



8th International DEFSA Conference 2019

Hosted by Cape Peninsula University of Technology and IIE Vega School.

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Typographic Shifts Arising from the Connection between the User, User Interface and Typographic Layout

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Abstract

Typography is constantly shifting its form according to technologies and audiences. Understanding the constant motions of typography is critical in designing forms of visual communication. In addition, current digital technologies provide novel opportunities for users to participate and co-create new typographic conventions. Online 'fandoms' consist of communities with interests in cultural phenomena, ranging from fan art to celebrities, to artefacts. Fandoms are an example of user-generated content with strong typographic shifts. This study undertook grawlix as a case, to examine the relationship between online users, typographic layouts and digital technologies, with the aim to understand current conditions of typography. Grawlix is a series of symbols (e.g. !@#)\$) and visual effects that are used in comics to enhance the narrative and to disguise potentially offensive content, like expletives. However, online users are introducing new typographic conventions and uses of grawlix in digital settings. In particular, this study describes and explores those conventions that manifested in the typographic layouts of Twitter as a popular digital platform. Waller's (1987) typographic genre model was used to understand the connections between the online user, interface and typographic layout. Data was obtained through three methods: participant observation of a fandom, document analysis of interface and typographic layouts, and semi-structured interviews with online fans. Interpretative Phenomenological Analysis (IPA) was also used to describe the experience of the online user as a producer of typography and audience. The primary finding of this research is that the narrative use of grawlix in print media shifts to a medium of social and emotional self-expression in a digital setting. The study suggests that the distributed aesthetics of typography produced in a digital setting are dynamic as these are continuously consumed and redistributed by online users. It is no longer the designer's sole role to manipulate and produce typography; rather, the designer has become a central collaborator in an organic process of online typographic development.

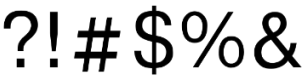



Keywords: Typography, grawlix, typographic genre, user-generated content, typographic layout, online fan

Introduction

Grawlix is a series of typographical symbols and signs used in comic strips and cartoons as a visual tool to enhance narrative and visual experiences for readers (Racicot 2014). Grawlix was coined by American cartoonist, Mark Walker (1980) under the umbrella term *maladica*, the language of cartoon symbology. Broadly, grawlix is the creative substitution of profanity and any other offensive content using symbols and glyphs. Van Elburg (2013) extends grawlix by introducing non-conventional typographical elements such as spiral or dynamic lines and textual effects that are incorporated in comics to enrich the narrative (Table 1). Van Elburg’s study also identifies several cases where grawlix is used in digital formats such as emails, fonts and emoticons. Indeed, as new digital technologies enable self-publication on digital platforms, online texts are readily accessible, recreated and repurposed.

To understand the contemporary context of typography, this paper describes and explores the typographical genre shifts in grawlix. The paper draws on Waller’s (1987) typographical genres theory and employs Interpretative Phenomenological Analysis (IPA) to uncover how online users on social media platforms interact with digital interfaces and tools to create unique typographic conventions.

Table 1. A list of grawlix examples (Van Elburg 2013)

Types	Examples
Use of glyphs and punctuation marks	
Obscenicons (a series of negative imaginaries presented in pictogram)	
Scribble lines, shapes and spiral lines	
Visual-textual effects	

Specifically, we explore how grawlix is repurposed by users, and in this case, online fans. According to Bell (2001), online fans are typically infatuated with particular cultural media such as series anime (Japanese animation), manga (Japanese comic books), cartoons or celebrities. An online fan community shares its strong affiliations through fandoms: collectives of fan-made cultural works and activities from particular media of interest. Through fandoms, users interact using self-created artefacts such as fan fiction, fan art and role play. Fandoms are a bricolage of unique forms of cultural production, as users actively produce and consume their own fandom (Pullen 2004, p. 81). Fan communities have their own communicative practices that involve language socialisation, adaptation and creative semiotic works, that are repurposed within a bricolage (Thorne et al. 2009, p. 806). These lead to new communication opportunities and include new uses of language and different, shifting typographic forms. Hybridised resources in fandoms promote new uses of typographic forms and conventions that differ from the 'traditional' grawlix used in comics. Therefore, we depart from the assumption that grawlix used by online fans on digital media may be perceived differently from grawlix used in comic strips. Consequently, we observe the emergence of new typographic genres.

Definitions of typography

This section outlines the definitions of typography relevant to this particular study. This study shares Mawhood's (2014, p. 4) views of typography as the visual manifestation of marks represented in any form of communication medium. Mawhood (2014) also discusses the ambiguities in typography and lettering. According to Baines and Haslam (2005), lettering is an illustrated, unique composition of letters; typography is related to repeatable units and specific graphic conventions often used in writing, which concerns the typographic form in relation to how it is produced. However, Mawhood (2014) argues this to be an ambiguous description of typography because it is concerned with articulated meaning within a visual framework and with the visual organisation of specific graphic forms. These views of typography are particularly relevant as typography itself does not communicate in isolation but relies on other visual interferences to communicate holistically. Therefore, in this study, we emphasise the importance of typographic layout and its interaction with visual interferences.

Typography in motion

Digital technologies enable ordinary users (non-professional typographers) to produce diverse typographic conventions. In this section, we define the current context of typography and how it is influenced by digital technologies and users.

People rely on typography more than ever as they access information and interact through digital screens. Reichenstein (2006) underlines the importance of typography as 95% of information on the web is (or was then) presented in written form. Lupton (2010, p. 9) regards typography as complimentary to writing as it gives visual expression to the writer's ideas, enhancing readability. Similar to the written form, typographic communication manifests in an author-text-reader relationship. This could be regarded as the interaction between the designer (author), typographic form (text) and audience (reader). Printed media clearly establish the author (designer) as the sole owner or producer of the text. Hence, typography is complete and fixed.

Conversely, digital media allow for multiple authorships. Thus, typography is open and fluid (ibid.). Yee (2006, p. 193) observes the contemporary shifts of typography, as designers do not

have absolute control but rather provide open templates for users to complete through their constant engagement and interaction.

The emergence of digital technologies has shifted the role of passive reader-consumer to that of active author-writer. In terms of the current study, we observe this in the transitions from printed media (comics) to digital media (social media platforms), in which online fans actively repurpose and reformat grawlix communication. This implies a typographic genre shift in grawlix. In the following section, we discuss Waller’s (1987) typographic genres model as a theoretical guideline to understanding the connection(s) between users, the user interface and typographic layout.

The typographic layout of the interface

An interface is defined as a visual feature that connects the device, the digital content and the user. In digital documents, users access and create content through the interface. Therefore, in this study, we focus on the typographic layout embodied in the digital interface. To do so, we define typographic genres and discuss how typographic layout helps to make sense of a certain typographic genre.

As highlighted by Waller (1987), the document layout has a particular generic structure that leads to certain expectations in reading and writing. Waller here regards typographic genres as dynamically non-sequential because these rely on visual inferences that are interpreted differently according to context and purpose. Waller distinguishes between linguistic and typographic genres based on the principle that linguistics presents a linear, sequential, internal and systematic structure (De Saussure et al. 1996). This linear sequence occurs through the arbitrary relationship between the abstract, virtual, internal system (signified) to the material form (signifier).

However, Waller (1987) suggests that typographic communication does not rely on any abstract internal systems or linear relationships between words. Rather, it relies on the document (medium) itself. By this means, the writer and reader rely on the expected layout conventions and constraints of a certain document. Based on this distinction, Waller (1999) proposes a genre model of typographic communication involving three stages: (1) the relationship between writer, text and readers, (2) functional constraints, and (3) genre structure (Figure 1).

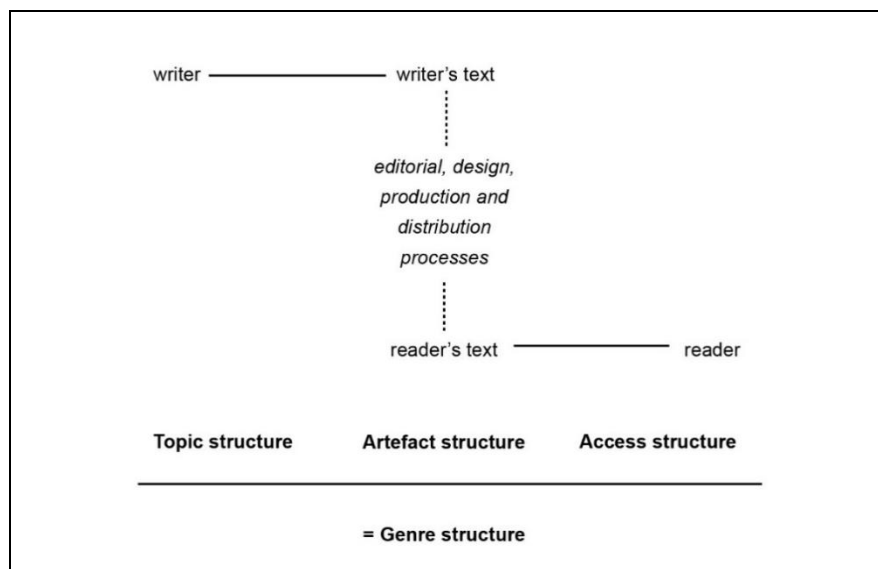


Figure 1: A diagram of Waller’s genre model (1999)

Waller (1987; 1999) introduces three important structures that lead to a certain typographic genre structure. These three structures influence how certain typographic layout choices are made and composed. 1) Topic structure concerns the composition of information and content by the writer to support their argument and intention. An example of a topic structure could be a writing plan, such as a photo session and mind mapping technique, 2) Artefact structure is associated with the constraints of the document and its technological production. This structure often influences a particular typographic choice, 3) Access structure investigates the interaction between text and reader. This structure focuses on how the reader gains access to the writer's text. Readers often self-organise and self-reference from their prior knowledge of a particular document style, especially if consistency or patterns appear in the layout as a visual cue (ibid.).

Finally, genre structure comprises the relationship between the three structures, as mentioned earlier. Waller (1987, p. 229) identifies and categorises four typical features of typographic genres:

- *Typical context of use*: Situations (such as industrial, domestic, educational and bureaucratic); products (such as books, periodicals, objects, packs and containers); and, in the case of historical examples, date of origination.
- *Typical format and configuration*: page (or field) size and shape; binding (where appropriate); paper or other surface material; and frequency and use of colour, grid and boundary (such as line, box, column, page, book and container).
- *Typical treatment of verbal language*: Composition system (such as letter, image quality); typographic style (such as atmosphere and associations); range of signalling (such as underlining, bold, and italics); and additional features (such as rules, tints and borders).
- *Typical treatment of visual elements*: Pictorial syntax or style; proportion of visual to verbal language; and how visual and verbal language are integrated.

This list effectively demonstrates how typographical genres are visually identified. Therefore, we attempt to uncover new typographic genres as they emerge on Twitter.

Interpretative Phenomenological Analysis (IPA)

The nature of this study involves uncovering a multiplicity of meanings and personal interpretations embodied in visual form. As per Waller's (1987) model of typographic genres, there is a need to understand the relationship between the writer, text and reader, as well as the functional constraints of certain documents, to underline particular typographic genres. This requires capturing the lived experience of online fans as active writers and readers, and how they make certain typographic decisions as they interact through digital interfaces and their social contexts.

Consequently, we adopt the Interpretative Phenomenological Analysis (IPA) as an underpinning analytical lens. IPA is based on the phenomenological tradition, which centres on interpersonal, subjective knowledge and experience (Reiners 2012). According to Pietkiewicz and Smith (2012), IPA provides a comprehensive guideline to investigate how individual experiences of certain phenomena in context and attach meaning to it. The methods are drawn to the thick descriptive and interpretative analysis of data obtained from the participant's perspective (Pietkiewicz & Smith 2012). Therefore, the IPA method involved treating data on a case-by-case basis through an open-ended approach that helped to capture the individual online fan's lived experiences of their process of typographic production and interpretation in the digital medium.

Methodology

The open and participatory nature of IPA encourages researchers to engage in participants' views of the world. In this regard, we employed three methods to capture data: 1) Participant observation of online fan communities on a social media platform; 2) Document analysis of interfaces and typographic layouts produced by online fans; and 3) Semi-structured interviews with six online fans to describe their experiences as active content producers and consumers. The study centred around online interactions on Twitter, a microblogging site where online fans share their fandom and enable research engagement through commenting and fan discussion.

Contextual analysis of grawlix on Twitter

In this section of the paper, we describe the journey of how typographic layouts are composed on Twitter from the perspective of online fans. As discussed earlier, IPA allows the researcher to immerse into the participant's world fully as the researcher is actively engaged in their natural settings. Subjective knowledge is described through the researcher's experience as an active fan. In what follows, we examine the Twitter interface and the lead researcher's experience as an online fan.

Twitter is populated with online text called 'tweet' or 'tweets'. According to Kelsey (2010, p. 181), a tweet refers to a short message and the act of writing a post. A tweet is published by a Twitter user and shown to followers who have subscribed to the Twitter user in a process known as 'following'. A Twitter user is a writer who publishes a tweet, and a follower is a reader of the tweet. However, it is important to note that the roles of writer and reader can easily shift as a Twitter user interacts with tweets by replying and commenting on other users' published tweets.

The Twitter interface consists of two important pages that are critical in establishing grawlix communication: 1) a Tweet Composer, and 2) a Home timeline. Online fans use the Tweet Composer to design and plan their tweets before they self-publish it (O'Reily & Milstein 2009). This relates to Waller's topic structure, where a user composes their text. A Home timeline is where followers gain access to other users' published tweets. This corresponds to Waller's access structure.

The multimedia features available on Twitter allow users to create layouts that are dynamic and typographically versatile. The Tweet Composer, as illustrated in Figure 2, has various multimedia features and options available. By clicking Tweet Composer items (Block A), Figure 2 illustrates a tweet generated within a text box in Block B. Underneath this text box, multimedia features are accessed, illustrated by Blocks C (pictures and videos) and D (GIFs).

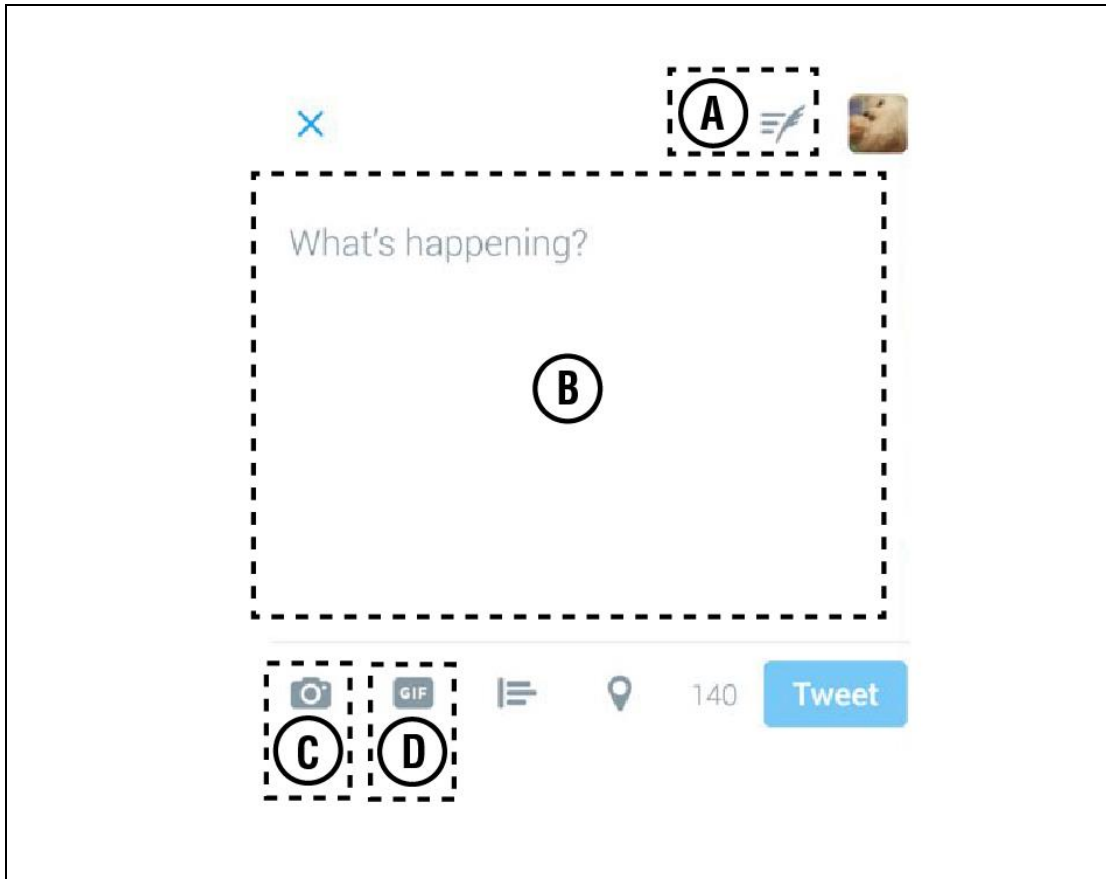


Figure 2: A screenshot of the Tweet Composer box

The various multimedia features in the Tweet Composer allow users to select various typographic layouts (see examples presented in Table 2). Many non-conventional typographic variables are often incorporated with or without text. These can include GIFs, emoticons, pseudo-alphabets and images or video with dynamic layout varieties. It is also important to note that eclectic and distributed aesthetics in typographic forms are produced through these multimedia features. Askehave and Nielsen (2005) emphasise that the multimedia feature of web text encourages users to produce polysemous text. For instance, the use of emoticons does not only serve to signify facial expression but could be used to substitute words or tones of the text in the given context (see example B, listed in Table 2).

The online fan's ability to create a bricolage of various existing resources leads to new typographic forms. The pseudo-alphabet is one such case. According to Eli the Bearded (2016), a pseudo-alphabet is an eclectic mixture of Unicode and symbols that are selected based on their superficial similarities. As illustrated in Table 2 (Example C), the user incorporated various non-linguistic symbols and linguistic characters (Korean Hangu, the English alphabet and Chinese characters) in composing a tweet. However, it is important to note that a pseudo-alphabet does not only denote character replacement: it could include any other graphic variations that are substitutions for any similar exterior appearance or linguistic connections to the original text.

	<p>Ding·↗·Dong·↘·Open·the·Doo·→r¶ → I·am·↗he↘·r↘·e¶ It·is·no·use·↗of↘·hi¶ ····· → Di¶ ····· → ·Ng¶ ¶ Ding·↗·Dong·↘·Open·the·Doo·→r¶ → I·am·↗he↘·r↘·e¶ It·is·too·late·to·hi↗d↓e·↘¶</p>
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Figure 3: An example of layout variations

Twitter has a tweet limitation of 140 chars (characters). This influences the choice and arrangement of multimedia features, such as emoticons, memes, or images. It is important to note the 140 characters limitation is closely related to artefact structure because it serves as a technical constraint within the document. This boundary creates a certain typographic convention and default interpretation. During interviews with online fans, participants mentioned Twitter’s character limitation as to the reason for making a certain typographical choice, for example, using abbreviations, acronyms or emoticons that take up fewer characters.

The online fans, as a reader often accesses tweets through their Home timeline page. This page features a list of published tweets (Figure 4), and this is where the user accesses others’ online text. This corresponds to Waller’s (1987) access structure as the Home timeline connects followers (readers) and text (produced by the writer). The default typographical layout featured in Twitter is illustrated in Figure 4. The list of tweets is organised vertically from top to bottom. Each tweet is separated by a light grey line (see F). G illustrates a standard typographical layout, which consists of a user’s profile picture or icon (H) on the left and the content of the tweet displayed on the right (I). The content of the tweet is headed by a username in bold (**@username**), signifying the writer. The user icon and username both serve to indicate the author of the tweet, so to differentiate from other users’ tweets displayed in the timeline. Directly below the tweet content (I), four functions are indicated in J, namely Reply, RT (Retweet), Like and DM (Direct Message). These enable users to interact with and respond to a tweet, using answering (reply), forwarding to others (RT), indicating approval (like) and direct private contact (DM). Furthermore, the ‘reply’ function can be used to extend the original tweet, thus compensating for the 140 character limitation, as illustrated in Figure 5.



Figure 4: Published tweets displayed on a Home timeline

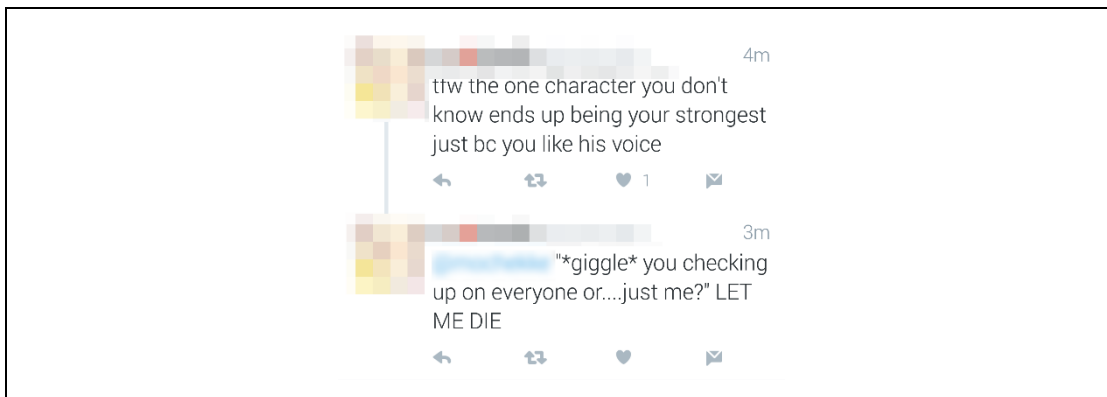


Figure 5: The reply function in Twitter

Apart from being a central information point, the Home timeline also provides a social space within which users interact. During an interview with one of the participants, she illustrated how she acquires new knowledge on new typographic forms and uses (see the interview in Figure 6).



Figure 6: The influence of others' typographic choices (Interview with P6)

This transcript demonstrates that many online fans acquire new typographic uses and forms by interacting with other users, which often occurs through the Home timeline. This indicates that typographic layouts used in grawlix are dynamically constructed through an online community. Based on the analysis of the typographical layout in Twitter, this section presents a summary of typographic genre structure on Twitter (Table 3).

Grawlix used in Twitter fits a genre of microblogging sites that are typically presented in short text messages, often limited to 140 characters. Because Twitter offers a virtual platform within which to socialise, grawlix is typically used by online fans in their contribution to fandoms. The use of grawlix is often interpersonal and self-expressive, as it serves a social and paralinguistic function. Online fans use the Tweet Composer to create dynamic typographical layouts that comprise a bricolage of grawlix and online resources. The 140 character limitation motivates online fans to look for alternative ways to compose their message, for example, by substituting words with emoticons.

The typical layout of grawlix in Twitter (Figure 4), consists of a profile picture and username, online text, and four multimedia functions. These functions lead to dynamic and unconventional typographical layouts (Table 2). Grawlix is accessed through the Home timeline, which users employ as a central information point to access and interact with others' tweets. This indicates that grawlix used by online fans is a dynamic and distributed aesthetic.

Table 3. Summary of findings

	Grawlix used in Twitter
Typical context of use	<ul style="list-style-type: none"> – Asynchronous setting – (text could be exchanged in offline and online interactions)
Typical format and configuration	<ul style="list-style-type: none"> – Character restriction: 140 characters – Image upload is restricted to four images and one GIF – Online text is produced within the compose box – Online text is accessed through the Home timeline
Typical treatment of	<ul style="list-style-type: none"> – Text is mostly accompanied by multimodal media

verbal language	– Text could be displayed vertically, horizontally, and diagonally
Typical treatment of visual language	– Diverse use of non-typographic features – Highly pictographic – Textual layout is dynamic – Use of external materials from other websites

Conclusion and implications

The invention of Gutenberg’s printing press enabled the mass production of print media, and the emergence of new typographic forms. Historically, many designers have been influenced by the technologies of their time to create their own typographic movements. We need to reflect on the relationship between technologies and audiences in the past to understand the current emergence(s) of typography. This can be achieved by studying the typographical layout in a particular medium. As technology shifts from print to digital (on-screen) media, this study examined the typographical genres embodied in a digital interface.

As Waller (1987) describes, the interaction between the typographic layout in a certain document, a writer and a reader, helps to establish a particular form of typographic communication. Hence, we examined the interaction between typographic layouts on the Twitter interface and online fans as active writers (composers) and readers. We conclude that there is a typographic genre shift in the use of gawlix. Where the original use of gawlix in comic strips serves to enhance the narrative (e.g. to represent obscenities), gawlix used in Twitter serves a social and interactive purpose. Here, online fans typically use gawlix for creative self-expression. In this regard, we find that gawlix is highly dynamic as it is being reshaped and repurposed by online fans through the bricolage process. This indicates that current notions and uses of typography in digital settings are fluid and include distributed aesthetics. As long as there are online users who create and interact, continuously, through digital platforms, typography will be in constant motion.

Acknowledgements

The authors would like to acknowledge the Departmental Research Committee in the Faculty of Informatics and Design, CPUT, for financial support in presenting this paper.

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