

Oluwayemisi Olusola Adebomi*

Surviving covid-19: a multimodal discourse analysis of new media covid-19 vaccination-related pictorials

<https://doi.org/10.1515/lass-2023-0035>

Received September 30, 2023; accepted November 20, 2023

Abstract: This paper explores the communicative acts deployed in covid-19 vaccination-related pictorials circulated on digital media platforms. Seven internet images were purposively sampled with a view to exploring their communicative functions as well as their generic structure. The data, which were culled from the websites of the World Health Organisation, Centre for Disease Control, Pan American Health Organisation and Facebook, were subjected to qualitative analysis. The study deployed van Leeuwen’s Multimodal Discourse Analysis and Yuen’s Generic Structure Potential as theoretical anchor. The multimodal communicative acts are deployed for instructive, illustrative, informative, persuasive, inviting and advisory purposes. Categories such as Lead, Emblem, Announcement and Enhancer are compulsory in the data while Display, Tag and Call-and-Visit Information are non-compulsory elements. This can be catalogued as: ‘Lead^(Display)^Emblem^(Announcement)^(Enhancer)^(Tag)^(Call-and-Visit Information)’. The study contends that the various semiotic resources deployed in the internet-circulated covid-19 images are used not only for informative and other communicative purposes but also to evoke attitudinal change towards and encourage widespread acceptance of the covid-19 vaccines.

Keywords: digital media; covid-19; vaccination pictorials; multimodal communicative acts; generic structure potential

1 Introduction

Digital media technologies have witnessed several innovations in recent years. Diga and May (2016) posit that information and communication technology, otherwise the

***Corresponding author: Oluwayemisi Olusola Adebomi**, Institut für Anglistik und Amerikanistik, Universität Hamburg, Hamburg, Germany; and General Studies Department, Federal University of Technology, Akure, Akure, Nigeria, E-mail: ooadebomi@futa.edu.ng. <https://orcid.org/0000-0003-1636-5488>

 Open Access. © 2023 the author(s), published by De Gruyter on behalf of Soochow University.  This work is licensed under the Creative Commons Attribution 4.0 International License.

digital media, is arguably the most rapidly growing segment of the world's ecosystem. Lately, methods of new media transmissions have increased and more have continued to emerge so much that increased number of people now have opportunities to communicate with each other and get involved in the global debate on any issue including commerce, healthcare, education, religion and politics. Thus, Major et al. (2018) opine that new media technologies offer a limitless discursive platform, with dramatically expanded possibilities for productive and enlightening meaning formation. Similarly, the various digital forums have the capacity to mediate engagement and critical discussion about issues of common public interest. This mediatory cum multidimensional functions of digital technologies is what Friedman and Friedman (2008) describe as the 5cs of new media namely 'communication, collaboration, community, creativity and convergence' (ibid. p2).

Digital technologies do not merely function multidimensionally, they are usually beneficial. For instance, the importance of digital media in healthcare delivery is emphasised in Feliciani (2003), Myers (2003), Marques de Rosa et al. (2021) and Alghamdi and Alghamdi (2022). Also, Diga and May (2016) observe that the huge networking possibilities afforded by digital media have significantly transformed the healthcare system in the world by dispersing healthcare information with comparative ease, bringing patients closer to care givers, making access to the best healthcare technology and expertise, available to the remotest parts of the world. Corroborating Diga and May (2016), Aliede (2012) argues that with digital technology, doctors on call can move freely with their mobile phone and can easily be reached, in case of emergency, to give initial instructions on how to manage the patient while they are on their way to the facility if necessary. Also, Inej and Ogar (2021) aver that the advent of the internet has brought about a lot of possibilities such that it is possible to set up facilities for intensive patient monitoring services, which can enable doctors to watch their patients, monitor their vital signs as well as give advice for treatment from a remote site. Further, Munaya (2019) reinforces the benefits of digital technologies in healthcare delivery by articulating that cases of misdiagnosis and over diagnosis of diseases, medical errors, faking of medicines and poor treatment outcomes have reduced with the use of these platforms.

Specifically, studies have remarked the roles of new media technologies in public health awareness during the covid-19 pandemic. Budd et al. (2020), for example, examine the way digital technologies were harnessed to support the public-health response to covid-19 worldwide, including population surveillance, case identification, contact tracing and evaluation of interventions on the basis of mobility data and communication with the public. They observe that rapid responses to covid-19 related calls/cases leverage billions of mobile phones, large online datasets, connected devices, relatively low-cost computing resources and advances in machine learning and natural language processing. This further underscores

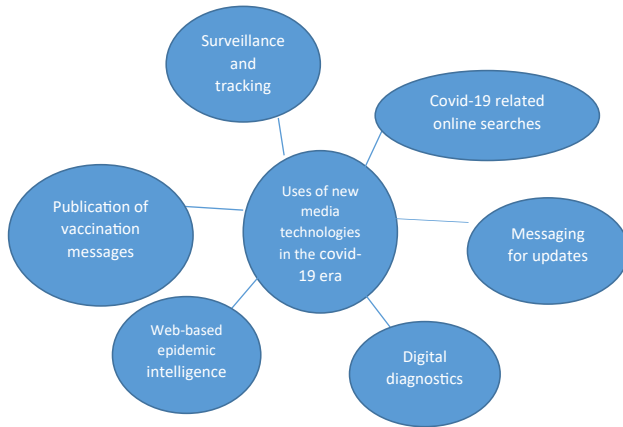


Figure 1: Showing some uses of new media technologies in the covid-19 era.

the relevance of digital technology platforms especially during the covid-19 outbreak. The importance of digital technologies during the pandemic is succinctly presented in Figure 1.

Considering that new media technologies have continued to gain relevance in the healthcare delivery system, this study instantiates the way computer-mediated covid-19 vaccination images are deployed for educative and informative purposes as well as to underscore the safety of the vaccines. The study achieves its aim by deploying a qualitative/descriptive approach to examining the interconnections of the new media and the administration of covid-19 vaccination across the globe.

2 Covid-19/vaccination discourse

Covid-19 started as a domestic health hazard in Wuhan, China, close to the end of 2019, and was declared a pandemic in March, 2020 (World Health Organisation (WHO) 2020). The outbreak of the disease has had a wide-ranging impact on humanity. The WHO (ibid) observes that the covid-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems and the world of work. The WHO (2020) further describes the economic and social disruption caused by the pandemic as devastating. Further, Adams-Prassl et al. (2020) and Obiakor and Adeniran (2020) posit that even though it is a medical emergency, covid-19 affected other aspects of life including political, economic, educational, psychological and socio-cultural. Thus, the pandemic and its associated issues have constituted a source of debate across sectors and among linguists.

Consequently, several studies have investigated the relationship between society and the linguistic representation of covid-19. For example, Ajayi and Akinrinlola (2020) investigate the pragma-multimodal functions of covid-19 related memes created and shared by Nigerians on social media platforms. They argue that texts and images are combined in the memes to serve different pragmatic functions. Similarly, Adebomi (2021, 2022) examine the way covid-19 related memes are created to reveal endemic socio-political and religious issues in Nigeria. Also, Aziz (2022) looks at a pragma-rhetorical analysis of covid-19 headlines, sourcing his excerpts from covid-19 related headlines of (4) online website newspapers from different countries across the world: *New York Times* (the USA and North America), *The Guardian* (the UK and Europe), *the Mainichi Shimbun* (Japan) and *Sabah* (Turkey). The study reveals that rational appeals are the predominant rhetorical strategies when it comes to healthcare topics and especially the news of a pandemic disease. This, according to him, is manifested by the use of logos appeals. Furthermore, Amaireh (2022) investigates the metaphorical use of language in covid-19 reportage in a tabloid. He contends that three conceptual metaphors, covid-19 is war; covid-19 is water and covid-19 is aspersion, characterise the reportage of the pandemic in *Jordan Times*.

Meanwhile, as the pandemic continued to ravage humanity, relevant stakeholders have attempted many interventions aimed at reducing its fatality rate. The intervention came in several phases: the partial lock-down, the total lockdown and the post lockdown eras. The post lockdown era that commenced towards the end of year 2020/beginning of 2021 witnessed the propagation of the vaccination message. The timely discovery of covid-19 vaccines is believed to have contributed largely to the fairly quick escape from the restrictions that the pandemic placed on humanity across the globe. Like every other healthcare or sociological issue, covid-19 vaccination messages are crafted using the machinery of language. Hence, the plausibility of Bamisaye and Afolayan's (2004) claims that language is a veritable tool and a phenomenon which is at the disposal of every man especially when there is the need to say something within the human community.

It is noteworthy that majority of covid-19 vaccination messages are not only crafted through the machinery of language but also circulated through new media channels. This is unconnected with the fact that the pandemic with the attendant lockdown led to a heavy dependence on new media technologies for the conduct of economic, religious, political and even medical engagements. To this end, Kituyi (2020: 1) observes that 'in the face of covid-19 lockdowns around the world, our work, education and social lives have never been more online'. He posits further that with the pandemic, people and organisations did not only get used to relying on digital solutions, they also continued to use them to a greater extent than the pre-crisis.

It goes without saying, therefore, that social media platforms were tremendously used as sources of information during the covid-19 crisis as a way of staying in touch with happenings.

With the discovery of vaccines, which for now is the only medically available and viable intervention against covid-19 infection, studies such as Ullah et al. (2021) and Wonodi et al. (2022) have investigated aspects of covid-19 vaccination discourse. These studies, notwithstanding, available literature has not adequately considered the multimodal discourse analysis of covid-19 vaccination pictorials in spite of the fact that images do not only easily grab peoples' attention but are easier to interpret by learners/readers/viewers than written words (Korhonen 2010). Furthermore, existing studies have largely focused on the negative ways the pandemic has globally impacted political, religious and socio-economic activities. The present study is, therefore, significant because it is a departure from the thematic preoccupation of most studies on covid-19 discourse. It reinforces the message of hope and rejuvenation, which underlies the covid-19 vaccination images circulated on new media channels. Thus, the present study seeks to specifically (i) identify and describe the generic structure potential of computed mediated covid-19 vaccination pictorials; (ii) examine the communicative functions of the various multimodal nodes in the images; (iii) explore how the computer-mediated semiotic resources are deployed to demystify some of the myths around covid-19 vaccination; (iv) appraise the way the multimodal resources, through the new media technologies, are used for widespread public health enlightenment/call for attitudinal change towards covid-19 vaccination.

In the previous sections, we have presented the preamble to the study. The section: 'Theoretical framework', articulates an extensive discussion on Multimodal Discourse Analysis (MDA) and Generic Structure Potential (GSP). The research methodology for this study is presented in the section on 'Methods'. The findings of the study are explicated in the section: 'Results and discussion'. The section: 'Observation and conclusion' presents the conclusion of the study.

3 Theoretical framework

Aspects of Kress and van Leeuwen's (2006) Multimodal Discourse Analysis (MDA) and Yuen's (2004) Generic Structure Potential (GSP) are appropriated to the analysis of the pictorials constituting the data for this study. As a social semiotic theory, multimodal discourse analysis focuses on how differing multimodal resources supplement each other for meaning explication (see Matthiessen 2007; Vovilas et al. 2010). These multimodal resources, like textual elements, are used for communicative intentions, especially because as Oyeboade and Unuabonah (2013) argue, the

pursuit of discovering the intended meaning of the addresser in communicative events or interpreting any code has gone beyond just language use alone; all other materials like colour, font, images and icons employed in a communicative event must interact to arrive at a comprehensive interpretation and meaning of the communicative event.

Suffice it to say that there are several approaches to MDA. However, two have gained prominence over the years. These two approaches: the contextual approach of Kress and van Leeuwen (2006) and the grammatical approach of O'Toole (2010) are derived from Michael Halliday's socio-semiotic approach to text, society and culture, which reinforces the interconnection of language and society and suggests that language cannot be represented by a single discreet system but as a 'semiotic construct' (Halliday 1978: 2). The first approach, Kress and van Leeuwen's (2006) model is adopted in this study because it provides a paradigm for the description of linguistic and the various semiotic nodes that make up any given text. This approach identifies five modes through which cultural and conventional interpretations can be provided to a semiotic resource. These modes are layout, colour, writing, image and font. Each of these multimodal nodes has its role. 'Writing tells, images shows, colour frames highlight, and layout and font' refer to the arrangement of objects in a picture as well as the reason(s) for such arrangements (Kress and van Leeuwen 2012: 39). The analysis is expected to pay attention to the interconnections of these nodes to be able to unpack the meanings expressed in the various semiotic resources. Furthermore, Kress and van Leeuwen's (2006) multimodality approach extends that the analyst should take account of the representation of photography that is emphasized in three dimensions. The first representation is the distance in which the shot could be close or far. Following closely is the relation that suggests two dimensions, one of involvement and another of detachment. The first one is done from a frontal angle and the other from the oblique angle. The second element of presentation is that of power. This refers to the level at which the viewer sees the image that could be high, eye-level or low level. Lastly, the interaction dimension refers to the viewer and the actors from an image whether they interact with him or not through their looks as a bridge of communication. If they have a direct gaze, it means that they are close to the text producer, and if they look indirectly, it would be interpreted that they are just like every other reader/viewer, uninvolved.

Following Kress and van Leeuwen (2006), the present study provides a systematic analysis of how the identified multimodal resources have been effectively deployed to spread covid-19 vaccination messages on the new media. It explores the way text producers communicate their intended goals to people across culture, religion and gender. It also exposes the way the text producers associate the message of hope for a bright and positive future with getting vaccinated, in spite of the high fatality that is associated with covid-19. These are achieved by deploying semiotic

nodes to perform various communicative acts. A multimodal communicative act refers to a semiotic concept that accounts for all modes in a communicative event. It incorporates the linguistic features of a text, which are usually regarded as speech acts, and non-linguistic features like images, symbols, pictures and colours (van Leeuwen 2005). Expanding van Leeuwen's position, Oyeboade and Unuabonah (2013: 814) argue that communicative act is broader in scope and more technical and demonstrates how images and text as well as every other semiotic resource blend in a communicative event. The way multimodal nodes extend specific communicative act is explored in this study.

As an accompanying theoretical perspective, Generic Structure Potential (GSP), also referred to as genre analysis, is an offshoot of Systemic Functional linguistics (SFL) as proposed by Halliday and Hasan (1985). The term is used to describe a particular type of text, verbal or visual, in order to identify the features that make it different from others. The GSP is an obligatory structure of a particular type of text, which can be used to determine its genre. It helps in the identification of recurring patterns for organising the content of a genre and the relation of these patterns to specific linguistic features (Bruce 2009). Even though every text has its GSP, texts of the same genre may have different optional structures (Halliday and Hasan 2005). Thus, the GSP expresses the total range of optional, iterative and obligatory elements and their order in any given text (Sunday and Fagunleka 2017). Schematically, Halliday and Hasan (1985: 56) use 'notations such as round brackets () to indicate the optionality of enclosed elements and the caret sign (^) to show the sequence of the elements'. This illustration makes the contextual configuration of any genre of text possible.

Drawing inspiration from SFL, Yuen (2004: 170) identifies certain macro-structural elements in the GSP of advertisements. These include the Lead, Display, Emblem, Announcement, Enhancer, Tag and Call-and-Visit Information (the images analysed in this study are categorised as adverts since they are essentially circulated to persuade people to get vaccinated). According to Yuen (op. cit), while Lead and Emblem are obligatory items, the rest of the elements are optional in adverts. Further, Yuen (2004) avers that the Lead is an obligatory visual element in adverts, which is defined by its size, position and colour; Display refers to the visual display of the product or service in the advertisement, which may be explicit or implicit. The Emblem can be realised visually by the logo of the product/service and linguistically by the brand name of the product/service. The Announcement (Primary and Secondary) is the most salient linguistic resource and has relative prominence in scale, colour, font and size. The Enhancer comprises linguistic items that build on the meaning emanating from the interaction between the Lead and the Announcement. The Tag is a one-line statement that captures information not indicated in the Enhancer, while Call-and-Visit Information is a 'non-salient item that comprises

contact information about the product/service’ (ibid. p. 173). Thus, for Yuen (op. cit.), the GSP of advertisement is catalogued as: ‘Lead^(Display)^Emblem^(Announcement)^(Enhancer)^(Tag)^(Call-and-Visit Information)’. These designations are adopted in the description and interpretation of the covid-19 images, which constitute the data for this study and shall be exemplified in the analysis. By combining aspects of MDA and GSP, the present study seeks to answer the following questions: (i) What is the generic structure of covid-19 vaccination images? (ii) What communicative functions do the images express? (iii) How do new media technologies, and by implication, computer-mediated multimodal resources aid the demystification of some of the myths around covid-19 vaccination? (iv) How do the semiotic nodes express the need for attitudinal change towards covid-19 vaccination?

The complementarity of the combined frameworks for this study is presented in Figure 2.

4 Methods

The data for this study are essentially online resources. Forty images, 10 each, were culled from the websites of the World Health Organisation (<https://www.who.int>), Pan American Health Organisation (PAHO), Centre for Disease Control (<https://www.cdc.gov>) and Facebook (<https://m.www.facebook.com>). The online platforms are considered viable because the official websites of the health agencies have consistently and extensively been used in disseminating information relating to covid-19 while Facebook is one of the new media platform with relatively high traffic. The data were gathered between October 2022 and March 2023. The various images were purposively sampled based on their thematic concerns. Seven (7) thematic preoccupations were identified. These included: general information on covid-19 vaccination, sensitisation, benefits of vaccination, information on age, update on

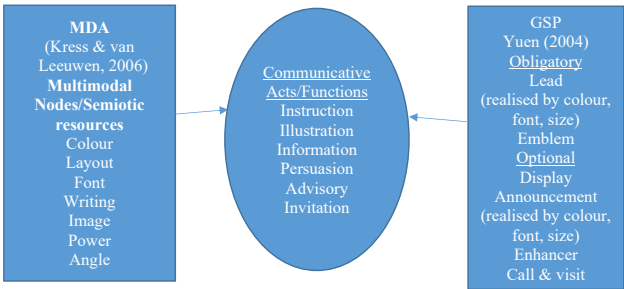


Figure 2: Diagrammatic representation of the theoretical framework.

age information, demystification of myths and maternal healthcare cum linguistic issues in covid-19 vaccination. At least, one image was purposively sampled as a representative of the various thematic delineations to avoid unnecessary duplication. Thus, 7 images were analysed in all. Each of these images was subjected to qualitative analysis using aspects of van Leeuwen's (2005) multimodal discourse analysis and Yuen's (2004) GSP for advertisement in a bid to determine how the semiotic nodes reinforce various communicative acts.

5 Results and discussion

It is observed that the discourse on covid-19 vaccination is broad in scope with an overarching aim of public health awareness. Under this broad perspective, seven sub-aims are examined:

- General information on covid-19 vaccination
- Sensitisation
- Benefits of vaccination
- Information on age
- Update on age information
- Demystification of myths
- Maternal health and linguistic issues in covid-19 vaccination

The categorisation above was made based on the perceived required interventionist measures taken by health agencies for the world to heal and come out of covid-19 fast. At least one pictorial is purposively sampled, out of an array, to illustrate the issue being discussed. Suffice it to say that even though socio-cultural background could shape the interpretation of texts/images, the present study does not explicitly emphasise the import of these intercultural interpretations essentially because the images are believed to perform general communicative, rather than culture-specific, functions. Hence, the study explores the presence of the various indices of the analytical models in the selected images vis-à-vis their communicative functions. The analysis is presented subsequently.

5.1 General information on covid-19 vaccination

The discovery of covid-19 vaccination came like a major medical breakthrough considering the high fatality associated with the pandemic. However, the speed with which the vaccine was discovered generated controversies especially with the conspiracy claims that trailed the virus and its mutation processes. This led to

some form of apathy and resistance to covid-19 vaccination. From the foregoing, medical intervention agencies such as the WHO had to, first, provide basic information about the vaccines to allay people's concerns. Figure 3 addresses the issue of providing general knowledge on covid-19 vaccination.

The Lead, which is a compulsory (obligatory) textual element in Figure 3 above, is expressed in the inscription: 'All ingredients in COVID-19 vaccines are safe'. The Lead is the component that possesses the capacity to draw the viewer's/reader's attention to the picture. The Primary Announcement (PA) in the image is 'ingredients help keep the vaccines blended together, stable and even at the injection site a little longer'. The PA, which accentuates the subject matter of the image, presents a justification for the claim made in the Lead. These Lead and Announcement reinforce the safety of covid-19 vaccines. The configuration of Figure 3 suggests that two participants, the addresser and the addressee, are involved in the

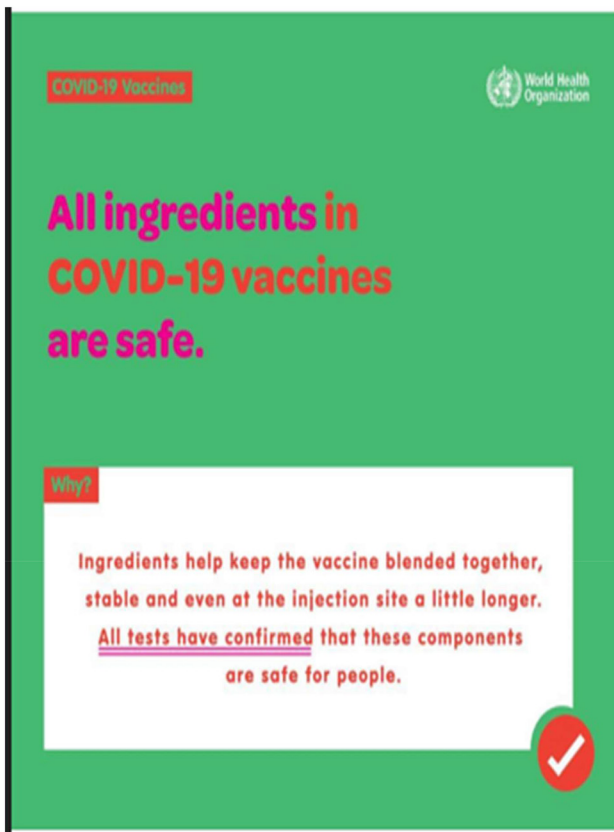


Figure 3: General information on covid-19 vaccination (source: <https://www.who.int>).

communicative event. The addresser is the text maker and they are precisely talking to people across the globe who witnessed the outbreak of the pandemic. This expression is informative in inclination. The Primary Announcement has an impact on the outlook of the image. Without the Announcement, the Lead may not be able to adequately inform the addressees because readers might have been tempted to ask further questions. The interlinkage between the Announcement and the Lead suggests that people should not have anything to worry about in respect of the safety of the newly introduced covid-19 vaccines.

The Secondary Announcement (SA) in the image is ‘All tests have confirmed that these components are safe for people’. The expression ‘all tests have confirmed’ is underlined twice for emphasis to map out this part of the text in order to accentuate it. While the text is written in red, the underlining is done with a bright shade of pink. These colours, which usually signify love, are combined to provide inspiration and encouragement for the use of the vaccines. It is also noteworthy that the background colour of the image is green. Colour green has quite a number of positive significations such as new beginnings, growth, renewal, abundance and fertility. It also possesses calming effects. This colour is arguably adopted by the text producer to underscore the strengths and prospects of the covid-19 vaccines. The use of the determiner: ‘all’ indicates the presupposed infallibility of the vaccine. It suggests that ‘complete, total, comprehensive, entire, absolute and thorough’ checks have been made on the ingredients that were combined together to formulate the vaccines. Similarly, the use of the perfect tense marker ‘have’ corroborates the accurate nature of the covid-19 vaccines.

A semiotic representation of the primary and secondary announcements is the check mark “ ” inscribed at the bottom of the message. This is deployed to clear every form of doubts about the covid-19 vaccines. This resource is suggestive of the fact that covid-19 vaccines are certified safe, regardless of the negative information being circulated by the conspiracy theorists. The Emblem in the picture includes the textual element: ‘World Health Organisation’, which is the producer of the text, and a visual resource: logo of WHO. The Emblem adds to the credibility of the image especially because the World Healthcare Organisation is one of the frontline healthcare agencies responsible for public health issues globally.

5.2 Sensitisation on covid-19 vaccination

Being a novel innovation and considering its pandemic status, covid-19 vaccination required massive and aggressive sensitisation. The sensitisation was done to make people aware and positively influence their disposition towards the vaccines. Figure 4 captures the use of covid-19 image for sensitisation purpose.



Figure 4: Sensitisation on covid-19 vaccination (source: <https://www.who.int>).

Figure 4 presents a picture that contains a Lead, which further comprises the Locus of Attention (LoA) and Complement to the Locus of Attention (Comp.LoA). The LoA is the inscription: 'How to talk about vaccines', the Lead has the communicative act of instruction. The text appears like an instruction/guide to health workers who will eventually be engaged with the door-to-door campaign on covid-19 vaccination. The Comp.LoA is the inscription: 'with people who may have questions or concerns'. The Comp.LoA further establishes the instruction function which the Lead serves. The guidelines/instructions on covid-19 sensitisation are expressed in the Primary as well as Secondary Announcements (PA and SA). In the image, the Primary Announcement is in four fold: 'Listen with Empathy'; 'Ask open-ended questions'; 'Share trusted information' and 'Exploring reasons for wanting to get vaccinated'. The PA supplies the basic rules that should govern the vaccination exercise. These rules further underscore the professionalism that should come with medical practice. The SA complements the PA because it offers additional information on

how health workers can discharge their duties during the covid-19 vaccination exercise. PA 1 identifies the need for appropriate interpersonal relationship between the health worker and the patient while the accompanying SA stresses the need for the health worker to acknowledge how the patient actually feels, considering that the impact of covid-19 could be overwhelming. The SA accompanying the PA 3 performs two communication acts that are instructing and advising. The SA specifically instructs healthcare providers to direct patients to the website of the WHO whenever they are confronted with grey areas in covid-19 vaccination. This is intended to drive home two points: accredit WHO as a veritable source of information on covid-19 vaccination and prevent the spread of fake news, which could frustrate the entire vaccination process. Further, patients are advised to speak with their doctors or nurses (who are accredited healthcare providers) whenever they have concerns relating to covid-19 vaccination to avoid being misled. The Enhancer in this image is the numberings '1–4'. The numbering is provided to highlight the specific things that healthcare providers should take cognizance of while discharging their duties.

The announcements are enhanced with the aid of visual resources to reinforce the acts of instructing, encouraging and advising. Each of the PA/SA is accompanied by a visual resource. The text makers deploy the 'close shot' in the image accompanying PA 1. This is portrayed by the positioning of the heads and shoulders of the entrants in the image. The head and shoulder posture of the participants is suggestive of the close relationship that they enjoy. The intention of the text producer is that there should be a measure of closeness between the healthcare provider and the patient so much that latter could express some of their concerns about covid-19 vaccination without any fear or intimidation. This is further instantiated by the interaction between the two. The patient expresses worry about getting vaccinated and the health worker provides some encouragement by saying: 'it is okay to ask questions or want some more information'.

In the image accompanying PA 2, the text producer makes use of low-level angle, which represents participants' power. The speaker above is obviously the healthcare provider who has informed information on covid-19 vaccination and is seeking to advise their patient. The care giver asks the patient, who in the image takes the low-level position, why they feel worried about receiving covid-19 vaccination. The frontal angle is adopted in the image accompanying PA 3 to advance a sense of involvement (Kress and van Leeuwen 2006) between the care giver and patient. This posture of inclusivity is further reinforced by the verbal expression of question and answer. The frontal angle is further adopted in the image accompanying PA 4. The speaker is presented as an optimistic patient, which is reinforced by direct gaze and smiling expression. This represents the communicative act of beckoning/ invitation where the speaker attempts to beckon on people to go for vaccination as it would help protect the lives of their loved ones.

5.3 Benefits of vaccination

Another function that covid-19 vaccination images, published on new media channels, seek to perform is to instantiate the benefits of taking covid-19 vaccination. Figure 5 addresses this concern.

The Lead in Figure 5 performs informative functions, which is presented in the form of a question. The Lead seeks to provide information on how covid-19 works. The response to this question is provided in the Primary Announcement (PA). The PA identifies the merits of taking covid-19 vaccination. The use of the comparative adjective 'faster' is suggestive of the high speed with which the covid-19 vaccination works on the human system. The Secondary Announcement performs instructive/advisory intentions. The SA 'choose to get vaccinated' is an imperative expression advising people to be proactive about receiving the covid-19 vaccination. The Enhancer in the image is presented in the form of a red-coloured circle. It provides

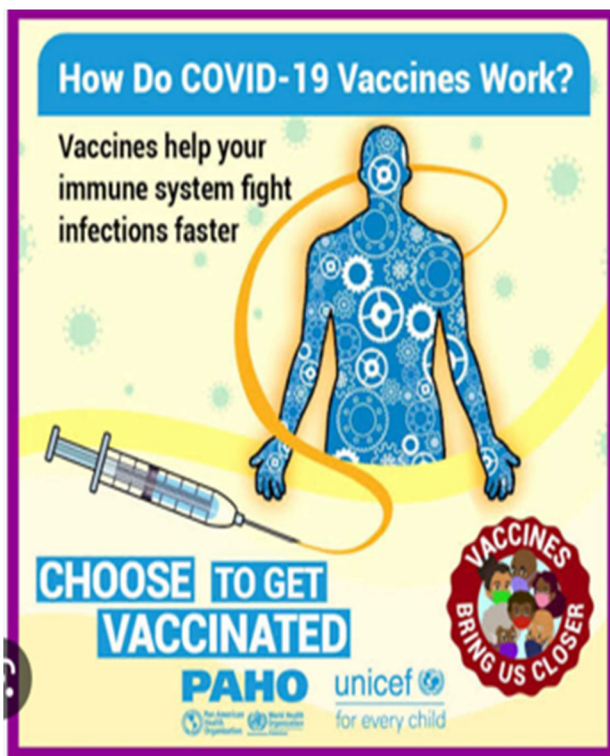


Figure 5: Benefits of vaccination (source: <https://www.paho.org>).

additional information on the benefits of taking covid-19 vaccine, which is the fact that it brings humanity closer. This is reinforced in the use of personal plural pronoun ‘us’, which could also mean ‘all’ and is usually indicative of togetherness. It projects a sense of inclusion between people regardless of gender, religion, age and ethnic differences. The use of this pronoun is significant considering that covid-19, by nature, is a form of disease that tears humanity apart through social distancing. However, covid-19 vaccination is presented in this image as an antidote because it does the exact opposite of what covid-19 does. It brings people closer again, restores humanity to what it used to be before the pandemic. Like in the PA, the deployment of the comparative adjective ‘closer’ further reinforces the togetherness and inclusion that could be achieved with vaccination in a covid-19 era. The comparative adjective ‘closer’ suggests that regardless of how close humanity was before the outbreak of the pandemic, people can now connect more closely with the vaccine intervention.

The Emblem includes the logos of PAHO and unicef. PAHO is an extended healthcare intervention agency including the Pan American Health Organisation and the World Health Organisation. The names of these global healthcare agencies, accompanied by their logos, are inscribed beneath PAHO. This authenticates the vaccination message emanating from this channel. The name ‘unicef’ accompanied by the institution’s logo is placed beside ‘PAHO’. The unicef logo bearing the image of a mother and her child is reinforced by unicef’s anchor: ‘for every child’. The inclusion of unicef underscores the encompassment that is associated with covid-19 vaccination.

The Announcements in Figure 5 are also enhanced with the aid of visual resources to reinforce the acts of illustration. The first image is that of a syringe that seeks to provide procedural information on vaccination. The second image is that of a man who is supposedly being vaccinated. This image exemplifies the way vaccine is administered into the body system through the use of a syringe. The way the vaccine is diffused into the entire parts of the body, from the head to the toes, is exposed in the image of a human being. This human image is presented in a frontal angle to reveal the vaccine diffusion process. The image represents the communicative act of illustrating where the text producer attempts to exemplify the workings of covid-19 vaccine. The second image is that of a closely knitted group of people including adults and children. The image is also presented from the frontal angle. It further reinforces how closely vaccination can bring a family together as opposed to the putting asunder that covid-19 offers. The ‘direct gaze’ of the group of people in the picture is suggestive of invitation, requesting that the addressee is persuaded to get the covid-19 vaccine. This is foregrounded in the verbal expression: ‘vaccines bring us closer’. The stare suggests a personalisation of the message being passed. It specifically invites the text reader to come and join the group of vaccinated people.

Semiotic resources such as colours blue, gold and red are deployed in the design of Figure 5. Colour blue, for example, signifies freedom, inspiration, confidence, stability, peace and depth. Gold colour signifies success or triumph while colour red signifies, on the positive side, life, health, vigour, courage and fervour. These colours are combined to inspire the people as well as to achieve a positive representation of covid-19 vaccination. The intention of the text producer is, arguably, to encourage vaccination by presenting it in beautiful shades of colour.

5.4 Information on age

One of the modalities for vaccination is that the age of beneficiaries is usually taken into consideration. For example, polio and measles vaccines are often administered to children between 0 and 60 months. Like other vaccines, age consideration is also important in covid-19 vaccination. Figure 6 addresses the issue of age in covid-19 vaccination.

The Lead in Figure 6 is made up of the Locus of Attention (LoA) and Complement to the Locus of Attention (Comp.LoA). The LoA is the inscription: 'DON'T WAIT' while



Figure 6: Information on age categories that can be vaccinated (<https://www.cdc.gov>).

the Comp.LoA is 'VACCINATE'. They both extend the instructive/advisory communicative functions. Both the LoA and the Comp.LoA are imperatives, which tell people to go for covid-19 vaccination as soon as possible. The LoA expresses a sense of urgency, while the Comp.LoA gives additional information on the LoA. It is also noteworthy that both the LoA and the Comp.LoA are presented in block letters. This is not deployed only for emphasis but to present the message in a straightforward and uncomplicated way. The Primary Announcement (PA) in Figure 6 is a lengthy text providing information on the usefulness of covid-19 vaccine to everyone regardless of the age. PA 1 is 'Vaccination is the best way to protect you, your family and your community' while PA 2 is 'Everyone age 12 and older in SC is eligible for the covid-19 vaccine'. The use of the pronoun 'everyone' suggests inclusion. PA 2 further makes reference to people from age 12 and above. This extends the communication act of informing-giving specific information on the age category of people who can receive covid-19 vaccination. It also provides clearer information than PA 1 by excluding children between age 0 and 11 from covid-19 vaccination. PA 3 further underscores the benefit of covid-19 vaccination while people are advised to be responsible in PA 4.

The Secondary Announcement in Figure 6 contains the communication act of beckoning. This is achieved through the expression: 'HELP US #**VACCINATE** FLORENCE'. The SA appears like a save our soul message, which is activated by people in distress. Like the LoA and Comp.LoA, the SA is written in block letters for emphasis. The word '**VACCINATE**' is preceded by a hashtag to enhance cross-referencing and virality of the theme. The word is also written in bold by the text producer to draw special attention to the issue. An optional element, call-and-visit info, is available in Figure 6. This is reinforced by the provision of a web address and phone number the healthcare facility in question. Like in previous images, Figure 6 is also enhanced with the aid of visual resources to reinforce the acts of illustration. The image is that of a man attempting to receive covid-19 vaccination. The text producer adopts the low-level angle to reflect the participants' power, with the healthcare provider taking a standing and imposing stature.

5.5 Update on age information

Figure 7 is another image that provides information on age in covid-19 vaccination. It gives an update on age requirement for vaccination.

Being a novel discovery, there were initial debates on the ages of people who could receive covid-19 vaccination. The age of prospective recipients of covid-19 vaccine recipients was first pegged at 12 years. Further reviews have, however, shown that adults and children alike are eligible for vaccination. This is reinforced in



Figure 7: Information on age categories that can be vaccinated (source: <https://www.who.int>; www.centracare.com).

Figure 7. The Lead: ‘COVID-19 VACCINES’ is expressed in block letters and presented in colour red. This is for emphasis, inspiration and fervour. The Primary Announcement (PA) provides information on the latest development on covid-19 vaccination. It gives the message that children under age 5 are eligible for covid-19 vaccination, arguably to dispel previous claims that children are not eligible for vaccination. Figure 7 has the communicative act of informing. Even though parents, guardian and care givers also constitute the target audience in the image, it is designed in such a way that it is not unnecessarily wordy and easily understood by children who are the main/final target.

5.6 Demystifying the myths

A lot of myths emanated with the discovery of covid-19 vaccines. Figure 8 addresses some of these myths and misconceptions.

The Locus of Attention (LoA) and Complement to the Locus of Attention (Comp.LoA) constitute the Lead in Figure 8. The LoA is the inscription: ‘6 MYTHS’ while the Comp.LoA is ‘about the COVID-19 Vaccine. They both extend the informative act. The LoA is reinforced with the use of numbering and block letters. Numbering is used in image 8 for accuracy while the bold format is deployed for emphasis. The Comp.LoA gives additional information on the LoA. It suggests that the image is giving information on the myths surrounding covid-19 vaccination. This is reinforced with the use of the preposition ‘about’. The Primary Announcement (PA) in Figure 8 is in six fold. Each of these PAs is accompanied with an Enhancer. The Enhancer, in this regard,



Figure 8: Demystifying covid-19 vaccination myths (<https://www.cdc.gov>; children's health.org).

are semiotic resources presenting the pictorial representation of each of the PA. The different PAs are presented in the formation of 'demand for goods and services'/ question and answer. The myth is first presented while a counter-claim is offered to correct the erroneous impression. The counter-claim is tagged 'fact' to suggest that it is incontrovertible. Some of the issues addressed by the PAs border on the ability of

the covid-19 vaccine to alter DNA, the safety of the vaccine and allergies arising from vaccination. Each of these concerns are addressed to allay the fears of intending patients.

It is noteworthy that some of the facts are presented in the present tense. The present tense form is usually deployed to express unchanging situations and general truths. The text producer adopts this form to buttress the infallibility of the claims made. Examples in Figure 8 include: ‘mRNA doesn’t enter a cell’s nucleus and cannot change DNA’ (PA 1), ‘the vaccine cannot give you the virus. It protects you’ (PA 4); ‘Natural immunity length is unknown-vaccine fights reinfection’ (PA 5). The verbs ‘protects’ and ‘fights’ in PAs 4 and 5 also carry the combatant connotation. It instantiates the effectiveness of the covid-19 vaccines. The use of the modal auxiliary verb ‘can’ in PA 3: ‘these people (with allergies) can get the vaccine’ reveals the cross cutting nature of the vaccine. It will prevent covid-19 infection among those who have allergies and those who not. Also, the use ‘cannot’ which is the negative form of the modal auxiliary verb ‘can’ in PAs 1 and 4 dismisses any form of possibility that covid-19 vaccine could alter DNA or infect prospective patients with the virus. The use of the adverb ‘thorough’ in ‘Thorough safety standards and trials were met’ (PA 2) indicates that the vaccines were produced with regard to every detail. It also suggests completeness and conscientiousness. The use of the past form ‘were’ in the same PA 2 gives away a sense of perfection.

5.7 Language issue, maternal health and covid-19 vaccination

Linguistic issues, arguably, arose with covid-19. Being a pandemic, different communities attempted to express the dynamics of the disease in simple linguistic modes easily understandable by the immediate beneficiaries (see Piller et al. 2020; Kupolati et al. 2021; Obiorah 2021 and Ogunrinde and Ajenifari 2021). Also, the effect of covid-19 on maternal well-being has been a source of concern to scholars, many of whom expose the way covid-19 pandemic inhibited women’s access to medical care (Ameyaw et al. 2021) and heightened the risk of more severe symptoms among pregnant individuals (Kotlar et al. 2021). Some linguistic and maternal healthcare issues around covid-19 vaccination are addressed in Figure 9. Suffice it to say that Figure 9 is selected in its group because it captures the two main issues being addressed in this sub-section. One of the memes in the group contains the image of a white female pregnant lady. This meme only focused on the benefits of covid-19 vaccination in pregnancy while another meme in the group is presented in vernacular.

The Lead in Figure 9 is populated by a combination of the Locus of Attention (LoA) and Complement to the Locus of Attention (Comp.LoA). The LoA is presented

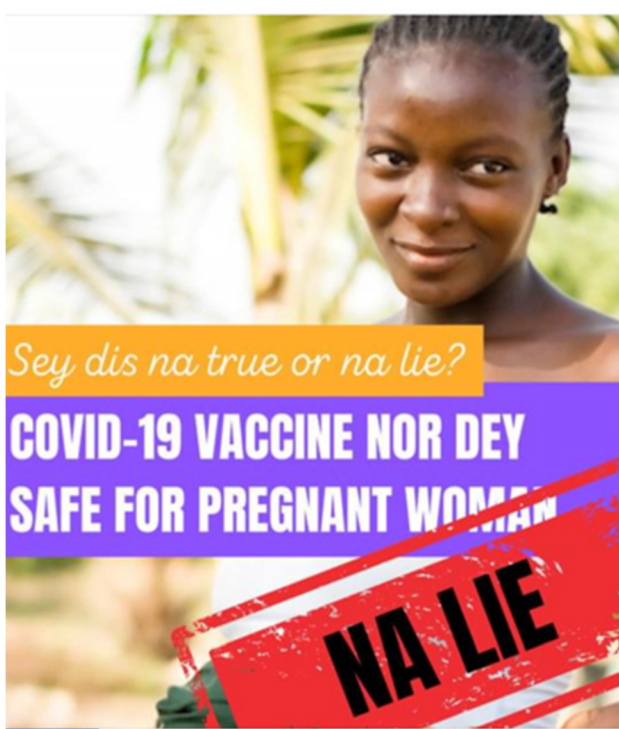


Figure 9: Maternal health and linguistic issues in covid-19 vaccination (www.facebook.com).

in the form of a question: ‘*sey dis na true or na lie?*’ Like in the previous instances, a question is asked in Figure 9 to emphasise the claim that is being made. It also goes without saying that the question is asked in this context to positively stimulate the perception of people, especially pregnant people, on the safety of covid-19 vaccination in pregnancy. The question is not merely intended to aid their comprehension on the usefulness of the vaccine, it is also intended to clear whatever previous doubts they had about the vaccine. The Comp.LoA is about the COVID-19 Vaccine. Unlike in previous data, the Comp.LoA does not come immediately after the LoA. Its placement, notwithstanding, presents an answer to the question posed in the LoA. The answer provides a form of assurance and, by extension, encourages pregnant women to go for covid-19 vaccination. The LoA and Comp.LoA both extend the communicative acts of informing and beckoning.

The Secondary Announcement (SA) in Figure 9 is ‘*Covid-19 nor dey safe for pregnant woman*’. This expression provides additional information on the question asked in the LoA. The question interpreted as ‘is covid-19 vaccination unsafe for the

pregnant woman' delineates the focus of the SA to pregnant women. Considering that maternal health is always a serious issue, it seeks to dispel any form of misconception about the vaccines for pregnant women. The SA also has the communicative act of informing-telling pregnant women to go ahead and receive the vaccination. This is reinforced by the semiotic resource embedded in the image of a supposedly pregnant woman. The woman is presented in the frontal angle to suggest her involvement in the issue being discussed. She is also presented in an imposing size within the picture frame to further underscore her centrality to the issue being discussed. The straight stare with the convivial expression of the woman in the picture also suggests invitation/beckoning. It seeks to persuade pregnant women about the safety of covid-19 vaccination for them. It goes without saying that without appropriate linguistic codes, understanding the message that is being passed across in any context may be difficult. Thus, the use of Pidgin English in Figure 9 attests to the fact that the text producer understands the linguistic challenges/diversity associated with covid-19 and is determined to make the information being passed across accessible to as many as possible.

6 Observations and conclusion

This study investigated multimodal communicative functions and the generic structure potential of covid-19 vaccination-related pictorials circulated on new media channels. The theoretical anchor for the study underscores the need for adequate consideration to be given to all the dominant multimodal resources before a robust interpretation of the text can be done. It also extends the appropriateness of multimodal discourse analysis in the interpretation of semiotic resources such as advertisements, as reinforced in Ly and Jung (2015) and Wang (2020). The study revealed that multimodal communicative trajectories are deployed for instructive, illustrative, informative, persuasive, inviting and advisory purposes. Categories such as Lead, Emblem, Announcement and Enhancer are compulsory in the data while Display, Tag and Call-and-Visit Information are non-compulsory elements. This aligns with Oyeboade and Unuabonah's (2013) claim that the peculiarity of healthcare related advertisements allows for the manifestation of other obligatory elements such as the Announcement and Enhancer apart from the Lead and Emblem. This is in contradiction to Yuen's (2004) categorisation, which recognizes the Lead and the Emblem as the only compulsory (obligatory) elements in printed advertisements. These findings confirm that beyond advertisement, the covid-19 vaccination pictorials are deployed as educative, informative and campaigning

tools, considering the newness of the vaccines. Unlike Oyeboade and Unuabonah (ibid), there is an evidence of Display in Figure 8 (PA5), which subtly captures the pictorial representation of the coronavirus disease. Tag does not also occur in the data but there is a single occurrence of the 'Call and Visit Information' category.

This study also established that covid-19 vaccination pictorials, in spite of their seemingly fixated postures, are lodged with acts, comments and sentiments that are used to perform different communicative functions and express different messages to the global community. Thus, semiotic elements are deployed to inform, sensitise, educate and encourage people of different ages and groups to make themselves available for covid-19 vaccination. Some of the multimodal resources in the data include colour, representation of participants, stare, size of frame, kinesics and social distance, which are combined with textual elements to convey meaning. A major innovation in the covid-19 vaccination advertisement circulated on the new media is the dynamism brought into them. The pictorials/advertisements are culture/language specific, like in the traditional media. For example, pidgin is one of the major means of communication within Africa. The use of pidgin to craft the vaccination message reveals the text producer's sensitivity to linguistic issues in the covid-19 world. The various issues (already identified and discussed) arising from covid-19 vaccination are also adequately captured in the online advert format with the added advantage that, unlike with the traditional media, online circulation will enhance wider spread of the messages/virality. Importantly too, the conspiracy theory thrived immediately after the outbreak of covid-19. The issue was further worsened with the perceived early discovery of covid-19 vaccines. The conspiracy theorists believe that the outbreak and the vaccination development were premeditated (see Vincent 2020; Sharsavari et al. 2020; Wonodi et al. 2022). This led to an initial hesitancy towards covid-19 vaccination among eligible people. The present study addressed this concern by exploring the way misconceptions are cleared up by health agencies through internet-disseminated covid-19 vaccination images.

In conclusion, the study contends that the various semiotic resources/multimodal nodes deployed in the internet-circulated covid-19 images are used not only for informative and other communicative intentions but also to evoke attitudinal change towards and encourage widespread acceptance of the covid-19 vaccines. The study recommends the use of digital technology platforms for the circulation of vaccination-related messages/pictorials as a major revolution in the health industry. This has, arguably, enhanced a wider circulation of the message because the pandemic itself has led to a massive migration of human activities online. No other channel of dissemination may have been more appropriate in a covid-19 era.

References

- Adams-Prassl, Abi, Teodora Boneva, Marta Golin & Christopher Rauh. 2020. Inequality in the impact of the coronavirus shock: Evidence from real time surveys. *Journal of Public Economics* 189. 1–33.
- Adebomi, Oluwayemisi. 2021. A multimodal analysis of memetic representation of Nigeria government's response to covid-19. *Research in Pragmatics* 2(1). 8–28.
- Adebomi, Oluwayemisi. 2022. Language in a pandemic: A multimodal analysis of social media representation of covid-19. *Journal of African Media Studies* 14(1). 1–14.
- Ajayi, Temitope & Akinrinlola, Temidayo. 2020. Pragma-multimodal functions of covid-19 memes in the Nigerian context. *Journal of Applied Language and Culture Studies* 4 (1). 77–102.
- Alghamdi, Noha & Saeed Alghamdi. 2022. The role of digital technology in curbing COVID-19. *International Journal of Environmental Research and Public Health* 19. 1–12.
- Aliede, John (ed.). 2012. *Today's reading in mass communication: Issues, insights and perspective*. Enugu: Prime Target Ltd.
- Amaireh, Hanan. 2022. Covid-19 IS war, water and aspersion: Metaphorical language of the coronavirus disease in “the Jordan Times” newspaper. *Theory and Practice in Language Studies* 12(7). 1286–1293.
- Ameyaw, Edward Ahinkorah, Bright Opoku Ahinkorah, Abdul-Aziz Seidu & Caroline Njue. 2021. Impact of covid-19 on maternal healthcare in Africa and the way forward. *Archives of Public Health* 79(223). 223.
- Aziz, Rana. 2022. Pragma-rhetorical analysis of covid-19 headlines. *Social Sciences and Humanities Open* 6(1). 1–4.
- Bamisaye, Toyin & Sola Afolayan. 2004. *Basic English structure and literary studies*. Lagos: King Julius Educational Publishers.
- Bruce, Ian. 2009. Results sections in sociology and organic chemistry articles: A genre analysis. *English for Specific Purposes* 28. 105–124.
- Budd, Jobbie, Miller Benjamin, Erring Manning, Lampos Vasileios, Mengdie Zhuang, Edelstein Michael, Rees Geraint, Emery Vincent, Molly Stevens, Keegan Neil, Michael Short, Pillay Deenan, Ed Manley, Ingemar Cox, Heymann David, Anne Johnson & McKendry Rachel. 2020. Digital technologies in the public-health response to COVID-19. *Nature Medicine* 26. 1183–1192.
- Diga, Kathleen & Julian May. 2016. The ICT ecosystem: The application, usefulness and future of an evolving concept. *Information Technology for Development* 22(1). 1–6.
- Feliciani, Francesco. 2003. Medical care from space: Telemedicine. *ESA Bulletin* 114. 54–59.
- Friedman, Linda & Hershey Friedman. 2008. The new media technologies: Overview and research framework. *SSRN Electronic Journal* 10. 1–30.
- Halliday, Michael. 1978. *Language as social semiotic: The social Interpretation of Language and meaning*. London: Arnold.
- Halliday, Michael & Hasan, Ruiqayat. 1985. *Language, context and text: Aspects of language in a social-semiotic perspective*. Geelong: Deakin University Press.
- Halliday, Michael & Hasan, Ruiqayat. 2005. ‘Language and society in a systemic functional perspective’. In R. Hasan, C. M. I. M. Matthiessen and J. J. Webster (eds.), *Continuing Discourse on Language: a Functional Perspective*, Vol. 1, 55–80. London: Equinox.
- Ineji, Patrick & Inyali Ogar. 2021. Impact of digital media on effective healthcare delivery in Cross River State. *International Journal of Communication Research* 11(1). 73–79.
- Kituyi, Mukhisa. 2020. *COVID-19 and the digital economy: Broadband Commission* UNCTAD, 6 April. <https://unctad.org/osgstatement/covid19-and-digital-economy-broadband-commission>. Accessed 11 August 2020.

- Kotlar, Bethany, Gerson Emily, Sophia Petrilo, Ana Langer & Henning Tiemeier. 2021. The impact of covid-19 pandemic on maternal and perinatal health: A scoping review. *Reproductive Health* 18. 10.
- Korhonen, Vesa. 2010. Dialogic literacy: A sociocultural literacy learning approach. *Practising Information Literacy* 1. 211–226.
- Kress, Grunther & Theo Van Leeuwen. 2006. *Reading images: The Grammar of visual design*, 2nd edn. New York: Routledge.
- Kress, Grunther. and van Leeuwen, Theo. 2012. *Multimodal discourse - the modes and media of contemporary communication*. London: Arnold.
- Kupolati, Oluwateniola, Adebola Adebileje, Akinniyi Adeleke. (Adu-Gyamfi, Samuel. Reviewing eds). 2021. "Someone has been coronated" Nigerian English lexical innovations in the covid-19 pandemic. *Cogent Arts and Humanities* 8. 1–13.
- Ly, Tan Hai & Chae Kwan Jung. 2015. Multimodal discourse: A visual analysis of two advertising images. *International Journal of Contents* 11(2). 50–56.
- Major, Luis, Warwick Paul, Ian Rasmussen, Ludvigsen Sam & Vivian Cook. 2018. Classroom dialogue and digital technologies: A scoping review. *Education and Information Technologies* 23(5). 1995–2028.
- Marques da Rosa, Valentina, Saurin Tarcisio, Tortorella Guilherme, Fogliatto Flavio, Tonetto Leandro & Samson Daniel. 2021. Digital technologies: An exploratory study of their role in the resilience of health services. *Applied Ergonomics* 97. 619–631.
- Matthiessen, Christian. 2007. The multimodal page: A systemic functional exploration. In T. D. Royce & W. L. Bowcher (eds.), *New Directions in the Analysis of multimodal discourse*, 1–62. London: Lawrence Erlbaum Associates.
- Muanya, Chi. 2019. Advancing digital healthcare in Nigeria. <https://guardian.ng/features/advancing-digital-healthcare-in-nigeria> (accessed January 2021).
- Myers, Mary. 2003. Telemedicine: An emerging healthcare technology. *Care Management* 22(3). 219–223.
- Obiakor, Thelma & Adedeji Adeniran. 2020. Covid-19: Impending situation threatens to deepen Nigeria's education crisis. Center for the Study of the Economies of Africa (CSEA). <https://www.africaportal.org/publications/covid-19-impending-situation-threatens-deepen-nigerias-education-crisis/>.
- Obiorah, Keneth. 2021. The role of Nigerian indigenous languages in covid-19 discourse. *Journal of Language and Health* 2(2). 43–52.
- Ogunrinde, Ebenezer & Joshua Ajenifari. 2021. Mood in language: A lexico-syntactic analysis of Nigeria Centre for disease Control (NCDC) covid-19 sensitisation SMS. *Theory and Practice in Language Studies* 11(7). 768–788.
- Oyebode, Oluwabunmi & Foluke Unuabonah. 2013. Coping with HIV/AIDS: A multimodal discourse analysis of selected HIV/AIDS posters in south-western Nigeria. *Discourse & Society* 24(6). 810–827.
- O'Toole, Michael. 2010. *The language of displayed art*, 2nd edn. London and New York: Routledge.
- Piller, Ingrid, Jie Zhang & Jia Li. 2020. Linguistic diversity in a time of crisis: Language challenges of the covid-19 pandemic. *Multilingua* 2. 10–16.
- Sharsavari, Shadi, Holour Pavan. Wang Tianyi, Tangherlini Timothy & Vwani Roychowdhury. 2020. Conspiracy in the time of corona: Automatic detection of covid-19 conspiracy theories in social media and the news. *ArXiv [preprint]*, 2004, 13783.
- Sunday, Adesina & Olufunke Fagunleka. 2017. Generic structure potential analysis of feature articles in Nigerian newspapers. *Unizik Journal of Arts and Humanities*. *UJAH* 18(1). 108–130.
- Ullah, Ian, Kim Khan, Tahir Mohammed, Abdul Ahmed & H. Harapan. 2021. Myths and conspiracy theories on vaccines and covid-19: Potential effect on global vaccine refusals. *Vacunas* 22(2). 93–97.
- Van Leeuwen, Theo. 2005. *Introducing social semiotics*. London and New York: Routledge.
- Vincent, James. 2020. *Something in the air: Conspiracy theorists say 5G causes novel coronavirus, so now they're harassing and attacking UK telecoms engineers*. New York, NY: The Verge.

- Vovilas, George, Karalis Thanassis & Ravanis Konstantinos. 2010. Applying multimodal discourse analysis to learning object user interface. *Contemporary Educational Technology* 1(3). 255–266.
- Wang, Yuxi. 2020. A comparative analysis of mobile advertising from the perspectives of visual grammar. *Open Access Library journal* 7(6). 1–14.
- Wonodi, Chizoba, Obi-Jeff Chisom, Adewumi Funmilayo, Keluo-Udeke Somto, Gur-Arie Rachel, Krubiner Carleigh, Elana Jaffe, Bamiduro Tobi, Karro Ruth & Ruth Faden. 2022. Conspiracy theories and misinformation about covid-19 in Nigeria. Implications for vaccine demand generation communications. *Vaccine* 40(13). 2114–2121.
- World Health Organisation. 2020. *Impact of COVID-19 on people's livelihoods, their health and our food systems*. <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems#:~:text=The%20economic%20and%20social%20disruption,the%20end%20of%20the%20year.>
- Yuen, Cheong. 2004. The construction of ideational meaning in print advertisements. In K. O'Halloran (ed.), *Multimodal discourse analysis: Systemic-functional perspectives*, 163–195. London: Continuum.

Bionote

Oluwayemisi Olusola Adebomi

Institut für Anglistik und Amerikanistik, Universität Hamburg, Hamburg, Germany
 General Studies Department, Federal University of Technology, Akure, Akure, Nigeria
ooadebomi@futa.edu.ng
<https://orcid.org/0000-0003-1636-5488>

Oluwayemisi Olusola Adebomi, is a Nigerian University Lecturer and currently a visiting researcher at the Institut für Anglistik und Amerikanistik, Universität Hamburg. She obtained her doctoral degree from the University of Ibadan, Nigeria in 2017. She has received several awards including the African-German Network of Excellence in Science (AGNES) research grant, the postdoctoral fellowships of the Merian Institute for Advanced Studies in Africa (MIASA), University of Ghana/Freiburg and the Alexander von Humboldt Foundation, Germany. Her papers have appeared in journals like *LinguistikOnline*, *Language Matters* and *Journal of African Media Studies*.