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Converging Student Media Using an Interdisciplinary Major: A Case Study

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Abstract

Convergent issues in journalism education continue to be a challenge at the university level. This paper describes the efforts of university communication faculty to develop a new interdisciplinary major for a multimedia news outlet that uses a student newspaper website as the medium. Student media advisors are heavily involved in the process because their undergraduates comprise the workforce for the operation. This study applies symbolic convergence theory and brainstorming, and media logic is used as the framework. Topics described in this case study pertain to the journalism and multimedia majors, advisors, funding, curriculum, technology, faculty and successes and challenges over a 20-year period.

Keywords: Convergence, Journalism, Higher Education, Multimedia, News Outlet.

INTRODUCTION

Educational institutions are places where new ideas, techniques and procedures are often conceived, and educational professionals are charged with testing new models and advancing knowledge through research and experimentation. University faculty members have a responsibility to keep their academic programs focused, up-to-date and relevant for the associated industries and student populations they serve (Marron, 2014). Journalism departments continue to struggle to create and assess converging curricula (Auger, Tanes-Ehle, & Gee, 2017; Castaneda, Murphy, & Hether, 2005; Goh & Kale, 2015; Gyori & Charles, 2018; Kolodzy, Grant, DeMars, & Wilkinson, 2014; Pjesivac, Cantrell-Bickley, & Hazinski, 2018; Wenger, Owens, & Cain, 2018). Kraeplin and Criado defined convergence, as creating "an integrated media product, one which combines elements of both print and broadcast within a digital environment" (2005, p. 54). "Convergence also means traditional print journalists have to invest additional time to develop new skills and news habits including working in teams and across platforms" (Goh & Kale, 2015 p. 309). Survey results indicated that over 68 percent of newspaper and television executives believed that a convergence of skills was moderately to very important for new hires and concluded an interdisciplinary approach was needed for journalism education programs (Kraeplin & Criado, 2005). When changes in skill requirements take place in the real world of journalism—and they have—administrators and instructors at universities must rethink their current paradigms (Wenger et al., 2018).

This paper describes the 20 years of efforts, successes, challenges, and lessons learned at a midwestern mid-size university during the development of a convergent multimedia news outlet using a student newspaper website as the medium. This case study investigates the complex issue of convergence by examining the development, processes and interaction occurring in an educational setting. Bormann's (1982) symbolic convergence theory (SCT) and Osborn's (1957) brainstorming conceptualization are used to explain the process and solution generation. Deuze's (2004) notion of media logic is used as the framework.

THEORY

SCT is a theory of social communication involving human nature (Bormann, 1982); it describes the manifestation of group consciousness as emotions, motives and meanings revealed though shared narratives or fantasies and is applicable to the present-day media convergence culture (Bormann, 2001). When groups come together to achieve common goals, SCT advances a reasonable and generally accurate explanation of how unity within groups is attained. The theory defines convergence as "the way, during certain processes of communication, two or more private symbolic worlds incline towards each other, come more closely together or even overlap" (Bormann, 1982, p. 51). When group members share experiences, common ground is formed, resulting in a convergence of ideas and dreams for the future. Bormann (1982) views SCT as applicable to understanding changes occurring in modern communication media. Media convergence then, can be identified as groups coming together using multiple media: audio, video and print, produced on the web, to tell stories, from multiple angles. Auger et al. (2017) said, no matter how convergence is described, "the effects are clear—the concepts and skills traditionally associated with journalism and media are changing and expanding" (p. 213).

Brainstorming is a spontaneous group effort to generate ideas and solutions to the problem at hand using four general concepts: Larger quantities of ideas are more likely to produce answers; the focus should be to extend ideas and withhold criticisms; extending ideas should include new, even farfetched ideas; and the combination and extension of ideas will improve solutions (Osborn, 1957). Henningsen and Henningsen (2018) consider group cohesiveness in terms of the similarities between brainstorming and SCT, proposing that "brainstorming may be used to force onto groups what symbolic convergence proposes occurs organically" (p. 113).

Media logic explains social organization in a multimedia journalism environment. Deuze (2004) made distinctions among combo-journalism (print journalists packing photo equipment), online journalism (text, audio and video) and multimedia journalism (digital storytelling in new genres and styles using an array of media). Media logic addresses the social aspects of multimedia organizations including institutional structure, technological and organizational attributes, and cultural perspectives of users and producers of news.

LITERATURE REVIEW

Much of media convergence research focuses on changing university curriculum. Lowrey, Daniels, and Becker (2005) examined the convergence of media in journalism and mass communication programs. According to their study, although few local television and newspaper operations were engaged in convergence efforts, many university journalism programs were moving toward some level of convergence in their curricula. Findings indicated the strongest predictor of some level of convergence was faculty interest. The perception that news industries were seeking to hire multi-skilled graduates was "a key to explaining movement toward converged curricula" (p. 39). Another factor influencing the change toward convergence was the size of the program. Larger mainstream programs were less likely to initiate a converged curriculum while smaller units were taking the lead (Lowrey et al., 2005). Larger programs used the successes and failures of the small units to prepare for possible modification.

Du (2013) said journalism "changes constantly because of the developments in new media technology" (p. 472). Kolodzy et al. (2014) advised that journalists be "experts in information packaging across platforms in multiple media" (p. 202). Curricula should provide conceptual, analytical and practical skills as students adapt to new technologies (Kraeplin & Criado, 2005). They recommend that faculty must overcome fears, adjust expectations and welcome new concepts such as team-teaching and student collaboration while preserving the basic qualities of journalism. The literature consistently recommended curricula that included concepts and skills in print and broadcast media while synthesizing perceptions and ideas when the story or project called for a converged approach. Students are expected to make judgments, deliver content on multiple platforms and integrate media within a converged digital format.

Du (2013) examined faculty job advertisements from 1995 to 2011 finding that the announcements changed as quickly as the constantly updated technologies in the media field. He concluded that faculty positions required specific technical skills plus experience in new media. Such faculty skills were needed to train student journalists for the evolving news organizations. Killebrew (2002) summarized news organizations' state of convergence:

> A number of convergence operations have been undertaken in the United States, but few have dealt with training convergence journalists adequately and they generally have failed to make appropriate investments in the people who will lead the convergence revolution . . . Journalists and their managers must understand that convergence is here to stay. Anyone who believes that 'old school' journalism thinking will suffice for the 21st century is sadly mistaken. (p. 45)

Killebrew (2002) also stressed that organizational failure goes beyond training and investment issues; organizational culture is the key component and consists of values, structure and organizational climate. Any misunderstanding or conflict within key components jeopardizes organizational convergence.

Deuze (2004) examined how the process of ongoing convergence impacts the practice and self-perception of journalists and how this process shapes and influences the emergence of a professional identity of multimedia journalism. Deuze (2004) found:

1. Institutions were moving toward convergence in various ways, many without any roadmaps.
2. Two distinct perceptions of technological issues were hardware and software usage and critical thinking across the media.
3. Organizations continued to struggle to find a balance between the old, distinctly different media, and the new convergent process. Journalists, however, seemed to welcome the new process if it was not forced upon them.
4. The relationships between producers and users were changing resulting in a shift to a team-based news industry.

This case study describes the development of a student-operated multimedia news outlet using the components of multimedia logic identified by Deuze (2004), which embody the institutional, technological, organizational and cultural perspectives. The following research questions guide this study:

> RQ1. How did the multimedia major keep up with technology changes?
> RQ2. How did a multimedia news outlet provide an effective means of developing a converged curriculum for a journalism department?
> RQ3. How did faculty, advisors and students of print, radio, television and advertising form effective groups to develop converged content for a multimedia news outlet?
> RQ4. What successes and challenges were revealed from this department's move toward convergence over the past 20 years?

METHOD

This explanatory case study was designed to explore the development of a new academic interdisciplinary program that uses a multimedia news outlet. Yin (1984) recommends case study research to investigate contemporary phenomena within their real-life contexts and suggests using multiple sources of evidence as the way to ensure construct validity. Tellis (1997) calls for an explanatory case study for causal investigations that are "designed to bring out the details from the viewpoint of the participants by using multiple sources of data" (p. 3). Data collection included archival records, personal communication and email messages, physical artifacts such as thank you notes written to the faculty members, and direct observations, course syllabi and evaluations over a 20-year period. Raw data were organized into spreadsheets and reviewed by peers for comprehensiveness. All data sources were compared for consistency of the findings.

DEUZE'S INSTITUTIONAL COMPONENT

Deuze's (2004) institutional component referred to "some form of cross-media cooperation or synergy between formerly separated staffers, newsrooms and departments" (p.142). In this study, the institutional characteristics of media logic include department structure, funding and faculty, which combined to identify curricular goals.

Department of Communication

Prior to 1997, the Communication Department attracted students interested in career programs in advertising, broadcasting, journalism and public relations—staples in the unit for 40 plus years. The department produced weekly print student newspapers, analog television shows and over-the-air non-commercial radio programs using tape as its primary storage and production medium. In the 1990s, the industry landscape began changing. National and local press coverage highlighted the newest developments in video, audio, photography and the internet.

University administrators began pressing the department for a plan concerning future directions and requisite strategies.

Funding

The department budget consistently was insufficient to make wholesale equipment upgrades in any of its existing media areas. Instead, a few small pieces of hardware were replaced each year. Funding a new multimedia news outlet with the existing budget simply was not feasible.

Faculty

Faculty meetings often concerned the department's future direction especially in terms of media convergence. Discussions eventually led to the development of an academic sequence that would prepare students to create content for existing and emerging media. Such a program would require skills in design, knowledge of law, computer programming, writing and scriptwriting as well as digital audio and video production. But the faculty had limited experience in many of these areas, and the department lacked digital equipment. It was decided that the quickest and least expensive route to establishing the new program was to build alliances with colleagues on other parts of the campus who were experts in the relevant content areas. Rather than the Communication Department owning and teaching all the courses, some would be taught in other departments (minutes of the faculty meetings, 1998).

In August 1998, with faculty and existing courses identified from each of three academic areas, the multimedia major became reality. It consisted of 12 hours from each of three departments: Communication, Art and Art History and Computer Science & Information Systems. The new program was created at no additional cost and relied on content specialists already on campus (personal communication, K. Terry, 2004). The new multimedia program was crucial in establishing the multimedia news outlet.

Certain institutional characteristics changed with the creation of the multimedia program, but not all. The formal structure of the Communication Department, its funding and faculty remained untouched. New goals, however, were emerging. With the creation of the new program came the realization that technological issues would need to be addressed.

DEUZE'S TECHNOLOGICAL COMPONENT

The two major technological concerns in the Communication Department, as identified by Deuze (2004), were equipment needs and faculty's heightened "ability to understand and think across media" especially new media (p. 144). However, in late 1999, the Board of Regents of the four-campus university system identified priority programs that were "consistent with the approved missions and visions of each campus" (budget records, 2001). The purpose of prioritization was to protect vital programs during times of financial distress and to provide additional dollars for growth and strengthening.

In 2001, the interdisciplinary multimedia program was identified as a priority program. The result: an influx of funding, $30,000 each year for student employees, faculty training, advertising/promotional dollars and a rotating replacement of lab computers, software packages and digital equipment. Field production techniques replaced studio production. New radio and television equipment were used to produce the digital audio and video content for the multimedia news outlet. Within four years some 50 students, who were majoring or minoring in the multimedia program (department records, 2005) became the workforce for the department's multimedia news outlet.

Additionally, the priority funding allowed for the addition of a new multimedia faculty member, the author of this case study. With extensive background in information technology and instructional media, she demonstrated how students and faculty could develop projects integrating the multimedia components. This provided a critical component for developing the department's multimedia news outlet. Importantly, the funding made it possible for the department to connect Deuze's elements: equipment—both hardware and software—and a means to develop a strong knowledge base. The funding plus an administrative commitment reflected Deuze's (2004) organizational perspectives, although the greatest impact was on technological enhancements.

DEUZE'S ORGANIZATIONAL AND CULTURAL COMPONENTS

As Deuze (2004) advised, the organizational elements addressed in developing the multimedia newsroom included the physical integration of the print and broadcast producers.

Deuze (2004, 2017) also identified cultural perspectives in terms of producers and users and their relationships. A discussion of the roles of student producers, multimedia students and faculty participation in the newly converged multimedia news outlet follows.

The Multimedia News Outlet

All the department's academic programs continued to require students to work in the media operations (radio, television, newspaper) for their coursework. As course requirements, the development of print, audio and video packages resulted in a steady flow of material for the news outlet.

Beginning in 2002, two multimedia students were trained as webmaster and student apprentice. The initial multimedia news outlet was identical in appearance to the printed newspaper with added media. The goal was to provide users with a means to read stories, examine photos, view video packages and listen to audio reports for a true multimedia experience. The evolution of the multimedia news outlet continued smoothly. Each change in the student staff brought change to the multimedia news outlet including advancement of technologies and capabilities.

Students Producers

From the multimedia news outlet's beginnings in 2002 and for the next three years, the site was devoid of essential multimedia characteristics. The newspaper managing editors provided lists of stories to be covered by its staff. However, students were not given any guidance for story angles appropriate for radio or television, or suggestions for interviewing strategies or ideas for images. Having this information would have eliminated duplication of coverage on the part of the radio and television news staff. The result: issues and events were covered but they often were unfocused. A majority of the students still saw themselves as individual print or broadcast reporters rather than members of a multimedia news team. This concern was the focus of ongoing discussions among faculty. Importantly, the students also were active media consumers. Their habits of obtaining news and information included multimedia news outlets. During a class discussion as early as 2004 all of the 24 students indicated they expected audio and video within their media sources, and yet they did not know or understand how a multimedia news team should work (personal conversation, K. Terry, 2004).

Another area that called for improvement was the producer-consumer relationship—so important to the journalism profession (Deuze, 2004, 2017). User data for the department's multimedia news outlet were not initially collected. The emphasis was placed on developing a regular and dependable production system, but no attempt was made to collect user feedback. As Gyori and Charles (2018) indicated, students "must rethink traditional notions of authorship and discover new and effective ways to engage with online users" (p. 201). To address the issues including building relationships with users, improving collaboration and developing news angles, a new course was developed that incorporated not only production of audio, video and websites, but also included interactions with the audience. This course became a requirement for student producers. Additionally, the students from the three media areas began meeting as one group for the weekly staff meetings to plan integration of the coverage. When they assessed the online production packages, they realized the end result was greater than the sum of their individual efforts. As Deuze (2004), Deuze and Witschge (2018) and Goh and Kale (2015) point out, team-based newsrooms including collaboration with peers and the public is increasingly important.

Multimedia Students

The webmaster and apprentice were multimedia students whose backgrounds did not include journalism areas, while the producers were from the traditional media areas. However, the multimedia students projected a strong sense of engagement with each other and the media students and faculty. The dynamics of the multimedia students' communication processes can be explained by SCT. When groups of students assemble, they perform better when they find common ground (Bormann, 1982). If group members bond, the end result is often a superior product as compared to a group which did not achieve this crucial bond (Bormann, 1982). The multimedia students in this study were required to work in groups for several class projects, within different departments and often with students from other disciplines. A required multimedia capstone course proved advantageous for these students because the class involved a team-based approach for a client's project. Students worked together to develop and deliver content on multiple platforms and integrate media within a digital format. The projects included websites, design work such as logos and brochures and some backend programming. Their communication skills and teamwork ethics were models for the student producers.

Faculty Culture

Faculty must stay abreast of the constantly changing technologies to help students find and use their abilities to adapt to the ever-changing multi-faceted media. The stability of Communication Department faculty has been an advantage. Students know and are comfortable with the faculty and appreciate their areas of expertise, as evidenced in course evaluations. Faculty members bring first-hand knowledge, workplace practices and experience of the media professions to the classrooms. The small department size was an asset, which confirms previous research (Lowrey et al., 2005; Killebrew, 2002).

DISCUSSION

The discussion is presented in terms of the four research questions.

RQ1. How did the multimedia major keep up with technology changes?

Like college programs in general, the multimedia program continually advances as does the technology. Curriculum revision is an ongoing process. New classes have been added in design, animation and website development. Website development courses are updated each semester to incorporate the latest technologies and the multimedia major continues to attract students. According to multimedia graduates, the program gave them an advantage for employment positions in areas of web design and development, graphic art and broadcasting as well as graduate school acceptance. For example. four recent graduates reported accepting their ideal jobs shortly after graduation (personal email communications, students, 2018, 2019).

The multimedia students working on the news outlet were the catalyst for incorporating a blog, setting up photo galleries and increasingly adding video clips. A new website was recently created using a content management system (CMS) that has allowed for quick and easier updates, new themes and additional features—all without too much work. Security of the site has become an important topic as well. As faculty observe, students are excited to tackle such problems and learn from each experience. The multimedia program is thriving.

RQ2. How did a multimedia news outlet provide an effective means of developing a converged curriculum for a journalism department?

At first the news outlet duplicated the print version of the newspaper with only audio and video features to provide the multimedia perspective; no convergence of the media existed. The process was not automated, no database or CMS existed, and new features usually resulted in more work for the multimedia students. Student webmasters made changes, updated the design and addressed technical issues. Ultimately, the multimedia news outlet revealed curriculum deficiencies in the journalism major. The most immediate challenges concerned the students' grasp of multi-perspective news coverage and their inability to produce multimedia news content. These were curricular issues that centered on teaching news judgment; developing a variety of ideas, angles and sources; understanding the storytelling attributes of various media and producing content in various forms. The subsequent course that has students creating news packages required a team-teaching approach because the objectives could not be met with a single faculty member, much like Henley and Cook (2018) describe. The final group projects include:

- print stories with appropriate layouts,
- headlines
- images
- web stories on the teams' news sites,
- audio and video stories
- results of audience surveys or polls as blog posts and infographics
- slideshows with captions
- social media posts.

Now students learn aspects of varied media, and many are discovering the benefits of integration of the media, which is evidenced in senior portfolios and capstone presentations. Graduates update social media and send messages to faculty to report working in media areas requiring team approaches to both special assignments and daily duties as well as specialized media skills.

The faculty commitment was to graduate media majors in the department with abilities to produce and package news material for radio, television, newspaper and the integration of these media, especially on websites.

The curricular changes addressed concerns about how to schedule and teach production classes that cover topics necessary to learn creation of multi-perspective news content. The multimedia news outlet was instrumental in developing a converged curriculum for the Communication Department.

RQ3. How did faculty, advisors and students of print, radio, television and advertising form effective groups to develop converged content for a multimedia news outlet?

Converging student media operations on a college campus is a massive undertaking that requires thoughtful discussion, experimentation, commitment, enthusiasm and patience on the part of faculty members. It may also be necessary to make tough choices such as abandoning traditional practices, forging relationships with competing departments, taking on more work and making strategic hiring decisions. As discussions continued, faculty members were concerned about attaining cohesiveness within the group so that students from the three media areas would be able to share common beliefs and develop multiple media news themes. The brainstorming (Osborn, 1957) and SCT (Bormann, 1982) incorporated into the new curriculum facilitated the news teams' group cohesiveness. Trial and error in creating the news teams also has evolved. Each team requires a specific set of skills thus a skills inventory is taken, and students' schedules require evaluation before teams are formed. The new curriculum is based entirely on news teams; however, it is an ongoing and challenging process.

RQ4. What successes and challenges were revealed from this department's move toward convergence over the past 20 years?

The past 20 years have created successes in the Communication Department (Table 1) as well as challenges (Table 2). A number of lessons were learned.

Table 1. Successes the Communication Department achieved

Success 1	The interdisciplinary multimedia major and minor, which cut across colleges and departments, are unique and have generated a great deal of administrative and public interest making acquiring additional funding easier.
Success 2	The Communication Department was the first academic unit in the region to establish a multimedia news outlet which has been active since 2002.
Success 3	During the development of the interdisciplinary major, the Communication Department was given "ownership" of the academic sequence which meant that official changes to the sequence would originate within the department.
Success 4	The development of the interdisciplinary multimedia major put the Communication Department on equal footing with two well-respected units on campus: Art and Art History and Computer Science & Information Systems.
Success 5	Each of the cooperating departments received additional annual funding for new purchases and equipment or software upgrades.
Success 6	The multimedia news medium guided curricula improvements to prepare communication graduates to produce content for the news outlet. This prompted a new team-teaching approach for faculty members.

Table 2. Challenges the Communication Department faced

Challenge 1	The Communication Department has no control over the quality of the people hired in other, collaborating departments.
Challenge 2	The chair of the Communication Department cannot examine the student evaluations of instructors whose academic homes are in collaborating departments to learn about strengths and weaknesses within the courses.
Challenge 3	The home department must coordinate class scheduling in the major and minor to reduce incidences of conflicts among the three departments which would impact student schedules and progress toward degree completion. Time also must be devoted to discussion of course content among the three departments' faculty to ensure that subjects are not duplicated.
Challenge 4	The Communication Department owns the sequence and is responsible for generating all the requisite paperwork including academic program reviews, curricular changes, priority program annual reports and grant applications.
Challenge 5	Changes or upgrades to the computer operating system or software versions within different departments can be problematic. Normally, software is not backwards compatible to previous versions. For example, when one department updates a software, students are not able to work on files in other computer labs.
Challenge 6	Technology, especially social media changes rapidly. It is difficult for faculty members and students alike to stay abreast of the latest developments.

Lessons Learned

Lesson 1. Multimedia students by and large are not journalists. These students obtain skills and knowledge in design, programming, video, audio, web content; however, they generally do not understand newswriting, interviewing, Associated Press style; the journalism basics—and many seemingly do not want to. Whereas Journalism students are not—and frequently say they do not want to be—web developers. Nor should they be considered programmers, which refutes Du's (2013, p. 484) suggestion. Course content and faculty observations posit that media students should be able to add content to existing websites. Journalism students benefit from understanding web design and web content such as image size and resolution. There are places for both, media students and web developers—internships and jobs—in the media world.

Lesson 2. Journalism students need more instruction and practice telling the different angles of stories using video or audio, slideshows, infographics, print or blogs. However, group work does not just happen. The idea of news teams must be taught. Using Symbolic convergence and brainstorming, students are better able to understand the concepts of planning and dividing workloads. Media student groups need instruction and practice to identify story ideas and angles.

Lesson 3. Groups need a distribution of skills including technological, interpersonal and media skills, but equally important are the coordinated student schedules. In the real world, news groups would have meetings and designated times to talk through the process. College students, on the other hand, have other classes and jobs to work around. Some class time can be used for work time however the groups nearly always need to meet outside of class time and therefore, an inventory of not only skills but also available meeting times must be collected and analyzed for groups to be successful.

Lesson 4. The new converged storytelling class does not teach journalism basics. Prerequisites must be established. Media students are required to take the basic newswriting and web design courses before the digital storytelling course. They should have knowledge of the AP writing stylebook and some web content skills. Since content providers in the real world will not be responsible for web development (a website will likely already exist) the students should have an understanding how to prepare content for the web. The beginning video course is also helpful but not required for the journalism students. The students can learn not only from the class content but also from each other.

Lesson 5. Team teaching a course may be more work for both instructors. College courses should be taught by experts in the corresponding fields. Few faculty members are experts in the large variety of topics we have incorporated into the digital storytelling course. College administrators need to understand that team teaching such courses are the best way to serve the students. However, it is also important to understand that team teaching a course does not cut the faculty member's responsibility in half. First, it is important that both faculty members are in class each meeting time so they stay on the same page and know exactly what the students should have learned and what they were told. Second, as a team, strengths and weakness will emerge. Accepting those will benefit everyone. For example, the author knows that her peer is much better at helping students find the angles and which media to use for the stories to tell. Team teaching works well when strengths and weaknesses are acknowledged.

Conclusion

Single-case study was a reliable methodology, yet limited to this campus, to explore the 20 years of the multimedia interdisciplinary program which was envisioned in 1998 with the goal to develop a multimedia news outlet for journalism students to integrate print and broadcast within a digital environment. The subsequent multimedia news outlet became the key for curriculum improvement for the journalism students. Moreover, faculty members created a positive environment in which student teams freely receive, interpret and integrate information with news angles for the appropriate platforms. Curriculum was adapted so students—including the multimedia interdisciplinary majors as well as those from the traditional journalism disciplines—could think like convergent journalists who work in a cohesive team environment.

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