Personal Workplace Changes Resulting from Multimedia's Evolution: An Empirical Study of Workflow and Workplace Role Adaptions in Media Production

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Index Terms

Practice of media production, comparative analysis of advances in media production, television technology's impact on workflow, perceptions of impact of technical advances

Abstract

Scholars of media and culture have been engaged in multi-level analysis of the impact of changes as a result of new technologies in the television industry both in terms of technical production and media consumption. But, the transformation of industry standards also has direct implications for the people working in the field and the production studio. These people have experienced tremendous and very personal changes that are not often articulated because they are overshadowed by responses to and levels of acceptance of changes by consumers. This paper focuses on the workers' specific, personal perspectives concerning these changes and the changes' impact on their professional lives.

I. Introduction

There is a gap in the research about technology's impact on television production begging for closer attention. Scholars have been distracted by the buzz around social media. Literature reviews show a focus on the influence of things like Twitter, how producers tweak content to fit social media's requirements and how mobile technologies have changed technical setups of production facilities (Chadwick, 2014; Hermida, 2013; Westlund, 2013). This information is relevant. But, the sea change is really in the digitization of television which is not as much of a change for the consumer as it is for the practitioners.

These transitions are often not easy. Why? The traditions associated with television include long-standing, standard operations of production. The arrival of digital muddled these routines and forced adaptations. Additionally, the jumps with the evolution of technology propel continual, unique and multiple reinventions of workflows/outputs and workplace roles that aren't necessarily articulated or documented. Professional lives have been immensely impacted by these recent changes. What exactly are the people who are doing these jobs experiencing? How have these individuals adjusted and coped with the constant changes? The changes possible with digital technologies are exciting. But, they are also challenging. These specific, very personal changes inspired the research for this paper.

To illustrate some of the changes, the following comparison shows a simplified television newsroom workflow example for a full-time senior producer in a typical television news operation in the 1990s and compares it to a probable workflow today. It's important to make the point, though, that television production expands way beyond the scope of the following comparison.

1990s WORKFLOW EXAMPLE FOR COVERING A STORY ABOUT A FIRE	PRESENT WORKFLOW EXAMPLE FOR COVERING A STORY ABOUT A FIRE
-The producer would probably learn about the fire by monitoring the public safety chatter coming from the newsroom's scanner or by getting a phone call from a witness. -The producer would send a videographer and reporter to the fire location. -The reporter and videographer would get whatever info/footage they could and interview police/fire officials/witnesses. The videographer would have, at the very least, a tape-based video camera with an extra battery and tape, a tripod, and a handheld microphone for the reporter to use. The reporter would likely have a note pad. -Once back at the station, the reporter would write the story on a computer using the newsroom software (which would feed the teleprompter system and the closed captioning system). Material for the graphics (like the fire chief's name) would be indicated in special fields of the computer software and printed on the physical script. -After the reporter would finish writing, the producer would do any necessary editing to the copy, verify the story info again and move the copy to the appropriate place in the show rundown on the computer. -The reporter would then move on to his or her next task. -The videographer, reporter or the producer would then edit the raw video (linear - tape based - editing) onto an edit master tape with a countdown and cue the tape to the beginning of the countdown. That tape would be placed in a bin with a bunch of other tapes (all the others playing in the show) that would need to be carried to the master control room. The master control room would have, among other things, a number of video tape players with corresponding monitors. -If there is time before the newscast, one more phone call would be made to the fire chief or public information officer to see if there are any updates to the story/script for the program. -Once the script is finalized, the script would be "sent" via the newsroom software system to the teleprompter and closed captioning software systems.	-The producer could get a tip in the traditional manner (scanner chatter or phone call) or get info from social media, email, text, etc. -After confirming the legitimacy of the information, the producer would assign the story to a reporter, probably a person now commonly called a multimedia journalist or MMJ. The producer would inform the engineer, master control operator and director that there may be a variety of live remotes for air and/or video uploaded to the newsroom servers. -The reporter would use social media to immediately inform followers the story is happening and will continue to be covered. An invitation would also be issued to witnesses to continue to send info/photos and video. It's important to note that the reporter would continue to use social media throughout the process. The reporter would give updates to the story, promote the actual broadcast containing comprehensive coverage and update viewers on any changes to the story after the newscast. If there are any errors in social media posts, updates would probably be corrected quickly. -The reporter would not have a videographer. The reporter would have his/her specialized backpack of equipment that allows for basic non-linear editing/remote transmission/uploading of files (Basically, the equipment squishes three cell phone signals together so there is enough bandwidth to efficiently transmit files.), a station issued smart phone, a digital video camera (not tape based), a tripod, and a handheld mic to head to the site to collect information that would fill any gaps from the material submitted earlier. -The reporter could, the moment he/she gets to the site, conduct live shots to inform viewers about what's happening at that moment using the equipment included in the backpack. Or, the reporter could upload a standup and other new video/interviews to the newsroom servers where it could be accessed by the newsroom, the control room and master control and edited together with already submitted material, etc. This editing would occur in the same newsroom software that's used to complete the script/rundown. -Any finalized footage is ingested into and played from the newsroom servers. While there is no actual tape to move around the station and play, master control operators are still a big part of the process. In addition to monitoring a number of other technical processes, they work to ensure overall quality of files and continuity of operation.

-A number of paper copies of the script and show rundown would be distributed to the producer, director, technical director, master control operator, graphics operator, audio board operator, floor director, camera operator(s), anchor, co-anchor, meteorologist, sports anchor, etc. All those people would be present a certain amount of time before the actual production of the show. The director and technical director would go through the script page-by-page to make sure all of the technical details are set. The master control operator would check each tape to make sure each one is in the appropriate order and cued to the correct spot. The graphics person would find which stories need graphics and work off of a template to customize the graphics (for names) and create any other special graphics for use during the program. The audio board operator would perform microphone checks and look through the script to be ready for all things that involve audio. The floor director and camera operator(s) would study the rundown to make sure they understand the exact camera shots needed and any other studio related issues. The on-air staff would study their scripts. The meteorologist would finalize graphics/maps for the program and send them to the weather center computer.

-Everyone is in place as the program begins. Keep in mind, the only people who have access to the broadcast are television viewers who can receive the broadcast signal or have a cable/satellite setup that carries the station.

-At the appropriate time, the director would tell the master control operator to start rolling the fire story tape. The director, technical director, master control operator, audio board operator and graphics person can see the countdown on a monitor. When the anchor would get to the appropriate place in the script (and when the countdown is at 0), the director would tell the technical director to push the correct button to put the tape on the air and the audio board operator to push up the tape machine's fader up so all viewers to hear any sound. The director would also tell the technical director when to put on and take off the appropriate graphic. Once the story is over, the director would tell the technical director to take the next element with the video switcher and tell the audio board operator to kill the audio for the fire tape.

-Another really important task, entering metadata - its input is structured into the newsroom software system - is a big part of this process. Everything is instantly archived and tracked with a highly developed database. If attention is paid to the diligent entering of metadata, it's very easy to search and access archived material. For example, the producer would include names of anyone interviewed, the location of the fire, the types of shots, the name(s) of impacted people/businesses, etc.

-Meanwhile, the station's Web/Digital Media Coordinator, who might also be functioning as a reporter to get updated information on the story, would prepare the Web and mobile app for the online story presence. (The overall Web presence and mobile apps or at least the templates are typically managed by producers at the corporate offices.) Coverage could start with a banner or news alert with minimal details. And, the producer would begin to organize any info/digital files that can be used by the Web coordinator to help tell the story as it develops. The producer would also work with the reporter to continue to verify that the material they are receiving from independent contributors is accurate.

-The director does not have a person for every position as in the past. The director would maybe have a second person to assist with studio tasks that he/she can't attend to because he/she has to remain in the control room.

-The director, once informed that a breaking news story is developing, would work with production person (who is probably not just devoted to news production - also for commercial and corporate production) to make sure any graphics outside of the template-based graphics are being developed. The producer would enter appropriate info into fields of the newsroom software system which is instantly transferred to production to perfect.

-The hard-core broadcast engineer would still work to make sure the technical situation is as good as it can get, but this engineer would also be monitoring the computer network to make sure bandwidth, among other things, is as expected. (Also, this person would be responsible for training staff on all the software updates, equipment changes, work-flow changes, etc. so all systems work together properly and all people with properly with the systems.)

-As the producer would work to finalize the script, it's likely that he/she would indicate in the appropriate field in the newsroom software that an anchor in the studio will toss to a live shot with the reporter who is still on the scene. The producer will also indicate in the software which camera will be used, what type of shot, what microphone needs turned on, exactly when the graphics will come on and be taken off, exactly when the video should roll and be taken off in different fields of the newsroom software. Basically, all commands are entered into the newsroom software. This doesn't remove the importance of the director, though.

The master control operator would eject the fire story tape and place the tape back into the bin for return to the newsroom after the newscast. -By the way, a hard-core, specialized television station engineer would be hovering around to make sure all the equipment is operating properly throughout the program. -After the newscast, someone in the newsroom would take that box of tapes into an editing bay and edit each bit of video - in the order they played in the newscast - on a master archive tape for the day. The archive tape would be placed on the archive shelf. The fire story tape would then be left for the next show's producer. -One of the copies of the paper script for the show would be placed in a dated file in the archive file cabinet. Another copy would be left for the next show's producer. The next show's producer would follow up on the story and decide whether to update the story or not run it again.	(By the way, there might be a single copy of the script printed out for an anchor to hold on the set, but it's likely no paper copies would be printed for the crew. Everyone has access to the script and rundown on a computer or tablet and doesn't need a printout.) The director most of the time verifies that these decisions are okay during the production of the show by following along with a computer. In fact, if everything has been entered into the newsroom software fields correctly, and there are no issues with corrupted files or malfunctioning equipment (run away robot cameras), the director might not even have to touch the video switcher or rely on another crew member to successfully direct the technical production of a newscast. The automation potentials do not remove, though, the necessity of having a director. The director proactively manages all the potential sources/material for the program, communicates to the people on the air and trouble shoots issues before they become problems. -The finalized script for the story, in addition to feeding the teleprompter and closed captioning systems, would also be placed on the Web. The Web coordinator or reporter could just post the material – using the content management system – along with any complimenting video/images and also make the material available on apps for mobile devices.

The simplified process from the comparison above is for the sake of example; imagine the process for all the separate elements in an entire news program. The point with the comparison is to show that there are major changes in routines from the 90s to now.

II. Method

In the United States, www.nielson.com lists 210 local television markets. During the spring and summer of 2016, interviews were conducted with 18 individuals, the majority of whom are in a top 40 market and have worked in media for 13 or more years. The majority expressed an interest in not being identified by name and that specific brands of equipment or software not be identified. Some interviews were conducted in person and involved job shadowing. Others were conducted with video conferencing software, a telephone call and/or email. But, even through discussions varied and often went in different directions, all of the interviews were based on the same nine questions.

III. Results

Here are the questions and interviewee replies (Some respondents didn't have answers for all of the questions.):

1. Think of technological changes that have occurred over the years in your workplace that have applied to your function. What were some of the most significant processes/activities that were incorporated into or dropped from your routine? What was the outcome?

   - Twenty-five years of broadcast journalism brought significant technological advances. Digital from analog, HD video, no more videotape, cell phone 4G backpack liveshots and fully automated rundowns. The picture quality and social media access changed the industry for the better with audience engagement. However, it allowed for downsizing in newsrooms and control rooms, hurt the content and delivery of stories based on the lack of experienced leadership and coaching in newsrooms. Just because we can do something doesn't always mean we should.

   - The most significant has been the use of computers! When I started here, there was ONE computer in the entire building. Editing was done tape-to-tape with a simple edit controller. A lot of commercials were put together "as-live" in the studio. A more recent advancement would be the use of tapeless media. This has streamlined editing by not have to always ingest footage. Just import/link the footage to your job and you are good to go.

It makes creating revisions later very easy and quick. The drawback is the amount of storage space needed to house all the footage. We are a facility that rarely deletes our clients footage, so it builds up over time.

- Social Media, Social Media, Social Media. This has increased my workload by quite a lot. But hopefully, we've gained a few viewers because of it.

- You have to be constantly staying on top of the latest and greatest. Being a self-taught individual is crucial.

- Better faster internet is incredibly helpful in meteorology. There was a day when dozens of charts had to be printed out several times a day. Now it's simply updated online. The outcome has been immensely helpful in forecasting.

- Switching to a Sony Switcher.

- The Web and social media. I had to suddenly be concerned with spelling and grammar, taking pictures and video. And then some years later doing live Tweeting during news conferences instead of writing down notes and counter numbers to quickly pull off audio to write news stories once back to the station.

- From Compisote to componenet to a mix to SDI 270 Mhz to HD componenet to a mix to HD-SDI 1 gig to 4K. Impact? Running like hell to keep up on knowledge. Outcome: know that leading edge is safer than bleeding edge. With regard to routine, the need for instant response and communication versus mail and fax. Outcome ... pedal faster.

- The newscasts were done with manually with a production team of three people. Automation made it possible to produce a newscast with one person in the production team.

- I believe the most significant change to my everyday routine has been the access to run and gun shooting. Before hand you always had to have an ENG camera on hand. Nowadays, it is as simple as having an iPhone accessible to capture breaking news or materials for social media. Using what you have accessible to you allows you to be timely in your reporting and efficient with the material you deliver.

- Digital is first. Gone are the days that you hold stories. We break everything digitally before the newscasts ever go on. We are also all required to post on digital. So I'm not just producing and writing an hour newscast. I'm also posting on digital and social media.

- Sales Automation for Order entry and on-line centralized Production Order entry.

- Switching from tape based acquisition to all digital. Affected many areas of the company. Some very positive results, others are issues still being resolved.

- Well, our anchor holding an iPad instead of checking the newspaper or notes. News sources and background searching is now done on the internet. For other needs, our department has also set up an internet news team, especially when there’s a focus on the hot topics and headlines occurring on the internet. For the news department, we adopted a new editing system for doing news and recording from multiple sources instead of tapes and other older ways. And our video and music library has also been changed to digital online system.

- Even though different departments have different areas, our newsroom is currently very collaborative. It didn’t used to be. We have to be heavily integrated. People who refused to modify what they do or refused to be flexible worked their way out. While we attach an intense importance to good images, staff and freelancers don’t just use professional video cameras. Phone and DSLR video is also prevalent. We encourage videographers or multimedia producers to get as much video as possible and not hesitate to get that video. Whenever we hire people in our department, they are given an iPhone. I use iMessage to communicate with them. To further streamline the process, a specific app is used when people shoot on their iPhone. With it, they can edit and add our custom graphics. While freelancers are out of this loop, I can still efficiently communicate with them through texting.

- We’ve streamlined how we share information to save time and prevent redundancies. To communicate the status of stories, editors use one specialized program. I can get requests or give requests from it. The system allows all departments to add materials/updates to it. For example, the first request submitted by one department is colored red. I will assign a shooter and then change the color to blue. Departments are adding all their updates/information to it all the time. We still meet face-to-face, though, in traditional editorial meetings, but this program streamlines the process around those meetings.

- Because people aren't watching video news in the same way, we've added something to our routine. We might, or example, produce a traditional news package for people who can watch on television or a computer with their audio on. But, for those who maybe are on a train or in their office and don't have or can't wear headphones, we produce something we call an explainer video – a here's what you need to know type of thing which is mainly for feature stories and for the audience that probably isn't watching on a desktop computer. We knew from metrics we were losing some people with traditional packages. A coworker came up with the idea for explainer videos to get people to watch longer. While explainer videos are mostly for use on mobile devices, they are edited in a way – with added text/graphics being the driving force as opposed to people talking – so that people can understand the story by just watching as opposed to being lost in a traditional news package when they can't hear the audio. At first, explainer videos were a bit of a challenge, but now that we're all used to doing them. We all know we are producing different material all the time for different audiences.

2. Did the changes you mentioned in question 2 fall under what you considered the description for your job? If not, what job description would the changes have fallen under?

- Yes. Constantly adapting to the changes in technology, specifically related to marketing and communications.
- Yes ... I design and communicate.
- I started my job by running audio manually and switching manually on a switcher. We got Overdrive and everything, and I put codes into the automation system. I run shows by putting codes into a rundown. I press the space bar once the codes are in and run the entire show with the space bar. I use a custom control button to run the local breaks.
- Yes, I am to stay up to date with the latest technologies. This applies.
- In every contract you'll see other jobs assigned. So everything is in your job description!
- New media mixed with traditional media. We cover news from the internet, Twitter, other social media, newspaper, and so on.
- I was the first person hired to do my job. When I was hired, my bosses made it clear they were experimenting with me. I was able to make decisions and shape processes for the most efficient workflows. Fortunately, we could look to metrics to tell us what was not working, what was working and what was working well.

3. Did these changes increase or decrease the time required to do your job and the level of complexity and/or multitasking involved with performing your job? Describe any specifics that are notable. And, were you offered organized training to accommodate the change, or did you learn what you needed on your own? Please describe.

- I pushed the social media platform in our market. Web first mentality with social media engagement all day. Unfortunately, staffing is difficult when reporters are trying to shoot write and edit for a broadcast. Downsizing for both staff and salaries have hurt the industry.
- These changes greatly decreased the amount of time needed to do my job. It decreased it so much, that our company used to have two people to do my job. When our other editor left, the vacancy was not filled, and it has had little affect on the turnaround time getting commercials done. Everything I know, I learned on the job. I have never been offered any outside training opportunities.
- Not sure how much it's affected my job, time wise, but it's significant. Maybe an extra half hour or so to my day. Could be more. I learned most things on my own or had coworkers help me.
- I am self employed so this is an ongoing task for me, but they certainly increase the time I spend working.
- This decreased the amount of time. The data instantaneously updates, making it easier to adjust my forecast as the morning progresses.
- The changes absolutely increased the time required to report each story. In the early days of my career (late 1980s) we were assigned multiple stories per day, but each one could be knocked out in an hour or less. These days if I'm assigned more than one or two stories I'm staying late to get everything done, or posting the web version from home. The network trainers did come to our station to train us on web posts and to train us to take better pictures.

- Had to learn on my own for most part ... decrease some things increase others because expectations increased.

- It takes a longer time to get the show ready. I used to be able to jump in and direct within 10 minutes to air. But, there were more mistakes when things were manually punched. Automation makes the show run with few mistakes. I was trained by Ross the makers of Overdrive and our new switcher at the station.

- It did not require more work; it facilitated the process.

- Everything takes more time if you're adding responsibilities. And you are expected to learn what you need to know. If you don't know what to do you have to meet with someone who does to train you.

- Increased the time required to do the job. Order entry far more complex. Training was offered ... mostly on-line.

- Made media easier to move and distribute, but also easier to lose and more complicated to archive.

- If the online system is stable and internet is enough smooth, these changes actually save time. But, if not, we have to continuously call for help from the IT hotline service. Sometimes the changes wasted time. One time, the IT department organized training and updated the system. We remembered some of the functions for the changes, but most new technological skills are remembered with practice.

- Because my job was a new position for my workplace, we were able to make the workflows fit the day as it needed to be. Thankfully we had company support – everyone – with the exception of a few people who didn't like change – wanted this to work. Trainers and software development was a part of the process. Of course, there was an incentive to learn on my own, but the company was quite supportive of individual professional development and brought in trainers when needed. We also made sure there was equipment everyone is comfortable with. Software development really needs to be done with employee opinion and experience taken into consideration. While this whole process consumed my day and was exciting and intense, there was a very low level of frustration with the process.

4. Did you or any coworkers experience problems incorporating changes into your routine? If so, did you or any coworkers make what you would consider any major mistakes?

- No major mistakes. The biggest challenge was convincing news staffers and management to understand the urgency needed.

- Change is always difficult, but you adapt and move forward. Usually, I am not the one making the decision on what I will edit on or work with. So adaptation to the tools given is necessary.

- We kind of learn as we go, but I don't think we experienced any major problems.

- Formal training or lack thereof is the greatest mistake. Some folks had harder times than others.

- Yes, when I first started I wanted to manually punch shows. I put in incorrect codes and took wrong video sources when I first started learning Overdrive.

- Yes, I believe some of my co-workers are not up to date on what you can do with your cell phone. You can easily share content at the snap of a finger. Hootsuite enables you to share content to multiple outlets.

- Yes! Some of the people who have been in this business for over 20 years had problems adding digital to their daily work. They don't work as well with computers nor do they understand social media.

- The learning curve was harder for some ... mistakes were made ... none major.

- Media accidentally deleted became more frequent.

- I was told when I was hired to make the decisions and develop the workflows. Of course, we had some things that needed adjusted. But, open communication among employees, integration of software and training helped us perfect our routines and communication with others. Additionally, we could measure the success of our outputs by analyzing metrics. If things weren't getting the metrics we wanted, we adjusted. It was not always easy or perfect, but we have a system now that works well for us.

- When we started doing more – as much video as possible from as many sources as we could get – there were some gaps in quality that I didn't like. We had the potential for amazing images, but sometimes didn't get that for a variety of reasons. Maybe a person is a freelancer or didn't have a high-quality camera on hand. It makes me sad, too, that consumers will watch anything, and it sometimes doesn't seem to matter whether video quality is awesome or not.

- Some people didn't understand what changes we were making at first and why we were making changes. So, of course there were frustrating mistakes. Those who couldn't get on board or didn't want to get on board are no longer here.

5. Did you agree with the changes/resulting outputs? Why or why not? Looking back, do you still feel the same?

- I believe we installed the groundwork and stayed ahead despite challenges.
- Up until a few years ago, I was using one of the most used editing systems in the business. The corporation that owns our station felt that it was too much money to continue using it, so they discontinued its use. I fought, kicking and screaming, but lost in the end. While the workflow is not ideal on my current editor, I've made it work and continued to do my job in a timely and proficient manner.
- Yes, you have to try to stay ahead of the curve when it comes to social media. It shows you want to remain fresh and are always willing to learn.
- Yes. It's going to happen, there is nothing we can do to stop it.
- I'm fine with any changes personally if they occur.
- I think all the changes are good, just more work.
- For the most part, yes. Sometimes we have people that introduce apps and change without implementation maps or timelines. Still feel the same.
- Yes, we are able to do more with less. There are less mistakes during the shows.
- I feel technology changes daily, I support making the move to using what you have in order to get sufficient content out to the public.
- I understand you have to increase your digital output so I understand them. It's hard when people are fighting over the same stories to post.
- Most of the changes take away from the purpose of the position. It's a classic case of process over purpose.
- Overall a positive development, but still working on perfecting it.
- At first, it's hard to get into the mode. But, part of my job is to push to find new ways to tell stories. Figuring out ways to compliment other coverage and be creative is immensely satisfying or incredibly terrifying depending on your perspective.

6. Did you suggest modifications that could help with the changes? Were those suggestions implemented into the process?

- Yes, I pushed for social media Web content manager.
- As far as going tapeless, I was all for it. I knew that it would speed up my work process.
- I do sometimes provide feedback to tech companies for improvements or enhancements.
- Our newsroom has requested a web editor, but because of a lack of funds, we can't get one.
- I suggested a plan including training and a timeline with marks and deadlines, and it wasn't implemented.
- Yes, we made custom controls to help set up the switcher before a show.
- Yes, I suggested an easy way to get content out faster for coworkers who were not entirely familiar with video.
- No. You just have to find something faster than the next person!
- Not really. No. Suggestions are rarely sought.
- Yes, at times.

7. Did the changes make you or any of your colleagues have too much responsibility? Explain with specific examples.

- It helped share the responsibility.
- Too much responsibility? Not really on my end. It added some work for others in our department, such as making sure footage was pulled and archived for use.
- There is always more to do, but we do what we can. Sometimes this results in just copying and pasting the audio story to the website, although not ideal.
- No, because too many of the programs didn't succeed and were discarded.
- We felt overwhelmed at first, but then realized that it was the best change for the shows.
- No, it was just a different way of creating content.

- No. The digital team is required to check all work before it goes live.
- Most of the changes kept our sales staff spending more time doing data entry and less time solving client's marketing challenges.

8. Did the changes make your work day flow better or processes smoother? Explain with specific examples.

- Yes, that way besides myself, the Web content manager drove the fabric of communication with the audience all day.
- Much smoother for all involved. Producers no longer have to log/timecode their footage, and I don't have to go through miles of tape looking for that one shot that they forgot to shoot or log.
- Certainly there have been changes to make work easier. Finding the right tech solution for your situation is a challenge that takes a lot of time because there are so many out there.
- Not really. Feels exactly the same.
- No, the jumble of new apps without proper implementation created chaos and finger pointing.
- Yes, there are less mistakes in the shows and you can check items before the show.
- Yes, with the whole Pokemon go phase I was able to shoot on my phone about a phenomenon growing around the region.
- No. You have to stop working on your show to write a digital post. It takes time away from what your “main” job is.
- Easier to share projects, footage with clients. Quicker to edit.
- The expectation is that our workday will flow better and processes will be smoother, but in practice, it depends on hardware and software. Sometimes, we spent more time fixing computers and facing computer crashes than working.
- I saw the writing on the wall early on that all things were going Internet. I need to accept that more video was going to be a part of the process because viewers wanted that. Early on, though, there were problems with things we would cover with regards to credentialing. For example, some places would only offer two spots or credentials and wouldn’t budge. If we wanted to send two reporters and a videographer to cover an event we would lose one reporter because we only had two credentials.

9. Any other thoughts on the topic?

- My biggest concern is station management and large station groups have used technology and in many ways during the post recession economy to severely downsize staffs and are left with severely inexperienced newsrooms and production departments which will continue to noticeably affect the accuracy and professionalism of the product across all platforms.
- At least for me, not much has changed surprisingly.
- Early on, I was doing one or two stories a day. We started to really crank out more video in 2008. But, the biggest change came when professional still photographers started using DSLRs. Those people were then able to give us some really amazing video.
- I do enjoy the feedback on my stories from social media. In the old days I just put stories out there and wondered what people thought.
- If you don’t have a plan to implement new technology, be it apps for productivity or for workflow, there could be problems. Use a road map and stick to it.
- Automation has helped the news to run smoother than the manual switching and pan of audio.
- I think professionals need to adapt every week, do not be afraid to take chances.
- In the years I've been in the business I've seen us go from beta tapes to digital. I've seen the big digital switch when we stopped broadcasting an analog signal. There have been a ton of changes. What is news has changed! I would have never run a story about a viral video or who wore in best at the RNC or DNC. But that's now news. Viral videos and funny click bait stories are in newscasts now. It's a changing world where the Internet takes center stage. You have to think of "Google proof" teases so that someone can't just Google the story that you're trying to get someone to tune in and wait to see.
- Most companies need to realize they need to re-focus on their clients and the rest fall in line.
- It seems this industry is completely dominated by people who embrace change and young people. People who are not open to new technology and are not comfortable with change become jaded, leave or are outperformed by others.

IV. Conclusion

This study is not without its limitations and the findings are highly subjective. In fact, people in the media industry long enough to be a part of this study, would likely be, as one interviewee mentioned, not jaded and open to change. In other words, they are people who can tolerate or even thrive in work situations where change happens.

However, the information revealed allows for a deeper understanding of the realities of each person's individual professional situation and increases knowledge concerning success in the media industry.

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