# Enhancing digital literacy through the understanding of multimodal creativity in social media: A case study of Elon Musk's social-influencer discourse in his Twitter posts

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**Abstract:** Digital literacy is becoming increasingly popular topic in education as online communication continues to evolve. Social media, in particular, have been the main driving force behind the monomodal-to-multimodal evolution, providing vast opportunities for multimodal texts and multimodal creativity production and dissemination. However, advanced searches on several academic databases performed in this study revealed a paucity of literature on multimodal creativity in social media, making it highly difficult for teachers of digital literacy to find references to support their teaching. This study conducts a case study of Elon Musk's social-influencer discourse in his Twitter posts in an attempt to enhance digital literacy through the understanding of multimodal creativity in social media. A total of 5,266 Musk's tweets dated between 1 Feb 2017 and 31 May 2019 (28 months in total) was collected and analysed before selecting five examples from 248 multimedia

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tweets for digital creativity multimodal analysis (DCMA). Using Law's (forthcoming; 2020) Analytical Framework for Creativity in Multimodal Texts (AFCMT) in DCMA, this study is able to identify Musk's multimodal creativity patterns and strategies.

**Keywords:** digital literacy, multimodal creativity, creativity, Twitter, social-influencer discourse, social media, Elon Musk, COVID-19

## Introduction

At the time of writing this article, the world is combating a global coronavirus (COVID-19 / SARS-CoV-2) pandemic (Kopecki et al., 2020; Mason & Duran, 2020) that, to date (April 17, 2020), has recorded over two million confirmed cases and has caused nearly 150,000 deaths worldwide (Schiffmann, 2020). With more than 20% of the world's population placed under lockdown (Gilbert, 2020) and schools across the world shut (UNESCO, 2020), education is witnessing a tectonic shift from traditional face-to-face teaching to distant learning. This has caused problems for both the teachers and learners. Educators are suddenly finding themselves playing catch-up in terms of acquiring knowledge about the latest online technology and pedagogy (Lederman, 2020; Kamenetz, 2020; Miller, 2020) as well as about the use of social media for communication with students (Chinyamurindi, 2020). Students, on the other hand, must rely much more on themselves to tackle individual online assignments and group online project work, all of which require high level of digital literacy, involving skills such as creativity, critical thinking and evaluation, cultural and social understanding, collaboration, critical information searching, and more.

Among the skills listed in several popular models of digital literacy in education (Hobbs, 2010; Joint Information Systems Committee, 2015; Payton & Hague, 2010; Virginia Tech, 2020), creativity (or the skill of creation) plays a central role in meaning making and communication – and logically so – given how the advent of social media and mobile devices has revolutionised the way creations are made and disseminated as well as how the world redefines creativity at the rise of Facebook, Twitter, Instagram and Snapchat. With the introduction of videos, images, emojis and animated GIFs into social media posts, creativity in its multimodal form has arguably dethroned its pure-textual monomodal predecessor to become the more preferred representation of digital creativity at the fingertips.

Indeed, everyone has the potential to engage in digital multimodal creativity, and yet, as for Twitter in the U.S., at least 80% of all tweets were created by the top 10% of the tweeters (Wojcik & Hughes, 2019). Among the most prolific tweeters are the influencers who had very strong impact on other Twitter users' personal decisions,

including raising their intent to make purchases by 2.7 times (Karp, 2016). Because the influencers have such ability to influence their global followers and that our students are constantly exposed their digital multimodal creations, this form of creativity within the influencer's social media discourse is worthy of educators' attention and a study that provides an in-depth understanding of the creativity's construction and enhances the creativity aspect of digital literacy.

## Digital literacy

Digital literacy, at the current stage of technological development, refers to one's ability to understand and evaluate (Bawden, 2001), and use information of various formats on a range of digital platforms (Gilster, 1997), involving technical, cognitive, emotional (Knobel & Lankshear, 2007; Lankshear & Knobel, 2011) as well as sociocultural awareness and competence (Lankshear & Knobel, 2008). When viewed from an educational perspective, digital literacy can be considered "as a shorthand for the myriad social practices and conceptions of engaging in meaning making mediated by texts that are produced, received, distributed, exchanged, etc., via digital codification" (Lankshear & Knobel, 2008, p. 5).

In an idealistic and simplistic scenario, in order to satisfy the definition of achieving digital literacy, a sender should first fully understand their own thoughts and the facts supporting the messages one intends to convey (i.e., critical thinking), then evaluate those thoughts or messages in terms of appropriateness (i.e., critical evaluation), before translating them into actual texts when creating their digital messages (i.e., creativity). After messages are sent to certain receiver(s), the sender takes on the role of a receiver and awaits replies, if any. They should try to understand the facts behind any feedback made by commenters, then evaluate those comments critically before composing an appropriate reply, thus completing the communication cycle (see Shannon & Weaver, 1964, p. 7, on the description of electronic communication system; and Saussure et al., 1916, p. 28, on his schematic of the speech circuit).

In reality, modern capabilities of digital media such as Twitter, Facebook, Instagram and Snapchat, and even more traditional forms such as emails and forums, have shifted the focus of communication from digital information transmission to online social networking. Messages are now rarely created and transmitted as pure texts – in its everyday sense as pieces of writing – but rather as multimodal 'texts' – in the linguistics sense as instances of the linguistic system (Halliday & Matthiessen, [1985] 2014). The multimodal discourse becomes richer as the number of semiotic resources increase (commonly through the addition of images, videos and emojis, as well as the

use of various combinations of font types, colours and sizes, to name a few), providing opportunities for multimodal creativity to occur and multiple ways for meaning making. This, however, adds new layers of complexity to the aforementioned communication cycle and thus increases the level of difficulty in fulfilling the definition of digital literacy.

For instance, in the context of computer-mediated communication (CMC), multimodal creativity – a mode of creativity that is realised "through configuring and reconfiguring relationships between words, images, sound, and movement in original and recycled texts" (Maybin, 2015, p. 37) – can occur in one or multiple semiotic resources of a sender's message through the process of reforming and forming patterns (Law, 2020; 2019; forthcoming). The interplay between semiotic resources not only can form patterns of creativity within a sender's message intratextually, but also among all reply messages sent by other discourse participants intertextually. In addition, patterns of creativity can also be formed in the process of making implicit or explicit references (Law, forthcoming; 2020). Such complexity could pose some challenges to both teachers and learners of digital literacy and multimodality.

## Multimodal creativity in social media and related literature

While social media are arguably a main source of multimodal creativity (and creativity in general) (Maybin, 2015), research in this specific topic has been relatively scarce when compared to the burgeoning literature on social media as a whole. In order to obtain a clearer picture of the number of research output related to multimodal creativity in social media, advanced searches were performed on several academic databases with freely accessible search engines, consisting of ERIC: Educational Resource Information Center, JSTOR, ScienceDirect, SpringerLink, WorldCat.org, and Google Scholar. The advanced search criteria are as follows:

a) Containing at least one of the following words: 'social media', 'social networking site', 'microblogging' anywhere in the publication;
b) Included the exact phrase 'multimodal creativity' anywhere in the publication, except reference list;
c) Published between 2004 and 2018, from the year the world's first and largest online social media and social networking service company Facebook was launched to the year-end prior to this study;
d) Included results across all disciplines, not only from linguistics;
e) Included results from book chapters, conference papers, research articles, book reviews published in English.

Among the search results returned (Table 1), only two are research related to multimodal creativity in social media: Newon (2011) adopted an anthropological approach to the discourse analysis of the MMORPG World of Warcraft Guild, whereas Skrains (2017) took the term 'creativity' in multimodal creativity to mean 'composition' in creative writing of digital texts, and analysed her own digital composition at various stages of her acquiring explicit knowledge of digital fiction. The former, despite having an embedded instant messaging functionality similar to that in certain social media platforms, does not fit into the category of social media; the latter, while related to digital literacy, did not place emphasis on multimodality nor social media. With limited research output, educators who wish to teach multimodal creativity in social media to our digital native students will likely find themselves deprived of models, frameworks and theories to support their teaching.

***Table 1.*** Advanced search results on academic databases

| Academic database | Results returned | Research on multimodal creativity in social media |
| --- | --- | --- |
| ERIC | 1 | 0 |
| JSTOR | 2 | 0 |
| ScienceDirect | 1 | 0 |
| SpringerLink | 2 | 0 |
| WorldCat.org | 4 | 1 |
| Google Scholar | 45 | 1 |

Indeed, educators can still extract relevant information on multimodal creativity from an ocean of publication on social media, with popular approaches ranging from the broad, corpus-based analysis of the new media genre (Zappavigna, 2012; Bamman et al., 2014) to specific case studies of hashtagged events (Lindgren & Lundström, 2011; Zappavigna, 2011; Zappavigna, 2012; Zappavigna, 2015; Reyes et al., 2012; Rightler-Mcdaniels & Hendrickson, 2013) and business-to-consumer (B2C) communication (Jansen et al., 2009; Thoring, 2011; Schultza et al., 2011; He et al., 2013; Kim et al., 2014; Li et al., 2013; Page, 2014; Ruehl & Ingenhoff, 2015). However, despite the valuable insights that can be drawn from these researches, the effectiveness of such approach is questionable. This calls for a more targeted approach to the study of multimodal creativity on social media, and a case-study of individuals' social media posts, in this case, can be a relatively more centralised and practical option.

There are three main reasons supporting the case-study of individuals' work:

I. Multimodal creativity on social media is partly, if not largely, contributed by repost, shares and retweets. Thanks to the design of social media platforms, the creator of an original creative instance is almost always traceable. It is therefore far more effective to target individual creators and study their creative instances than trying to search for multimodal creativity from a wide range of research.

II. Creators of multimodal creativity on social media, if identified in the right way, tend to be consistent in the production of multimodally creative instances (e.g. language style, amount), which is desirable for data collection.

III. Specific hashtagged events and B2C communication using company accounts, apart from omitting the creative individuals mentioned in i) and ii), generally exclude an influential group of social networking site users who use their personal accounts to communicate both personal and business purposes, sometimes without using hashtags.

The social media discourse produced by these influential individuals, also known as key opinion leaders (KOLs) or influencers, is arguably a unique subset of social media discourse – a social-influencer discourse (see Brooke & Ng, 1986; and Reid & Ng, 2000 on original concept of social influence; and see Fry, 2018 on coinage) – which is a hybrid of social media discourse and business / marketing communication with a purpose of influencing social behaviour. These influencers generally practise personal branding, market themselves and their careers as brands (Lair et al., 2005; Groskop, 2008), and are highly accessible to the general public (Lopatto, 2018). Examples of successful individuals with strong associations between their names and their products are Kim Kardashian West (founder of KKW Beauty and Fragrance), Richard Branson (founder of Virgin Group), J.K. Rowling (author of the Harry Potter fantasy series) and Elon Musk (co-founder and CEO of Tesla and Neuralink, founder and CEO of SpaceX, founder of The Boring Company, co-founder of OpenAI, owner of X.com and stankmeme.com). Among these elite individuals, Elon Musk's Twitter account presents as a valuable case study for multimodal creativity in social-influencer discourse.

**Elon Musk's Twitter post as the source of social-influencer discourse**

*"As important as Steve Jobs was, no doubt about it — [and] you have to add him to Bill Gates, because they birthed the personal computing revolution kind of together — here's the difference: Elon Musk is trying to invent a future, not by providing the next*

*app […] What Elon Musk is doing is not simply giving us the next app that will be awesome on our smartphone. No, he is thinking about society, culture, how we interact, what forces need to be in play to take civilization into the next century."*

*(Neil deGrasse Tyson, 2018)*

Referred to as the real-life 'Iron Man' on whom Robert Downey Jr modelled for his 2008 Marvel Studio film Iron Man (Johnson, 2016; Hern, 2018), Elon Musk is one of the most 'tweet-prolific' multi-corporation founder-CEOs who frequently posts on his Twitter account for social-influence communications (Dubois, 2016; Lopatto, 2018). Ranked number 2 in Forbes' list of The World's Most Innovative Leaders (Allen, 2018), the disruptive innovator uses his personal Twitter account to make major announcements and minor product updates about his companies, namely Tesla, SpaceX, OpenAI and The Boring Company, producing tweets which are powerful enough to literally move the stock markets (Davies, 2018).

Musk also interacts with his 26.7M Twitter followers (till 1 June 2019, growing at about one million per month) at a frequency which is atypically high for a CEO of his stature and calibre, often in the form of a 'tweetstorm' (Jivan, 2016), a neologism which refers to a series of Twitter messages posted in rapid succession. A research has shown that Musk was tweeting as many as almost 400 in May 2018, of which almost 80% were replies (Coren & Zhou, 2018). It is not uncommon to see Musk replying tweets of requests and constructive feedback from his Tesla customers (Lambert, 2018a), nor making creative comments purely for entertainment purposes (Lambert, 2018b).

The influential figure's willingness to share his views about his companies on Twitter makes him the primary news source for all news media and the main target for short-sellers (Stewart, 2018). The outspoken Musk was eventually charged by the U.S. Securities and Exchange Commission (SEC) "with securities fraud for a series of false and misleading tweets about a potential transaction to take Tesla private" (U.S. Securities and Exchange Commission (SEC), 2018a) (see Musk, 2018a, for his "Funding secured" tweet), who agreed to pay a total of US$60 million settlement claims and penalties, stepped down as chairman of Tesla, and to establish a new committee of independent directors to oversee Musk's tweets (U.S. Securities and Exchange Commission (SEC), 2018b). The settlement agreement was amended with specifics in April 2019 on how the Tesla CEO will need to obtain pre-approval from an "experienced securities lawyer" before any written communication is released (Wattles, 2019).

The purpose of this study is to "demystify[] multimodal creativity" (Nelson & Johnson, 2014, p. 2) and promote digital literacy through the analysis of Elon Musk's

multimodal creativity in his Twitter posts using a clear yet simple framework.

## Data and methodology

This section describes the key concepts of a selected framework that facilitated the analysis this study and the steps taken to compile a collection of Elon Musk's tweets.

### *Analytical framework for creativity in multimodal texts (AFCMT)*

This study adopts the digital creativity multimodal analysis (DCMA) approach using Law's (2020; forthcoming) Analytical Framework for Creativity in Multimodal Texts (AFCMT). AFCMT is a multimodal extension of Carter's (2004) hypothesis of linguistic creativity, which states that linguistic creativity is conceptually governed by both the reforming and forming of creative patterns. The former involves "a marked breaking or bending of rules and norms of language, including a deliberate play with its forms and its potential for meaning" (Carter, 2004, p. 9). The latter refers to "creativity via conformity to language rules rather than breaking them, creating convergence, symmetry and greater mutuality between interlocutors" (Vo & Carter, 2010, p. 303).

AFCMT takes three concepts into consideration. First, it borrows Carter's notion of pattern-reforming and pattern-forming creativity. Second, it adapts the concept of given and new information status from Halliday's (1967) systemic functional linguistics to explain the referencing style of creativity in terms of endo-reference and exo-reference respectively. Third, it identifies implicitness and explicitness of the formula of creativity construction. Together, implicit, explicit, endo-referenced and exo-referenced form the IEEE matrixes for pattern-reforming creativity and pattern-forming creativity, as shown in Table 2.

**Table 2.** Analytical framework for creativity in multimodal texts (AFCMT), adapted from Law (Law, 2020; forthcoming)

| Types of creativity | Formula of creativity construction | Reference style | |
| --- | --- | --- | --- |
| | | Exo-referenced | Endo-referenced |
| Pattern-forming | Implicit | Direct use/quoting of external resources such as famous lines, quotes, speeches, sayings, idioms, metaphor, song lyrics, classic paintings, | Repeating/playing along with existing resource/someone's creation to the user or witnesses of such use of it without explicitly showing the |

| | | movie scenes and dialogues without explicit citation of the source and explicitly showing the formula of repetition (Assumed). | formula of repetition (Assumed). |
|---|---|---|---|
| | Explicit | Direct use/quoting of external resources such as famous lines, quotes, speeches, sayings, idioms, metaphor, song lyrics, classic paintings, movie scenes and dialogues by explicit citation of the source by explicitly showing the formula of repetition (Known). | Repeating/playing along with existing resource/someone's creation to the user or witnesses of such use of it by explicitly showing the formula of repetition (Known) |
| Pattern-reforming | Implicit | Direct creation of New/neologism without explicit citation/indication of the source and explicitly showing the formula of creation (Assumed). | Direct creation of New / neologism using existing resources without explicitly showing the formula of creation (Assumed) |
| | Explicit | Creation of New/neologism by explicit citation/indication of the source and by explicitly showing the formula of creation (Known). | Creation of New/neologism using existing resources and by explicitly showing the formula of creation (Known). |

From the IEEE matrix, Law (forthcoming) developed the cline of creativity complexity (CCC) by positing that i) explicit formula of creativity construction requires less mental effort in understanding than the implicit counterpart, and ii) endo-referenced creativity requires less prior knowledge of the reference involved than its exo-referenced counterpart. This concept helps define four IEEE types of creativity: explicit & endo-referenced (CCC level 1), explicit & exo-referenced (CCC level 2), implicit & endo-referenced (CCC level 3), and implicit & exo-referenced (CCC level 4), listed in ascending level of creativity complexity as illustrated in Figure 1.

All in all, using the AFCMT for DCMA, we can analyse multimodal creativity in terms of the types of creativity, the formulas of creativity construction, the reference style, and the level of creativity complexity.

**Figure 1.** The cline of creativity complexity (CCC)
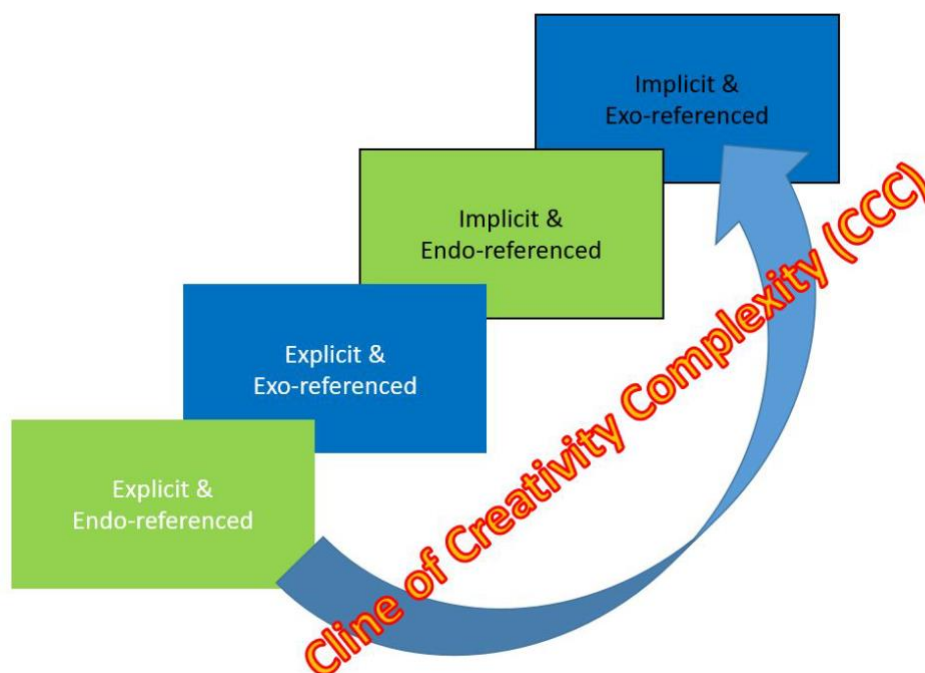


**The Elon Musk tweet collection**

The search for instance of multimodal creativity was facilitated by a collection of Elon Musk's tweets. A total of 5,266 tweets dated between 1 Feb 2017 and 31 May 2019 (28 months in total) were collected from Musk's Twitter account. The tweets were first sorted in three types: tweets (exclude replies), replies, and retweets. The numbers and percentages are listed in Table 3.

**Table 3.** Breakdown of Elon Musk's tweets (02/2017 – 05/2019) by types

| Month | Tweets (exclude replies) | | Replies | | Retweets | | Total |
|---|---|---|---|---|---|---|---|
| 02/2017 | 34 | 25.19% | 91 | 67.41% | 10 | 7.41% | 135 |
| 03/2017 | 16 | 13.68% | 79 | 67.52% | 22 | 18.80% | 117 |
| 04/2017 | 9 | 19.57% | 25 | 54.35% | 12 | 26.09% | 46 |
| 05/2017 | 41 | 31.30% | 73 | 55.73% | 17 | 12.98% | 131 |
| 06/2017 | 63 | 29.44% | 133 | 62.15% | 18 | 8.41% | 214 |
| 07/2017 | 39 | 29.32% | 76 | 57.14% | 18 | 13.53% | 133 |
| 08/2017 | 37 | 26.81% | 92 | 66.67% | 9 | 6.52% | 138 |
| 09/2017 | 15 | 27.27% | 30 | 54.55% | 10 | 18.18% | 55 |
| 10/2017 | 23 | 25.00% | 51 | 55.43% | 18 | 19.57% | 92 |
| 11/2017 | 20 | 46.51% | 19 | 44.19% | 4 | 9.30% | 43 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12/2017 | 32 | 31.68% | 65 | 64.36% | 4 | 3.96% | 101 |
| 01/2018 | 23 | 40.35% | 26 | 45.61% | 8 | 14.04% | 57 |
| 02/2018 | 53 | 53.00% | 39 | 39.00% | 8 | 8.00% | 100 |
| 03/2018 | 36 | 29.51% | 77 | 63.11% | 9 | 7.38% | 122 |
| 04/2018 | 27 | 29.03% | 55 | 59.14% | 11 | 11.83% | 93 |
| 05/2018 | 81 | 19.38% | 303 | 72.49% | 34 | 8.13% | 418 |
| 06/2018 | 68 | 17.04% | 296 | 74.19% | 35 | 8.77% | 399 |
| 07/2018 | 45 | 14.71% | 232 | 75.82% | 29 | 9.48% | 306 |
| 08/2018 | 31 | 18.45% | 106 | 63.10% | 31 | 18.45% | 168 |
| 09/2018 | 29 | 19.21% | 102 | 67.55% | 20 | 13.25% | 151 |
| 10/2018 | 63 | 23.95% | 171 | 65.02% | 29 | 11.03% | 263 |
| 11/2018 | 65 | 28.89% | 130 | 57.78% | 30 | 13.33% | 225 |
| 12/2018 | 51 | 18.68% | 169 | 61.90% | 53 | 19.41% | 273 |
| 01/2019 | 49 | 22.58% | 136 | 62.67% | 32 | 14.75% | 217 |
| 02/2019 | 40 | 18.18% | 155 | 70.45% | 25 | 11.36% | 220 |
| 03/2019 | 50 | 15.48% | 204 | 63.16% | 69 | 21.36% | 323 |
| 04/2019 | 76 | 18.63% | 297 | 72.79% | 35 | 8.58% | 408 |
| 05/2019 | 55 | 17.30% | 223 | 70.13% | 40 | 12.58% | 318 |
| Grand Total | 1,171 | 22.24% | 3,455 | 65.61% | 640 | 12.15% | 5,266 |

The tweet collection was then used as the point of departure for searching instances of multimodal creativity, starting from tweets to replies and to retweets, before the entire collection was manually scanned for creativity instances in multimodal texts. The manual search was prioritised in such a way because tweets and replies are relatively more prone to pattern-reforming and pattern-forming creativity than retweets, as retweets can simply be the sharing of someone's tweets without any new information added. A sample of Musk's tweets was selected for DCMA and results of the analysis are presented in the next section.

**Analysis and discussion**

Between 1 Feb 2017 and 31 May 2019, Musk tweeted 248 times using images, videos and GIFs (accessible by visiting https://twitter.com/elonmusk/media), with 1,918 accompanying words, averaging 7.73 words per tweet. The non-frequent use of text in his 'media' tweets showed that images, videos and GIFs were generally adequate for him to convey his messages. The following examples will illustrate some

of the multimodal strategies Musk has adopted in his multimedia tweets during this period, namely the one-image reply, 're-creativity', the text inside an image, re-meaning making of emojis, and the April Fools' hoax.

### The one-image reply

In this example (see Musk, 2017 & Figure 2), news media The Verge posted a tweet "The world's first crewless ship will launch next year" together with a computer-generated image (CGI) of a ship by a port. In response to the tweet, Musk tweeted a reply "Umm…" with an image of one of SpaceX's three existing autonomous spaceport droneships (ASDS) named "Of Course I Still Love You".

**Figure 2.** Umm…Of course I Still Love You

On the surface, the repetition of crewless ship images is the only instance of pattern-forming creativity; however, the actual forming of creative pattern occurs between the ASDS and the text "The world's first crewless ship" instead. This is indicated by Musk's "Umm…", an exclamation signalling a counterevidence to the claim made by The Verge. For the readers of this Twitter thread who are without any background knowledge of Musk's ASDS image, will simply find themselves puzzled by his response. This is because Musk has assumed that the readers, including The Verge, have prior knowledge of i) the vehicle in the image is a ship, ii) that the vehicle is also a crewless ship, iii) that it is owned by Musk's company SpaceX, iv) that it is real instead of a CGI, and v) that it is in operation now and not "next year", which therefore, makes it the "world's first crewless ship". With all these out-of-context information involved, it is clear that this instance of implicit, exo-referenced pattern-forming creativity at CCC level 1.

### *'Re-creativity' in tweets*

In this example (see Musk, 2019a & Figure 3), Musk tweeted an image of featuring five sub-images of a muscular man with Musk's face, adding the text message "Yeah, I lift a little ..." For readers of this tweet who are unfamiliar with Musk's look and his humour, they are likely to accept these images and his words as facts. However, Musk is in fact engaging in two instances of creativity: a) the photoshopping of his face onto images of actor 'The Rock' Dwayne Johnson, b) the forming of pattern between the text "I lift a little..." and the image as a whole.

**Figure 3.** The Elon Rock
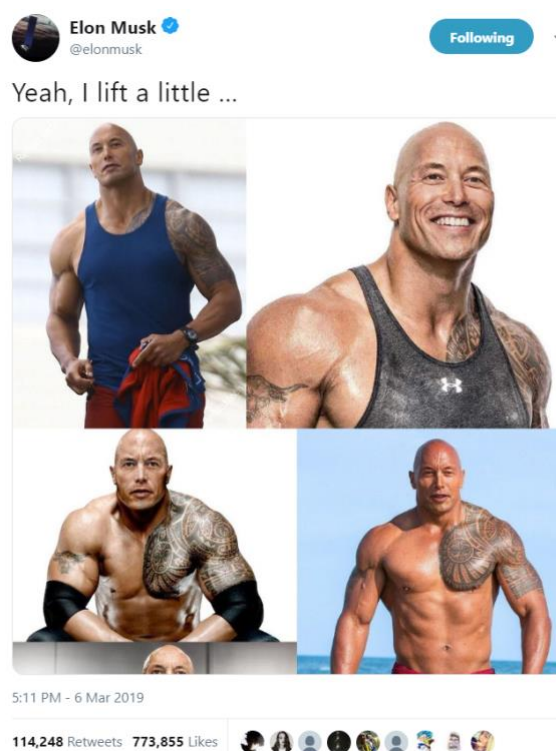
In a), pattern is reformed from the original images of Dwayne Johnson to those of Musk with a muscular body. This requires prior knowledge of the original tattoos and physique of Dwayne Johnson and Elon Musk, their original facial appearance, and maybe even the original photographs taken by Dwayne Johnson. Because this information cannot be obtained from the tweet, and that Musk has not provided any indications that the images are manipulated, this instance of creativity is an implicit, exo-referenced pattern-reforming one at CCC level 4. In b), the pattern formed between the text "I lift a little..." and the entire image makes a reference to information within the tweet, making it an endo-referenced instance. However, readers of the tweet will need to figure out the meaning of "lift" (i.e., weightlifting) using the information in the image. This requires an implicit understanding of the relationship between the text and image before the correct meaning of "lift" can be determined. Owing to this, b) is an instance of implicit, endo-referenced pattern-forming creativity at CCC level 3.

### The text inside an image

In this example (see Musk, 2018b & Figure 4), Musk tweeted a screenshot of The Boring Company' webpage together with the text message "Customs problem solved!". The screenshot consists of a few elements: The Boring Company logo, a website navigation bar, an image of a flamethrower in black and white colour, the texts "The Boring Company not a Flamethrower", "Flamethrower Sales Are Now Complete", a button with the text "20k Flamethrowers Sold", and the texts "Guaranteed to liven up any party! World's safest flamethrower!"

Differing from the previous two examples, the creativity in this example does not stem from human objects nor thing objects, but rather from texts of different fonts. The instance of multimodal creativity in this tweet originates from the interaction between "The Boring Company Flamethrower" in bold text of one font type and "not a" in another font type at an angle. Because "not a" is positioned in a way that can be perceived as inserted between "The Boring Company" and "Flamethrower", the name of the flamethrower is transformed. The formula of creativity construction is a simple concatenation of the strings "The Boring Company", "not a", and "Flamethrower" that created a new term for an existing item, and therefore, it is an instance of explicit pattern-reforming creativity. In terms of reference style, readers of this tweet are expected to be familiar with another post Musk tweeted hours before this, if not the entire development of The Boring Company flamethrower.

**Figure 4.** The Boring Company not a Flamethrower
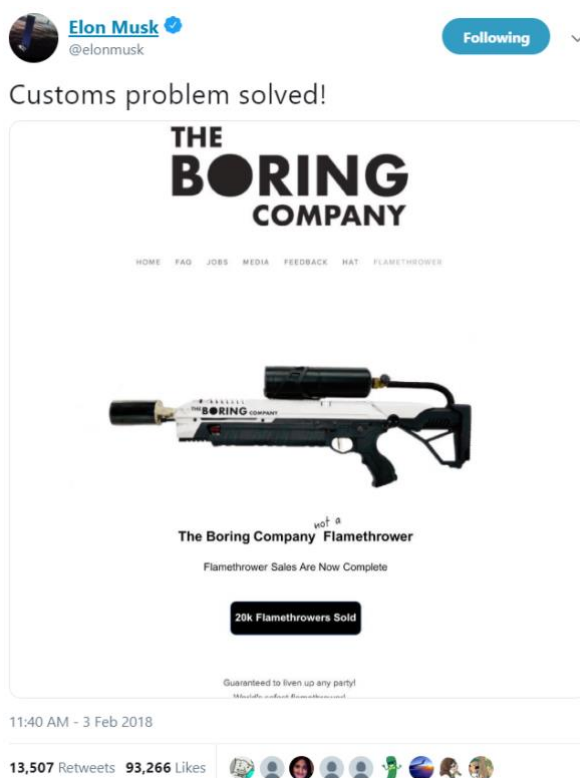


Its origin can be traced back to 11 December 2017 when Musk began tweeting about the sale of The Boring Company flamethrowers, which was eventually sold out on 1 February 2018. On 2 February 2018, Musk tweeted both the problem with and the solution to customs agencies not shipping the flamethrowers to his customers (see Figure 5). Figure 4 was a tweet that Musk tweeted hours after his tweet in Figure 5. Because this information is not provided in the Figure 4 tweet, our example belongs to an instance of explicit, exo-referenced pattern-reforming creativity at CCC level 2.
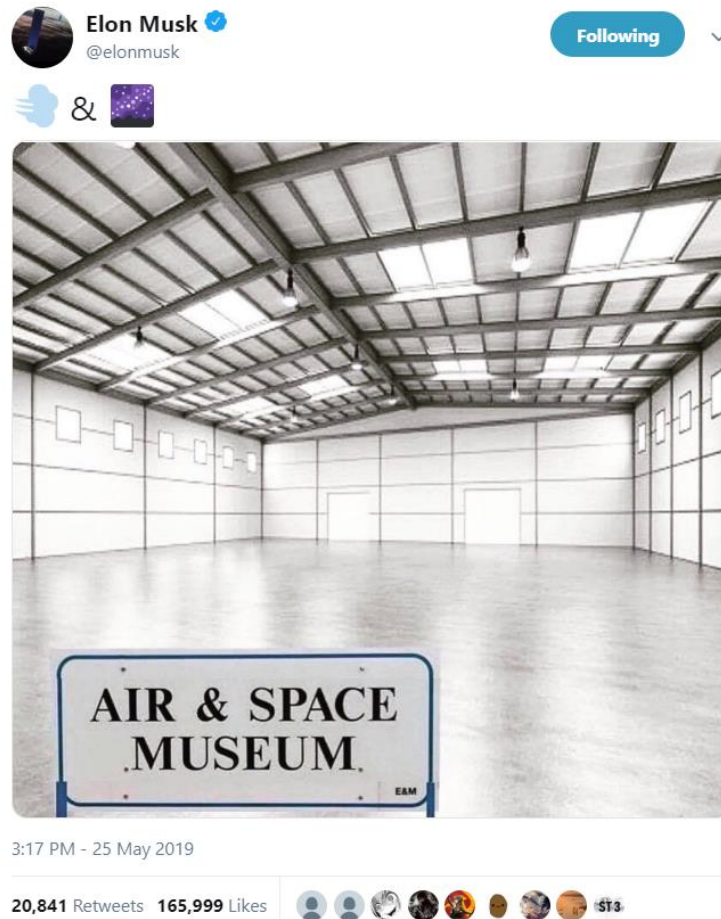
**Figure 5.** Not a Flamethrower

### Re-meaning making of emojis

In this example (see Musk, 2019b & Figure 6), Musk tweeted an image of a well-lit warehouse with a sign that prints "AIR & SPACE MUSEUM" with the text message "(Dash symbol) & (Milky way)", where (Dash symbol) and (Milky way) are displayed as emojis in the tweet.

**Figure 6.** (Dash symbol) & (Milky way)



From this tweet, we can see several instances of multimodal creativity. These include:

    a)  the reforming of meaning made by the emojis from (Dash symbol) and (Milky way) to 'air' and 'space' respectively,

    b)  the forming of pattern between the text "AIR & SPACE MUSEUM" in the image and the abstract constructs of air and space in the well-lit warehouse,

    c)  the reforming of traditional meaning of "AIR & SPACE MUSEUM" from a museum that exhibits aviation and spaceflight history, science and technology to a museum that exhibits colourless air and empty space,

and

d) the forming of pattern between the emojis with the reformed 'air' and 'space' meaning and the abstract constructs of air and space in the image.

In a), the reforming of meaning of emojis makes an endo-reference to the content of the image, in particular, the text on the sign in the image. The formula of creativity construction is direct and obvious, and therefore, this is an instance of explicit, endo-reference pattern-reforming creativity, at CCC level 1. In b), the forming of pattern between the text "AIR & SPACE MUSEUM" and the abstract constructs of air and space in the same image is an endo-reference, but the formula of creativity construction is implicit because there are no visible pointers indicating the presence of air and space, as a result, it is an instance of implicit, endo-referenced pattern-forming creativity at CCC level 3. In c), the reforming of meaning of "AIR & SPACE MUSEUM" is an endo-reference as both air and space are elements conveyed within the image, but how the reforming of meaning is processed has not been made explicit. Therefore, this is an instance of implicit, endo-referenced pattern-reforming creativity at CCC level 3. In d), the forming of pattern between the emojis with the reformed 'air' and 'space' meaning and the abstract constructs of air and space in the image is again an endo-reference within the image, but one that has a formula of creativity construction that is untold. It is therefore an instance of implicit, endo-referenced pattern-forming creativity at CCC level 3.

In total, Musk has used four instances of creativity – one CCC level 1 and three CCC level 3, including two pattern-reforming and two pattern-forming creativity.

### *The April Fools' hoax*

Musk has a habit of tweeting jokes on April Fools' Day. In this example (see Musk, 2018c & Figure 7), Musk tweeted three times in a thread joking that "Tesla has gone completely and totally bankrupt" on 1 April 2018. The texts in the three tweets provide the essential information for readers to understand the context of the image he shared in the third tweet. In that third tweet, he posted "Elon was found passed out against a Tesla Model 3, surrounded by "Teslaquilla" bottles, the tracks of dried tears still visible on his cheeks. This is not a forward-looking statement, because, obviously, what's the point? Happy New Month!" together with an image of him wearing an 'Elon' tee-shirt, covered by a piece of torn cardboard paper from a Tesla high-powered wall connector box that has the word 'Bankwupt!' written on it.

The instances of multimodal creativity lie in the 'things' mentioned in the texts that are absent in the image (rather than present, as we would normally expect from

any instance of multimodal creativity), namely, a) 'bankrupt' and b) 'Teslaquilla' bottles. It is generally understood that April Fools' jokes are not to be taken seriously, but Musk left these three clues behind to ensure readers do not mistaken this joke to be a genuine fact.

**Figure 7.** Tesla Goes Bankwupt!

In a), Musk first established the "Tesla Goes Bankrupt" story in text using a typical press release structure that includes a headline and date and location at the start of the first paragraph. After using the word 'bankrupt' twice and 'bankruptcy' once and forming a pattern, he breaks this pattern by purposely using "Bankwupt!" instead of 'Bankrupt!" in the image. One way to interpret this is that because 'bankwupt' is not 'bankrupt', Tesla has not actually "gone bankrupt". In this instance of pattern-reforming creativity, Musk engaged in wordplay both in the textual sense (i.e., the wrong spelling of 'bankrupt') and in the multimodal sense (i.e., the interaction between typed-out text and handwritten text-in-the-image). The formula of creativity construction is explicit as it is clearly visible and comparable in the tweet message and in the image, and the words 'bankupt' and 'Bankwupt' are found within the same tweet thread. Therefore, this is an instance of explicit, endo-referenced pattern-reforming creativity at CCC level 1.

**Figure 8.** Teslaquila



10:35 AM · Apr 15, 2018 · Twitter for iPhone

In b), the word 'Teslaquilla' is an instance of implicit, (semi-)exo-referenced pattern-reforming creativity at CCC level 4. It is a portmanteau created from the merger of 'Tesla' and 'Tequila'. The formula of creativity construction of this word is implicit, and the word 'Tequila' is not mentioned in any of the three tweets. It was only till 15 April 2018 that Musk finally tweeted an image of a bottle of 'Teslaquila' to clarify that this 'Teslaquila' was in fact not part of the April Fools' hoax (see Musk, 2018d & Figure 8).


**Conclusion**

While five examples of tweets cannot possibly cover all multimodal strategies adopted by Musk, nor does Musk's tweets alone represent the general picture of social-influencer discourse in the social media realm, these examples have shown how multimodal creativity can be analysed through the application of the AFCMT in DCMA to extract useful information and behaviour patterns. For example, in order to fully understand Musk's tweets, readers are expected to have certain level of prior knowledge about him as an individual and about his companies, as required by the exo-references. Readers are also assumed to be able to decrypt the implicitness of his tweets, especially in terms of the connections between texts and images, as well as between texts-in-the-images. Musk's multimodal tweets tend to use written text sparingly, as mentioned at the beginning of the Analysis section. This makes the visual elements even more important in expressing his multimodal creativity and construing meanings. All these observations are made possible by the AFCMT in DCMA.

For teachers of digital literacy, it is essential that we and our students learn not only how to create a digital text from the surface, but also how to analyse the interactions between various modes in order to understand and appreciate the creativity deeper within. This will require a high level of technical, cognitive and sociocultural awareness from both teachers and students. At a time when creativity – a skill which can almost be considered as second nature to our Gen Z – is at the centre stage of many internet users' social media life, it is of paramount importance that educators play a hard game of catch-up to equip ourselves with practical theories, analytical frameworks and the technical know-how in order to be competent enough to teach our 'digital natives' (see Prensky, 2001, for the use of term) as well as those who are in need of digital literacy (Good, 2019; Yates, 2020).

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