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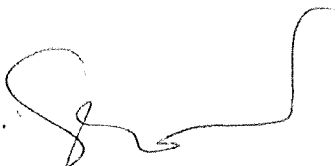
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p.p. 

Leon Barkho, Ph.D.

Associate Professor

Manager, Media Content Effects and Practices Program

Department of Media and Communication

Media Management and Transformation Centre (MMTC)

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and Media

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Educating Max Headrooms: The Emergence of the Multimedia Journalist as the Future Journalist

Dean Cummings, Cleveland Convergence

It was once thought a multimedia journalist or MMJ was fantasy, as seen in the television series Max Headroom. The hero of the show was a journalist who videotaped his own stories, reported live from anywhere but was also seen as a stalwart of the fourth estate, a 'hero' of society. Today, it is possible for a journalist to technologically assert themselves as a Max Headroom reporter, yet what are missing from the fictional television series are the economical and social considerations put in place to make such a character viable. This article critically reviews the significance of the MMJ.

Keywords: multimedia journalist; division of labour; multi-skilling; technology; television news; convergence; Fourth Estate; economics

The emergence of the Multimedia Journalism as a viable production method impacts not only professional television journalists but also academic institutions and students. There is a high expectation that younger journalists need to immediately take on the multi-skilled responsibilities and will be given no additional training by the news organization employing them. Specifically, local television news stations assume the new employee journalist will be able to perform as an Multimedia Journalist (MMJ). This expectation places a burden on education institutions to balance their curriculum with technical work, as well as traditional journalism education. Theoretically, when students perform technical skills they should be required to critically examine the ethical considerations of their actions. The emergence of the MMJ requires journalists to be self-critical with all phases of the new role.

While an assessment of the MMJ should be based on theory, practical applications and not fictional characters, the contrast between the truth and fiction may assist in explaining ethical decisions. As the MMJ becomes the standard convention of news production the fictional character illustrates why the Fourth Estate needs defenders. Currently, the MMJ method of news production impacts newsgathering due to inexperience, overwork and shortcuts. The newsroom culture is changing and the transition from the traditional news production to the MMJ is causing anxiety. The MMJ may wish to be heroic as Max Headroom, but they often express great frustration with the idea of being labourers (Martyn 2009: 201).

This article is based on an ethnographic study of two comparable local television news organizations as they introduced the MMJ into their newsrooms.¹

Max headroom style

With convergence of media, the reporter is asked to take on roles once restricted to the television journalist. Traditional television reporters are often reluctant to take on crafts roles (Hemmingway 2008: 84) as they learn that the act of creating visuals for a news story is often more difficult than they expected. The familiar phrase, 'Jack of all trades, master of none', is used to describe the impact of requiring journalists to take on crafts roles (Aviles et al. 2006: 96). A traditionalist crafts individual is part of a division of labour. The role is dependent upon the skills required. A reporter has a selected number of tasks needed to produce a television news package. Each member of the traditional crew is defined by individual tasks. An MMJ is hard to define because the MMJ has multiple skills, each requiring multiple tasks. It seems traditionalists will use gatekeeping to avoid doing unassigned tasks, such as videotape editing or videotaping. The traditional reporter will block external forces that require a differentiation in work. The MMJ seems to be more likely to take on external challenges because of the multi-skilling. As an example, a traditional reporter will not leave the building to report a story because the reporter does not have a photographer, whereas an MMJ will leave the station and report the same story, encouraged to produce the story without a crew, and without delay.

Traditionally, reporters were allowed to ignore the technical side of news field production and concentrate on writing. The removal of crafts individuals may reveal some

aspect of their skills are required and contribute to newsgathering. When reporters deal with the technical and procedural complexities of producing a news story there may be a consequential residual effect. The act of videotaping and editing requires moments of spatial and temporal meanings impacting the reporting of television news. The physical and mental acts of selecting specific visual and aural elements are a prerequisite for any television news story. The decisions made about the exactness of the visual and aural elements appear to be selections with editorial consequences. Due to the contribution of the crafts individuals and the vagueness of their role when analysing a television news story, the idea of 'authorship' is elusive in the construction process (Underwood 2007: 131–43). 'The authorship or ownership of production is lost in the transmitted product, and the multiplicity of meaning and interpretations is handed to the viewer' (Hemmingway 2004: 418). Authorship contains a set of assumptions, beliefs and values. Without the contextualization of those entities, no story can be told (McNair 1998: 5–6). It is very important for researchers to know who is the journalist producing the story as many times the identification of the author is lost in transmission. A news story produced by a traditional television news crew may not reveal the true author of the story, or whether multiple contributing authors are involved in the process. The absence of the television photographer and the videotape editor seems to eliminate external influences on the report being produced by the reporter presenting the news story. Knowing the author is important for critical examination, as it involves issues of authenticity and transparency (Pavlik 2001: 63).

The use of a MMJ may dictate a single author of a news story, but that does not necessarily mean there are no external influences upon the story or ensure the integrity of facts. It is in the process of reporting that journalists seem to construct their narratives with a barometer of ideals, which may be latently or purposely projected (Anderson 2004:127–31; McNair 1998: 6).

It may seem having a single author may be beneficial to the journalism process in identifying the integrity of the reporting, or at least accountability of the information. The process of the MMJ from interviewing, to videotaping, to writing and to editing can be attributed to the MMJ. Attribution of the elements and information used in a news package cannot be guaranteed or projected upon one individual when a traditional crew produces a news story.

The vampire at the gate

The rise of the MMJ was once thought to be catalyzed by technology yet it appears the production method blossoms because of fiscal imperatives. The MMJ appears to be an approach for management to address the disparity between costs and profits at the local level, and advantageous at the corporate level as it adheres to the neo-liberalism view of economic growth. Due to expanding market and the spread of the neo-liberalism incentives there seems to be a focus on efficiency to keep up with demand. Utilizing the technology available both the consumer and the producer use technological innovations to address what seems to be a 'time squeeze' inside and

outside the newsrooms (Moshe 2012: 69). As consumers disperse their attention to multiple platforms and other methods of obtaining information newsrooms are looking for ways to keep up to the consumer's demands.

Journalism students need to understand the environment they are about to enter and the personal consequences to their career livelihood. 'The television production apparatus, as vampire (ingests) youngsters at low prices from a large pool provided by the education system, working newcomers and established hands remorselessly, discarding the older and less accommodating at will' (Ursell 2000: 816). Originally, researchers like G. Ursell (2000) believed that entry into the workforce was becoming more difficult, but the restructuring of staff appears to have made it easier for younger and lower-salaried employees to enter the television news market (Dickinson 2007: 196–97). Senior workers and higher-salaried employees seem to be more vulnerable at this stage in the convergence timeline. However, research has demonstrated that it is not stress or lack of ability that makes older employees vulnerable. C. Maslach (1982) maintained that older workers, not necessarily those with greater longevity on the job, tend to suffer from burnout less frequently, finding that with increased age, comes stability and maturity, and a balanced perspective on work and life issues (Maslach 1982: 59–60). Therefore, a younger work force may mean a less stable work force within news organizations. Inevitably, it appears the work structures in news organizations are altered in response to the economic and financial concerns of corporations owning the news organizations; (Scott 2005; Anderson 2004; Pavlik 2004), causing new production techniques to be formed because of the converging media (Hemmingway 2008; Dupagne and Garrison 2006; Kolodozy 2006).

It may be easier for students to get into a workplace than previous generations, but there is a considerable consequence of a shorter career. From the ethnographic study I conducted at WKYC-TV, a slang word, the '20/20 kids' was given to describe the scenario. The reference is to the trend of hiring 20-year-olds, paying them \$20,000 a year, work them twenty hours a day, or in some cases, only twenty hours a week (as to not get benefits). The motivation for the workers is a promise and hope of notoriety. Those individuals are said to 'burnout' and management replaces the worker by introducing another 20 year old into the system. Newsrooms have fewer and fewer elder journalists to mentor younger ones, which should be viewed as a warning sign to student journalists to be well rounded and have career alternatives.

The MMJs are eliminating a photographer and an editor and there are so many people who want to do this job, you will want to find enough people that want to be a backpack journalist that don't know what they are doing and they are going to get on the job training. It comes down to strictly money. It is as simple as that. You cut two positions out and I don't think you raise the quality of work that much. (Reporter, WKYC-TV, Cleveland, Ohio).

To mitigate this process of the employee churn, the management devises a system of supervision to reduce inefficiencies and lower interference in productivity. Deadlines

and daily demands assert a form of production determinism that accepts the inherent pressures on media output. Press releases are used specifically as the source of information. The news manager's intention may be to fulfil production determinism (Patterson and Domingo 2008: 100).

I'm very much worried about it. I think every legitimate journalist in the country is worried about it. Think of where we are going. Local stations have 'skim the surface' journalism. That's all people are going to see is, what's usually handed out as a news release or a news conference or some meaningless kind of story or whatever... I'm afraid of where we are headed. (Veteran investigative reporter, WSTM-TV, Syracuse, New York).

In this context, the workload of a manager is focused towards the completion of tasks and the inevitable need to have an inventory of products for distribution due to the 24/7 news cycle caused by the emergence of multiple platforms. The newscast or the media platform is the delivery system dependent on the flow of crafted work pieces. The pressures created by technology and the voracious news cycle influences job functions and newsroom sociology to ensure production is completed. What is expected from her is accuracy and speed. On those levels she succeeds, primarily because what she is reporting on is already sourced and outlined before she produces the product (Patterson and Domingo 2008: 178–79).

Management thinks it is easy to do and that might be another reason why the quality is falling and also that they are not going to pay high salaries. They're not really going to put money into it because if they have this wide pool to be able to pluck, if someone says, 'I want \$30,000 a year. I'm not going to work for \$25,000.' Someone will say, 'I'll just find somebody else to do it then, another pretty face'. (Former News Anchor, WTVH-TV, Syracuse, New York).

With stated and inferred directives from corporate executive news directors are building a culture of journalism by marketing. The pressure to appease the corporate directives gives news directors the incentive to dictate the story from the moment it is conceived in the morning meeting. The news director supervising the creation passes down the story to the journalist in a Tayloristic demand. Older and experienced journalists would not tolerate the heavy-handed enforcement of news stories, yet the younger and desperate employee is eager to please. The convention of the '20/20 kids' appears to be destined to become a successful business practice, and this will have a greater impact than technology or the creation of the MMJ.

If you look at how long people last, it's not really that long. The turnover is pretty big because it is a pretty intense business and we're asking them to do twice as much as they were doing before. (Veteran reporter, WSTM-TV, Syracuse, New York).

Journalism students and universities need to be aware of the economic environment emerging from convergence of media. Students and universities should comprehend the importance of technological skills as integral to their career as a modern journalist. Corporations will expect their staff to be multi-skilled and the technological requirements of producing a news story will be synonymous with being a journalist. The quest to be employable and have a sustained career may be dependent upon the balance between trade or crafts work required to produce a story and the art of journalistic investigation. Whether the university wishes to become focused on the technical skills or the more theoretical approaches to journalism, the university and the students need to be aware of the climate that they are 'feeding' with useable talent. Local television news wants trained individuals at low wages and universities are providing enthusiastic candidates the local news stations can eagerly use to implement the MMJ.

Towards lean production

Media ownership has changed in the wake of deregulation. Local ownership of most local television news stations has been eliminated. Meanwhile, the increased rise of private equity activity leaves them vulnerable (Crain 2009: 209). The private equity activity can be contextualized as a component of the increased prominence of organized financial capital within evolving neo-liberal capitalism. Neo-liberal capitalism has reacted to convergence by making specific media industries more and more concentrated (McChesney 2001: 3). Radical improvements in communication technology have created global media empires, with neo-liberal values. Television has suddenly become subject to transnational commercial development. The historic role of the press as the 'Fourth Estate' of providing checks against government abuse of power and to disseminate to the public the informed opinions of the day is being threatened by a larger media system with questionable democratic ideals (Crain 2009: 209).

There is a long-standing debate between economics and the responsibilities of the press (McChesney et al. 2010: 126–29) whereas the definitions of the Fourth Estate are sometimes vague depending on the era of journalism. Prior to the twentieth century, the libertarian press was dominant, as publishers were seen as politicians, framing the concepts of their journalism towards an agenda or ideology. Publishers of the time believed the newspaper was a private enterprise with little public interest unless it benefitted their cause. The shift towards the social responsibility of the press arose during a technological and industrial revolution, sprouting a growth of journalism as a profession of principle (Siebert et al. 1979: 73–77). The invention of television created new delivery systems of information to large audiences, allowing television journalists to enjoy limited competition and profits. The business environment provided them journalistic freedom and journalists raised the stature of their profession as they crafted codes of behaviour and standards of ethics. Their quest was to seek out what the 'public has a right to know' (Siebert et al. 1979: 77). The codes created were ascribed as tasks, to 'service, enlighten, safeguard, provide and maintain'. Profiteering was not part of the theory. The philosophies of the Fourth Estate were

rectified and maintained during this period of economically untethered journalism. It may appear as if the climate has changed and is reverting back to the libertarian perspective as the increase of competition, from cable networks, and independent channels, as well as deregulation, changes the state of journalism. The technological revolution of the Internet increases competition and news delivery systems in such a way, the traditional news organizations struggle to maintain the profits they seemed to take for granted. The result may be found in local television news stations, in the structure of their organization, the methods of their production, and the quality of their staff.

Neo-liberalism stances transformed the broadcast television news from an informative social entity to a free market, competitive, industrialized and privatized business. The consumer's need for information created a desire for multiple outputs and products, such as the increase in newscasts shown by the stations in this study. Since the 1980's most television news stations increased the number of their newscasts in each broadcast day as well as the production schedule to become a 24/7 enterprise. The 24/7 incentives underscore the impetuosity of both the consumer and the producer to be fixated on time perception, 'the faster the better' approach to news, meanwhile, media regulators intentions of creating a more 'enterprise society' are finding difficulties adjusting to the evolving environment of television and new media (Moshe 2012: 80). The threats to a more diverse and continually prosperous media seem likely to affect journalistic endeavours of local television news in the future. R. W. McChesney (2001) identified the appearance of a global oligopoly involving national media firms, yet there is a sense the local news organizations are being enveloped by media firms in a national oligopoly (McChesney 2001: 4).

Witnessed by the examples of the stations in this study, the MMJ was implemented in times of economic restructuring and technological availability. This study will provide a perspective into the extent the managerial decisions of the local television news organizations were dictated by corporate directives, leading to the utilization of the MMJs in efforts to limit costs. The local management would apply new methods to personnel in attempts to insure the desires of corporate officials. Management constructs new methods of production to facilitate their needs in the present business climate of hyper-competitive survival, which may indicate the consequences of media deregulation can be viewed in the ratings wars between channels, as well as between oligopoly companies resulting in a change in journalism standards (Hallin 1994). This may result in desires to find ways to be economically strong as the number of competitive elements increase with expanding channels and platforms.

My ethnographic study appears to reveal a combination of Taylorist and Post-Fordist methods forming a hybrid model used to manage the MMJ. The hybrid model seems specific to the MMJ and not the traditional crew. The hybridization may be occurring because the new model is attempting to fit into the previously existing post-Taylorist, Fordist models and there might not be an adequate substitution, causing what appears to be needed additional supervision in order for the model to satisfy management. WSTM-TV management was motivated to apply

direct guidance upon the crews in order to facilitate the production requirements of their news stories. The middle management relied on intimate supervision to instruct and direct the MMJ with the intent to increase efficiency, while attempting to utilize technology to best support the production. Whilst the supervision is Tayloristic in its application of story assignments, the lighter and more portable equipment enables management to introduce new divisions in the labour, specifically the new divisions include a post-Fordism application on the MMJ. Utilizing the post-Fordism methods of production supplied to the MMJ worker, the MMJ will create work in a flexible specialization whereas the process of constructing a news package is self-sufficient in collecting the raw materials and processing them. The MMJ is independent from other individuals while producing the elements of the news story, whereas the individual product patterns, identified in the textual analysis, are created by the MMJ without managerial intervention.

Within the restraints of the news package parameters there is flexibility in the modes of creation and in the structure. Whilst the news package appears to be unchanged in its length and dimensions, each news product has a unique design created by the MMJ. The MMJ constructs a news package from design to the formation of the individual elements independently from supervision. Apparently, after constructing the patterns and frameworks of the assigned product the MMJ appears to be a portfolio worker, whereas within the context of the production model, the MMJ exhibits various roles and moves from task to task in a synergistic division of skills. It seems this process also creates what Negri (2005) refers to as 'self-valorization' that allows the MMJ to balance the internal divisions of the portfolio worker. In that context, the technogrammatic skills are measured in relationship to the ability to complete the assigned work much like the crafts individuals were judged for their contribution in a traditional crew. The MMJs appear to be self-aware of their work. In terms of the production processes, MMJs manage themselves internally with recognition of the balancing between various variables of their work model. Along with the technogrammatic skills, the sociogrammatic interactions of the MMJ coincide with the chronogrammatic pressures to realize a post-Fordism model formulated to balance the production requirements. In the efforts to balance the skills, interactions and pressures, the MMJ relies on flexible specialization weighted towards their individual strengths.

In summary, the factory model of the MMJ is one that requires flexibility and direct supervision, in what appears to be a hybrid of management techniques of Taylorist and Post-Fordist models.

Methodology

This is an original study conducted to examine the influences of technological change upon the patterns and structure of a television news story. A textual analysis of news stories from the 1970s to 2010, produced at the NBC affiliate in Cleveland, Ohio, was completed and the texts of the individual stories were examined as self-sustained, freestanding work of journalism. Each 'news package' was analysed individually and

compared to other stories using variables based on the characteristics of a television news story.

The examined news packages, produced by either the traditional television news crew or by the MMJ, were viewed as constructed objects with structural patterns. Patterns of structure were identified using various production elements. It was then possible to conduct comparisons between news stories from various decades. The intention was to witness any changes in the structure of news stories caused by the advancement of technology or by the method of production.

This original study utilized the tape archive at WKYC-TV, in Cleveland, Ohio. WKYC-TV's tape archive begins in 1975 when the news organization used videotape for archiving and editing. At that time, film was transferred to tape and edited on videotape. The more recent decades of the 1990s and 2000s contained complete archives. It appeared as if all of the news packages from those decades were archived and were available. As more newscasts became a part of the daily production schedule, the more news packages were created. In the 1970s, there were fewer daily newscasts than today and there may have been one or two newscasts a day depending on the day of the week. In 2010, there were five daily newscasts produced at WKYC-TV. The amount of news packages per day significantly increased with the additional newscasts. As the MMJ was introduced to WKYC-TV in 2010, the sample reflects a proportionate number for comparison.

It is hard to approximate the number of total news packages produced over the four decades. Based on the number of newscasts each day and the number of packages per newscast, it may be possible to approximate that during the 1970s through the 1980s, 1100 news packages were created each year. From the 1990s to the present day, it may be possible to approximate 2500 news packages were produced each year. From those approximations, a total of 66,500 news packages may have been created during the 40-year span at WKYC-TV.

The archives contained the edit masters of the packages used for broadcast. The stories were not dubbed copies but original masters. To compare the differences of four decades of television news stories of various technologies, random samples were taken from the archives of WKYC-TV. About 400 news 'packages' in total were analysed. One hundred 'packages' from each decade were collected, from the film days of the 1970s, through the three-quarter inch video days of the 1980s, to the beta video of the 1990s, to the digital DV of the present decade. Each package was viewed and dissected by identified elements. The findings of this study reflect the results from the examination.

Producing a product

Despite the changes in technology and social paradigms, the product of local television news appears to be unchanged since the beginning of the establishment of the convention. Based on a textual analysis of news stories from the 1970s to 2010, it was revealed the length of the news story is consistent as well as the percentage of elements needed to create a news package.²

Perhaps the case T. D. Sampson (2012) makes about contagion behaviour can be used to articulate the approach of this study towards the textual analysis of a television news story over periods of technological change. Sampson (2012) utilizes the argument of biologist Gabriel Dover to stipulate that the product of the gene is not necessarily designed by a master evolutionary mechanism; it is more likely shaped by a 'programless search space'. 'It is the interaction that evolves, not the gene' (Sampson 2012: 78). Although the use of his argument may not directly apply, as his study involves social interaction of a different variety and scale, the reason for the textual analysis of this study is to examine the 'gene' of the interaction, or in this case the act of journalism, to determine if the gene is changed by the evolutionary applications of technology. Therefore, the purpose of the textual analysis is to establish whether the evolutionary changes in producing television news directly affects the consistency of final product. In this context, it is important to understand the interactions taking place may be affecting the product, therefore ethnographic study and the qualitative interviews will demonstrate the process from which the text is created. Just as important, the study of the construction of the news package, as the 'gene' of television journalism is examined through the textual analysis.

The television news story is a collection of raw material (Borden et al. 1998: 9) crafted into a product of a regimented structure. The following analysis of television news products reveals the television news product is a linear presentation utilizing audio and video. The fundamental requirements of a television news package appear to be unchanged since the beginning of television news. This analysis will use Electronic News Gathering or Television News Production, a mechanism for processing raw data into an explained form (Gripsrud 1999: 55).

The production of the television news story progressed through various changes in technology (Underwood 2007; Zettl 2012; Medoff 2007), at different times in the history of television. The impact of technology upon the news story may need to be clarified according to the time and place of the technology. S. Quinn (2004) maintains that television journalism changes due to technology and the more technology advances, the more the product changes (Quinn 2004: 113). In the case of local television news, and from the textual analysis of this study, the structure of the product does not seem to change despite technology. The media platforms may elicit future redesigns of presentation; however, currently it does not seem to be the case. In order to establish whether or not technology has affected the structure and methods of storytelling, it is the intention of this research to detail the structure of a television news story to establish whether or not technology has affected the structure and methods of storytelling.

It can be concluded that the story structure of a television news story 40 years ago is similar to the structure of television news stories today. It can also be said that the news package produced by the MMJ has the same structure as the news package produced by the traditional news crew. Identifiable patterns required to label a news story a 'package' are comparable between 1975 and 2010.

The uniformity of the news stories will help examine whether the look of local news is one of form dictating content (Rosenstiel et al. 2007: 47) and how the

construction process has affected the content (Kolodzy 2006: 140–41). While the created products are similar, the production process is varied, based on the number of workers and the technology used to create the individual elements of each ‘news package’.

	1970s	1980s	1990s	2000s	2010MMJ
Type of technology:	Film to ¾”	Betacam	M2	BetaSX/DV	DV
Number of packages:	100	100	100	100	25
Ave. total length (in seconds):	88.07	82.14	89.25	86.83	89.92
Number of edits per package:	16.6	18	19.16	22	30.24
Soundbite length (in seconds):	20.4	9.3	8.0	7.4	6.20
Number of sound bites:	2.0	2.9	4.0	4.75	5.88
Ave length of edit:	7.27	4.79	4.65	3.82	2.97

Percent of material					
Voice-over (%):	44%	54%	53%	50%	53%
Soundbites (%):	37%	30%	34%	38%	37%
Standups (%):	19%	16%	13%	12%	10%

In a majority of the news stories under analysis, the television news story would be constructed by using a voice-over narration, followed by one or more sound bites of interview subjects, and finish with a voice-over narration. The stand-up is used to end the news package, to ‘tag’ the story with the reporter’s name and news organization. ‘Tagging’ a news report seemed to be an important way for the reporter to identify the news package as his own work and that of the news organization.

Using identifiers,³ the 1970s news package sample identified 36 separate patterns in the 100 stories selected.

The most popular structures of the 100 news stories from the 1970s were as follows:

- 13% used the vo-sb-vo pattern
- 13% used the vo-sb-vo-sb-vo pattern
- 10% used the vo-sb-vo-su pattern
- 9% used the vo-sb-su pattern

Some of the patterns were relatively simple, utilizing only a voice-over, while others were complicated extensions of the vo-sb connection. The longest pattern identified connected four (vo-sb) connections with an ending vo, to create the pattern:

vo-sb-vo-sb-vo-sb-vo-sb-vo

From the 1980s, the analysis identified 55 separate patterns from the 100 stories selected. The most popular structures of the 100 new stories were:

- 10% used the vo-sb-vo-sb-vo
- 9% used the vo-sb-vo
- 6% used the vo-sb-vo-sb-su

It appears sound bites are important to the structure of the news package regardless of the genre. Only 4 per cent of the news packages did not have a sound bite included in the story.

The 1980s news package shows the conventions of the news package changing as the number of structural patterns increase. The increase in patterns may indicate the influence of editing on the structure as videotape recordings of Betamax are now edited directly to tape.

The most complex structure of the 100 stories involves a fifteen-segment strand.

vo-su-sb-vo-sb-vo-sb-vo-su-vo-sb-vo-sb-vo-su

The story was a general news story from 1988. At this point in the history of WKYC-TV, the camcorder and videotape editing was fully implemented. Whether or not the increase in structure complexity reflects the change in technology is uncertain, but it is important to point out the next decade of selected news stories reveal 57 patterns in their structure. It may be that the conventions of editing linear stories during these two decades created particular patterns of writing and reporting in collaboration with the technology.

From the 1990s, the analysis identified 56 separate patterns in the 100 stories selected. The most popular structures of the 100 news stories were:

- 9% used the vo-sb-vo-sb-vo-sb-vo
- 7% used the vo-sb-vo-sb-vo
- 5% used the vo-sb-vo-sb

The decade seems to show that the structure of the news story is changing by adding more sound bites to the news package. The length remains relatively the same, but sound bites are used to create a longer pattern.

From the 2000s, the analysis identified 60 separate patterns in the 100 stories selected. The most popular structures of the 100 news stories were:

- 9% used the vo-sb-vo-sb-vo-sb-vo
- 9% used the vo-sb-vo-sb-vo-sb-vo-sb
- 6% used the vo-sb-vo-sb-vo-sb-vo-sb-vo-sb-vo-sb

The decade seems to show the same number of patterns, but the popularity of using multiple patterns of the voice-over and sound bite exemplifies the additional number of sound bites used in each story, detailed earlier. The new packages are the same length but the number of edits and elements have increased significantly from the 1970s.

In 2010 (MMJS), the analysis identified sixteen separate patterns in the 25 stories selected. The most popular structures of the 25 stories were:

- 12% used the vo-sb-vo-sb-vo-sb-vo-sb-vo-sb-vo-sb-vo-sb
- 8% used the vo-sb-vo-sb-vo-sb-vo-sb-vo-sb-vo-sb
- 8% used the vo-sb-vo-sb-vo-sb-vo-sb
- 8% used the vo-sb-vo-sb-vo

The MMJ news packages show the patterns of the news stories increasing while the length remains the same. The editing is more involved as there are more elements and edits per story. By the 2000s, news packages use more than twice the number of sound bites in a news package. The MMJ uses nearly three times the number of sound bites.

What is important about the patterns, it shows that the number of separate patterns increased over the decades, indicating flexibility and uniqueness to each news story. About 60 per cent of the news stories, of this study of the 2000 decade at WKYC-TV, are unique in structure. Compared to the 1970s, when only 36 per cent were unique structures. Many students ask for absolutes in their production as to how many shots, how many edits, etc. But, what these patterns suggest there is less definition as to the structure of the news story. The length and percentages of voice-over and soundbites seem unchanged, however, the construction inside the length appears to be increasingly exclusive to the journalist.

The findings should illustrate to the journalist the product is essentially the same each time they produce a story, but complex within the construction matrix of their storytelling. The information may aid a MMJ to see their production method as a collection of material needed to create a formatted product. The pattern analysis will also help students to understand the importance of visual storytelling, as it appears the voice-over portions are significant in the structure. Visual entities are required to cover over 50 per cent of their story, yet the visual portion of a news story is often neglected as merely a cover of script or 'wallpaper', as it was termed in the observed news organizations.

Because of the relationship between visuals and storytelling, the crafts individuals who become MMJs were observed to transfer their skills and adapt to becoming an MMJ much easier than traditional reporters. Part of the reason, was the ability of the crafts individuals to recognize the importance of structuring a story with imagery relevant to the voice-over.

Conclusion

A growing number of journalism schools have modified their curricula to adapt to trends in media convergence (Dupagne and Garrison 2006: 241). There appears to be a need for schools to adapt to the demand of students who are 'street' ready as

soon as they graduate, and, in some cases, before they graduate from college. A large number of universities and schools acknowledge that 'Convergence is the future of mass communications' (Duhé and Tanner 2003: 8). In fact, 72 per cent of the school administrators surveyed in the 2003 study felt so, while in 2005 another study of school administrators revealed that nearly 85 per cent reported that their curriculum emphasizes either cross-media learning or both. Cross-media and specialization learning determine what new practices, if any are being implemented in convergent newsrooms (Lowery and Anderson 2005). In the study, it was found the perception of the industry hiring was the most important predictor of faculty interest in pursuing a convergence curriculum.

You hire a kid out of school, that kid may be very intelligent and may have a lot of potential, but that person hasn't lived very much, and hasn't seen other places very much. What kind of background does that person have? Because essentially what you put in your stories is the background you bring to them. And if you don't have much to put in, you don't get much out. There's always a learning curve, but sometimes the learning curve gets higher and if the curve is higher, the quality is not going to be as good, quite frankly. (Laura Hand, veteran reporter, WSTM-TV, Syracuse, New York).

Multi-skilling of journalists can be a contentious issue for both the practitioner and the academic as skills are transferred to one person, now defined as a journalist (Hemmingway 2008: 86). Multi-skilling eradicates individual skills; tasks are assumed by a reporter with the goal of developing a more autonomous role in producing news with the goal to increase production efficiency. E. Hemmingway describes it as 'adopting a radically altered chronogrammatic axis along which to gather and report news' (2008: 86). It is assumed this altered axis provides synergy of effort during the production process and that synergy improves efficiency. However, multi-skilling impacts news content and information and it may not improve the quality of journalism in terms of information value (Harrison 2000: 51).

At best, multi-skilling is viewed as a way of improving efficiency but in general, the motives for multi-skilling seem rooted in economics (Patterson and Domingo 2008: 161). The convergence process that is occurring due to multi-skilling is a challenge to both the culture and production. There is negativity towards multi-skilling, as it seems to devalue the reporter by distracting him or her. Departmental news organizations are challenged and threatened by a news culture that prefers individual expert systems and 'group think' over teamwork and knowledge-sharing (Deuze 2005: 451). Multi-skilling is also seen as lowering the quality of the writing or visuals, and the merging of jobs may cause a loss of perspectives, expunging a system of checks and balances (Duhe et al. 2004: 87).

The argument for and against 'multi-skilling' may revolve around the use of the apparatus and the resulting editorialized view, but it seems to be directed at workflow and the amount of work relegated away from reporting. The BBC is using

informational convergence in many of their regional centres to convert staff members to multi-skilled personnel (Hemmingway 2005: 8). The intent is to enable one person to do the job traditionally completed by two or more individuals. At BBC Nottingham, for example, six staff craft crews, made up of technicians, have been reduced to three. The technical logical group at BBC Nottingham consists of staff craft members but they allowed three craft camera operators to join the MMJ ranks, so that the technicians were, in effect, allowed to become journalists. The purchase of 33 laptop-editing stations replaces four full-time editors, who were also assigned as MMJs (Hemmingway 2005: 18). Most researchers and practitioners share a significant amount of concern over adapting to the new technology and new skills. It may appear those concerns will diminish over time, as seen in previous implementations of new technology (Keirstead 2005: 26–27).

In the past fifteen years, different types of video tape formats and cameras have been introduced into newsrooms, and after their introduction and a learning curve, the technology was used effectively. The changes to the crews at BBC Nottingham result from a convergence in the structure of the newsroom. Structural convergence is important because it affects news production; managers of separate news departments from newspaper, online and television create new communication routes as they determine the distribution of duties (Cottle et al. 1999: 29–32). Some journalists see the changes as a blessing (Kolodzy 2006); others see them as a curse (Anderson 2004). The changes that occur may affect the individual by making his or her position redundant or obsolete. The hierarchy may be affected as the organization's structure is changed. Some journalists will be given additional duties on top of an already heavy workload (Kawamoto 2003: 4), whereas others may enjoy a higher status in the new environment. Some reporters may enjoy total authorship of stories without the additional editorial contributions of the camera operators and editors (Hemmingway 2004: 20), while others feel the contributions improved the standard of work (Hemmingway 2004: 26).

News content does not seem to be altered by technology. As John Ellis believes, 'The quality of the footage is hardly relevant; news will accept poor-quality images and poor quality speakers if the immediacy and the importance of the events will justify them' (Gripsrud 1999: 56). It appears the aesthetic quality of television news is protected from criticism or critical expectations based on the genre's limitations and the strengths of its immediacy to important events. This ethnographic study revealed that the expectations of the traditional crew were much different from those of the converged crew. In many instances, in terms of the MMJ, it seemed that the local television news stations justified adjusting standards and expectations in order to produce news more quickly. However, this ethnographic study reveals the difference in news quality produced by traditional and converged crews to be a myth at the observed facilities. It seems practitioners view the traditional television news crew as working faster at constructing news stories and more independently from management than the converged crew. However, it appears to this researcher that the traditional crew processed their material at the same rate as a converged crew and was equally influenced by management in the process.

The idea separate individuals performing separate tasks create higher 'quality' work is subjectively inaccurate. The traditional crew involves layers of editorial, leading to assumptions and personal influence, even bias. The converged crew can provide the same imagery and it is difficult to detect how many individuals work on a particular story in many instances. In lieu of the indictment, there is a verified ambiguity over the process of retrieving information. Observed crews and management at WSTM-TV had a 'just get the job done' approach to their production. In crafting this mantra, there seemed to be no questions raised about the behaviour of those in the field. Both the management and the MMJs observed shortcutting approaches. Several veteran journalists told me that shortcutting was not limited to the converged crews, as the emergence of the Internet and the 24-hour news cycle make it difficult for reporters to verify facts in the same manner used decades earlier. What the observed reporters conveyed was, 'We used to triple check facts, but now we just put it on air and retract wrong statements later'. It seems the speed and efficiency demanded by news producers creates the need to find a shortcut in production (Hobsbawn 2006: 217).

From this study, it appears universities should aid students in acquiring technological skills but also help them become aware of their own cultural and personal shortcomings. The ability to self-assess and evaluate their work objectively is important to new MMJs to expedite the learning curve. The pressures of making news products needs to be countered with the ability to reason, both ethically and productively. The impact of the MMJ revolves around the ability of the journalist to be flexible and responsible. Like Max Headroom, the MMJ needs to be dutiful to society in crafting journalism devoid of personal interpretation, yet wield technology effectively.

Max Headroom might be a symbol of the higher authority of journalism, but his model of production is not necessarily nirvana. The MMJ was not seen as a hallmark in journalism in the observed newsrooms, or the S. Wallace study (2009: 696–97). The MMJ was viewed as a villain, as opposed to a hero despite the fact the work is accomplished. In the case of WSTM-TV, the MMJ performed double the workload of the traditionalists at WKYC-TV. While WKYC-TV's traditional crew would produce one package for a newscast, WSTM-TV's staff would produce two. The reason for the disparity is neither a simple case of effort or ability, but an adopted paradigm of integrated actors. Whether the quality and standards of journalism are compromised is debatable, as neither station seems an authoritarian realm of ethical championing of the Fourth Estate, very unlike Max Headroom.

Notes

1. *Ethnographic study* – An ethnographic study at two local television stations, WKYC-TV in Cleveland, Ohio and WSTM-TV in Syracuse, New York was conducted. The purpose of the ethnographic study was to compare and contrast the newsgathering between the traditional and converged journalists. The study resulted in qualitative data identifying paradigms within the news crews. The paradigms were examined for variations between the traditional and converged journalists. My approach is a mixed method approach (Creswell and Piano-Clark 2006), combining quantitative and qualitative methods to evaluate

changes to the production methods of local television news gatherers (Deacon et al. 1999; Emerson et al. 1995; Hansen et al. 1998). It was my intention to be a reflective practitioner (Machin and Niblock 2006: 25); in such a way, I can step back and contemplate the events presented before me and contemplate the wider forces at work around me.

The ethnographic study began in 2007 and continued to 2011. In that time the traditionally based production methods were challenged by the implementation of a few multi-media journalists. A total of 23 interviews in Cleveland, Ohio were conducted; ten observed subjects were interviewed. Seven external influential subjects were interviewed, which includes management, sales and producers. Six other interviews were conducted with other journalists and management from other stations or departments at WKYC-TV. A total of eleven interviews in Syracuse, New York were conducted: four observed subjects were interviewed. Two external influential subjects were interviewed. Five other interviews were conducted with reporters, producers and management from WSTM-TV, as well as WTVH-TV.

2. *Textual Analysis* – The unit of analysis for this research is the individual news story constructed by traditional and converged journalists during the ethnographic study. The texts of the individual stories were examined as a self-sustained, freestanding work of journalism. The story was analysed individually and compared to other stories using variables of the characteristics of a television news story. Those characteristics are length, elements (edits), and structure. Other characteristics such as genre were used to measure the validity of equivalent sampling. Most content analysis tend to confine themselves to the analysis of one or two types of medium (Chapman 1986; Troyna 1981). Ericson (1991) sampled three types of mediums. For this study, one type of medium was sampled, television, created with four types of technology (see endnotes for sampling details).

A total of 25 news stories from each decade – the 1970s, 1980s, 1990s and 2000s – were analysed. After the first hundred stories were collected, the decades were compared and the results noted.

A second sampling of another 25 news stories per decade was completed, and this time the samples were taken from different tapes and different times of the year. A third and fourth sampling was completed using the same methods. In total, 400 stories were analysed and 100 stories from each technological era were examined. In addition, the existing MMJ stories were collected and a sample of 25 was collected and analysed.

WKYC-TV's tape archive begins in 1975, when the news organization used videotape for archiving and editing. Film was transferred to tape and edited on videotape. The crews consisted of a reporter, a camera operator, a soundman and the tape editor. At the time, the news organization was an NBC-owned and operated station. A total of 100 stories were chosen from the archive, based on the previously mentioned criteria.

The more recent decades of the 1990s and 2000s contained complete archives. It appeared as if all of the news packages from those decades were archived and were available. As more newscasts became a part of the daily production schedule, the more news packages were created. In the 1970s, there were fewer daily newscasts. There may have been one or two newscasts a day depending on the day of the week. In 2010, there were five daily newscasts produced at WKYC-TV. The amount of news packages per day significantly increased with the additional newscasts. It is hard to approximate the number of total news packages produced over the four decades. Based on the number of newscasts each day and the number of packages per newscast, it may be possible to approximate that during the 1970s through the 1980s, 1100 news packages were created each year. From the 1990s

to the present day, it may be possible to approximate 2500 news packages were produced each year. From those approximations, a total of 66,500 news packages may have been created during the 40-year span at WKYC-TV.

3. A news story consists of a number of variables:
 - Voice-over (vo): The voice-over is the narration of the script used to tell the story and for most news stories, the body of the voice-over script is broken into four elements linked with sound-bite interviews and stand-ups (piece to cameras). The voice-over script requires writing skills intended to blend the sound elements with corresponding factual information, however the writer may or may not be the reporter seen in the package, in some instances it is a producer in the field or at the news organization. In a few instances the news videographer may write the script, as the videographer is the one who gathered the information and sound elements in the field. For example, a videographer at the scene of a fire or other breaking news will collect interviews and video at the scene, write a script, and relay the script to the producers at the news station, who will have a news anchor provide the narration. And many times, the voice-over may be written by someone who was not at the scene or conducted the interviews, therefore it is difficult to assess the division of labour in a news story based upon the examination of the news story from an archive tape. For those reasons, this study does not assume the reporter has written the story, however in most cases, the writer is the reporter who investigated the story and interviewed the subjects (Diefenbach 2002: 385).
 - Sound bite (sb): A sound bite is an audio clip from a subject who is interviewed on camera or someone who is speaking and happens to be recorded, for example a politician giving a speech. However, all the sound bites are collected with either a camera, by audio recorder or by other means such as a phone to gather the audio clips. For those reasons, the audio recordings are important to the structure of the story, as most often they become integral to the context of the story and verifies the source of information as the image of the subject interviewed usually accompanies the audio. In some instances, audio may be used without the image of the interviewed subject, for example, the sentence of an interview may be covered with video imagery in order to demonstrate what the interview subject is describing or audio is edited in such a way to eliminate gaps in the discussion or pauses. This study revealed, through textual analysis, most stories were constructed utilizing the interviews of two individuals and subsequently, four sound bites are used in the structure of the story (Diefenbach 2002: 382).
 - Stand-up/piece to camera (su): The stand-up is used for a majority of news stories labeled, 'packages', whereas a package is a self-contained news story that does not need additional information or presence from another location, such as a live shot or a studio location. According to news management, the stand-up is used to show presence of their reporters in the field, to showcase the fact the reporter was on location, for that reason stand-ups and live shots are very important to news organizations. The image of the reporter affirms the reporter was at the location at the time the story was reported, it does not confirm the reporter was the only one at the scene reporting the story, for example, a reporter who was first on the scene of a breaking news story will leave after a certain period of time and a second reporter will continue the coverage. The appearance of reporters on the scene of news stories is important to create branding of the news product. News personalities are coveted as being a part of the product line used to sell the commodity of news and stand-ups are a good way for

news departments to brand their news in various ways, for example, the news stations in this study often referred to their reporters as part of the community, trusted to cover important news in their community and frequently promoted them as vigilant investigators meant to help the community. It was important to both the management and reporter to be seen on camera for those reasons. In a practical sense, a reporter will often use the stand-up in the structure to go from one location to another or one side of an argument to the other side. Sometimes stand-ups are not put on tape and are substituted with 'live shots' or studio appearances (Diefenbach 2002: 382).

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Note on Contributor

Dean Cummings, Ph.D., has 24 years of television production experience. He graduated from the Rochester Institute of Technology and Syracuse University. He has worked in New York, Michigan and Ohio as a journalist and television producer. Winner of eight Regional Emmys and eight Telly Awards, Dean specializes in videography and editing. He has produced dozens of medical documentaries as well as commercials, news stories, and sports programming.

E-mail: drdeancummings@gmail.com

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