Extent of Picture Change Technique amongst Conventional Nigerian Television Mobile News Apps and Related News Locations

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Abstract

Software-based news technologies such as TV news apps are taking hold, but research exposing news attraction techniques remain scarce. Therefore, this content analysis research, framed around the uses and gratification theory -which alludes to news locations of TV channels in Nigeria, explores the use of picture-change technique amongst Nigeria's Mobile-TV app-news. Indeed, understanding the picture-change technique in relation to news locations would enhance how news derived from locations involving other nations or beyond Nigeria may also be associated in the seemingly sensationalists mobile app news scheme. While it is relieving to mainly conclude that Nigeria's TV news editors avoided picture-changes, and that more than 99% of app news pictures were unchanged from those in the default news app home pages, comparable investigation of app news picture placement strategy is still needed. Understanding nature of Nigerian news app picture-change outcome is appreciated, but more research is needed in such an aspect of applied journalism. Further studies may examine the same study timeline -as in this research or comparably investigate national/ international conventional news app content. Studying picture-to-news location and news type dynamics of international news app contents may further expose the possible inherency of conventional app news picture selection, changes, and location-based alignments.

Keywords: TV News Apps; Mobile News; Mobile Apps News Applications; News Locations; News Types.

Introduction

"Picture change technique" is the situation where a picture is placed primarily to attract attention but is changed when one further avail oneself of access to the full media contents. This technique appears to be most common with web-based or mobile based text related pictures. In other words, picture change technique simply implies that the picture one sees by default is different from the picture seen after clicking the relative text contents link. While this may sound

innocuous, it is paramount to recall that mobile internet or web-based media contents such as experienced through downloaded mobile conventional news apps readily avails the situation where text-related pictures that can be seen once one accesses the news app home page, are not necessarily the picture that is embedded in-content [full text]and can be seen upon clicking the news link or title.

In relation to this, conventional mobile television (TV) refers to mainstream television contents that are accessed through downloadable mobile applications. Such applications may be designed by other digital technology enterprise or commissioned by a given conventional TV station. In other instances, a given broadcast organisation with substantial capital and in-house digital technology resources may develop an in-house TV contents mobile application. Around the world, several news organisations have developed in-house mobile applications for diverse or convergent news dissemination purposes.

Due to the level of mobile media technology penetration, comfort of use and versatility, conventional television stations have readily embraced adopted suitable downloadable mobile news applications. As a result, the evolving television (TV) news access, behaviour is complex (Pew Research Centre, 2020). This research exposes TV news text related picture portrayal tricks that are deployed to possibly enhance news exposure. It seems news traffic marketing is beginning to be more important than the news itself. Studies have pointed to difficulties experienced by conventional media organisations to attract viewers (Fletcher & Nielson (2017:1174; Sambe & Nyam; 2018). While the issue of news pattern via mobile application is still largely underreported or researched, the social media aspects of news patterns also starkly challenging (Faris, Roberts, Etling, Bourassa, Zuckerman & Benkler, 2017).

There are increasing ways that digital mobile information technologies are being adopted. Nyam & Okpara (2021) reported the possibility of using mobile telecommunications news text services for entrepreneurial journalism. There isalso other convergences involving mobile telecommunication based digital technologies -such as reported by Nyam & Oyewole (2020); Nyam & Olubodede (2020); Nyam & Uwujiougu (2021); and also Nyam & Sambe (2021). However, practices such as picture-change technique may scare-off potential news entrepreneurs who intend to re-aggregate and circulate contents to subscribed new kiosk. While Kouame (2009:98) reiterates that media contents ought to be packaged towards enhanced comparative attention, sensationalism is hardly justifiable. Digital 'disruption' -as mentioned by Otieno (2009: 16), digital distraction or temptation to click via the use of less news-relative pictures on TV app news interfaces.

Proximate location is another critical aspect that draws attention to the use of pictures (Nyam, 2021). There are increased mainstream media technical resource capacities that enable news aggregation from around the world. However, locations of news interest are increasingly connected to news ideology and other normative considerations (Nyam, 2021). As such, this research article report findings from an investigation about the nature and extent of picture change technique as applied by some prominent mainstream Nigeria TV stations. Accordingly, this research explores how picture change technique may be used amongst Nigeria's TV mobile-

app news as well as the extent of implication of picture-change in local, international, and foreign news locations.

Statement of the Problem

Software-based news technologies have gained huge popularity, but studies about news attraction techniques have remained limited. Studies done by Moyo (2009); Mdlongwa (2009);Williams-Hawkins (2010);Brock (2013); and Williangham (2016) mostly appraised the mobile capacities and related media convergence challenges, but not mobile access and or attraction techniques. Other efforts by media researchers like Mutsvairo (2016), and Wu & Wall (2019) are mostly concerned with social effects of digital technologies such as web logs and podcast. Nevertheless, downloaded news application news inherences are hardly investigated. Researchers have also studied role of social-media dependent platforms on socio-political divides in the United State of America (Faris et al, 2017). Nevertheless, internet-dependent news contents via mobile applications in developing nations such as Nigeria, is rarely investigated. Therefore, this content analysis research about news locations of TV channels in Nigeria; italso explores the use of picture-change technique amongst Nigeria's Mobile-TV app-news. Indeed, understanding the picture-change technique in relation to news locations would enhance how news derived from locations involving other nations or beyond Nigeria may also be associated in the seemingly sensationalists mobile app news scheme.

Research Questions

This research answers the following core questions:

1. What is the level of picture-change amongst Nigeria's TV app News?
2. What is the extent of Nigeria's TV app news-pictures distributed by news locations?
3. What is the proportion of Nigeria's TV app news-pictures to news story locations?
4. What is the proportion of Nigeria's TV app news-pictures to delineated news categories?

Related Literature

Pictures have inherent value. As such, it is common for pictures to be used in news storytelling Conventional TV stations in Nigeria have broadly embraced the software-based digital audience (Oyewole, 2021). The challenges of getting approval for conventional media operations (Adetona, Koledoye & Alebiosu, 2013), and the huge cost of more professional media management imply that software based and or hosted media is now appreciated more. Furthermore, the nature of modern media is fast converging in almost all directions (Sociology Central, 2011). Hence, the use of pictures in conventional TV is not the same with the use of pictures in app-based TV. On regular TV, the channel is largely in control of the picture exposure. There is also no external links to picture sources. Pictures found on the home page of TV mobile applications' interface are still and serve to introduce the news story. The audience then may choose to click or avoid. This seems plausible temptation for digital schemers [strategists] working for conventional TV stations to then use picture interfaces that can enhance the news story interest of the audience and lure the audience into clicking such a news story.

The role of possible picture change technique in the attraction of mobile-app news contents may only be underestimated -especially, given that the level of mobile-phone access in countries such as Nigeria is said to high (Kperogi, 2016; NCC, 2018; BBC, 2018; Forenbacher, Husnjak, Cvitić, & Jovović, 2019). Even as actual mobile penetration is not clear enough (Gillwald, Odufuwa & Mothobi, 2018), there is a general feeling that smart phone based mobile media contents are far more accessible and can drive increase in TV stations' revenue-connect digital traffic. Therefore, TV viewership via TV news application is gaining more ground (Oyewole, 2021). Just as Brock (2013) alludes to the need for alternative advantage, most news applications now deploy picture technique for possible viewer attraction. This confirms the scepticisms that mobile media evolution will increasingly challenge aspects of conventional journalism (Pan, 2000; Stroud, Scacco, and Curry, 2014; Burkhart, 2016; Onyeajuwa, 2017; Boyd-Barrett, 2021).

Some related empirical investigations found that news app use is increasing among contemporary audiences -and is often contacted to location-tracking abilities, embedded in the smart phones (Schmitz, 2013; Schmitz (2018). Also, the work of Newman et al (2017) show correlation between increasing dependence on internet-based media systems and the decline use and trust of conventional news sources. This is a serious concern -irrespective of insinuations that app-based media audiences may be less knowledgeable. (Mitchell, Jurkowitz, Oliphant and Shearer, 2020). However, merging media lines also imply higher need for careful conventional media attitude -given that a higher number (80%) are accessing news via smart phone connected media convergences (Shearer, 2021). TV app news managers ought to cautiously note that 95% of app-based media users in the United States of America for instance, do share such contents.

Such sharing would further mean that more enlightened users will call out possible news sensationalist attitudes. Notably, 33% of prominent television news sites and almost 74% of best performing newspapers sites do remind readers of relative codes of conduct (Stroud et al, 2014). In terms of news location, TV app news locations so far investigated by Oyewole (2021) showed that the overall coverage was dominated by African related news contents, and especially from Nigeria. While it is tempting to conclude that such coverage would imply that picture change can be based on news locations, there is need to understand the proportion of TV app news pictures to the over news story index.

This research is framed around the uses and gratification theory. This is because the theory is an audience-based theory that posits about the ability of media users to discern the inherent value of media tools such as TV news applications. This means the likely technique of using pictures to attract app-based TV audiences can be appreciated -amongst the risk of being deemed sensational, once the pictures that appear to appeal to user-attention are changed. It is worthy to recall that the Uses and Gratification theory was postulated by Elihu Katz and Jay Blumler in 1974 (Severin & Tankard, 2000; West & Turner, 2007; McQuail, 2010). The main position of the theory is that though their multitude of mediated communication tools such as smart phone-based conventional TV news applications technologies, audiences would remain sensible amidst many contemporary media options, possible uses, and relative gratifications.

Research Method

This research report is based on a content analysis of NTA, TVC and Channels TV mobile news applications contents. Wimmer & Dominic (2011) testifies about nature and value of content analysis. The selected TV channels are conventional [mainstream] media channels, while the downloaded mobile news applications were confirmed to the respective official news applications. A standardised coding sheet by Nyam (2021) was adopted. However, relative content categories of analysis were carefully applied to befit current study. "Picture Change" was the main category of analysis -which was then duplicated across four news location [AF = Africa; AS = Asia; EU = Europe; and NA = North America and other sub-continents]. The sub-categorised of analysis across each news location was 'T' [True = there was picture change] and 'F' [False = There was no picture change].

Overall validity and reliability of data instruments was good. Pearson Correlation (r) for coders X and Y across four news locations was 0.509, 1, 1, & 1. Spearman Rank Correlation Coefficient (RHO) between coders was between 0.8499 [strong positive correlation; Sum of d2 ($\sigma d2$) = 1600] and 1[perfect positive correlation value; Sum of d2 ($\sigma d2$) = 0]. Nominal values were within ≤ 10% adjusted error margins -and across 17 datasets [units of analysis] covering various news types. Error margins accounted for the level of disagreements between coders -across the 17 new types and news locations, as well as sub-categories ['T' and 'F']. The inter-coder sample is beyond 10% of data collection (Freelon, 2013). All points of coder disagreements carefully noted during final coding -to eliminate likely final errors in the final content coding outcomes. Such test results are acceptable (Biddix, 2012).

Results of test of inter-coder reliability of picture change for Africa, Asia, Europe and North American based news story locations for 'T' and 'F' units of analysis had a minimum of 88.2% inter-coder agreements; Scott's Pi, Cohen's Kappa, and Krippendorff's Alpha (nominal) results were between 0.546 and 1 -with 2 disagreements out of 17 cases. Indeed, all test results for units of analysis 'F' was 100% inter-coder agreements; Scott's Pi = 1; Cohen's Kappa = 1; and Krippendorff's Alpha (nominal) of 1; with 17 agreements out of 17 cases tested. There is respective test of inter-coder reliability of news categories across various news locations [Africa, Asia, and Europe. And North American] and across various 17 news story types which showed between 88.2% to 87.5% inter-coder agreement. All inter-coder reliability test data were scaled at ≤10% error of 2 [Reliable] and >10% Error [Fairly Reliable to Not Reliable] =1. Irrespective of the good data outcomes, the test of validity and reliability only gave the impression potentials for research replication. Nevertheless, poor inter-coder outcomes were given extra diligent attention -to avoid or minimise the repeat of such poor coding in the final data (Freelon, 2013). Both coders X and Y were given due training and regard in the preliminary processes and actual inter-coder testing.

Presentation and Analysis of Data

Table 1: Channels TV app news types, news locations and relative news picture-change check

Mobile application news types	News picture-change check																Grand total	
	Africa				*Asia*				*Europe*				*Americas/ Others*					
	True		*False*		*True*		*False*		*True*		*False*		*True*		*False*			
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Entertainment/ Fashion/ Style/ Arts	0	0	5	5.1	0	0	0	0	0	0	25	80.7	0	0	0	0	30	23.2
Governance/ Government	0	0	22	22.7	0	0	0	0	0	0	0	0	0	0	0	0	22	17.0
Agriculture/ Rural/ Wide life	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security/ Conflicts/ Crisis	0	0	23	23.8	0	0	0	0	0	0	0	0	0	0	0	0	23	17.9
Law/ Judiciary/ Corruption	0	0	11	11.3	0	0	0	0	0	0	1	3.2	0	0	0	0	12	9.3
Legislature/ Oversight	0	0	2	2.0	0	0	0	0	0	0	0	0	0	0	0	0	2	1.6
Agitations/ Human Relations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Economy/ Productivity	0	0	5	5.1	0	0	0	0	0	0	3	9.7	0	0	0	0	8	6.2
Natural Resources/ Science/ Tech	0	0	2	2.0	0	0	0	0	0	0	0	0	0	0	0	0	2	1.6
Diplomacy/ Foreign Relations	0	0	4	4.1	0	0	0	0	0	0	1	3.2	0	0	0	0	5	3.9
Transport/ Infrastructure/ Utility	0	0	5	5.1	0	0	0	0	0	0	0	0	0	0	0	0	5	3.9
Culture/ Tradition/ Chieftaincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tourism/ Hospitality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education/ Learning/ Training	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Religion/ Spirituality	0	0	2	2.0	0	0	0	0	0	0	1	3.2	0	0	0	0	3	2.3

Health/ Welfare/ Social Services	0	0	1	14.4	0	0	0	0	0	0	0	0	0	0	0	0	14	10.8
Media/ Communication	0	0	3	3.1	0	0	0	0	0	0	0	0	0	0	0	0	3	2.3
Total	0	0	98	100	0	0	0	0	0	0	31	100	0	0	0	0	129	100

*F = Frequency

In table 1, data indicate that across all news locations of Channels TV, there was no single instance of picture change.

Table 2: Channels TV app news types, news locations, number of news stories and relative news pictures

Mobile Application News Types	Number of News Stories and relative number of pictures															
	Africa				Asia				Europe				Americas/ Others			
	Stories		Pics		Stories		Pics		Stories		Pics		Stories		Pics	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Entertainment/ Fashion/ Style/ Arts	5	5.2	5	5.1	0	0	0	0	25	83.3	25	80.7	3	75	0	0
Governance/ Government	22	23.1	22	22.7	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture/ Rural/ Wide life	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Security/ Conflicts/ Crisis	23	24.2	23	23.8	0	0	0	0	0	0	0	0	0	0	0	0
Law/ Judiciary/ Corruption	12	12.6	11	11.3	0	0	0	0	1	3.3	1	3.2	0	0	0	0
Legislature/ Oversight	1	1.0	2	2.0	0	0	0	0	0	0	0	0	0	0	0	0
Agitations/ Human Relations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Economy/ Productivity	5	5.2	5	5.1	0	0	0	0	2	6.6	3	9.7	1	25	0	0
Natural Resources/ Science/ Tech	2	2.1	2	2.0	0	0	0	0	0	0	0	0	0	0	0	0
Diplomacy/ Foreign Relations	3	3.1	4	4.1	0	0	0	0	1	3.3	1	3.2	0	0	0	0
Transport/ Infrastructure/ Utility	4	4.2	5	5.1	0	0	0	0	0	0	0	0	0	0	0	0
Culture/ Tradition/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Chieftaincy																
Tourism/ Hospitality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education/ Learning/ Training	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Religion/ Spirituality	2	2.1	2	2.0	0	0	0	0	1	3.3	1	3.2	0	0	0	0
Health/ Welfare/ Social Services	12	12.6	14	14.4	0	0	0	0	0	0	0	0	0	0	0	0
Media/ Communication	3	3.1	3	3.1	0	0	0	0	0	0	0	0	0	0	0	0
Total	**95**	**100**	**98**	**100**	**0**	**0**	**0**	**0**	**30**	**100**	**30**	**100**	**4**	**100**	**0**	**0**

While table 1 indicates that Channels TV had no single instance of picture change, table 2 showed instances of news stories without an accompanying picture. Nevertheless, across all news types, numbers of pictures were relatively proportionate to news stories. This invariably implies that the more a news story has picture, the more likely a picture display in the news app news version. Indeed, Channel TV, the average ratio of news stories to news pictures was 1:1 -which means the more a news story has a picture, the likely such news would have an accompanying picture displayed in the news app news version.

Table 3: TVC app news types, news locations and relative news picture-change check

Mobile application news types	News picture-change check																Grand total	
	Africa				*Asia*				*Europe*				*Americas/ Others*					
	True		*False*		*True*		*False*		*True*		*False*		*True*		*False*			
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Entertainment / Fashion/ Style/ Arts	0	0	3	2.8	0	0	0	0	0	0	8	88.9	0	0	1	9	12	9.1
Governance/ Government	0	0	19	2.8	0	0	0	0	0	0	1	11.1	0	0	5	45.4	25	19
Agriculture/ Rural/ Wide life	0	0	1	0.9	0	0	0	0	0	0	0	0	0	0	0	0	1	0.8
Security/ Conflicts/ Crisis	0	0	22	20	0	0	0	0	0	0	0	0	0	0	0	0	22	16.8
Law/ Judiciary/ Corruption	0	0	12	10.9	0	0	0	0	0	0	0	0	0	0	1	9	13	10
Legislature/ Oversight	0	0	4	3.7	0	0	0	0	0	0	0	0	0	0	0	0	4	3
Agitations/ Human	0	0	8	7.2	0	0	0	0	0	0	0	0	0	0	0	0	8	6.1

Relations																		
Economy/ Productivity	0	0	7	6.3	0	0	0	0	0	0	0	0	0	0	0	0	7	5.3
Natural Resources/ Science/ Tech	0	0	1	0.9	0	0	0	0	0	0	0	0	0	0	0	0	1	0.8
Diplomacy/ Foreign Relations	0	0	3	2.8	0	0	1	100	0	0	0	0	0	0	2	18.1	6	4.6
Transport/ Infrastructure/ Utility	0	0	7	6.3	0	0	0	0	0	0	0	0	0	0	1	9	8	6.1
Culture/ Tradition/ Chieftaincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tourism/ Hospitality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education/ Learning/ Training	0	0	9	8.1	0	0	0	0	0	0	0	0	0	0	0	0	9	6.9
Religion/ Spirituality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Health/ Welfare/ Social Services	0	0	12	10.9	0	0	0	0	0	0	0	0	0	0	1	9	13	10
Media/ Communication	0	0	2	1.9	0	0	0	0	0	0	0	0	0	0	0	0	2	1.6
Total	**0**	**0**	**110**	**100**	**0**	**0**	**1**	**100**	**0**	**0**	**9**	**100**	**0**	**0**	**11**	**100**	**131**	**100**

Table 2 indicates that across all news locations -like Channels TV, there is no instance of news story picture change.

Table 4: TVC app news-types, news-locations, news stories and related pictures

Mobile Application News Types	Number of News Stories and relative number of pictures															
	Africa				*Asia*				*Europe*				*Americas/ Others*			
	Stories		*Pics*		*Stories*		*Pics*		*Stories*		*Pics*		*Stories*		*Pics*	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Entertainment/ Fashion/ Style/ Arts	5	5.2	3	2.8	0	0	0	0	25	83.3	8	88.9	3	75	1	9
Governance/	2	23.	19	2.8	0	0	0	0	0	0	1	11.	0	0	5	45.

Government	2	1										1				4
Agriculture/ Rural/ Wide life	0	0	1	0.9	0	0	0	0	0	0	0	0	0	0	0	0
Security/ Conflicts/ Crisis	23	24.2	22	20	0	0	0	0	0	0	0	0	0	0	0	0
Law/ Judiciary/ Corruption	12	12.6	12	10.9	0	0	0	0	1	3.3	0	0	0	0	1	9
Legislature/ Oversight	1	1.0	4	3.7	0	0	0	0	0	0	0	0	0	0	0	0
Agitations/ Human Relations	0	0	8	7.2	0	0	0	0	0	0	0	0	0	0	0	0
Economy/ Productivity	5	5.2	7	6.3	0	0	0	0	2	6.6	0	0	1	25	0	0
Natural Resources/ Science/ Tech	2	2.1	1	0.9	0	0	0	0	0	0	0	0	0	0	0	0
Diplomacy/ Foreign Relations	3	3.1	3	2.8	0	0	1	100	1	3.3	0	0	0	0	2	18.1
Transport/ Infrastructure / Utility	4	4.2	7	6.3	0	0	0	0	0	0	0	0	0	0	1	9
Culture/ Tradition/ Chieftaincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tourism/ Hospitality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education/ Learning/ Training	1	1.0	9	8.1	0	0	0	0	0	0	0	0	0	0	0	0
Religion/ Spirituality	2	2.1	0	0	0	0	0	0	1	3.3	0	0	0	0	0	0
Health/ Welfare/ Social Services	12	12.6	12	10.9	0	0	0	0	0	0	0	0	0	0	1	9
Media/ Communicati	3	3.1	2	1.9	0	0	0	0	0	0	0	0	0	0	0	0

on																
Total	95	100	110	100	0	0	1	0	30	100	9	100	4	100	11	100

According to detail in table 4, news pictures outnumber news stories. However, across various news types, there are generally more news stories than pictures -across all news locations and news categories -except in the case of 'Economy/ Productivity.' 'Education/ Learning/ Training', 'Diplomacy/ Foreign Relations, and 'Health/ Welfare/ Social Services..Irrespective, number of TVC news pictures were overall relatively proportionate to news stories -with an average ratio of 1:1 -which means the more a news story has a picture, the likely such news would have an accompanying picture displayed in the news app news version.

Table 5: NTA app news types, news locations and relative news picture-change check

Mobile application news types	News picture-change check																Grand total	
	Africa				Asia				Europe				Americas/ Others					
	True		False		True		False		True		False		True		False			
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Entertainment/ Fashion/ Style/ Arts	0	0	3	3.2	0	0	0	0	1	100	1	100	0	0	0	0	5	5.2
Governance/ Government	0	0	6	6.4	0	0	0	0	0	0	0	0	0	0	0	0	6	6.3
Agriculture/ Rural/ Wide life	0	0	3	3.2	0	0	0	0	0	0	0	0	0	0	0	0	3	3.1
Security/ Conflicts/ Crisis	0	0	17	18.2	0	0	0	0	0	0	0	0	0	0	0	0	17	17.9
Law/ Judiciary/ Corruption	0	0	10	10.8	0	0	0	0	0	0	0	0	0	0	0	0	10	10.6
Legislature/ Oversight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agitations/ Human Relations	0	0	10	10.8	0	0	0	0	0	0	0	0	0	0	0	0	10	10.6
Economy/ Productivity	0	0	9	9.7	0	0	0	0	0	0	0	0	0	0	0	0	9	9.4
Natural Resources/ Science/ Tech	0	0	2	2.1	0	0	0	0	0	0	0	0	0	0	0	0	2	2.1
Diplomacy/ Foreign Relations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transport/	0	0	5	5.3	0	0	0	0	0	0	0	0	0	0	0	0	5	5.2

Infrastructure/ Utility																		
Culture/ Tradition/ Chieftaincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tourism/ Hospitality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education/ Learning/ Training	0	0	7	7.6	0	0	0	0	0	0	0	0	0	0	0	0	7	7.3
Religion/ Spirituality	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.0
Health/ Welfare/ Social Services	0	0	19	20.4	0	0	0	0	0	0	0	0	0	0	0	0	19	20
Media/ Communication	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.0
Total	**0**	**0**	**93**	**100**	**0**	**0**	**0**	**0**	**1**	**100**	**1**	**100**	**0**	**0**	**0**	**0**	**95**	**100**

There is one instance of picture change in table 5 -wherein the only news item adopted from Europe had a picture change.

Table 6: NTA app news types, news locations,news stories and relative news pictures

Mobile Application News Types	Number of News Stories and relative number of pictures															
	Africa				*Asia*				*Europe*				*Americas/ Others*			
	Stories		*Pics*		*Stories*		*Pics*		*Stories*		*Pics*		*Stories*		*Pics*	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Entertainment/ Fashion/ Style/ Arts	5	5.2	3	3.2	0	0	0	0	25	83.3	2	100	3	75	0	0
Governance/ Government	22	23.1	6	6.4	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture/ Rural/ Wide life	0	0	3	3.2	0	0	0	0	0	0	0	0	0	0	0	0
Security/ Conflicts/ Crisis	23	24.2	17	18.2	0	0	0	0	0	0	0	0	0	0	0	0
Law/ Judiciary/ Corruption	12	12.6	10	10.8	0	0	0	0	1	3.3	0	0	0	0	0	0
Legislature/ Oversight	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agitations/ Human Relations	0	0	10	10.8	0	0	0	0	0	0	0	0	0	0	0	0
Economy/ Productivity	5	5.2	9	9.7	0	0	0	0	2	6.6	0	0	1	25	0	0

Natural Resources/ Science/ Tech	2	2.1	2	2.1	0	0	0	0	0	0	0	0	0	0	0	0
Diplomacy/ Foreign Relations	3	3.1	0	0	0	0	0	0	1	3.3	0	0	0	0	0	0
Transport/ Infrastructure/ Utility	4	4.2	5	5.3	0	0	0	0	0	0	0	0	0	0	0	0
Culture/ Tradition/ Chieftaincy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tourism/ Hospitality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education/ Learning/ Training	1	1.0	7	7.6	0	0	0	0	0	0	0	0	0	0	0	0
Religion/ Spirituality	2	2.1	1	1.0	0	0	0	0	1	3.3	0	0	0	0	0	0
Health/ Welfare/ Social Services	12	12.6	19	20.4	0	0	0	0	0	0	0	0	0	0	0	0
Media/ Communication	3	3.1	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**95**	**73.6**	**93**	**100**	**0**	**0**	**0**	**0**	**30**	**23.3**	**2**	**100**	**4**	**3.1**	**0**	**0**

NTA news app has more news stories than news pictures. However, compared with African-based news stories, the news story-picture ratio of other news location is far more disproportionate.

Discussion of Findings

Level of picture-change amongst Nigeria's TV app News

Generally, all TV news apps contained more news stories than pictures. Across Channels TV, TVC, and NTA news app-based news stories, there was only a single instance of news picture-change. The said single instance was a European-based news story. TV apps maintained almost 100% track of not changing news pictures upon clicking their app-based news contents. Irrespective, this research reveals that local Nigerian TV app content, while far less likely to change pictures, is more disposed to do otherwise, if the news location is outside Africa. Various media options are available for various purposes -some of which may converge (Sociology Central, 2011; Stroud et al, 2014; Burkhart, 2016; Boyd-Barrett, 2021). However, picture change is not encouraged as a strategy for attraction of views. Good enough, Nigerian TV app contents were found to retain the original news pictures that were found on the default interface of the app's news home page. It is ideal for contemporary news contents adopted technological use in a manner that improves dynamics (Kouame, 2009) -but not content deception. The foregoing however lauds improvements of mobile-news capabilities in developing nations (Kperogi, 2016; BBC, 2018).

The Proportion of Nigeria's TV app news-pictures to news story locations

Nigeria's TV app news-picture distributed by news locations was dominantly African-based. News stories from Asia, Europe, and North America had lower picture-inclusion possibility. Across Channels TV, TVC, and NTA news app, there were far more proportionate news pictures of African-based news stories -compared to other news locations. This confirms findings by Schmitz (2013) that news apps dynamics are implicated by location-based biases. Competing alternative value needs to be further investigated towards broader knowledge of software-based news technologies, normative inclinations, and location-sensitivity. Understanding of media options and competing alternative values is shown as vital (Hodgson, 2012) -especially due to the nature location-sensitive news aggregation of Nigeria TV news apps content editors. The value of alternative advantage amongst various digital news content access options ought to be taken seriously (Brock, 2013; Shearer, 2021). This is especially worthy of note due to noted smart phone penetration in Nigeria (Gillwald; Odufuwa & Mothobi, 2018; NCC, 2018; Forenbacher, et al, 2019).

The Proportion of Nigeria's TV app news-picture to delineated news categories

Across various news types, there are also more news stories than pictures. Such is the case across all news locations and news categories - except in the case of 'Economy/ Productivity,' 'Education/ Learning/ Training,' 'Diplomacy/ Foreign Relations,' and 'Health/ Welfare/ Social Services' as reported by TVC. Nevertheless, the more a news story has a picture, the more likely such news would have an accompanying picture displayed in the news app news version. Considering the views of McQuail (2010) -that the postulated value Uses, and Gratification Theory does not show completeness of media user reality, it may suffice to allude that those who use conventional media news apps ought to become aware of location-based content dynamics towards understanding relative expectation of news app's contents, such as extent of news pictorial representations. As shown in this research, mobile news application contents are based on human news selection predisposition. Therefore, understanding of inherent value of news apps is not just on the bases of the technology adopted, but via appreciation of content selection biases (Oyewole, 2021).

Conclusion

It is worthy to note how Nigeria's TV news editors avoided picture-change. More than 99% of app news pictures were unchanged from those in the default news app home pages. The TV app's news contents were dominantly aggregated from an African-based news stories. News readers expecting international news contents are therefore not likely to get such content via mere use of Nigerian TV news apps. News locations were found to be a higher predictor of news picture consideration than the news itself. Across Channels TV, TVC, and NTA news apps, the proportion of news pictures of African-based news stories were indeed dominant, compared to other news locations. Also, news categories [types] that are generally well reported do retain the higher chances of relative picture consideration. Nonetheless, there is no clear picture strategy amongst Nigeria's news app content aggregation. Default factors such as dominant news location

and news types are the highest predictors of picture selection and inclusion in Nigerian news app content. However, the pictures seen in news app home pages are mostly the leading pictures upon clicking news app links. While the understanding nature of Nigerian news app picture-change outcome is appreciated, more research is needed in such aspects of applied journalism. Further studies may examine the same study timeline, as in this research or comparably investigate national/ international conventional news app content. Also, understanding the relative picture-to-news location and news type dynamics of international news app contents may further expose the possible inherency of conventional app news picture selection, changes, and location-based alignments.

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