

# Climate Change Broadcast in Ghana: The Role of a Campus Radio Network

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## Abstract

Media coverage of climate change, over the last two decades, has attracted criticisms although this concern has been under-researched. This paper, therefore, is an effort at examining the role of a campus radio network at a university in Ghana, in educating its audience on the geopolitics and complexities of climate change in contemporary times. Data were collected with the aid of a questionnaire administered to university students and staff and a semi-structured interview to management of the station. Grounded in Altschull's (1984) and Shoemaker and Reese's (1991) media ownership theory, major results show a low coverage of climate change by the station, given the lack of expertise among the staff. It was also found that the station had no regular educational programme on climate change, thus students were seldom exposed to the subject. These findings have implications for a redefinition of the role of campus radio and education on climate change.

**Keywords:** campus radio, climate change, university community, education, broadcasting

## 1. Introduction

Anthropogenic activities that contribute to climate change, over the last two decades, have attracted global concerns from the public, academia and more particularly the media. Following the Copenhagen Summit and Cancun Conference, pundits have been thinking about the harmful

effects of climate change on human lives, flora and fauna as well as industry. As Boykoff and Boykoff (2007) have rightly pointed out, “Climate change is one of the most serious environmental risks of the twenty-first century” (p. 2). It is a cliché to say that the fight against climate change is being championed by the world’s most developed nations prominent among which are the United States of America, Britain, Germany, France and China. Their avid concern stems not only from the point of view of corporate responsibility but more importantly because they are the nations that emit the highest percentage of life-threatening substances into, for example, the stratosphere.

Key in the fight against climate change is the media. Much of our knowledge of issues concerning climate change has made possible through the mass media. The point is that the mass media play a very important role in the identification and interpretation of environmental issues (Spector & Kitsuse, 1977; Schoenfeld *et al.*, 1979). It has, however, been observed that the media are limited in this role given what has come to be known as the “first-order journalistic norms” (Bennet, 2002; Boykoff & Boykoff, 2007). Such norms are based on the assumption that the journalist will downplay big social, economic or political pictures in favour of human trials, tragedies and triumphs that sit at the surface of events because of personalisation. Thus, these norms reflect the view that the personalised, human-interest story conforms to the idea that news should be about individuals and personalities rather than group dynamics or social processes (Gans, 1979). Although this view is contentious in the light of empirical research (e.g. McManus, 2000; Miller & Riechert, 2000; Lorenzoni & Pidgeon, 2006), it is probable that it plays a major role in determining how the marketisation and broadcasting of the media are carried out in some parts of the world especially in sub Saharan Africa.

In sub Saharan Africa, in general, and Ghana in particular, there have been anecdotal reports of media coverage of climate change over the last two decades, although they lack empirical bases (e.g. Ayithey, 2010; Dovie, 2010). Yet it is important to note that “in order to examine impediments in climate science communication via the media, research must critically scrutinise the firmly entrenched journalistic norms that profoundly shape the selection and composition of news” (Boykoff & Boykoff, 2007: p. 2). For example, the *Daily Graphic* reflected on the aftermath of the climate change Cancun conference held in Mexico (Dovie, 2010). Ayithey (2010) also opines that climate change is a phenomenon for which the public has to be educated on the nature and how to cope with the situation, and that it is the media that have the clout to inform their audience on the subject. However, communication research has not so much focused on the role of community radio such as campus radio (Olorunnsisola, 2002) in educating audiences on climate change in tertiary institutions such as the universities (Jaminson & McAnany, 1973; Tripp & Roby, 1996, Reddi, 2003). Community radio, Jansen (1995) explains, is a participatory form of communication which has the capacity to alter the balance of social and cultural power within communities.

## 1.1 Purpose of the Study

In view of this problem, we examined the role of *ATL FM* at the University of Cape Coast (UCC) in Ghana in educating the university community on the effects of climate change. The study aimed to:

1. Investigate the programme of *ATL FM* concerning climate change.
2. Assess the impact of the broadcasting of climate change on the university community.
3. Explore some of the challenges faced by *ATL FM* in broadcasting issues concerning climate change.

## 1.2 Theoretical Lens

The study was based on the media ownership theory. The media ownership theory was first expounded by Altschull (1984) in an attempt to explain what informs the selection of media content of media organisations. The basic assumption of the theory, Altschull (1984) holds, is that “the content of the press is directly correlated with the interests of those who finance the press” (p. 254). According to this assumption, the autonomy of media outlets is given within the boundaries of owners’ profit. Thus where the media outlet is commercially owned, the content will reflect the point of view of the news organisation’s owners and advertisers (Wang, 2003: p. 4). Wang (2003) further explains that where the media outlet fits into what Altschull (1984) calls ‘interest pattern’, the content mirrors the concerns and objectives of whoever finances the programme.

Years later, Shoemaker and Reese (1991) refined the theory to mean that the ownership of a media and its news content have the ultimate power over the news content. They argue that the primary focus of a news organisation is to make profit such that the content of its news is built into the economic objective of the company. The co-authors, thus, emphasise that “media content is the product of the complex set of ideological forces held by those who fund the mass media” (Shoemaker & Mayfield, 1987: p. 30). This theory was, therefore, selected in order to investigate the role of the owners and managers of *ATL FM* in educating its listeners on the dangers of climate change.

## 2. Materials and Methods

### 2.1 The Study Area and Its Radio Network

The study was conducted at the University of Cape Coast (UCC), a public university in Ghana established in 1962. This research site was selected for three main reasons. In the first place, UCC was chosen mainly because of its social stratification, and so reflects a microcosm of the larger Ghanaian society. Second, this setting was selected on account of its proximity to the researchers, who are resident lecturers at the university. Finally, it was more appropriate to conduct the study at the university, given that *ATL FM* is located within the university and serves the listening needs of the university community and its surrounding communities.

*ATL FM*, which broadcasts on a frequency modulation of 100.5, first began as a student initiative in 1989. From an initial two kilometre transmission capacity, the station was given full recognition by the National Media Commission in 1997, despite the freeze in frequency assignments that lasted from 1999 until 2001 (Ghana Broadcasting Study, 2005). The station serves the listening needs of people within and around the Cape Coast metropolis, the capital of the Central region of Ghana. We focused on *ATL FM* because it is the first to be established in the Central region and the second institutional station in Ghana after Dr. Wireko Brobby’s *Radio Eye* (Coker, 2011).

### 2.2 Sample Size and Sampling Method

Two basic sampling methods, random and purposive sampling techniques, were used. The former was employed to select two hundred participants to respond to a questionnaire, while the latter enabled us to interview the management and staff of *ATL FM*. The aim of using purposive sampling in the present study was to enable us to obtain direction on the ground rather than speculate on the phenomenon under investigation. As Cresswell (1994: p. 148) posits, “The aim

of purposive sampling is to purposefully select documents that will best answer the research question”.

### *2.3 Instrumentation*

The questionnaire and semi-structured interview guide were used in collecting data. Given the large sample size of the study, the questionnaire was used to obtain quick and objective responses of students' views and perceptions of the role of *ATL FM* in broadcasting issues concerning climate change. Issues raised in the instrument include whether the radio station provides adequate information on climate change, the nature and duration of the programme(s) and the language used in broadcasting such programme(s). The semi-structured interview guide was also used for the management and staff of the station. This instrument was useful in the present study because of the sample size. Besides, the semi-structured interview guide enabled us to obtain detailed information from respondents on issues we had not anticipated (Faenkel & Wallen, 2000; Cresswell, 2003). Concerns raised during the interview were similar to those found in the questionnaire. We also investigated whether feedback is sought from the audiences as well as challenges faced by management and staff of the radio station.

### *2.4 Data Analysis Procedure*

The data gathered from the pilot-testing were captured in the computer software, Statistical Product for the Service Solutions (SPSS version 16.0), whereupon a test was run to establish the reliability of the questionnaire. The Cronbach's alpha co-efficient of reliability of the instrument was 0.759. This value indicates that the instrument administered had a 'good' internal consistency. The keys for interpreting the means for positive statements were as follows: 1.0 to 1.4 – Strongly disagree, 1.5 to 2.4 – Disagree, 2.5 to 3.4 – Agree, and 3.5 to 4.0 – Strongly agree. Again, the reverse was true for all negative items.

## **3. Results and Discussion**

### **3.1 Nature of ATL FM's Programme on Climate Change**

Table 1 presents the simple percentages, mean scores and standard deviations on the nature of *ATL FM's* programme on climate change. Although the grand mean equals 2.73 indicating that the majority of respondents agreed to the items on the questionnaire concerning the nature of climate change on *ATL FM*, differences were recorded. It is clear, for instance, that fifty percent (50%) of the respondents (i.e.  $M^*=2.39$ ,  $SD=0.868$ ) agreed that *ATL FM* is their main source of information on climate change, and that fifty six percent (56%) of them (i.e.  $M^*=2.62$ ,  $SD=0.635$ ) indicated that any programme that broadcasts climate change on the network discusses current trends on the subject. The programme, according to the manager, discusses such issues as changes in weather and rainfall patterns and their effects on farming and fishing.

In respect of time allotted for broadcasting and whether it is convenient, again more than half of the sample size (representing  $M^*=2.52$ ,  $SD=0.672$ ,  $M^*=2.57$ ,  $SD=0.817$ ) agreed to the proposition. Despite their agreement to the claim that the language used in broadcasting the subject is appropriate and that the content of the programme is rich and diverse, only forty-two percent (42%) agreed that the resource persons for climate change education on *ATL FM* have expert knowledge of the subject while forty-five percent (45%) strongly agreed.

Table 1: Nature of *ATL FM*'s programme on climate change  
*M\** is the mean, where *SD*=1, *D*=2, *A*=3, and *SA*=4.

Nature of programme	SA		A		D		SD		M*	S.D	Total
	No.	%	No.	%	No.	%	No.	%			
<i>ATL FM</i> is my main source of information on climate change.	10	5.0	100	50.0	49	24.5	41	20.5	2.39	0.868	200
The said programme discusses current trends on climate change.	9	4.7	107	56.4	66	34.7	8	4.2	2.62	0.635	190
Time allotted in broadcasting the programme is adequate.	7	3.6	102	51.7	75	38.1	13	6.6	2.52	0.672	197
Time for broadcasting the programme is convenient to me.	33	16.5	58	29.0	100	50.0	9	4.5	2.57	0.817	200
Resource persons have expert knowledge of climate issues.	69	34.5	84	42.0	34	17.0	13	6.5	3.05	0.881	200
The content of the programme is rich and diverse.	27	13.8	132	67.3	37	18.9	0	0.0	2.95	0.565	196
The language used in broadcasting the programme is appropriate.	36	18.0	132	66.0	32	16.0	0	0.0	3.02	0.584	200

### *3.2 Feedback on Climate Change Broadcasting on ATL FM*

Table 2 below shows an impressive concession on the items answered by the respondents. As in the first table, the grand mean average is 2.8, thus indicating a general agreement on issues of feedback. Available evidence from the analysis shows that the commonest feedback occurs via mobile telephony precisely by texting or SMSing (70%) and phone-in (67.5%), while the new media of facebook recorded only 45.2%. Again, 58.0% (i.e.  $M^*=3.07$ ,  $SD=0.793$ ) agreed that the programme is very educative and that it makes students become aware of issues on climate change. As posited by such media ownership theorists as Altschull (1984) and Shoemaker and Reese (1991), the ideological positions of media owners influence the content of their broadcast, perhaps which is why the management of *ATL FM* always strives to educate the university community and its surroundings. The point here is that it is the management of the radio network that decides on the content and quality of the programme. Again, in a follow-up interview with the manager of the station, it was revealed that feedback is not a regular feature of the programme because the sources of information are mostly tit-bits, and are, therefore, not interactive.

Table 2: Feedback of the programme on climate change  
*M\** is the mean, where *SD*=1, *D*=2, *A*=3, and *SA*=4.

<b>Feedback</b>	<b>SA</b>		<b>A</b>		<b>D</b>		<b>SD</b>		<b>M*</b>	<b>S.D</b>	<b>Total</b>
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>			
The programme allows for feedback from the audience.	9	4.5	124	62.3	52	26.2	14	7.0	2.64	0.680	199
The host allows for feedback via phone-in.	19	9.5	137	68.5	30	15.0	14	7.0	2.81	0.700	200
The host allows for feedback via texting.	19	9.6	140	70.7	26	13.1	13	6.6	2.83	0.693	198
The host allows for feedback via facebook.	10	5.1	89	45.2	75	38.0	23	11.7	2.45	0.767	197
The programme is very educative.	56	28.0	116	58.0	14	7.0	14	7.0	3.07	0.793	200
The programme has made students become aware of issues on climate change.	39	19.5	94	47.0	53	26.5	14	7.0	2.79	0.836	200

### 3.3 Challenges Faced by ATL FM in Broadcasting Climate Change

Table 3 catalogues the major challenges (and prospects) thought to be faced by *ATL FM* in its attempt to educate the listening public on the oddities of climate change. It is, however, interesting to note how contradictory the views of respondents are on this subject. The most compelling challenge, according to them representing 54.5%, is that the duration of any programme on climate change on the network is not adequate. Forty-six percent (46.0%) also felt that the programme hardly allows for audience participation. This observation is captured in the words of the station manager as follows:

*The station will be able to broadcast excellent climate change programmes if it receives enough sponsorship. The problem of qualified resource, time or space is not with the station.*

The point above perhaps is reminiscent of the argument of media ownership theorists that the content of any media programme is directly correlated with the interest of those who finance it (Altschull, 1984; Wang, 2003). It should, however, be noted that the administration may also run at serious budgetary deficits if it pursues all programmes of common interest. In brief, it was felt that the programme content should be enriched through the following ways:

1. the choice of qualified resource persons
2. the diversification of media sources (e.g. newspapers, foreign and multi media)



Table 3: Challenges and prospects

*M\** is the mean, where *SD*=1, *D*=2, *A*=3, and *SA*=4.

<b>Challenges/Prospects</b>	<b>SA</b>		<b>A</b>		<b>D</b>		<b>SD</b>		<b>M*</b>	<b>S.D</b>	<b>Total</b>
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>			
The time for broadcasting the programme on climate change is not appropriate.	19	9.5	62	31.0	95	47.5	24	12.0	2.38	0.818	200
Programme duration is not adequate.	1	0.5	109	54.5	59	29.5	31	15.5	2.40	0.750	200
The content is not adequate.	11	5.6	68	34.7	97	49.5	20	10.2	2.36	0.758	196
The programme hardly allows for audience participation.	21	10.5	92	46.0	78	39.0	9	4.5	2.63	0.733	200
The programme content should be enriched in terms of resource persons.	35	17.5	127	63.5	38	19.0	0	0.0	2.99	0.605	200
The programme content should be enriched in terms of different kinds of media e.g. newspapers, foreign media, the web.	68	34.0	91	45.5	41	20.5	0	0.0	3.13	0.728	200

## 4. Conclusion

In this paper, we sought to investigate the extent a radio network, *ATL FM*, in an English medium university in Ghana educates the university community and its catchment areas on issues concerning climate change. The analysis of the data obtained mainly from students, staff of University of Cape Coast and management of *ATL FM* shows three key results. First, it was found that there is a low coverage of climate change by *ATL FM* and that there was no regular programme on the subject. The study also showed that the management of the station is heavily dependent on foreign and multimedia to educate its listeners on the geopolitics and harmful effects of climate change. Finally, it was found that *ATL FM* is constrained by both human and material resources to effectively address issues on climate change.

The above findings, best viewed as possible tendencies, bear a number of implications. In the first place, the findings point to a need for a redefinition of the role of campus radio. For although campus radio, in the words of Coyer (2002), is one devoted to inform the community about community problems, the dangers of the 21<sup>st</sup> century are such that one ought to have an appreciable understanding of the harmful effects climate change can wrought on one's community. It is for this reason that the definition of campus radio, and for that matter community radio, ought to be broadened. In the case of *ATL FM*, such a redefinition will have a tremendous impact on the nature and diversity of the programme as well as possibly increase audience participation.

Akin to the above, if campus-based radio stations vigorously pursue the broadcast of climate change on their respective campuses, they will in the process produce critical consciences within their areas of operation. Such a development, it is believed, will go a long way to impact on the thinking patterns of graduates who will come out to draw national policies and programmes on issues of global warming, climatic conditions and the politics of anthropogenic climate change in a world fast depleting. As Sekyi-Hughes (2009) points out, climate change is arguably the greatest danger facing humanity and that we cannot therefore afford to sit unconcerned, and that it is time we got the citizenry educated about it.

Finally, the paper is a humble contribution to the scholarship on climate change in Ghana, in particular, and the sub-region, in general. For as Dovie (2010) points out, "We need to get our data on the cost of climate change effects right in order to estimate the expected cost of adaptation in mainstreaming and to relevant sector plans rather than only medium term development plans" (p. 21). Thus, it is only by informative research that Africans can boldly claim what is lawfully theirs. For instance, it is said that Africa contributes the least percentage of emission gases, and yet suffers the most from the pernicious effects of climate change from Western countries. When research is able to articulate the full extent of this damage on the African continent then can we truly demand our right to "a fund to raise money from the West to developing nations to pursue green technologies... (and) a framework to help developing countries protect their forests" (Dovie, 2010: p. 21). The issues raised in this paper, therefore, call for replication on other university campuses in order to ascertain the extent the findings of this investigation hold.

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## References

- [1] J. H. Altschull, *Agents of power: The role of the news media in human affairs*, (1984), New York: Longman.
- [2] S. Ayittey, *Media should prioritise education on climate change*, Retrieved 28/4/11 from <http://news.myjoyonline.com/news/201011/55776.asp>, (2010).
- [3] W. L. Bennet, *News: The politics of illusion*, (5<sup>th</sup> ed), (2002), New York: Longman.
- [4] M. T. Boykoff and J. M. Boykoff, *Climate change and journalistic norms: A case-study of US mass-media*, *Geoforum*, Retrieved 20/4/11 from [www.sciencedirect.com](http://www.sciencedirect.com), (2007).
- [5] J. W. Cresswell, *Research design: Qualitative, quantitative and mixed methods*, (2003), California: Sage.
- [6] J. W. Cresswell, *Research design: Qualitative and quantitative approaches*, (1994), California: Sage.
- [7] W. Coker, *Love and Language: A socio-rhetorical analysis of love texts on a Ghanaian radio network*, *Language in India*, 1(2011), 1-14.
- [8] D. B. Dovie, *Cancun: A climate change deal or dent*, *Daily Graphic*, (2010), 16.
- [9] J. R. Fraenkel and N. E. Wallen, *How to design and evaluate research in education*, (4<sup>th</sup> ed), (2000), New York: McGraw High School.
- [10] H. Gans, *Deciding what's news*, (1979), New York: Pantheon.
- [11] Z.L. Jansen, *Community development electronic media communication in South Africa: A case study of community radio*, Unpublished MA Dissertation, (1995), University of Natal.
- [12] D. Jaminson and E. McAnany, *Radio for education and development*, Beverly Hills, (1973), CA: Sage Pubs.
- [13] I. Lorenzoni and N. F. Pidgeon, *Public views on climate change: European and USA perspectives*, *Climatic Change*, 77 (2006), 73-79.
- [14] P. McManus, *Beyond Kyoto? Media representation of an environmental issue*, *Australian Geographical Studies*, 38 (3) (2000), 306-319.
- [15] M.M. Miller and B.P. Riechert, *Interest group strategies and journalistic norms: News framing of environmental issues*, In S. Allan, B. Adam and C. Carter (eds.), *Environmental Risks and the Media*, (2000), 45-55, New York: Routledge.
- [16] A. A. Olorunnisola, *Community radio: Participatory communication in post-Apartheid South Africa*, *Journal of Radio Studies*, 9 (1) (2002), 126-145.
- [17] G. Payne and J. Payne, *Key concepts in social research*, (2004), London: Sage.
- [18] U.V. Reddi, *Educational broadcasting in the commonwealth*, (2003), New Delhi: CEMA.
- [19] A.C. Schoenfeld, R. F. Mer and R. J. Griffin, *Constructing a social problem: The press and the environment*, *Social Problems*, 27(1) (1979), 38-61.
- [20] E.B. Sekyi-Hughes, *Citizenry need more education on climate change*, Retrieved 28/4/11 from <http://news.myjoyonline.com/news/201011/55776.asp>, (2009).
- [21] P. J. Shoemaker and E. K. Mayfield, *Building a theory of news content: A synthesis of current approaches*, *Journalism Monographs*, 103 (25) (1987), 2-31.
- [22] P. J. Shoemaker and S. D. Reese, *Mediating the message*, (1991), White Plains: Longman.
- [23] M. Spector and J. Kitsuse, *Constructing social problems*, (1977), CA: Cummings, Menlo Park.
- [24] S. Tripp and W. Roby, *Auditory presentations in language laboratories*, In D. H. Jonassen (eds), *Handbook of Research for Educational Communications and Technology*, (1996), New York: Simon and Schuster Macmillan.
- [25] X. Wang, *Media ownership and objectivity*, Unpublished MA Dissertation, (2003), Louisiana State University and Agricultural and Mechanical College.