media system (Lilienthal et al. 2014, p. 33). Non-linear stories offer more narrative possibilities and provide for a more complex presentation of content by illuminating a wide variety of topics in parallel (Meier 2003). Hence, digital long forms can contribute to a democratic discourse in that they can make new voices heard and take up the space to present different perspectives on a topic.

Next to crossmediality, the product-related qualities also consist of *comprehensibility* and *usability*. Content does not add value to users if it is not formulated in an understandable way. This applies to both traditional media and digital journalism offerings. Based on Nielsen's (1990) multifaceted examination of usability, Meier (2003, p. 259) sees the term as an extension of comprehensibility and defines it in terms of the utility value of an offering. In this sense, it refers to the optimization of the website and the associated improvement of navigation as well as the general user-friendly structuring of the content on it. Accordingly,

usability expresses how well an online product can be used and accessed in a specific context to achieve specific goals (Hooffacker 2020, p. 87).

The task of the quality criteria *excitement*, *sensuality* and *vividness* is to enliven the reception and increase the absorption of information (Meier 2003). In online journalism, this quality finds great appeal due to the continuous development and proliferation of multimedia elements. Combining them provides visual variety and conveys content to recipients in a more vivid way. *Transparency* refers to the disclosure of sources (Meier 2003, p. 261). What often leads to space problems in print media can be solved in digital media with external links. Users can thus trace the origin of the train of thought with a single click. However, despite the already common practice, according to Godulla and Wolf (2017b), there is a risk that users will distance themselves from the reception process through external forwarding.

Finally, *mechanization*, *automation*, and *computerization* evoke entirely new potentials and specializations (Lilienthal et al. 2014). Godulla and Wolf (2017b) therefore assume that, in addition to the classic quality criteria, technical-formal properties also play an essential role in the evaluation of online offerings, which come into play for digital long forms, too.

3. Digital Long Form Stories: About Cognitive Containers and Digital Innovativeness

Digital storytelling in journalism combines the potentials of media elements such as text, photography, graphics, video, animations, and audio to prepare non-fictional content in an immersive manner (Godulla and Wolf 2018). This results in what Dowling and Vogan (2015) refer to as “cognitive container”, in which elements are blended into “a coherent whole in its own self-contained package [that] carries the benefit of shielding the reader from the distractions of the open web” (Dowling 2019, p. 31). In this respect, elaborate designs, the extensive integration of multimedia elements, as well as the communication of background information speak against an actuality-centered journalism and rather circle around in-depth topics such as environmental issues or political conflicts (Planer and Godulla 2020); at the same time, the format in itself conveys that the audience should bring some time with them when consuming a story (Planer and Godulla 2020), showing parallels to the traditional magazine journalism. Furthermore, the story itself can be part of crossmedia or transmedia structures (Gambarato 2016) since the Internet as the basis for this journalistic format enables comprehensive narratives due to the technical possibilities.

On the one hand, the combination of multimedia elements and the depth of storytelling create new reception experiences for users. On the other hand, digital storytelling also opens new possibilities for producers to prepare journalistic content. For photojournalists, for example, digital stories help maintain their professional integrity through “telling a different side of a story”, “inspiring others and invoking change”, as well as “memory-keeping” (Mortensen and Gade 2018, p. 582). Planer et al. (2020) argue that these mentioned potentials are normative arguments in favor of complex digital storytelling, especially when it comes to digital long forms which can be of several different structures as outlined in the following.

Classifications of Digital Stories and Their Inherent Structures

Longhi and Winques (2015) conclude that the structure of a digital story is guided by two narrative forms, which they refer to as vertical and horizontal. In vertical narratives, reception occurs through what is called scrolling (Longhi and Winques 2015). Integrated elements appear as users move through the story by scrolling up and down, suggesting a linear long form structure. In horizontal storytelling, chapters or sections form the basis of the story, which initially suggests a non-linear structure and encourages users to use it independently. However, once a chapter is selected, reception again follows the principle of vertical storytelling (Longhi and Winques 2015, p. 116).

Hernandez and Rue (2015) also structure digital long forms into their continuous, comprehensive, and immersive nature (Hernandez and Rue 2015, p. 98). First, continuous stories are characterized by a classic linear structure (beginning, middle, end) and are also

tioned to a primary medium (Hernandez and Rue 2015, p. 98). Due to these characteristics, continuous stories are also attributed a so-called lean-back character, which is expressed primarily through reading or watching on the side of the users (Hernandez and Rue 2015, p. 98). Second, the narrative form of comprehensive stories is based on a rather free reception of the story. The lack of linearity and the variability of the elements ensures interest-based use by the recipients. This is made possible by the subdivision into sections, in which additional individual narrative forms can emerge (Hernandez and Rue 2015, p. 101). The extensive structure and informative character are therefore particularly suitable for addressing multi-layered topics. Third, the immersive narrative form in contrast shows a clear tendency towards interactive elements and gaming structures. Various audiovisual media forms, such as interactive videos, animations, graphics, or background music and the frequent use of full screen mode are intended to ensure that users are fully immersed in the digital long form (Hernandez and Rue 2015, p. 105).

Godulla and Wolf (2015a, 2015b, 2017b, 2018), on the other hand, distinguish digital long forms according to their structure and effect, which shows some parallels and overlaps with Longhi and Winques (2015) as well as with Hernandez and Rue (2015). The authors fundamentally differentiate between the formats of scrollytelling, web documentations, and selective multimedia stories. The basic framework of a scrollytelling story is linear in orientation (Godulla and Wolf 2017b) and does not necessarily have to be text-based but can also function as an image-centered story (Godulla and Wolf 2017b). Furthermore, an essential feature in the alignment is the integration of multimedia elements. Whether these elements are used by their readers is up to them and dependent on their interest. However, this diversity provides depth to the story and, to a certain extent, decelerates the reception.

The web documentary or interactive (web) documentary (Ducasse et al. 2020; Pavlic and Pavlic 2017), on the other hand, is characterized by opulent visuals and the elaborate use of moving video or even animated images (Sturm 2013, p. 118). With the help of this non-linear structure, users can make their own way—independent of the dramaturgy—through the content, leaving traces behind (Mundhenke 2016). Due to the diverse integration of a wide range of elements and the elaborate production, the web documentary is also described as the supreme discipline (Sturm 2013, p. 118), being connected to the original documentary genre.

The third form of digital long forms specializes primarily on mobile devices and is prepared mainly for the reception on tablets. Users can navigate through a basic linear structure pre-planned by the producers using various touch, swipe or tap gestures (Godulla and Wolf 2017b). In the selective multimedia story, the contributions are oriented horizontally, but this does not exclude branching off through multimedia elements such as audio slideshows, 360-degree panoramic photos, read-aloud functions, or hotspots (Godulla and Wolf 2015a).

On the basis of the outlined various structures of complex digital stories, we argue that these stories have the potential to carry a significant added value for digital journalism in a networked society, making use of the development that “new digital journalism has sparked a renaissance in deep reading and viewing” (Dowling 2019, p. 1).

4. Potentials for Journalistic Quality in Digital Long Forms

4.1. Usability and Multimedia Elements: The Necessity of Their Flawless Interconnection

The criteria mentioned in Chapter 2 can be applied to digital long forms, too, since they are a distinctive format within digital journalism. Compared to digital news stories, however, long form stories require not only more time, but also more human resources due to the different narrative forms, hypertext, multimedia elements, or even error-free navigation (Godulla and Wolf 2015a). This circumstance eventually leads to journalism overlapping with parts of computer science and graphic design (Godulla and Wolf 2017b).

The composition of a comprehensible navigation, which leads the user through the story without orientation problems, also falls into that area of responsibility. Accordingly, *usability* is a criterion which, based on online journalism and Meier's (2003) explanations,

also plays a decisive role in digital long forms and was therefore used as one of several quality criteria for our analysis. Current research on usability focuses, among other things, on the question of which navigational elements (e.g., chapters, progress bars, connection of buttons and scroll bars) are appropriate for reception and for an overview of the story. Most stories use a clickable menu that makes it easier for users to select and navigate content (Geis 2014; McKenna et al. 2017; Pavlic and Pavlic 2017; Pope 2020). Consequently, the term usability is understood as navigation within the long forms, which is afflicted with the task of simplifying orientation within the story by means of navigational elements that draw the user's attention to special features, thus enabling intuitive usability.

Against the thematized technical background, however, usability as a sole feature is too little. Since digital long forms move within the context of online journalism and are also tangential to mobile offerings, Godulla and Wolf (2017b) assume that technical-formal characteristics also play a role in the assessment of digital journalistic offerings. In this regard, in addition to usability, the quality criteria *utility*, *multimedia*, *interactivity*, *participation*, *selectivity* and *linking* are added (Godulla and Wolf 2017b, p. 31), which are presented in the following due to their high relevance.

Utility is defined by the problem-free functioning of a contribution and thus, according to the authors, also includes the resolution of photographic and video content. Studies on the quality criterion of utility focus for example on the functioning of posts and analyze loading processes of pages and of content (Godulla and Wolf 2017b). The term *multimedia* has received considerable research attention (i.e., Deuze 2004; Jacobson 2012; Meier 2002; Song 2018), with scholars pointing out the implementation of multiple media formats into a journalistic offering, such as written word, photography, video, audio, photo essays, graphics, animations, and the like (Deuze 2004; Kartveit 2017; Jacobson 2012; Wolf 2014). It is additionally supplemented by the integration of new forms of presentation such as 360° photography or audio slideshows (Godulla and Wolf 2017a; Song 2018). Next to the multitude of media elements, the accessibility on multiple platforms (Song 2018) and the nature of the multimedia flow (Pincus et al. 2016) complement the scholarly discussion around the term. Furthermore, multimedia elements complement the narrative (Giles and Hitch 2017) and provide a means of creating synergy to deepen content. However, their number should be carefully considered to avoid audiovisual overload for recipients (Godulla and Wolf 2017b; Hiippala 2017; Lassila-Merisalo 2014; Pincus et al. 2016; Tulloch and Ramon 2017).

4.2. *Sharing Is Caring: About so Far Underestimated Factors of Participation, Transitivity & Co*

Multimedia and *interactivity* are interconnected, since, to encourage audience interactivity, producers draw on multimedia and integrate special graphics or animated gifs into their posts to attract new users by sharing, discussing, and continuing the story on social media, thus increasing click-throughs (Lassila-Merisalo 2014; Riskos et al. 2019; Weber et al. 2018). When it comes to interactivity, which has been referred to above, the focus in long form stories seems to lie even more on the option of sharing and forwarding in the context of social media or via E-mail (Godulla and Wolf 2017b).

The notion of *participation* bears overlaps with interactivity, but also bears some further distinctions: Participation can either happen *in* news or *through* news, the former referring to participating in a public debate on the internet, the latter referring to co-deciding on editorial content on a professional and managerial level (Peters and Witschge 2015; Spyridou 2019). Hence, participation can occur through interactive tools (Peters and Witschge 2015); however, the extent to which participation is allowed depends on the producers and the technical affordances.

In an overarching sense, *selectivity* is responsible for the structure of a digital long form. In order for the elements to really create a seamless whole or the so-called cognitive container (Dowling and Vogan 2015), they are combined in sense units, or segments, and united in a narrative structure (Godulla and Wolf 2017b). Selectivity can be subdivided into the linear and the non-linear narrative form, the former being characterized by the features of a continuous vertical—rarely also horizontal—story and a primary medium

with a lean-back character (Hernandez and Rue 2015). The latter, for example, includes the concentric form and game format narrative. Non-linear narrative structures in the context of selectivity may have a beneficial effect on users by providing helpful choices for navigation (Pope 2020) and by providing the opportunity for users to receive the long form according to their interests and at a depth of their own choosing (Tulloch and Ramon 2017; Vázquez-Herrero 2021).

Linking is partly related to source transparency, especially when it comes to external links. Apart from that, internal and cross-media linking also count to this internet-specific quality. Internal linking, on the one hand, is established for various offerings in order to control the receptive flow and keep users in their own cosmos (De Maeyer 2019). Cross-media linking, on the other hand, serves to draw attention to further online as well as offline services (Godulla and Wolf 2017b). Taken together, the criteria presented by Meier (2003), Godulla and Wolf (2017b), and enriched by further scholars, form the basis for evaluating Internet-specific quality. In this context, the criteria serve as an assistance for editors in the creation and evaluation of digital long forms (Schumacher 2009) and should additionally encourage recipients to use the offering on a sustained basis (Godulla and Wolf 2017b).

With regard to a longer and sustained reception, *transitivity* can furthermore be added. This rather technical element of a long form story is responsible for maintaining the tension and elegantly transitioning from one medium to another (Radü 2019, p. 245). When compared to the back-and-forth nature of the hypertext principle, transitivity seems rather contradictory, stringently merging elements, but transitions have been proven to pay off especially with many different media forms to hold the story together (Radü 2019, p. 245). Usability, utility, multimedia, interactivity, participation, selectivity, linking, and transitivity ultimately form the normative and Internet-specific evaluation approach for this paper in order to classify digital long forms in terms of their journalistic quality. Table 1 below shows an overview of the quality criteria for online journalism and digital long forms.

Table 1. Overview of identified quality criteria of online journalism and digital long forms.

Quality Criteria	
Quality criteria in online journalism	Independence and separation norm (e.g., Meier 2003)
	Accuracy, originality and research quality (e.g., Lilienthal et al. 2014)
	Topicality (e.g., Sturm 2013)
	Relevance (e.g., Meier 2003)
	Discoverability (e.g., Lilienthal et al. 2014)
	Interactivity (e.g., Domingo et al. 2008; Meier 2003; Steensen 2013)
	Crossmediality (e.g., Meier 2003)
	Comprehensibility and usability (e.g., Meier 2003; Nielsen 1990)
	Excitement, sensuality, and vividness (e.g., Meier 2003)
	Transparency (e.g., Meier 2003)
Mechanization, automation and computerization (e.g., Lilienthal et al. 2014)	
Additional quality criteria in digital long forms	Utility and multimedia (e.g., Deuze 2004; Godulla and Wolf 2017b; Meier 2002)
	Participation (e.g., Peters and Witschge 2015; Spyridou 2019)
	Selectivity (e.g., Godulla and Wolf 2017b; Hernandez and Rue 2015)
	Linking (e.g., De Maeyer 2019; Godulla and Wolf 2017b; Schumacher 2009)
	Transitivity (e.g., Hiippala 2017; Jacobson et al. 2015; Radü 2019)

Having laid out both the characteristics of the format of digital long form stories and the potentials for journalistic quality they are able to carry, we propose the following research-guiding question for our study:

RQ: Which different approaches to digital long form stories can be revealed through an in-depth analysis of the Interactive subcategory of the World Press Photo's Digital Storytelling Contest, and which journalistic quality criteria can be identified in these stories?

In order to investigate this question, the World Press Photo Foundation and their Storytelling Contest will be introduced in the following to give an overview of the research object at hand.

5. The World Press Photo Foundation and its Storytelling Contest

In April of each year, the jury of the *World Press Photo Foundation* awards the winners of the Digital Storytelling Contest. First launched under the name "Multimedia Contest" in 2011, the contest has since aimed to promote diverse forms of visual storytelling ([World Press Photo Foundation 2021b](#)). Like the *World Press Photo Contest*, the *Digital Storytelling Contest* started small: With 42 nominations, the number grew to a substantial 300 submissions in 2020, and 287 productions in 2021 ([World Press Photo Foundation 2021b](#)). The stories are judged by an independent jury consisting of digital storytellers and multimedia editors from around the world, who must be active in this field as professional visual journalists.

Producers' submissions should follow the given framework of the contest and have a focus on "[...] short documentary film and interactive productions [...] and visual storytelling enabled by digital technologies" ([World Press Photo Foundation 2021c](#)). Moreover, in order to adapt to technological and innovative standards, since 2019, instead of one, two highly endowed prizes are awarded: the *World Press Photo Online Video of the Year* and the *World Press Photo Interactive of the Year* ([World Press Photo Foundation 2021c](#)). In total, the competition consists of three subcategories: *Short*, *Long*, and *Interactive*. Both the former and the latter are based on documentary-style videos and feature linear storylines. In addition, they should be produced for the web ([World Press Photo Foundation 2021a](#)).

In the *Interactive* subcategory, the name already reveals what is required of the producers: Interactive visual stories whose design is intended to evoke an immersive and/or innovative experience in the recipient ([World Press Photo Foundation 2021a](#)). The prerequisite in this context is the combination of video and/or photographic content with animation, graphics, illustration, sound or text ([World Press Photo Foundation 2021a](#)).

The conditions of the third subcategory show a clear relation to the characteristics of digital long forms. The multimedia features of the award-winning stories provide a clear parallel to the elaborated quality features. Since only individual case studies or specific explanations (e.g., [Hernandez and Rue 2015](#); [Mundhenke 2016](#); [Schlichting 2015](#); [Witte 2014](#)) but no overarching research is available specifically on long forms in this subcategory, we pursue the goal of closing this research gap. Consequently, the subcategory *Interactive* will be the focus of further empirical investigations, in order to draw conclusions towards quality in digital journalism.

Based on the competition website, the selected research object comprises a total of 37 award-winning digital long forms over the period from 2011 to 2021. However, upon reviewing the material, two stories were no longer to be found at the link provided, or the Internet address was assigned to a different host. The abolition of the Flash player in January 2021 also had an impact on the number of stories. In this respect, three contents were no longer playable even before the material was processed. Therefore, a total of 31 stories of the subcategory *Interactive* from 2013 to 2021 remained for the further empirical investigation, which can be viewed in Table 2.

Table 2. Overview of the story sample.

Year	Name of the Long Form	Production	Origin
2021	Reconstructing Seven Days of Protests in Minneapolis After George Floyd's Death	The Washington Post	USA
2021	Birth in the 21st Century	Cooperative Hat, Lab RTVE, À Punt Mèdia	Spain
2021	Ukraine: Grey Zone	Lithuanian Radio and Television (LRT)	Lithuania
2020	Battleground PolyU	China Daily DOCS (Youtube)	UK
2020	River of Forgiveness	Helios Design Labs	Canada
2019	Notes From Aleppo	Paradox	Syrian
2019	Flint is a place	Zackary Canepari	USA
2019	The Last Generation	Frontline/The GroundTruth Project	USA
2018	Under a Cracked Sky	The New York Times	USA
2018	Sin Luz: Life Without Power	The Washington Post	USA
2018	How 655000 Rohingya Muslims Escaped	The New York Times	USA
2018	Finding Home	TIME	USA
2018	From Janet with Love	National Film Board of Canada	Canada
2018	There once lived . . .	Such Dela	Russia
2017	The Dig	The Skin Deep/Murmur	USA
2017	The Fine Line: Simone Biles Gymnastics	The New York Times	USA
2017	The Injustice System	The Guardian US	USA
2017	A New Age of Walls	The Washington Post	USA
2017	The Waypoint	The Washington Post	USA
2017	Future Cities	Yvonne Brandwijk, Stephanie Bakker	The Netherlands
2016	Desperate Crossing	The New York Times Magazine	USA
2016	Life After Death	NPR	USA
2016	Welcome to Parkersburg West Virginia	Huffington Post	USA
2016	The Displaced	The New York Times Magazine	USA
2016	Greenland is Melting Away	The New York Times	USA
2016	Graphic Memories: Tales From Uganda's Female Former Child Soldiers	European Journalism Center	The Netherlands
2015	{The And}	The Skin Deep in collaboration with Deep Focus and Topaz Adizes	USA
2014	A Short History of the Highrise	The New York Times	USA/Canada
2014	NSA Files: Decoded	The Guardian US	USA
2014	Hollow	Requisite Media	USA
2013	Bear71	National Film Board of Canada	Canada

6. Methodology: Using Grounded Theory to Investigate Complex Stories

In order to evaluate the digital long forms, Grounded Theory (Strauss and Glaser 1980) and the associated problem-solving research action as well as process orientation (Strübing 2018) were applied to continuously revise and concretize the category system. Grounded theory is understood as an interpretative social scientific approach of working and understanding (Pentzold et al. 2018). The basic procedure for generating a theory refers to the constant and repetitive comparison of data according to conceptual similarities and differences (Pentzold et al. 2018). In this context, a central approach is not to get too

hung up on already developed categories and concepts during the evaluation process and to remain open-minded towards the research material.

The evaluation of the material builds on three coding methods that interact according to the parallel working method. First, open coding (related to individual interviews, here: long forms) is carried out, in which access to the material is gained, relevant pieces of material are selected and then coded in detail (Strübing 2018) in order to question pre-assumptions and to identify and conceptualize phenomena in the research material (Strauss and Corbin 1996). In the second step, defined as axial coding (referring to all interviews, here: long forms), formed categories are related to each other (Krotz 2018) and causes, circumstances, and consequences of these different variations are explored (Strübing 2018). Last, selective coding (related to all interviews, here: long forms) takes place, in which the codes are summarized and hierarchized (Krotz 2018). After selecting a core category, complementary categories are connected and related to each other around it (Strauss and Corbin 1996).

In the first step of the evaluation process, the long forms were compiled into documents in the form of screenshots and made available as a PDF file. This was since video and animated content in particular did not meet the usual requirements for evaluation during a test run. In the second step, the open coding of the stories was carried out in the period from 21 June 2021 to 7 July 2021, resulting in a preliminary category system. To code in a more goal-oriented manner and to avoid possible inaccuracies, the codes were given coding instructions and descriptions using the memo function with the help of the analysis software MAXQDA. This process was accompanied by axial and selective coding. For example, in the context of usability, the subcategories “active and passive navigation and operating instructions” resulted, which in turn united certain characteristics among themselves. A total of 10,742 codes were collected in the course of the coding process.

With regard to the further procedure, the theoretical sampling was based on Strübing (2018) and the accompanying minimum and maximum contrasting. Starting with the first long form to be studied, which was based on a similarity analysis, a single case study was finally conducted. Thereupon, further stories were added, which were similar to each other in various characteristics. Since two basic distinctions in the long forms have already been established from the triage and screen plotting, minimal contrasting was performed until automatically only stories with other features remained that either confirmed or rejected the previous theory and consequently constituted a sub-theory of their own. At this point, maximum contrasting began.

In addition to the similarity analysis, the Code Matrix Browser and the Code Relations Browser of MAXQDA were used. MAXMaps, which presents the relationships and differences between documents and codes on a map, provided visual support for the evaluation. Based on the identified quality criteria of online journalism and digital long form stories and building on the open, axial and selective coding processes, the category system shown in Table 3 was created. Due to the partly large number of sub-sub-categories, only frequently coded categories are listed for the respective main categories.

Table 3. Main and subcategories of digital long form stories derived through Grounded Theory.

Category	Sub-Category	Sub-Sub-Category
Selectivity	Linear	-
	Chapter	
	Non-linear	
Multimediality	Text	(e.g., continuous text, textbox quote)
	Photo	(e.g., full screen, single photo, background photo)
	Video	(e.g., full screen video, video loop with/without audio)
	Audio Visualization	(e.g., single audio, background sounds, music) (e.g., simple, selective, complex data visualization)
Usability and Navigation	Active user assistance	(e.g., buttons, timestamps, chapter overview)
	Passive user assistance	(e.g., navigation and reception note, progress bar, info point)
Transitivity	Click	(e.g., parallax scrolling)
	Scroll	
	Automatic Transition	
Linking	Hyperlink (intern)	(e.g., external document, advertising)
	External link	
	Cross medial link	
Interactivity	Within the story	(e.g., Twitter, Permalink, Facebook)
	Whole story	(e.g., e-mail, Facebook, Twitter)
Participation	User-generated content	-
	Survey	
	Check list	
	Rating	
	Comment function Contact form	
Utility	Progress bar	(e.g., not displaying image, not functioning audio/link)
	Bugs	
Gamification	Open-world environment	-
	Click and drag transformation	
	Roll over	
	Puzzle	
	Multiplayer game Jump and run	

7. Results: Towards a Detailed Differentiation of Digital Long Form Stories

7.1. Case Contrasting: Linear Stories, Chapter Stories, and Non-linear Stories

The choice of the first long form was preceded by various considerations and observations. Based on the process of screenshotting and coding all stories, it is noticeable that in the existing long forms, two characteristics or subcategories of selectivity are primarily decisive for the narrative structuring: the linear structure and the chapter structure, which together made for the majority of the stories with two exceptions, which were classified as non-linear structure. In addition, chapters were also found to have a predominantly linear structure (see Table 4).

Due to these two strong characteristics, two partial theories are basically aimed at, which are subsequently compared. Due to the small number of non-linear stories identified, primarily linear and chapter stories will be focused on in the following.

Table 4. Overview of long forms by type of selectivity.

No.	Linear	Chapter	Non-Linear
1	Reconstructing Seven Days of Protests in Minneapolis After George Floyd's Death	Birth in the 21st century	{The And}
2	Battleground PolyU	Ukraine: Grey Zone	Under a Cracked Sky
3	Sin Luz: Life Without Power	River of Forgiveness	
4	How 655000 Rohingya Muslims Escaped	Notes From Aleppo	
5	Finding Home	Flint is a place	
6	From Janet with Love	The Last Generation	
7	The Fine Line: Simone Biles Gymnastics	There once lived . . .	
8	The Waypoint	The Dig	
9	Desperate Crossing	The Injustice System	
10	Life After Death	A New Age of Walls	
11	Greenland is Melting Away	Future Cities	
12	Graphic Memories: Tales From Uganda's Female Former Child Soldiers	Welcome to Parkersburg West Virginia	
13		The Displaced	
14		NSA Files: Decoded	
15		A Short History of the Highrise	
16		Hollow	
17		Bear71	

7.2. Linear Stories: Long Texts, Full-Screen Visualizations, and Low Utility and Participation

In linear stories, continuous text proved to be the most stringent feature, increasingly developing into a constant companion of linearity. In addition, text boxes represent a new overarching text form. The multimedia element full-screen photo was newly included in the category system during the open coding process and represents one of the most frequently used features in the stories. The element video also received more diverse distinctions during coding; here, the full-screen video appeared fairly often. In general, full-screen formats in the form of photos or videos as well as video loops make a considerable contribution to the visual support of the story. Furthermore, auditory overlaps support the visual components by appropriate sounds or music from the background. As in the case of continuous text, the versatile use also offers room for errors. Complex data visualizations are used frequently, first and foremost in the form of maps. The further story elements are mainly connected by scrolling. The producers integrate progress bars for better orientation, link across different media and, especially at the beginning of the long form, process various social media links to share the whole story.

On the other hand, there are still many differences within the different linear long forms, which have to be accepted as partial theories for the time being and are a first indication for the individuality as well as for non-standardized realizations in digital long forms. When it comes to the quality criteria, usability is realized through progress bars, and transition or transitivity is realized through scroll transitions as a common feature in linear long forms. The quality criterion linking is especially pronounced in the cross-media form and proves to be a constant feature in the majority of the linear stories. In terms of interactivity, the option to share the long form as a whole proved to be common.

Facebook and Twitter were evidenced in this regard, while the email sharing option was also common. The different coding runs as well as the comparison also brought to light that both participation and utility were very weak, but generally, the linear long forms proved to be relatively error-free.

7.3. Chapter Structure: More Complexity and Finer Nuances

When examining long forms with chapter structure, the first thing that stands out is that the number of chapters varies greatly, ranging from a minimum of two to a maximum of twelve chapters. The most constant element, as in linear stories, is the continuous text. A parallel is also the versatile overlap with other elements. Thus, in the comparison between linear and chapter, there are no differences purely from the text elements. In both cases, the continuous text is an all-encompassing feature, text boxes and quotations are occasionally added by the producers.

The subcategory photo turned out to be much more comprehensive in the context of the chapter structure. In contrast to linear stories, which are limited to fullscreen, single and background photos, additional features were found in the chapters with screenshot, photo gallery, photo collection, image detail, selective photos and the 360° photo. Furthermore, newly added were the photographic element screenshot, the photo gallery and the photo collection. Compared to linear long forms, only the video gallery could be included in the category system as a new videographic feature. Simple data visualizations were also familiar from linear long forms in the style of line charts. Stories with chapter structure, however, proved to be more complex in this respect, too. Simple data visualizations in most cases stood on their own and were not combined with other elements. The comparison between linear and chapter structure further reveals significant differences in the audio subcategory. In contrast to the low use of background music and background noises in the context of linear long forms, these are integrated significantly more often in the chapters.

The evaluation of the linear long forms already showed how extensively the multimedia elements are combined with features of other quality criteria, which could be observed in the chapters structure as well. However, they differ by an even greater variety of integrated elements, which is consequently also reflected in even more extensive connections among each other. There is a higher number of usability elements found in chapter stories than in linear stories, represented through chapter overviews, navigation elements and operating aids. In this regard, about twice as many hints are inserted in chapter structures. There are also some changes in transitivity in comparison between linear structures and chapters. The original dominance of scroll transitions is far less pronounced in the chapter structure, where clicking is an often-installed transition, too.

When it comes to interactivity, not only the entire story could be shared, as it was the case in linear stories, but also certain parts of the story could be shared. In both cases, Facebook and Twitter dominated as sharing platforms. Which elements could be shared by users in social media thus depends on the given possibilities of the producers. The same is true for the degree of participation. Furthermore, the subcategory gamification—expressed through multiplayer options or drag and drop-feature—was added as a completely new quality dimension for chapter stories, not occurring in linear stories at all. Looking at the quality criterion of utility, few inconsistencies were found in linear long forms. The same can be observed in chapter structure. Missing content and broken links that showed little overlap with the continuous text were the most common errors.

At this point, various aspects can be summarized with regard to the evaluation of linear long forms and those with chapter structure: The chapter stories stood out through a more comprehensive multimedia structure and a higher degree of usability. In addition to the possibility of sharing the entire story in the social networks, interactive sub-options were recorded within the chapter structures that are related to multimedia elements. This possibility is completely denied to linear long forms. Participation as well as utility were rather low in both narrative structures. Gamification is again new in the chapters, but it is only temporarily distributed in individual stories. To complete the analysis, the two

analyzed non-linear long forms stood out from the rest in terms of their narrative form, since they contained less text and were rather heavy in video and a concentric structure, but they nevertheless joined the ranks of the 31 long forms on the basis of overarching characteristics, specifically shown by the emphasis on videographic content.

8. Discussion: An Underestimated Format with Still Expandable Potentials

First of all, the results show that the analyzed long forms are much more extensive than assumed in the state of research, technically rendering them even more potential in terms of journalistic quality. Some of the elements emerging through the analysis developed as overarching characteristics of different stories. They then formed overlaps with further quality criteria, which emerged as partial theories. Multimediality turned out to be the most extensive and central criterion of the digital long forms examined here. This can be derived comprehensively in all three narrative forms. The fact that “multimedia is at the heart of its narrative structure” (Hiippala 2017, p. 421) can thus be confirmed. Further outstanding was the extensive use of continuous text in both linear and chapter stories. This seems logical since “what remains to be conquered is the dramatic narrative” which lets “characters go their own way” (Ryan 2009, p. 57). Especially when compared to conventional news stories, interactive digital narratives provide more flexibility and the inclusion of multiple perspectives (Murray 2018, p. 14), “so that we can zoom in and out through time and space and abstraction layers, and across points of view and frameworks of interpretation” (Murray 2018, p. 13).

Another striking characteristic of long form stories was the deliberate use of videographic elements such as full-screen videos, video loops without sound, and videos with sound, which are often made available to users as visual components.

To a much lesser extent, however, data visualizations made an appearance, thus opposing the initial approaches to data journalism. The evaluation of the audio subcategory further showed not only that the defined elements from the research state were not sufficient, but additionally clarified the special use of background audio in the form of sounds, music, and narration. The expressions of the usability quality criterion register a clear tendency towards active navigation and operating aids. In general, however, it was found that a more pronounced usability prevails in the studied chapters than in linear long forms. This uneven ratio can be explained by the more extensive narrative structure and the associated multimedia diversity. Generally, a great importance was attributed to orientation in the stories, which again confirms Dowling and Vogan’s (2015) expression of the stories being “cognitive containers”.

The most self-contained digital long forms, whose linking structure is concentrated on specific areas in the story, can be used not only to attract attention, but also to provide the simplest possible structure in the long forms, which confirms schema theory, in which schemas serve to reduce complexity (Schmidt and Weischenberg 1994) and provide users with an orientation for proper usability in the form of patterns (Neuberger 2005).

8.1. Multimedia Trends and Developments in Digital Long Forms

As the results and the quality criteria show, digital long forms are complex and extensive stories that cannot necessarily be pigeonholed into a standardized category. Rather, individual features evolve, new ones are added, and some fall away over time.

One first observed development lies in the use of lean-back elements. The overarching use of video and photographic as well as textual features contributes to this insight. From those elements, a reading or watching consumption of the story can be derived, which is usually perceived as more intense, profound, and narrative (Hernandez and Rue 2015, p. 170). Although the setting in the stories differs throughout, again arguing for diversity in the long forms and against a standardized how-to guide for incorporating those elements, the nature and use of the 360° content is predominantly the same. While the video is playing, recipients can change the viewing angle with the mouse and thus actively participate in the action. In accordance with the explained procedure of the inertia principle of journalism

and the integration of media schemata, in which users should not be overwhelmed at the beginning of a new medium (Wolf 2014), the 360° use in the form of a photo is a widespread multimedia element and appears to be quite conclusive. Especially since “storytelling in 360 degrees presents a fascinating new creative challenge that has proved a powerful draw to commissioners and producers alike” (Rose 2018, p. 147), the same could be true for the use of VR in which the respective technology serves new design possibilities for digital long forms (Mills and Brown 2022, p. 197). However, studies show that this could lead to users being less attentive, recalling less information (Barreda-Ángeles et al. 2021, p. 154) and requiring new literacies (Rose 2018, p. 147). Nevertheless, VR enables its users to deeply interact with the virtual content (Ehrlich 2022, p. 13). This kind of participation and interactivity adds value to the overall story in the sense of vividness and authenticity and can lead to powerful reactions of the users (Ehrlich 2022, p. 11).

8.2. New Quality Criteria in Digital Long Forms: Gamification and Immersion

Gamification appeared as one new quality criterion within the analysis of the long form stories: It can consequently be described as a quality criterion that helps to encourage users from the common lean-back mode to active reception. For example, news games add value to journalism by enriching journalistic discourses through incorporating game logics and offering an engaging experience to the users (Plewe and Fürsich 2017, p. 2483). There are ethical doubts concerning news games, however, for example when it comes to sensible topics and the question of these should be displayed in games (Meier 2018, p. 429). Nevertheless, they have the chance to enhance the users’ interest and empathy in the story and content (Meier 2018, p. 429).

The notion of *immersion* also appeared within the stories, its overriding component, however, being multimedia features. The most obvious in this respect are 360° elements that take the user, with or without aids, directly to the scene of the event and thus enable comprehensive insights into the event (Staschen 2017).

Through the elaborated, investigated and extended quality criteria, the audience not only has the possibility to consume the story in a reading way, but also in a visual sense on different levels. In this respect, the categories, together with their characteristics and their combinations, underline the value of the design and preparation of the content (Godulla and Wolf 2017b). The audience thus automatically becomes part of an intensive journalistic experience. The quality of a long form is thus expressed in elaborately researched and technically sophisticated content that specifically conveys background information to the audience. This development highlights the potential of digital long form stories, which can constantly surprise the audience with innovative features by combining them with multimedia and other quality criteria, and does not yet make use of all quality criteria the digital sphere offers.

8.3. Hypotheses for Further Investigation and Analysis

Based on the story contrasting process, several connections of elements and quality criteria were observed, which result in hypotheses that can now be tested in a more quantitative manner. First, usability was often connected with multimedia, which results in Hypothesis 1:

H1. *The more multimedia elements a long form story contains, the more extensive is its usability.*

Furthermore, within the *Digital Storytelling Contest*, the quality criterion of gamification only had a temporary use in the long forms. Therefore, we assume that within the canon of quality criteria, gamification plays a rather minor role, compared to aspects of multimedia or interactivity.

H2. *Multimedia elements and interactivity in digital long forms have a greater influence on the overall journalistic quality than playful elements.*

Finally, it became apparent that lean-back elements were frequently used, and it can be supposed that they lead to a higher immersion of the audience, which also can be tested quantitatively in future research:

H3. *The combination of lean-back elements contributes to a positive immersive experience for recipients of digital long forms.*

9. Limitations

Limitations occur regarding the novel approach of using Grounded Theory for investigating the research material at hand. Studies on assessing the quality of online content often focus on surveys among users and producers (e.g., [Godulla and Wolf 2015a](#); [McKenna et al. 2017](#); [Radü 2019](#)) or conducting content analysis (e.g., [Riskos et al. 2019](#); [Tulloch and Ramon 2017](#)). In contrast, assessing quality criteria using Grounded Theory is not really common (yet).

In addition, the process of theoretical sampling could not be carried out to the end since the number of long forms was limited to 31 stories. In order to reach theoretical saturation and to be able to generalize the results, however, there should be as many long forms added until the previous theory can no longer be disproved or extended ([Krotz 2018](#)). The tendencies and subtheories identified in this study therefore serve as a basis for analyzing further stories in future research. In particular, stories with non-linear narrative structures should be integrated, whereas in this work only two of them could be identified and evaluated. In addition, future studies should measure the amount of text, video, and audio features to more accurately capture, for example, [Radü's \(2019\)](#) quality criteria *rhythm*.

Finally, technical limitations should be mentioned, since three long forms could no longer be played and thus it was not possible to examine the entire Interactive subcategory of the Digital Storytelling Contest of the World Press Photo Foundation.

10. Summary and Outlook

Summarizing the presented analysis and answering the research-guiding question, two main approaches to digital long forms could be identified within the global and professional setting of the *World Press Photo Storytelling Contest*: The linear long form story and the chapter long form story, for which our research adds new layers and nuances to previous research. Whereas both story forms were rich in continuous textual elements, videographic content and visualizations, the latter stood out with a higher degree of complexity. Therefore, more of the journalistic quality criteria were found in the chapter stories, such as transitivity and selectivity; multimedia and interactivity appeared frequently in both forms, whereas the qualities of participation and utility, as well as the use of data visualizations stay expendable.

Many of the discussed criteria, such as multimedia, participation, interactivity, and gamification play into the principles of immersion, since the “use of multiple media elements enables a better and more immersive experience of digital stories” ([Radü 2019](#), p. 26). The results show that several audiovisual features were used in the analyzed stories to ensure such immersion. At the bottom line of this special issue, “immersive media are seen as integral to the emerging experiential market for cultural experiences”. This study confirms this statement in the sense that digital stories in journalism use immersion to generate new, impressive, and enlightening experiences for their users, while keeping up with journalism’s general claim to provide information and educate the public.

Answering the second part of the research-guiding question, the elaborated quality criteria were operationalized and made measurable in detail through the analysis with the help of Grounded Theory and can now be further used to obtain a comprehensive basis for the implementation and design of digital long forms. At the same time, our research provides an understanding of what has been emphasized so far in the production of long form stories regarding Internet-specific quality. Thereby, our findings add to the research concerning usability ([Geis 2014](#); [McKenna et al. 2017](#); [Pavlic and Pavlic 2017](#); [Pope 2020](#)), utility (i.e., [Deuze 2004](#); [Jacobson 2012](#); [Meier 2002](#); [Song 2018](#)), and multimediality ([Pincus et al. 2016](#);

Song 2018) in digital stories. Since in this study, only award-winning stories were assessed, the findings serve both storytelling researchers as well as practitioners in various ways: For academic research, they build the basis for several further investigations concerning the quality criteria. Thereby, the assessment of quality criteria in Table 1 can be used as an orientation for investigating journalistic quality on the technical level and can be expanded to also assess the level of overall qualitative excellence. These criteria can be applied to analyze different kinds of digital stories, for example depending on the media outlet they are published in, such as by national, international, or regional media organizations. That way, a larger picture of the current state of journalistic quality in digital stories emerges. For journalistic practice, both the quality criteria as well as the detailed findings can inspire future productions. They build a knowledge base for what determinants need to be included and considered when aiming to produce a high-quality story.

Considering that journalism increasingly takes place online, and thereby faces financial struggles (Lobigs 2018; Neuberger 2002), and works under the pressure of staying connected to their audience to generate profit, media outlets need to find creative and innovative solutions to telling their stories and engage their users. Digital long forms, such as those discussed in this paper, can be one possible solution to this challenge, especially due to their immersive character and new possible modes of representation. Immersive media, such as VR, thereby have the chance to promote participation and interactivity, which raises the users' interest and can evoke powerful reactions. Nevertheless, the findings show that participation in the stories so far stays expendable. In addition, aspects of utility and the media element data visualization stay expendable as well. This might be due to higher technical competences and requirements in production as well as personnel resources in their implementation. It will be worth investigating how and if media organizations will make use of these potential benefits in the future, or if further, better applicable criteria arise.

The World Press Photo Foundation and further storytelling awards are an adequate basis for research in this field, since they consider submissions from the whole globe and marry it with professional expertise; further studies could, however, investigate long form stories as produced by single outlets or countries.

Ultimately, it can be assumed that the quality criteria will expand and develop with advancing technical possibilities—future research in the field of long form journalism and digital stories therefore must stay dynamic and sensible to technological change. While the fast-paced and changing surroundings of this research object pose a hurdle, we argue that there is no better place than in journalism research to observe this development, preserve the findings, and thereby take part in a wider discussion of a highly exciting and worthwhile phenomenon taking place globally: the further development of digital journalism and its inherent quality.

Author Contributions: Conceptualization, P.P.; methodology, P.P.; software, P.P.; validation, P.P., R.P. and A.G.; formal analysis, P.P.; investigation, P.P.; data curation, P.P.; writing—original draft preparation, R.P. and P.P.; writing—review and editing, R.P. and D.S.; visualization, D.S.; supervision, A.G.; project administration, R.P., A.G. and D.S.; All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not publicly archived data set.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Appelgren, Ester. 2017. An Illusion of Interactivity: The Paternalistic Side of Data Journalism. *Journalism Practice* 12: 308–25. [CrossRef]
- Barreda-Ángeles, Miguel, Sara Aleix-Guillaume, and Alexandre Pereda-Baños. 2021. Virtual reality storytelling as a double-edged sword: Immersive presentation of nonfiction 360-video is associated with impaired cognitive information processing. *Communication monographs* 88: 154–73. [CrossRef]
- Branch, John. 2012. Snow Fall: The Avalanche at Tunnel Creek. *The New York Times*. Available online: <http://www.nytimes.com/projects/2012/snow-fall/#/?part=tunnel-creek> (accessed on 20 September 2020).
- Chyi, Hsiang Iris, and Yee Man Margaret Ng. 2020. Still Unwilling to Pay: An Empirical Analysis of 50 U.S. Newspapers' Digital Subscription Results. *Digital Journalism* 8: 526–47. [CrossRef]
- De Maeyer, Juliette. 2019. Journalists' uses of hypertext. In *The Routledge Companion to Digital Journalism Studies*. Edited by Bob Franklin and Scott Eldrige. London: Routledge, Taylor & Francis Group, pp. 302–310.
- Deuze, Mark. 2004. What Is Multimedia Journalism? *Journalism Studies* 5: 139–52. [CrossRef]
- Domingo, David, Thorsten Quandt, Ari Heinonen, Steve Paulussen, Jane B. Singer, and Marina Vujnovic. 2008. Participatory Journalism Practices in the Media and Beyond: An International Comparative Study of Initiatives in Online Newspapers. *Journalism Practice* 2: 326–42. [CrossRef]
- Dowling, David O. 2019. *Immersive Longform Storytelling: Media, Technology, Audience*, 1st ed. New York: Routledge. [CrossRef]
- Dowling, David, and Travis Vogan. 2015. Can We 'Snowfall' This?: Digital Longform and the Race for the Tablet Market. *Digital Journalism* 3: 209–24. [CrossRef]
- Ducasse, Julie, Matjaž Kljun, and Klen Čopič Pucihar. 2020. Interactive Web Documentaries: A Case Study of Audience Reception and User Engagement on Iotok. *International Journal of Human-Computer Interaction* 36: 1558–84. [CrossRef]
- Ehrlich, Nea. 2022. Virtual Veracity: Animated Documentaries and Mixed Realities. Paper presented 2022 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), Christchurch, New Zealand, March 12–16, pp. 7–14. [CrossRef]
- Esser, Frank, and Christoph Neuberger. 2019. Realizing the Democratic Functions of Journalism in the Digital Age: New Alliances and a Return to Old Values. *Journalism* 20: 194–97. [CrossRef]
- Fletcher, Richard, and Rasmus Kleis Nielsen. 2016. Paying for Online News: A Comparative Analysis of Six Countries. *Digital Journalism* 5: 1173–91. [CrossRef]
- Gambarato, Rampazzo Renira. 2016. The Sochi Project: Slow Journalism within the Transmedia Space. *Digital Journalism* 4: 445–61. [CrossRef]
- Geis, Veronika. 2014. *Gebrauchstauglichkeit Digitaler Lesemedien [Utility of Digital Reading Media]*. Erlangen: Friedrich-Alexander-Universität Erlangen-Nürnberg.
- Giles, Fiona, and Giorgia Hitch. 2017. Multimedia Features as 'Narra-descriptive'. *Literary Journalism Studies* 9: 74–91.
- Godulla, Alexander. 2009. *Fokus World Press Photo. Eine Längsschnittanalyse "ausgezeichneter" Pressefotografie von 1955–2006 [Focus World Press Photo. A longitudinal analysis of "award-winning" press photography from 1955–2006]*. Saarbrücken: Südwestdeutscher Verlag für Hochschulschriften.
- Godulla, Alexander, and Cornelia Wolf. 2015a. Journalistische Langformen im Web: Produktionsbedingungen und Markteinschätzung; Eine Kommunikatorbefragung zu Scrollytelling, Webdokumentationen und Multimediastorys [Journalistic longforms on the Web: Conditions of production and market assessment; a communicator survey about storytelling, web documentaries and multimedia stories]. *Media Perspektiven* 11: 526–32.
- Godulla, Alexander, and Cornelia Wolf. 2015b. Onlinemedien und Hintergrundinformationen: Nutzererwartungen; Erwartungen mobiler Internetnutzer an Scrollytelling, Webdokumentation und Multimediastorys [Online media and background information: User expectations, expectations of mobile internet users towards scrollytelling, web documentaries and multimedia stories]. *Media Perspektiven* 5: 241–9.
- Godulla, Alexander, and Cornelia Wolf. 2017a. Die Usability neuer Darstellungsformen im digitalen Journalismus [Usability of new formats in digital journalism]. In *Technische Innovationen—Medieninnovationen? Herausforderungen für Kommunikatoren, Konzepte und Nutzerforschung*. Edited by Gabriele Hooffacker and Cornelia Wolf. New York: Springer Spektrum, pp. 62–75.
- Godulla, Alexander, and Cornelia Wolf. 2017b. *Digitale Langformen im Journalismus und Corporate Publishing: Scrollytelling-Webdokumentationen—Multimediastorys [Digital Longforms in Journalism and Corporate Publishing: Scrollytelling—Web Documentaries—Multimedia Stories]*. New York: Springer VS. [CrossRef]
- Godulla, Alexander, and Cornelia Wolf. 2018. Digitales Storytelling. Nutzererwartungen, Usability, Produktionsbedingungen und Präsentation [Digital storytelling: User expectations, usability, conditions of production, and presentation]. In *Journalismus im Internet: Profession, Partizipation, Technisierung*. Edited by Christoph Neuberger, Christian Nuernbergk and Melanie Rischke. New York: VS Verlag für Sozialwissenschaften, pp. 81–100. [CrossRef]
- Godulla, Alexander, Christian P. Hoffmann, and Daniel Seibert. 2021. Dealing with deepfakes—an interdisciplinary examination of the state of research and implications for communication studies. *SCM Studies in Communication and Media* 10: 72–96. [CrossRef]
- Hernandez, Richard Koci, and Jeremy Rue. 2015. *The Principles of Multimedia Journalism*. London: Routledge. [CrossRef]
- Hiippala, Tuomo. 2017. The Multimodality of Digital Longform Journalism. *Digital Journalism* 5: 420–42. [CrossRef]
- Hooffacker, Gabriele. 2020. *Online-Journalismus: Texten und Konzipieren für das Internet. Ein Handbuch für Ausbildung und Praxis. Journalistische Praxis*. Wiesbaden: Springer Fachmedien Wiesbaden. [CrossRef]

- Jacobson, Susan. 2012. Transcoding the News: An Investigation into Multimedia Journalism Published on Nytimes.Com 2000–8. *New Media & Society* 14: 867–85. [\[CrossRef\]](#)
- Jacobson, Susan, Jacqueline Marino, and Robert E. Gutsche. 2015. The Digital Animation of Literary Journalism. *Journalism* 17: 527–46. [\[CrossRef\]](#)
- Kartveit, Kate. 2017. How Do They Do It? Multimedia Journalism and Perceptions of the Practice. *Journalism* 21: 1468–85. [\[CrossRef\]](#)
- Krotz, Friedrich. 2018. Grounded Theory als integrierte Folge von Einzelfallstudien: Besonderheiten eines Forschungsverfahrens [Grounded Theory as integrated sequence of case studies]. In *Praxis Grounded Theory: Theoriegenerierendes empirisches Forschen in Medienbezogenen Lebenswelten. Ein Lehr- und Arbeitsbuch*. Edited by Christian Pentzold, Andreas Bischof and Nele Heise. Wiesbaden: Springer VS, pp. 53–72.
- Lassila-Merisalo, Maria. 2014. Story First—Publishing Narrative Long-Form Journalism in Digital Environments. *Journal of Magazine Media* 15: 1–15. [\[CrossRef\]](#)
- Lilienthal, Volker, Stephan Weichert, Dennis Reineck, Annika Sehl, and Silvia Worm, eds. 2014. *Digitaler Journalismus: Dynamik—Teilhabe—Technik*. Schriftenreihe Medienforschung der Landesanstalt für Medien Nordrhein-Westfalen 74. Leipzig: Vistas-Verl.
- Lobigs, Frank. 2018. Wirtschaftliche Probleme des Journalismus im Internet: Verdrängungsängste und fehlende Erlösquellen. In *Journalismus im Internet*. Edited by Christian Nuernbergk and Christoph Neuberger. Wiesbaden: Springer Fachmedien Wiesbaden, pp. 295–334. [\[CrossRef\]](#)
- Longhi, Raquel Ritter, and Kérley Winques. 2015. The Place of Longform in Online Journalism: Quality versus Quantity and a Few Considerations Regarding Consumption. *Brazilian Journalism Research* 11: 104–21. [\[CrossRef\]](#)
- Lough, Kyser. 2021. Judging Photojournalism: The Metajournalistic Discourse of Judges at the Best of Photojournalism and Pictures of the Year Contests. *Journalism Studies* 22: 305–21. [\[CrossRef\]](#)
- Massey, Brian L., and Mark R. Levy. 1999. Interactivity, Online Journalism, and English-Language Web Newspapers in Asia. *Journalism & Mass Communication Quarterly* 76: 138–51. [\[CrossRef\]](#)
- McKenna, Sean, Nathalie Henry Riche, Bongshin Lee, Jeremy Boy, and Miriah Meyer. 2017. Visual Narrative Flow: Exploring Factors Shaping Data Visualization Story Reading Experiences. *Computer Graphics Forum* 36: 377–87. [\[CrossRef\]](#)
- Meier, Klaus. 2002. *Internet-Journalismus*. Konstanz: UVK Verlagsgesellschaft. [\[CrossRef\]](#)
- Meier, Klaus. 2003. Qualität im Online-Journalismus [Quality in online journalism]. In *Qualität im Journalismus. Grundlagen—Dimensionen—Praxismodelle*. Edited by Hans Jürgen Bucher and Klaus-Dieter Altmeppen. Wiesbaden: Verlag für Sozialwissenschaften, pp. 247–68.
- Meier, Klaus. 2018. Journalism meets games: Newsgames as a new digital genre. Theory, boundaries, utilization. *Journal of Applied Journalism & Media Studies* 7: 429–44. [\[CrossRef\]](#)
- Mills, Kathy A., and Alinta Brown. 2022. Immersive virtual reality (VR) for digital media making: Transmediation is key. *Learning, Media and Technology* 47: 179–200. [\[CrossRef\]](#)
- Mortensen, Tara M., and Peter J. Gade. 2018. Does Photojournalism Matter? News Image Content and Presentation in the Middletown (NY) *Times Herald-Record* Before and After Layoffs of the Photojournalism Staff. *Journalism & Mass Communication Quarterly* 95: 990–1010. [\[CrossRef\]](#)
- Mundhenke, Florian. 2016. Erforschung neuer Gestaltungs- und Rezeptionsformen des Dokumentarischen im Netz. Eine Nutzerstudie zur Webdokumentation PRISON VALLEY (2010). *AugenBlick. Konstanzer Hefte zur Medienwissenschaft* 65/66: 23–39. [\[CrossRef\]](#)
- Murray, Janet H. 2018. Research into interactive digital narrative: A kaleidoscopic view. *International Conference on Interactive Digital Storytelling* 11318: 3–17. [\[CrossRef\]](#)
- Myllylahti, Merja. 2019. Paying Attention to Attention: A Conceptual Framework for Studying News Reader Revenue Models Related to Platforms. *Digital Journalism* 8: 567–75. [\[CrossRef\]](#)
- Neuberger, Christoph. 2002. Online-Journalismus: Akteure, Redaktionelle Strukturen Und Berufskontext. Ergebnisse Einer Berufsfeldstudie. *Medien & Kommunikationswissenschaft* 50: 102–14. [\[CrossRef\]](#)
- Neuberger, Christoph. 2005. Formate Der Aktuellen Internetöffentlichkeit. Über Das Verhältnis von Weblogs, Peer-to-Peer-Angeboten Und Portalen Zum Journalismus—Ergebnisse Einer Explorativen Anbieterbefragung. *Medien & Kommunikationswissenschaft* 53: 73–92. [\[CrossRef\]](#)
- Neuberger, Christoph. 2011. *Definition und Messung publizistischer Qualität im Internet: Herausforderungen des Drei-Stufen-Tests [Definition and Measurement of Journalistic Quality on the Internet]*. Leipzig: Vistas.
- Neuberger, Christoph. 2012. Journalismus im Internet aus Nutzersicht: Ergebnisse einer Onlinebefragung [Journalism on the internet from a user's perspective: Results of an online survey]. *Media Perspektiven* 1: 40–55.
- Nielsen, Jakob. 1990. The Art of Navigating through Hypertext. *Communications of the ACM* 33: 296–310. [\[CrossRef\]](#)
- Nuernbergk, Christian, and Christoph Neuberger, eds. 2018. *Journalismus im Internet: Profession—Partizipation—Technisierung*. Wiesbaden: Springer Fachmedien Wiesbaden. [\[CrossRef\]](#)
- O'Brien, Daniel, Christian-Mathias Wellbrock, and Nicola Kleer. 2020. Content for Free? Drivers of Past Payment, Paying Intent and Willingness to Pay for Digital Journalism—A Systematic Literature Review. *Digital Journalism* 8: 643–72. [\[CrossRef\]](#)
- Pavlic, John V., and Jackie O. Pavlic. 2017. *Digital Transformation in Journalism and News Media: Media Management, Media Convergence and Globalization*. Softcover Reprint of the Original 1st ed. Edited by Mike Friedrichsen and Yahya Kamalipour. Berlin: Springer International Publishing AG, pp. 381–96. [\[CrossRef\]](#)

- Pentzold, Christian, Andreas Bischof, and Nele Heise, eds. 2018. *Praxis Grounded Theory*. Wiesbaden: Springer Fachmedien Wiesbaden. [\[CrossRef\]](#)
- Peters, Chris, and Tamara Witschge. 2015. From Grand Narratives of Democracy to Small Expectations of Participation: Audiences, Citizenship, and Interactive Tools in Digital Journalism. *Journalism Practice* 9: 19–34. [\[CrossRef\]](#)
- Pincus, Hanna, Magdalena Wojcieszak, and Hajo Boomgarden. 2016. Do Multimedia Matter? Cognitive and Affective Effects of Embedded Multimedia Journalism. *Journalism & Mass Communication Quarterly* 94: 747–71. [\[CrossRef\]](#)
- Planer, Rosanna, Alexander Godulla, and Cornelia Wolf. 2020. Normative Legitimation of Digital Longforms in Journalism: Three Arguments for Complex Digital Storytelling. In *Neujustierung der Journalistik/Journalismusforschung in der digitalen Gesellschaft: Proceedings zur Jahrestagung der Fachgruppe Journalistik/ Journalismusforschung der Deutschen Gesellschaft für Publizistik- und Kommunikationswissenschaft 2019*. Edited by Jonas Schützeneder, Klaus Meier and Nina Springer. Eichstätt: Deutsche Gesellschaft für Publizistik- und Kommunikationswissenschaft e.V., pp. 93–104. [\[CrossRef\]](#)
- Planer, Rosanna, and Alexander Godulla. 2020. Longform Journalism in the USA and Germany: Patterns in Award-Winning Digital Storytelling Productions. *Journalism Practice* 1–17. [\[CrossRef\]](#)
- Plewe, Christoph, and Elfriede Fürsich. 2017. Are newsgames better journalism? Empathy, information and representation in games on refugees and migrants. *Journalism Studies* 19: 2470–87. [\[CrossRef\]](#)
- Pope, James. 2020. Further on down the Digital Road: Narrative Design and Reading Pleasure in Five New Media Writing Prize Narratives. *Convergence: The International Journal of Research into New Media Technologies* 26: 35–54. [\[CrossRef\]](#)
- Radü, Jens. 2019. *New Digital Storytelling. Anspruch, Nutzung und Qualität von Multimedia-Geschichten [New Digital Storytelling: Claims, Usage, and Quality of Multimedia Stories]*. Baden-Baden: Nomos.
- Riskos, Kyriakos, Paraskevi Dekoulou, and George Tsourvakas. 2019. User Interactivity in Online Newspapers: Exploring the Relationship between Content Features and User Response. *Newspaper Research Journal* 40: 155–76. [\[CrossRef\]](#)
- Rose, Mandy. 2018. The immersive turn: Hype and hope in the emergence of virtual reality as a nonfiction platform. *Studies in Documentary Film* 12: 132–49. [\[CrossRef\]](#)
- Ryan, Marie-Laure. 2009. From narrative games to playable stories: Toward a poetics of interactive narrative. *Storyworlds: A Journal of Narrative Studies* 1: 43–59. [\[CrossRef\]](#)
- Schlichting, Laura. 2015. Transmedia Storytelling and the Challenge of Knowledge Transfer in Contemporary Digital Journalism. A Look at the Interactive Documentary HOLLOW (2012–). *IMAGE. Zeitschrift für Interdisziplinäre Bildwissenschaft* 11: 81–95. [\[CrossRef\]](#)
- Schmidt, Siegfried J., and Siegfried Weischenberg. 1994. Mediengattungen, Berichterstattungsmuster, Darstellungsformen [Media genres, reporting patterns, display formats]. In *Die Wirklichkeit der Medien. Eine Einführung in Die Kommunikationswissenschaft*. Edited by Klaus Merten. Leverkusen: Westdeutscher Verlag, pp. 212–36. [\[CrossRef\]](#)
- Schumacher, Peter. 2009. *Rezeption Als Interaktion*. Glashütte: Nomos. [\[CrossRef\]](#)
- Song, Yang. 2018. Multimedia News Storytelling as Digital Literacies: An Alternative Paradigm for Online Journalism Education. *Journalism* 19: 837–59. [\[CrossRef\]](#)
- Spyridou, Lia-Paschalia. 2019. Analyzing the Active Audience: Reluctant, Reactive, Fearful, or Lazy? Forms and Motives of Participation in Mainstream Journalism. *Journalism* 20: 827–47. [\[CrossRef\]](#)
- Staschen, Björn. 2017. *Mobiler Journalismus*. Wiesbaden: Springer Fachmedien Wiesbaden. [\[CrossRef\]](#)
- Steensen, Steen. 2013. Conversing the Audience: A Methodological Exploration of How Conversation Analysis Can Contribute to the Analysis of Interactive Journalism. *New Media & Society* 16: 1197–213. [\[CrossRef\]](#)
- Strauss, Anselm L., and Barney G. Glaser. 1980. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. 11th printing. New Brunswick and London: Aldine.
- Strauss, Anselm L., and Juliet Corbin. 1996. *Grounded Theory: Grundlagen Qualitativer Sozialforschung [Grounded Theory: Basis of Qualitative Research on Social Sciences]*. Weinheim: Beltz, Psychologie Verlags Union.
- Strübing, Jörg. 2018. Grounded Theory: Methodische und methodologische Grundlagen [Grounded theory: Methodical and methodological bases]. In *Praxis Grounded Theory: Theoriegenerierendes Empirisches Forschen in Medienbezogenen Lebenswelten. Ein Lehr- und Arbeitsbuch*. Edited by Christian Pentzold, Andreas Bischof and Nele Heise. Wiesbaden: Springer VS, pp. 27–52.
- Sturm, Simon. 2013. *Digitales Storytelling*. Wiesbaden: Springer Fachmedien Wiesbaden. [\[CrossRef\]](#)
- Sundar, S. Shyam, Saraswathi Bellur, Jeeyun Oh, Haiyan Jia, and Hyang-Sook Kim. 2014. Theoretical Importance of Contingency in Human-Computer Interaction: Effects of Message Interactivity on User Engagement. *Communication Research* 43: 595–625. [\[CrossRef\]](#)
- Tandoc, Edson C., Zheng Wei Lim, and Richard Ling. 2018. Defining ‘Fake News’: A Typology of Scholarly Definitions. *Digital Journalism* 6: 137–53. [\[CrossRef\]](#)
- Tulloch, Christopher, and Xavier Ramon. 2017. Take Five: How *Sports Illustrated* and *L’Équipe* Redefine the Long-Form Sports Journalism Genre. *Digital Journalism* 5: 652–72. [\[CrossRef\]](#)
- Urban, Juliane, and Wolfgang Schweiger. 2014. News Quality from the Recipients’ Perspective: Investigating Recipients’ Ability to Judge the Normative Quality of News. *Journalism Studies* 15: 821–40. [\[CrossRef\]](#)
- Vázquez-Herrero, Jorge. 2021. Enhanced Experiences in Interactive Nonfiction: An Experimental Study on the Effects of Nonlinearity and Interactivity. *International Journal of Communication* 15: 1414–36.

-
- Weber, Wibke, Martin Engebretsen, and Helen Kennedy. 2018. Data Stories. Rethinking Journalistic Storytelling in the Context of Data Journalism. *Studies in Communication Sciences* 18: 191–206. [CrossRef]
- Witte, Barbara. 2014. *Multimediales Erzählen [Multimedia Narrating]*. Munich: UVK-Verl.-Ges.
- Wolf, Cornelia. 2014. *Mobiler Journalismus [Mobile Journalism]*. Glashütte: Nomos. [CrossRef]
- World Press Photo Foundation. 2021a. 2021 Digital Storytelling Contest Categories. Available online: <https://www.worldpressphoto.org/contests/2021/digital-storytelling-contest/categories> (accessed on 1 June 2022).
- World Press Photo Foundation. 2021b. Digital Storytelling Contest History. Available online: <https://www.worldpressphoto.org/contests/2021/digital-storytelling-contest/history> (accessed on 1 June 2022).
- World Press Photo Foundation. 2021c. 2021 World Press Photo Digital Storytelling Contest Winners Announced. Available online: <https://www.worldpressphoto.org/contests/2021/digital-storytelling-contest> (accessed on 1 June 2022).