

#ISOJ

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The Journalist as Programmer: A Case Study of The New York Times
Interactive News Technology Department
Cindy Royal

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Editors' Note

Welcome to the second volume, first issue of the 2012 #ISOJ, the official research journal of the International Symposium on Online Journalism.

The journal was officially launched in April 2011 at the 12th International Symposium on Online Journalism in Austin, Texas, at the University of Texas at Austin.

This second volume, first issue features six articles from the research papers that were peer-reviewed and selected for presentation at the April 2010 and April 2011 symposia.

We are happy to include these articles in this journal as they represent papers that received among the highest judging marks in the research competition in the past two years.

This issue focuses on the changing role of the journalist in today's news organizations, the level of interactivity and multimedia features being offered on newspaper websites, the role of commentary and discourse in online news sites from Spain, the digital changes underway in the French press, the impact of Twitter, and the transformations underway in Egyptian newsrooms.

Our aim is that this journal can serve as a living archive that records the trends and challenges in online journalism today and document the research work of the International Symposium on Online Journalism.

We hope you enjoy this latest volume of work!!

Amy Schmitz Weiss and Rosental Calmon Alves

Co-Editors

Journal Details

About the Journal

Co-Editors:

Rosental Calmon Alves
Amy Schmitz Weiss

About Us

#ISOJ The Journal of the International Symposium on Online Journalism is an international journal devoted to advancing the scholarship in the area of journalism and innovative technologies. Articles included in journal are based on original research, methodologies relevant to the study of journalism and innovative technologies (online, tablets, mobile platforms, etc.), critical syntheses of research and theoretical perspectives on journalism today. The journal maintains a social scientific and broad behavioral focus.

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The Journalist as Programmer: A Case Study of *The New York Times* Interactive News Technology Department

Cindy Royal

Modern news organizations are beginning to use a variety of technologies to assist in telling stories in ways that increasingly combine media, data and user engagement. The New York Times is one of the most progressive of these organizations in developing online, data-driven, interactive, news presentations. An in-depth case study of the practices of The New York Times Interactive News Technology department provides insight into the future of web journalism and suggests some guidelines for other organizations in developing this competency.

Introduction

The purpose of this study is to gain a systematic understanding of the role of technology in the ever-changing newsroom, driven by the opportunities and challenges introduced by the internet. Roles within journalism organizations continue to evolve, and now begin to include programming skills, not just to run the business of news but to tell the stories in practicing the craft of journalism. The trend goes beyond combining multiple forms of media: text, audio, video and graphics (sometimes referred to as convergence), and moves into the realm of story creation using information gathering and technical presentation techniques. This involves creating online news packages that access databases, archival documents, photos, audio and video and increasingly provides the opportunity for users to interact with and contribute to the presentation. As these features become more central to storytelling, those with programming backgrounds and/or aptitude are being recruited to fill these roles. Journalists, as we traditionally define them, run the risk of becoming irrelevant without an updated understanding of the creation and delivery of interactive stories.

A few news organizations have begun using a variety of technologies to assist in telling stories in ways that increasingly combine media, data and user engagement. *The New York Times* is one of the most progressive of these organizations in developing online, data-driven interactive news presentations. This case study of the practices of *The New York Times* Interactive News Technology department provides insight into the future of online journalism and suggests some guidelines for other organizations for developing this competency. This study focused on the areas of organization creation and

development, personnel and their backgrounds and training, the culture and processes of the department and their recommendations for integrating these concepts into media curriculum. Newsroom products are shaped by a variety of social and cultural forces (Berkowitz, 1997). This study employs a framework based on the social meaning of news to assess the role of these areas in changing newsroom culture and deliverables.

Literature Review

The use of computers in journalism was pioneered in the 1960s by Philip Meyer at the *Detroit Free Press*, now Professor Emeritus at the University of North Carolina at Chapel Hill. Meyer used a mainframe computer to analyze the demographics of blacks in Detroit's 1967 riots. This began the integration of computers and social science and was a precursor to the area of computer-assisted reporting (CAR). Yarnall, Johnson, Rinne and Ranney analyzed the presence of CAR techniques in college journalism programs (2008). Computer-assisted reporting encompasses many areas: search for information on the web, use of commercial databases and archives, database creation and manipulation, statistical analyses and graphic visualization. But, the study found that only about half of journalism programs were teaching spreadsheet and database skills. The study did not address the skills necessary to launch data in meaningful ways on the web.

Edward Tufte (2001), a pioneer in graphics visualization, has long discussed the link between information design and communication. "Excellence in statistical graphics consists of complex ideas communicated with clarity, precision and efficiency." This could also be a good definition for excellence in journalism.

Adrian Holovaty formerly of WashingtonPost.com used the phrase "programmer as journalist" to define the technical role in news (Niles, 2006). This role has been characterized in various ways and emphases: programmer/journalist, journalist/developer, hacker/journalist, among others. Holovaty was the recipient of a \$1,000,000 Knight Grant in 2007 to develop EveryBlock.com, a hyperlocal news site. That same year and again in 2011, Rich Gordon of Northwestern's Medill program received Knight Grants to recruit programmers to their graduate program (Gordon, 2008). One of the enrolled programmers, on his blog, defined the sixth W of journalism: who, what, where, why, when, and web (Boyer, 2008).

And Northwestern, receiving an additional Knight grant in 2011¹, is one of a few academic programs combining journalism and programming. Others can be found at Columbia University² and the University of North Carolina³.

At the Online News Association conference in Washington, D.C. in September 2008, editors from the Las Vegas Sun presented a chart that listed 22 technologies used when redesigning their website for interactive capabilities. Those technologies included basic web techniques like XHTML, Cascading Stylesheets (CSS) and Rich Site Summary (RSS) as well as video editing with Final Cut Pro, but also included programming concepts like Django, Subversion, Flash, Postgres, AJAX and Javascript. This is the new

environment of journalism, and people working in the field must become familiar with the capabilities in order to perform at the highest levels.

While only a few news organizations have been able to develop the resources necessary to produce these data-driven news products, there is mounting evidence of their value. The Texas Tribune (texastribune.org), an online, non-profit news startup based in Austin, Texas, started in 2009 with the goal to provide citizens of the state with extensive political coverage. Their biggest draw? The more than three dozen interactive databases that profile topics such as government employee salaries and Texas prison inmates have drawn three times as many page views as the stories on the site (Batsell, 2010). These projects hold great promise in providing valuable information with which people can engage and develop their own meaning. The ways with which news organizations balance information with analysis will help to define the role of journalism in the future.

While only a few news organizations have been able to develop the resources necessary to produce these data-driven news products, there is mounting evidence of their value.

From a theoretical perspective, understanding newsroom processes and routines has a long legacy in terms of media scholarship. Schudson provided a helpful framework in which to study news that defined three perspectives on the social meanings of news. 1) The political economy which relates to the way news products are shaped by the economic structure of the organization; 2) the sociological organization, in which roles of individuals, how decision-making works and how parties work together are described; 3) the cultural approach, defining broad cultural symbols that are associated with the profession (Schudson, 1993). Ettema, Whitney and Wackman (1987) described similar levels of influence on the media-making process: political economy, organizational and individual. Further, Zelizer (1993) identified four frames in which to consider journalism: performance, narrative, ritual and interpretive community. These all have to do with the political, social and cultural environment of journalism and more specifically relate to how actors make sense of the workplace, whether it is through negotiation of roles, identification of routines and patterns, making of meaning and decisions and interaction. Integrating innovation into newsrooms is an ongoing process.

Schmitz Weiss and Domingo (2010) studied the ways that four newsrooms dealt with innovation through two frames: actor-network theory (ANT) and communities of practice (CoP). They found that ANT was useful in mapping the roles and responsibilities within the newsroom in relation to their attitudes about technology, providing a foundation for understanding success or roadblocks to progress. By combining ANT with the conception of newsrooms as communities of practice, they found it helpful in understanding how “journalists learn and gain knowledge from each other during and after innovation processes are implemented in the newsroom” (Schmitz Weiss & Domingo, 2010, p. 1168). These approaches reflect that news products and ultimate change are not the result of one force or set of forces, but a complete system that encompasses the

organization, individual actors and the culture that surrounds them.

New media journalism, or online news, offers a fresh area of study in understanding processes, routines and culture as they relate to change. News products, fueled by internet technology, have great potential to change in regard to multimedia and data-driven interactive storytelling, and as such, the actors, organization and cultural aspects of the environment must also change. Chris Paterson (2008) identified ethnography as a critical method in gaining an understanding of the field. "It is our guiding premise that only ethnographic methodologies derived from anthropological and sociological traditions can come close to providing an adequate description of the culture and practice of media production, and the mindset of media producers." The emphasis is on observation informed by theory, which is the basis of this study.

An important aspect of this study is the constructivist nature of technological innovation. With technology, "there is a social context where they are invented...and a social context where they are adopted, in which users negotiate with the proposed definitions of the technology to adapt them to their needs and to adapt themselves to the requirements of the technique usage" (Domingo, 2008). Online news production of the type under observation here is in its infancy. This study provides an early analysis of one of the premier, innovative organizations applying new practices. Both the research and those under research are expected to continue evolving, and the trends identified are merely a baseline upon which to ground future research in this area.

News products, fueled by internet technology, have great potential to change in regard to multimedia and data-driven interactive storytelling, and as such, the actors, organization and cultural aspects of the environment must also change.

The culture of technology is different than that of journalism. They each carry different ideas about objectivity, transparency, sharing of information and performance. By merging these cultures, what emerges in terms of a hybrid dynamic? How do the actors, their backgrounds and training, their processes and the organizational structure affect the products they deliver?

Methodology

The methodology for this project was a week-long observation of members of *The New York Times* Interactive News Technology (INT) Department. Aron Pilhofer, editor of the department, secured access and permission for the visit. Interviews were held June 22-26, 2009 at *The New York Times* offices. The principal investigator (PI) spent a week observing the department's processes, attending meetings and interviewing personnel to understand the skills engaged, technologies used and the future goals and requirements of the department. Observation included regular attendance at meetings and shadowing team members as they performed their duties. Physical observation shed light on

the application of news values and judgment and process differences from traditional news-gathering procedures. It also indicated the status and proximity to others in the newsroom, providing a sense of the challenges associated with changing newsroom culture and practice. This research is valuable to understanding this role in the future and offers clues to educators on opportunities and challenges in teaching these techniques.

Each morning, the day began with a meeting, or “scrum,” as it was referred to by the members. A “scrum” is a software development term that refers to an iterative and incremental framework, thus immediately embedding a software development practice into the routines of the group. In this meeting, it quickly became obvious that the content consisted of a mix of tech talk and editorial discussion, seamlessly integrated. The Assistant Editor led the meetings, and members addressed projects that each were working on, as well as traffic and issues involving past projects. Technology issues were addressed quickly and all had a say in solutions. They also addressed ideas or new projects, some of which were not interactives that would run on the website, but tools that might help to improve technology processes in the organization. These tools included Puffy, a tool to assist in curating user-submitted photos and Document Cloud, a large project for displaying source documentation that has received sizable Knight News Challenge Grants. It is this two-pronged responsibility for all types of innovation that gives this group a unique place in the organization.

Throughout the week, the PI observed the department workings and scheduled meetings with most of the employees, having lengthy interviews (one hour or more) with each of them. Four areas emerged as the most interesting to analyze:

- Background/Education of Personnel
- Department Processes
- Department Culture
- Recommendations for integration into media curriculum

Other than identifying Pilhofer as the department lead, the other members of the organization were promised anonymity in their responses, to assure the most candid assessment of their perceptions. The quotes in this article were all generated by one of the members of the INT team.

The News Product — Data-Driven Interactives

The INT department’s primary charge is in making news products that engage the user and that often use a database to populate the information. The data come from a variety of sources or can be the result of user input. These presentations can include interactive maps, visualizations, timelines and graphics.

At the time of the PI’s visit, the activities the team was discussing included a project on water quality which has since won a medal from Investigative Reporters and Editors (Figure 1; <http://projects.nytimes.com/toxic-waters/contaminants>) and one on New York City school test scores (Figure 2; <http://projects.nytimes.com/new-york-schools-test>-

scores). The interactives exhibit the characteristics of clean design and easy user input, often with only one or two fields the user can manipulate. Graphics are mostly self-explanatory, with little needed in terms of instruction in order to use them. Interactives are often non-linear, offering multiple ways a user can navigate through a presentation, which can result in a great amount of time an individual spends with each presentation.

Figure 1

Figure 2

A particularly creative use of technology has to do with the WordTrain visualizations that *The New York Times* has pioneered. These interactives ask users to input a word and select one or two characteristics. A visualization was done after the 2008 election, asking users to express how they felt, and then provide party affiliation. A second visualization asked for users to provide a word that describes their feeling about the economy and then provide their employment status (Figure 3; <http://www.nytimes.com/interactive/2009/03/30/business/economy/2009-economy-words.html>). These simple

tools provide a way to crowdsource a topic, gaining a sense of the mindset of the populace. One can find numerous examples of this type of storytelling on *the New York Times* website, mixed in with other presentations on the Multimedia page (<http://www.nytimes.com/pages/multimedia/index.html>).

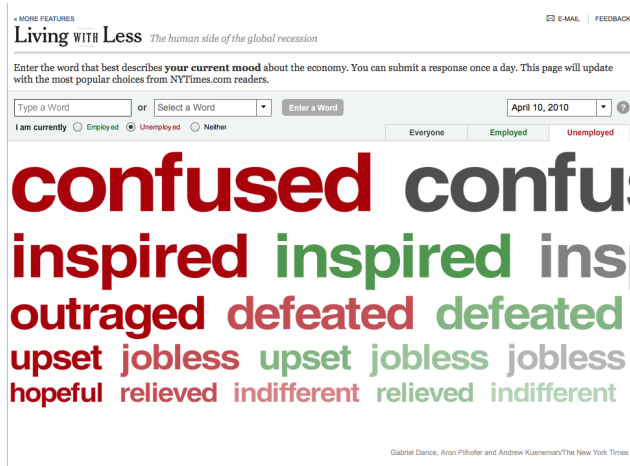


Figure 3

Department Creation and Background

In 2007, Pilhofer and Matt Ericson, deputy graphics director at *The New York Times*, made a proposal to create the Interactive News Technologies (INT) department. The goal was to assemble a group of developers/journalists doing projects on a variety of topics, cutting across all desks (Nussbaum, 2009). The roots of the proposal were in computer-assisted reporting, but the vision was to reduce the bureaucracy associated with creating each project and to elevate the status of the coders in working with reporters and editors. The department would require a group of special people, those who were as fluent in journalism as they were in coding, who could understand the editorial needs and develop the functionality that would engage users. The department started with two employees, Pilhofer and a software developer, but had grown to 11 in three years. In addition to Pilhofer who leads the department with the title of Editor, at the time of this study, there was an Assistant Editor, a Senior Software Architect, three with the title Interface Engineer (one of which is co-located with the graphics department), four Software Engineers and one Information Architect (who actually works for the design department but has matrix responsibility and is co-located with the INT team). While these titles are seemingly geeky and reflect their technology roles, their actual responsibilities are much broader and encompass a stronger editorial emphasis than the names indicate. And, it should be noted, that in 2009 during the PI's visit, each of these positions was filled by a male. Later in the year, the department hired it's first female employee, a highly experienced coder. The gender implications of the technology field as it relates to the future of journalism is a ripe topic for future research.

The team performs projects of varying terms covering a broad range, including politics, sports, investigative reporting, entertainment and popular culture. They collaborate with departments across the organization, but their primary contacts are with design, graphics, multimedia, investigative reporting and the sports desks.

Background/Education of Department Personnel

One of the most notable aspects of the analysis was the wide range of resources that had been assembled to create this department. Counter to conventional wisdom, simply selecting people with strong technical skills was not solely what was needed to achieve the goals of this group. Developing news interactives and technology tools to assist journalism functions is very different than the projects typically engaged by a software developer, like programming the moves of a robot, designing an enterprise-level accounting system or even developing the functionality of a content management system. While seeking strong technical expertise, the department sought and hired people with a passion for journalism, an interest in telling an important story and the ability to work across departments. These are not necessarily traits that automatically come with someone from a computer science or software development background. An assessment of a potential employee's interest and enthusiasm for storytelling had to be made based on past projects, the kinds of things the candidate did in his or her spare time and how he or she interacted during the interview process.

While seeking strong technical expertise, the department sought and hired people with a passion for journalism, an interest in telling an important story and the ability to work across departments.

Many in the department did not have traditional technical educations. Undergraduate degrees were varied in Art & Design, Anthropology, English, History, Urban Planning, Rhetoric and of course, Journalism. Only two had done extensive educational preparation in a computer-oriented field, and another two had received technical-oriented minors in support of liberal arts degrees. Most had either taken up computing on his own at a very young age or had gravitated toward it due to necessity for a specific job.

The previous experience of the team members is also quite varied. Most have worked in journalistic settings before, including the Las Vegas Sun, the Washington Post and the Canadian Broadcasting Company or held other positions at *The New York Times*. A few had worked for technology companies or web startups, but most had been involved with organizations in which content was a key part of their offering. Several mentioned working on their high school or college newspapers, even though they had not necessarily been journalism majors, highlighting the importance of college media experience to future career decisions.

Most described their skill acquisition as "self-taught." Some of the statements from employees that supported this concept included:

- “Pretty much anybody I know who has done well in programming taught themselves about it.”
- “Everybody on our team is kind of self-taught and is able to just learn and has the curiosity and interest to just pick up what they need to know.”
- “I basically started fooling around with it on my own before I started here.”
- “The best way to learn an internet program is, happily, on the internet.”
- “All the technical stuff, I learned on my own. I did a bunch of web stuff for little projects I was doing. I basically made a site for any extensive project I did when I was in journalism school. It was fun, but it wasn’t part of the education I got there.”

One of the main technologies the team uses is a web framework technology known as Ruby on Rails. It is a rapid application development environment based on the Ruby programming language that allows the connections between interface and database to be quickly created. While RoR skills specifically were not required of new hires, most had worked in an environment where they were introduced to object-oriented programming concepts. Knowing the specific language prior to being hired was not as important as understanding the application development process and having an innovative spirit and the ability to learn.

- “More than half our team members didn’t know Ruby on Rails before they started here.”
- “Every language, every framework has its nuances. Most of the best practices I know for all objected-oriented programming, I learned from a guy I used to work with at a company that used Java. There’s a lot of commonality.”
- “The people who come from good programs have good minds and are language agnostic. It’s really more about the concepts inherent in the language.”

The members of the team understood that the combination of skills in the department were rare and would be in demand in the future.

- “It’s hard to find people who have the specific skills for this job.”
- “News organizations are starting to hire CAR (computer-assisted reporting) people with a specific intent of putting that data online. They are asking for that kind of experience or skill, and the pool is exceedingly small. So what happens is we end up fighting over the same people when jobs open up. When we say we want people with experience doing that, its the same five people who get calls. “
- “It’s a growth area in terms of absolute need. The reason it’s not more popular is because many of the folks doing the hiring don’t yet understand the need or what it is they are hiring. When budgets are shrinking, its very easy to say I know what reporters and editors do. I need those. When it comes to this area, they have done without for so long, so they feel they can do without it now.”

The idea that these were people bringing a unique journalistic perspective to the development role was also mentioned by several.

- “Everyone on our team definitely gets the journalism part.”

- “I love the journalism pieces of it. I was building things and seeing it on the website and getting feedback and making it better.”
- “We need somebody who is going to be a good software developer and can think about the journalism side of it.”
- “When I was hired, they definitely cared about how much I was interested in journalism and what my ideas were for projects.”
- “These people are like hybrid journalist/computer people; the programmer/journalist, which is the vanguard of the field.”

The environment is very team-oriented. The daily meetings offer a place where members can bounce ideas and help solve problems. Many spent time working together, explaining concepts or just working through problems as a team. This is as much a process feature as it is a training and development feature. A common theme was a drive to solve problems and to find tools to do so. Some indicated using online resources, such as tutorials, others indicated that they had friends who could help them solve computer-oriented problems and others said they found internal resources to help them through any issues once they were on the job.

Some stated that learning was based on a need, and that it was done in context. “I didn’t love programming when I first came to it. I saw it more as a means to an end.” This is a key element to understanding the role of technology in journalism. It has more to do with presenting technology in a communication context or solving a communications problem than it has to do with basic functionality or straight coding. Each member of this team understood his role in making decisions that affect the ultimate nature of the story.

Process

Prior to visiting the group, the PI sent out a short survey to the members to gain some background information. One of the questions was “Briefly describe what you do at *NY Times* (basically your elevator pitch or what you tell people at cocktail parties when asked).” The purpose was to see how they each defined their role. The responses were varied. Some spoke in terms of the journalism products they produced:

- “I’m a journalist/designer/developer of data-driven applications on news-driven deadlines.”
- “I develop interactive, news-related features for *nytimes.com*, with a focus on politics.”
- “I tell people that I help collect data and use it to build web features/applications/sites for *The New York Times*. I try to name some specific examples around a content area (Congress, etc.).”

Some defined their role in terms of the interaction and collaboration with other departments:

- “I work with reporters and editors to conceive and build news-oriented web applications.”

Some viewed their role as broadly innovative, providing technical expertise across the organization:

- “I tell people I make special projects for *The New York Times* website. If they’re still interested, I tell them a little bit about how we’re trying to treat the web as a first-class medium (rather than just a delivery mechanism for other mediums) and push the limits of how we present and interact with news online.”
- “I suppose you could describe me as a backfield editor for our web applications. I tend to work on the back-end parts of systems, integrating our applications with systems elsewhere in *The New York Times* and spot-checking applications and mentoring in best practices.”

The department was founded to reduce bureaucracy and introduce flexibility in the process of creating each project, so the group could react more like a reporting team than a support organization. This requires people who are comfortable in an environment where the individual has control of their projects and must be the source of their own guidance and direction.

These people are like hybrid journalist/computer people; the programmer/journalist, which is the vanguard of the field.

- “We tend to have very little process. The group was formed as a counterbalance to the incredibly process heavy, very long timeframe normal development process that was in place.”
- “The department was initially designed to be very light on process and fit within the story and news cycle and work with desks and be flexible with deadlines and change.”
- “We treat everyone like reporters, saying this is your project. You do it, and then tell us what needs to be done to represent it.”
- “It’s a very individually driven job. Nobody is going to tell you exactly what to do on your project. There’s not going to be a clear set of requirements or deliverables or deadlines necessarily. It’s really that somebody comes to you and says you tell me what you want to do, you tell me how long it’s going to take and what needs to be done.”
- “Every single project that you do is a little bit different, and you just have to have good people to make it work.”

Some projects take the entire resources of the team when they are either large-scale or of a timely nature. The team works on these projects over time, but when the deadline comes to fruition, it’s all hands on deck. But most weeks, each individual is working on his own project autonomously or engaging specific resources, like the involved desks.

The genesis of a project can vary:

- “Half our days come just straight from stories. So, both the water and schools projects are stories that originated in different desks, one from education one from business. They came to us and said, ‘we’ve got this story, we’ve got a lot of data, is there something you guys can do?’”
- “There’s the second class of project where we’ll recognize a need, so it’ll be more of a tool-based rather than a story-based project, like the document reader or the Q&A application, where someone will come to us with a specific issue, but we will see that there’s really a larger application of it.”

And some projects are simply what they called event-based, when there’s an activity going on like the Academy Awards or NCAA March Madness, and something needs to be done to represent it with data.

One might imagine that this group would easily be overwhelmed by multiple requests for their involvement. There are decision points in engaging any project. The team does some assessment as to whether they can actually execute a project, whether the data exists and is worth the effort. When conflicts arise, they appeal to other editors and executives to determine the profile of the project, indicating a willingness and need to work within the larger political structure of *The Times*. Deadlines are considered. Projects that originate in the INT group have much more flexibility than those that are brought to them by one of the other desks.

A project typically has at least one front-end and one back-end person assigned to it. Front-end responsibilities include design, user experience and associated technologies, like HTML, CSS and JavaScript. The back-end person will handle things like scaling and data manipulation. Both involve working within the Ruby on Rails framework, although a few projects have used another web framework, Django, which is based on the Python language.

If there was something really dramatic happening today in the news, this team could come up with some really interesting things by the day’s end.

These roles are often fluid, based on the interests of the personnel in the group. Said the assistant editor, “We are trying to integrate that more, because all of the back-end people work here because they have either a journalistic background or are interested in that. It’s not that we have straight coders who are interested in sitting there and just coding.”

A project starts out with a design or a “wireframe” and the user constraints are defined. Wireframing typically occurs in a graphics program like Illustrator or other design program, in order to immediately engage the visual aspects of a project. The wireframe gets a full review by editors, others on the team and the associated desks involved in the project. Once the wireframe is complete, the site is built out, and depending on size, is staged on a web server and tested.

Development happens on laptops or desktop computers with change control software used to organize multiple team members working on the same project. The project management program Basecamp is used to manage the range of projects. *New York Times* servers are used for anything a user sees on the site, but the department decided to use Amazon EC2 (Elastic Compute Cloud) servers for out-facing items, like certain database functionality. This is one example of the department having the flexibility to make these types of decisions and to use available tools, often from external organizations or open-source environments, to solve problems.

While the lack of process is a benefit, there is some understanding that, as they grow and implement more projects in terms of quantity and complexity, that a balance must emerge. “The immediate challenge that we’ve been talking about is figuring out the mix of process and flexibility. We’re now integrating more process and trying to figure out where the sweet spot is.”

Culture

Part of the success of this team comes from the culture that has been developed in the department, the roots of which are in creativity and innovation, driven in many ways by the open-source or hacker culture. This mindset is something that is infiltrating the entire New York Times organization and is recognized as important to future success.

- “*The Times* culture has really shifted to where innovation is front and center and bold, and all the way up to the top.”
- “I think that’s something that *The Times* has done, probably pretty amazing for a lot of these other media organizations, when they first started opening up a lot of these API’s (application programming interfaces).”
- “I think we are all really pro open source. We prefer to use open-source tools, and we are happy to do that.”
- “In my mind, the open-source concept is definitely predicated on this notion that sharing is more powerful.”

There is a sense of excitement in the group that resonates through many of the comments.

- “If there was something really dramatic happening today in the news, this team could come up with some really interesting things by the day’s end. So that kind of fire power, that’s what I’m most interested in. I think this team is in a really interesting position to be poised to do things, whether it’s the Olympics, or the Oscars, or Puffy, or the way we handle user submissions, to really start creating tools that can be used widely and aren’t specific to just one event or one narrative, to build these tools that are really adaptable.”

Part of that excitement may stem from their ability to bring their own personal interests to projects that the department selects. One self-described sports junkie said of the propensity toward non-investigative stories to be supported by data, “I’m glad to see it’s

not all investigative reports, that it is branching out. Because there are things out there that are interesting that involve data that aren't investigative at all, but people are still interested in them. It's sort of a natural thing, particularly with sports."

But much of the excitement has to do with the opportunity to work with an elite group at *The Times*. "I love it. I think they are smart. I just like being around challenging, smart, interesting, driven and hardworking people."

Another key to their success is in their ability to manage large collaborations with other departments. The team is highly integrated across the organization and is interested in providing education to broaden their impact.

- "I really, honestly believe that the stuff that really sets us apart is big collaborations that we do with the graphics department. Nobody does that stuff. At least no one does to this extent and depth."
- "Walling off the different departments in the newsroom is going to be the death of the media."
- "The idea of having people who don't know how to develop software designing and specifying software for others to develop is not a successful model in general. That's not how Google does it, that's not how successful web shops, places that generate a lot of innovation, do it. My hope is that as we continue moving in this direction, that we have better training for the groups with which we collaborate."

The last statement reflects a cognizance of the ways in which innovative, tech, media companies are running their businesses, and how that might relate to the role of a newspaper company. This attitude is necessary in changing the attitudes that have traditionally originated in the CAR environment or just the general proprietary nature of the journalism field.

- "The people who did data by and large didn't do design for a good reason. It's rare to find somebody who does both. So for an investigative or CAR story, you need at a minimum, someone who can do the data analysis and write the story, or at least do the data analysis and explain the data analysis to someone else who can write the story. But for a web application that involves data you need someone who can do data analysis and somebody who can put it online."
- "Another factor is that the tools to put data online, up until recently, sucked, or they were prohibitively expensive and just bad. So, most CAR people have had the experience somewhere along the line of doing the data analysis, but then they give it to someone else and that person totally screws it up."
- "It's important to not feel the need to clutch on to the content, keep it close to you. For example, the Runwell Project that we just did (a sports training application to accompany the NYC Marathon), there was some initial concern that we were offering a calendar to work on schedule, and we wanted to add a feed that you could subscribe to, Google Calendar, or iCal, or whatever. There was some concern that people would be less likely to come back to the site if they had a calendar that they could use out of the site. I think just being flexible enough to say, 'if it's good, people are going to come back to use it. So make it as good as you can.'"

The Times obviously has a head start on developing this type of expertise that other newsrooms will be seeking to acquire. It won't be easy. There will need to be acquisition of the correct number of qualified resources and to properly establish their roles in the organization.

- "I think it would be very difficult to do any number of these projects without 2 or 3 people. There's no one person that has enough skill that can do it as a one-man band, without killing himself. "
- "So, you really need 2-3 people, and with that you are only getting a project a month, every six weeks, so really low output."
- "You are looking at 4-6 months just to get everything set up, to figure out the newsroom relationships."
- "There's the technical component. You have to set up all the infrastructure, which takes a long time. From booting up the servers to getting all your admin setup, there's just a lot. Then getting familiar with editors and building their trust to get involved with projects early enough. That's not a small task to set up."

Journalism/Media Education

While the members of the team had strong opinions about their roles and processes, they were less direct in addressing how journalism education could develop these competencies in future graduates. There was a general opinion that understanding the web and how it works, as well as a general approach to problem solving, should be foundations of media education.

- "It's more that you will find someone who comes in with the curiosity and the technical aptitude. You can teach them journalism, but for the majority of the people, it's really teaching them the web and fluency with this kind of stuff."
- "I think the most important thing is to have someone who can learn new skills."
- "It's someone who sees problems and figures out ways to solve them."
- "It's problem-solving. I would rather give someone something and have them figure it out."
- "Having someone who can actually code is probably the best position. But, I think just having a good understanding of the web, how things work on the inside, is important. There's definitely people who don't really get it. They don't understand the concept of a hyperlink or the difference between a blog and an online news site. There seem to be some basic concepts that maybe not all people fully get."
- "It seems that you teach technical aspects of photography in journalism classes and shooting the technical aspects of video. The technical and aesthetic aspects of photography or video play into a journalism program, so that is probably not that far off from how I would imagine seeing the integration of data and programming."

It was recognized that this was an area of growth potential and that there would be jobs for people with these skills in the future. The key was finding people who were passionate about the topic and have the ability to learn.

- “There are more jobs for producers who are fluent in the web, who understand how our projects work and what are some of the issues in terms of timeframe and complexity and how we need to work together.”
- “So instead, go create your own path. I mean, those are the people who are really succeeding. *The Times* has hired a lot of them. You take people who either have a great focus on a niche, whether it’s something like television or a geographic niche, or community, or a way of storytelling. You focus on something that makes you passionate and just drive it.”
- “The passion thing is huge.”
- “Innovation should happen on it’s own. You are going to continue learning. If you’re really excited about the Austin music scene, and you’re really passionate about it, the cost of competing is so low now, you can easily become the dominant voice.”

Some members of the group spoke more fundamentally about the ways that journalism engages data in general. The profession has not been strong on retaining institutional knowledge or organizing content in a way so that it can be used more efficiently over time. If journalism schools are driven by the profession, then they will be limited in their ability to be successful in this area.

- “I think at a more fundamental level we have to rethink and re-teach how we deal with and how we teach students to deal with information.”
- “You have a sort of responsibility to knowledge in general to treat information as if it actually had the value that we claim it has. Information deserves to be treated like it has value.”

To some extent, it is about exposing people to new concepts and ideas, and once again, the ability to self-teach and to engage in continuous learning.

- “For professionals and students, sometimes you don’t even understand how the mechanics of how something comes together. So, it just becomes foreign, and it’s opaque, so you give up trying to understand.”
- “To actually understand the logistics of it, I think, makes it much more interesting. That way, when they find that passion, they can at least have enough of an understanding of how to pursue it.”
- “Sometimes you have to know what you don’t know.”
- “I don’t think any of your students are going to leave school being programming experts, or ready for some of those technical positions, but I think more than anything, almost everything I’ve learned, I learned on my own. Even when I was in school, the attitude was always, never say you can’t do it. Never say ‘no.’”
- “Like we were talking about this morning in the meeting, you have to cultivate this hunger. It sounds cheesy, maybe, but I’d stay up until 3 or 4 in the morning doing something totally ridiculous, and it was just because I wanted to figure it out. There’s sort of this passion and drive to figure it out, to make it work.”

At the time of the PI’s visit, the entire team, including it’s leader, were male. Since then, one female employee has been hired. Each member of the team expressed a sincere

sensitivity to the issue and a recognition of the importance of having a diverse team. However, they were unclear how to overcome the dearth of women who possessed the skills or had an interest in programming. This is not a problem solely related to this team at *The New York Times*, but seems to be an issue in the tech world, not unlike other tech startups. Several indicated that they often work with female multimedia producers or reporters in developing the interactives, so the female perspective is not completely absent.

- “There’s just not a lot of women out there in these roles, at least that I’ve seen. But for design, there’s a fairly large population of women doing it. If it’s only men designing the user interactions with these projects that we’re spending huge amounts of time on, you get a very narrow opinion.”
- “The bigger thing is that the world of software development is both male-dominated, but also tends to be dominated by a certain kind of person. There’s a certain kind of person who can do well in the software world that couldn’t do well in other areas.”
- “I think the problem is that the divide goes back so far that when we meet people, they tend to be guys. We will go to conferences, and there will be few women there. We’ll descend on the few women, start talking about jobs and then overwhelm them.”
- “We have incredibly specific skills that we are looking for, and so, in many cases, there is really only one person out of the 20 we’ve identified that really fits. Finding a woman within those constraints is difficult.”

Obviously, the high enrollment of women in journalism and mass communication programs presents both opportunities and a challenges. The opportunities exist in being able to present technology tools and concepts to a female audience, thus increasing the representation of women in the field. The challenge will be in gaining females’ interest in such an activity, with the hope being that as it relates to a communications context, women may be more likely to gravitate toward or to want to be associated with a programming role. There are many issues to be dealt with regarding the culture of technology, but as hybrid communication/technology environments develop, perhaps some solutions will emerge.

Conclusion

Obviously, one of the key ingredients to the success of this department is in its leadership. Aron Pilhofer conceived the group, manages its operation and hires and allocates its resources. He provides an external face for the group by being active at conferences and has written successful grant applications. It is clear that strong leadership in someone that can make things happen, but can also effectively delegate responsibility, is necessary in this environment. A leader of this nature must also be able to generate trust across the organization. Pilhofer has since added the social media function of *The Times* to his responsibilities.

“He’s a real catalyst for action,” said one team member of Pilhofer’s style. Perhaps that should be another characteristic of a strong leader. In an environment in which change is

given and innovation is an expected part of the job, it will require a leader who is not only flexible in dealing with change, but one who can influence it. It is ultimately this ability to propose change and assemble and manage resources that determines the ultimate success or failure of future operations of this kind.

The skills of this department may seem to run counter to those of traditional journalists, who stereotypically have not been known for math or technology expertise. However, this area has always been necessary to journalism, in reporting on budgets and financial stories, or in using data in a computer-assisted-reporting environment. Perhaps the ability to tell stories in this manner will launch a new interest in computational journalism and may attract different types of people to seek journalism degrees and careers. These different types of people, coming from different backgrounds and cultures, will surely influence the culture of news.

In an environment in which change is given and innovation is an expected part of the job, it will require a leader who is not only flexible in dealing with change, but one who can influence it.

While *The New York Times* has one of the most extensive organizations in this area and has amassed a great many projects, a few other organizations have been doing meaningful work with data-driven interactives, including the *St. Petersburg Times* with the Pulitzer Prize-winning Politifact, a site that measures politicians performance against campaign promises, as well as *Washington Post*, *Las Vegas Sun*, *Minneapolis Star-Tribune*, *Chicago Tribune*, *Los Angeles Times*, *The Texas Tribune* and *The Guardian* in the United Kingdom. It is a small, elite group, thus demonstrating the vast potential for organizations who can develop these competencies. Organizations must weigh the cost and time to develop this expertise against the proposed deliverables, all in an economic environment that is not terribly flexible nor encouraging of innovation. But the value of the information products often speaks for itself.

While the interviews provided great insight into the perspectives of the employees in the group, being on hand to observe the day-to-day processes and interactions was invaluable. Watching them sitting at their desks, working on computers, talking on the phone, interacting with co-workers and attending meetings, all in the context of developing journalism products, one gets the sense that their roles are not unlike those of a traditional journalist using technology tools to create stories. But, instead of using Word to craft their stories, or Photoshop to crop photos for a slideshow or Final Cut to edit a video package, they are using a different set of tools. They bring as much passion to the role of storytelling as their counterparts in other departments, but also view their role in terms of the innovation their products and services contribute to the organization.

There are great challenges ahead, not only for the profession, but also for the educational disciplines that support media. Finding faculty who have the interest and inclination to learn programming and data skills will not happen quickly, and programs

will be slow to add courses or shift their emphases into this area. The first step is a recognition of the value of incorporating these skills into a program, seeking those with any level of expertise in this area as recruits and encouraging innovation throughout the curriculum. Students need to gain a sense that there is much to be learned on one's own, and that they should develop the curiosity and initiative with which to support an industry that will be defined by change and innovation going forward.

Obviously, a short-term visit has its limitations in terms of gleaning representative or generalizable data. But observation is an extremely valuable method in gaining a comprehensive understanding of new systems and processes and will become more critical as the field continues to evolve. Studies of this nature can provide a basis for comparison across organizations or can offer background or a baseline upon which to justify quantitative methods. While it is difficult to gain access and to set aside the time and secure resources to fund a more extensive visit, spending longer amounts of time in the newsroom and possibly integrating the researcher into some of the processes is recommended for future research in this area. Other areas that may prove fruitful in terms of future study would include assessing the specific news products that come out of these processes and the perceptions and behaviors of users who engage with them. In addition, broadening the scope of organizations under study to include smaller, start up, web-only groups like the *Texas Tribune* or international publications like *The Guardian* will provide strong comparisons to the processes of a large, legacy, American news operation like *The New York Times*.

The researcher owes a great debt of gratitude to the Interactive News Technology department at *The New York Times* for allowing flexible and unfettered access to its resources. The members of the team who spent large amounts of time providing candid and thoughtful responses to questions are greatly appreciated. Their input is absolutely critical to an improved understanding in this area and fostering a climate of participative projects between the profession and the academic discipline.

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Multimedia and Interactivity on Newspaper Websites: A Multi-Study Analysis of Six English-Speaking Countries

Robert Bergland, David Hon, Lisa Crawford, and Sarah Noe

Using a single-pass system, our team of researchers analyzed websites in a random sampling of daily newspapers in the U.S. (2007) and all of the daily newspapers in Canada, the U.K. and Ireland (2008), and New Zealand and Australia (2010). By utilizing the same methodology and a nearly identical set of multimedia features (audio, video, photo galleries, etc.) and interactive (polls, blogs, comments, etc.) and distribution (PDF, RSS, email, mobile, etc.) features, our studies were able to provide not only a snapshot of the state of online journalism in those countries, but also a meaningful comparison between them.

Overview

Each country has its own history of journalism. That history, coupled with economic, political, and social forces, has shaped all aspects of its print newspaper industry, from ownership to writing to editing to layout and production. One quick glance at page designs, articles, advertising numbers, and circulation figures reveals some similarities, but also many differences between countries.

Just as print journalism differs across cultural and geographic boundaries, so too have online newspapers taken different forms in different countries. Some of these variances can be explained by the differences in those historical, economic, political, and social forces. With online newspapers, however, a variety of other factors also come into play. Some of those factors, to name just a few, include:

- The print reading culture of the country
- Cross-platform media ownership rules
- Broadband penetration
- The percentage of the population with computers and cell phones
- The degree of convergence in the journalism education programs in those countries

The overarching question becomes just how different online newspapers in these countries are. Which countries' newspapers are most likely to have video? Sound? Interactive graphics? How do the many multimedia, interactive, and distribution features

made possible by the internet manifest themselves in different countries?

While some studies have looked at these features within a single country, we wanted to look at multiple countries. Using the same methodology across several countries during the summers of 2007 and 2008 and spring of 2010, we were able to analyze more than 25 features of over 600 newspapers to yield data to make meaningful comparisons. The purpose of this paper and those studies is threefold:

- To provide a snapshot of the state of online journalism in several countries, which will be useful now and for any future studies to compare the development over time;
- To examine differences between countries; and
- To discuss possible reasons for the differences, briefly analyzing technological and educational differences between the countries.
- To accomplish this task, we conducted multiple content analysis studies covering multimedia and interactive features in daily newspapers in the United States, Canada, England/Scotland/Wales, Ireland, New Zealand, and Australia.

Literature Review

In order to provide that snapshot of the state of online journalism, our goal was to look at a large number of newspapers in several countries. In doing so, we address the “who” and “what” of convergence, but do not answer the “how,” how these newspapers are going about the process of creating multimedia and interactivity for their websites. That question has been answered, to some degree, by studies that have taken a more ethnographic approach to the subject matter, such as Dibeau & Garrison’s (2001) study that took an in-depth look at how six newspapers were incorporating new web capabilities on their sites and Boczkowski’s (2004) similar examination of multimedia and interactivity at three daily newspapers. Some of the most noted case studies have looked at the Tampa (Florida) *Tribune* and WFLA merger, in which print and broadcast reporters were literally placed side by side in the same office.

In addition to Thelen’s 2002 article about the merger, Huang and his group of researchers produced a report in 2004 about how the convergence model in Tampa did not seem to negatively impact the quality of journalism there, while Garrison and Dupagne (2006) focused their Tampa case study on job skills and the newsroom culture. Earlier studies in the U.S., such as those done by Singer (1997) and Martin (1998), focused on newspaper transitions to the web in the mid and late 1990s, as newspapers quickly gravitated to the web and began experimenting with sound and video files on their sites. Some of the more recent and best ethnographies of U.S. and international newspapers can be found in Domingo and Patterson’s two volumes of *Making Online News*. Brannon’s (2008) observations of the transition to online at NPR, ABC, and *USA Today* in the early days was very revealing about the obstacles organizations face in making such changes. Also pertinent to this study is Cawley’s (2008) examination of the role and status of reporters and online editors at an Irish newspaper.

While our study takes places several years after his, his essay indicated that the online product and workers are viewed more as afterthoughts, perhaps one contributing factor

in why Ireland lagged behind most other countries in many categories in our study. Also in the 2008 volume, Quandt's very detailed examination of the tasks of reporters in three German newsrooms and Domingo's look at four Catalan newspapers are very insightful for understanding what is going on behind the scenes at newspapers in other countries. The 2011 volume of *Making Online News* contains many other very useful articles, including Robinson's ethnography of a U.S. newspaper moving to an online-only model, Patterson's examination of the shift of AP and Reuters toward convergence over the past 15 years, and Williams, Wahl-Jorgensen, and Wardle's look at how the BBC has dealt with user-generated content.

While these ethnographic studies have been vital in going beyond theory and in understanding what happens in individual newsrooms, there is also a need to take a larger-scale view of the development of internet journalism within a country. While most studies have looked at no more than a handful of newspapers at a time, one of the first more widely-based studies was Peng, Tham, and Xiaoming's 1997 survey of 247 publishers and content analysis of 80 newspaper websites. Also of note is Greer and Mensing's 1997-2003 study, which not only looked a large number of newspapers (83), but also involved a longitudinal analysis of those websites over several years. There have been a few other notable broad-based studies, such as the Bivings Group's 2006 report on the features of the websites of the 100 U.S. daily newspapers with the largest circulations. Their report found that 61% of those large newspapers had video, 31% had podcasts, 80% had reporter blogs, 76% had RSS feeds and 19% had comment sections after articles.

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While there has been some other research—such as Murley and Carroll's 2007 survey of college publication advisers and College Publisher's 2005 survey, both about multimedia and interactivity on college newspaper websites—there have not been many comprehensive studies about at the many facets of newspaper websites. Much of the literature has focused on single issues, such as internet coverage of an issue such as war or protest (Dimitrova & Neznanski in 2006; Nah, Veenstra & Shah in 2006), single convergent elements such as nonlinear storytelling (Massey, 2004), and audio slideshows (Lillie, 2011). Some other studies have focused on the user experience and how or why users select web news coverage (Schierhorn et. al 1999), and the impact of multimedia on the user (Sundar 2000). Collaborations between TV stations and newspapers have also been a subject of study. DeMars (2009) examined the relationships between newspapers and TV stations in 16 local markets in Texas, while Kraepelin and Criado (2009) conducted a two-phase study from 2002-2004, finding in their study of 210 national TV markets that newspaper reporters and editors were more likely to collaborate (sharing story ideas, being interviewed, etc.) with their TV counterparts

than TV news directors and reporters were to contribute to their print partners. Although many of the studies have not looked at newspaper websites as a whole, Russial (2009) published the results of a study of U.S. newspapers with over 30,000 circulation that did look at the gamut of multimedia and interactive features. As evidenced by the title of the article, "Growth of Multimedia Not Extensive at Newspapers," Russial found that the amount of video and audio produced is relatively low considering the size of staffs at these larger newspapers. Noting that roughly half of the newspapers produce video just a few times per week and fewer produce audio or audio slideshows a few times week, he comments that "The newspaper industry clearly has been moving in the direction of cross-platform work, but in terms of scope and intensity, it is not moving as quickly or completely as some observers say it is" (p. 69).

Sparks, Young, and Darnell (2006) used a content analysis to study 113 news organization websites in Canada in 2001 and then conducted a follow-up study of 10 of those sites in 2003. Their comprehensive study in 2001 revealed only 7% of the sites contained video and only 3% contained audio. While those numbers increased significantly from 2001 to our study in 2008, Canada's newspaper websites still lagged behind their counterparts in the U.S., U.K., and Australia in many multimedia categories, as will be discussed later.

Research Questions

Based on the literature review and our initial examinations of websites in different countries, we formed several research questions:

RQ1: What is the frequency of newspapers in each country that have various multimedia, interactivity and distribution features on their websites?

RQ2 and 2a: How does this frequency in each country compare with other countries, and is there a correlation between these differences and differences in Internet/Broadband penetration rates and computer ownership in the countries?

RQ3: What impact does size/circulation have on the amount of multimedia/interactivity of the newspapers?

Methodology

Two of the most common methods for analyzing multimedia and interactivity on newspaper websites are surveys and content analyses. As mentioned above, the survey method has been used by such researchers as Peng, et. al (1999), and Murley and Carroll (2007) and College Publisher (2005). Most recently, Russial (2009) employed the survey method in his study of 210 daily newspapers over 30,000 circulation. In many cases, the survey method has two main weaknesses: self-reporting errors and low response rates. The low response rate is especially problematic, because newspapers that do not have much of a web presence would be less interested in, and thus less likely to return, a survey about convergence on their website. With those having multimedia and interactivity on their websites being more likely to return the questionnaire, the number of newspapers with audio, video, etc. might be skewed high. Much to his credit, Russial addressed both the self-reporting and response rate issues in his study, sending

questionnaires to both the copy chief and the online editor to be able to compare responses and to increase the likelihood that at least one person from the publication would respond. After sending multiple followups, he received a 42% response rate overall, with 74% of newspapers having at least one response. That methodological rigor, along with the fact that he did not need to do a random sampling and thus have a margin of error, gives his data a great deal of credibility.

For our studies, however, we chose to use content analyses instead of surveys for several different reasons. Because we were working with multiple studies and multiple countries, using a survey would have been very difficult. To begin with, the fact that we would have been viewed as foreigners by all but the U.S. journalists meant the response rate was likely to be low, and even with numerous follow-ups, achieving a 100% rate would be difficult if not impossible. In addition, because most of the countries were overseas, the cost and delay in time involved in sending and receiving the surveys, in addition to the multiple follow-ups, made a survey methodology impractical. An electronic survey, which would have required locating personnel in the correct positions and their current emails, would also have been difficult given that many newspapers do not include directories on their websites. While we could have perhaps used a survey method for the U.S. and Canada, we felt that using the same methodology across all countries was important in making equal comparisons.

In addition, the content analysis method had been used by several other previous researchers with success. Sparks, Young, and Darnell (2006) had used a one-pass system in analyzing Canadian news media websites. Likewise, the Bivings group, in their 2006 analysis of the top 100 circulation U.S. newspapers, also employed a one-pass content analysis method. In Australia, Hashim, Hasan, and Sinnapan (2007) used a two-pass system, examining 12 newspapers for various features twice over a period of time. Because we were analyzing approximately 600 newspapers, the sheer number of papers and the time involved in analyzing each paper made a one-pass system the logical choice.

Because we were analyzing approximately 600 newspapers, the sheer number of papers and the time involved in analyzing each paper made a one-pass system the logical choice.

This method is not without its flaws, of course, the most serious being that it may under-report the instances of multimedia and interactivity. If the newspaper often has, say, video on its website but did not have any video on the site the day the newspaper was evaluated, then the newspaper was not counted as having video, although this is often negated by the placement of such items in archives or in a special multimedia/ interactivity section, frequently staying on the site for weeks or even months. The other potential for under-reporting comes from simply missing instances of multimedia. To prevent this problem, our research members were trained in spotting these items, looking carefully at multiple articles within each section, scanning through any sections

dealing with graphics and multimedia and utilizing the website’s internal search engine to locate the features being studied. Several main steps shaped our data collection process:

Creating a taxonomy of website features

Part of the process of fine-tuning our one-pass methodology was the selection of the items to be studied. After examining the literature and numerous newspaper websites, we created a list of features that fit into three main categories: distribution capabilities (such as email digests and mobile cell phone alerts of breaking news events), interactive features (such as reader polls and interactive graphics) and multimedia (such as audio and video clips). Our 2007 studies included 24 features, while our 2008 studies included 30 features, adding new features such as external rankings (Digg, Reddit, etc.) and internal rankings (most popular, most recommended, etc.). Social media was added in the Australia/New Zealand study in 2010. The features were broken down as follows:

Table 1: Taxonomy

Multimedia	Interactivity	Distribution
Newspaper Video	Interactive Graphics/Flash	RSS Feeds
Video from TV Station	Reader Polls	Mobile alerts
Video from AP/Wire	Blogs written by newspaper employees	Email Digest
Audio	Blogs written by readers	Email article to friend
Podcasts	Comments sections after articles	Archive (free/paid)
Audio Slideshows	Reader Forums	PDF—front page
Photo Galleries	Links to articles on own site	PDF—whole issue
	Links to external websites	Registration-free/paid
	Link/address to email reporter	Facebook
	Link to send letter to editor	Twitter
	Ranking sites (most popular or recommended)	

Selecting the newspapers to be examined/random sampling U.S. dailies

A key element of our methodology involved the selection of newspapers to be examined. For the 2007 study, we chose to look at U.S. daily newspapers and to use the most trusted directory, *Editor and Publisher International Yearbook*. We were faced with the daunting list of 1,437 daily papers. While Russial (2009) chose to pare the list by selecting newspapers with over 30,000 circulation, we wanted to also examine smaller newspapers and to have a more even comparison with the full (but much smaller) list of dailies in the other countries. Both the Russial study (2009) and Bivings report (2006) had their strengths, but in choosing only 210 and 100 newspapers, respectively, they were looking at only a small fraction of the dailies in the U.S. We chose make our list manageable by using a random sample, selecting every fourth paper (using a random number generator to select the first newspaper), leaving us with a total of 360 newspapers, which gave us a margin of error of than +/- 4.5%. For the 2008 studies of

daily newspapers in Canada (100 newspapers), the United Kingdom (117 newspapers) and Ireland (9 newspapers), and the 2010 studies of Australia (51 newspapers) and New Zealand (18 newspapers), we were able to examine all of the newspapers listed in the *Editor and Publisher Yearbook*, so there is no margin of error. We chose these countries because they shared the same primary language and had roughly similar social, economic, and political backgrounds. While these countries had the largest populations of speakers of English as a first language, we could have chosen to include countries with large populations that spoke English, such as India, South Africa, Nigeria or Jamaica, but these countries either had multiple prominent languages or drastically different geographic, economic, and technological situations, making comparisons difficult.

Pilot tests

Because we were working with multiple researchers, consistency in coding was critical. To ensure each member of the research team was coding the data in the same way, the team members discussed the categories and looked at several sites together. We then conducted norming sessions/pilot tests of 10 websites. An analysis of the 250-300 data cells from each researcher revealed very few discrepancies, as our inter-rater reliability was 95% in 2007 and 96% in 2008.

Coding the data

For all of the studies, we examined the newspaper websites over a one-month period, looking at each newspaper site in depth once and entering data about the presence or absence of the distribution/multimedia/interactive features into an Excel spreadsheet. We then compiled the data, entering circulation numbers for each newspaper and analyzing the data based on the circulation of the newspapers. Each newspaper website typically took 10-20 minutes to examine and code, depending on the amount of material on the site and the ease of navigation.

Results

For the sake of easier comprehension, the results from the many categories will be broken down into the three main categories outlined above: multimedia, interactivity, and distribution. In the interest of time/space, only the most important features will be discussed, while less important or more outdated features (links to external websites, email digests) are not included in this paper. It's important to remember that there is some time lag between the studies: one year between the U.S. and U.K./Canada/Ireland and three years between U.S. and Australia/New Zealand. Naturally, the broadband penetration rates, computer ownership rates and the newspapers' use of the various features likely increased during that lag time.

Multimedia

One of the most important multimedia features is video. While the addition of some multimedia elements such as photo galleries don't require much additional time, hardware, software or training, video often does require those things. In our study, we distinguished between newspaper-produced video and video that was acquired

from other sources, such as the Associated Press or from a television station that the newspaper was partnering with. The U.K. led the way, with nearly nine in 10 daily newspapers having their own video. Roughly two-thirds of U.S. newspapers posted their own video in 2007, while a little more than one-third of Canadian newspapers in 2008 posted video.

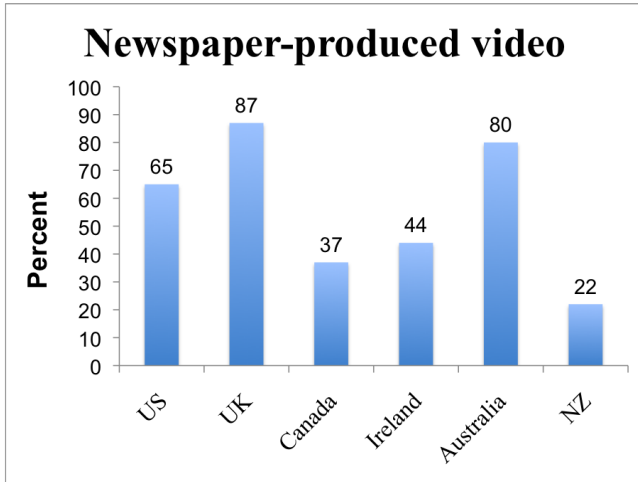


Figure 1: Newspaper-produced video

Audio, often coming in the form of podcasts or sound bites from interviews or press conferences, was less common, with all of the countries having lower rates than they did for video. This was a little bit surprising, given that audio editing usually requires little or no new hardware and that reporters almost always have audio recorders with them. The audio editing is also often easier than video editing. Our hypothesis is that audio was used less frequently because it is less “sexy” because it lacks the visual element, and because it is often just a supplement to a story rather than a stand-alone media element. About half of U.S., U.K. and Australia newspaper websites had audio, while only about one in 10 Irish and New Zealand papers had audio.

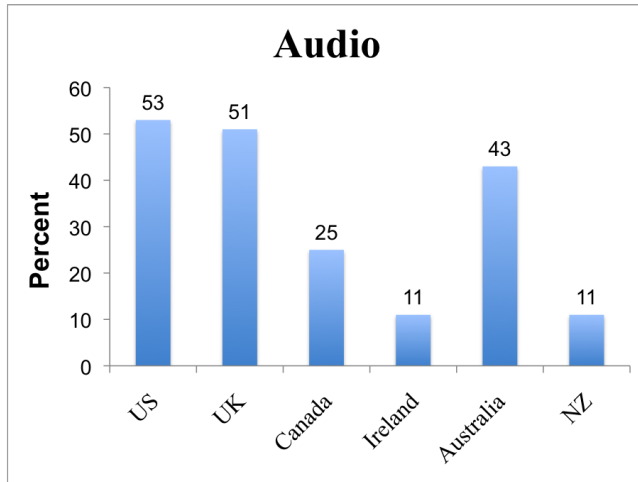


Figure 2: Audio

Photo galleries were the most common multimedia element. As alluded to before, photo galleries often require little extra expense, training, and work. The photo galleries allow readers to see more faces and get a broader view of an event, and the galleries also allow photographers to show off much more of their work than there is space for in print (and some newspapers use these galleries to sell photos and gain revenue). Approximately nine in 10 of the U.K. and Australian newspaper websites had photo galleries.

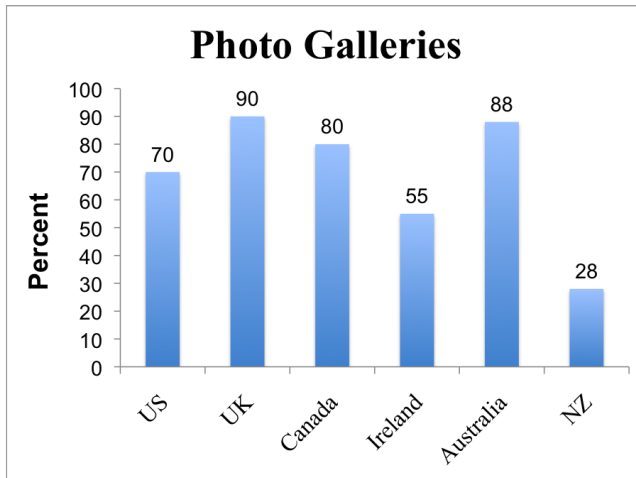


Figure 3: Photo galleries

The greatest amount of discrepancy between countries was with the audio slideshow feature. While half of the U.S. newspaper websites had audio slideshows, these slideshows were rarities in all of the other countries.

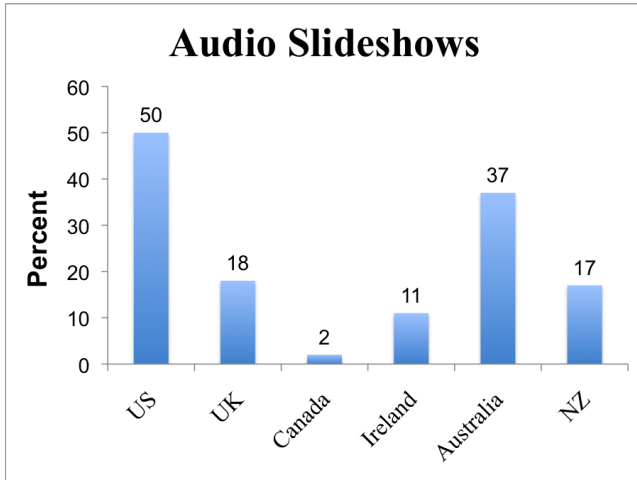


Figure 4: Audio Slideshows

Interactivity

The frequency of many of the interactive elements is the result of one of two things: the capability/programming of the newspapers' content management systems, and the desire of the editors/publishers to have those interactive features. For example, forums, comment capability, reader polls, and links to reporter email addresses/bios have been built into many CMS's. But, not all had all of those features in 2007, and not all newspapers have chosen to use/activate those features. For example, some newspapers have struggled with issues of libel, liability, and civility in forums and comments sections after articles and have chosen to eliminate or suspend those features (perhaps one reason why the 2006 Bivings study showed only 19% of large U.S. dailies had comments sections). With both comments and reader polls, Australia led the way, followed relatively closely the U.K. and the U.S. with Canada, Ireland, and especially New Zealand further behind.

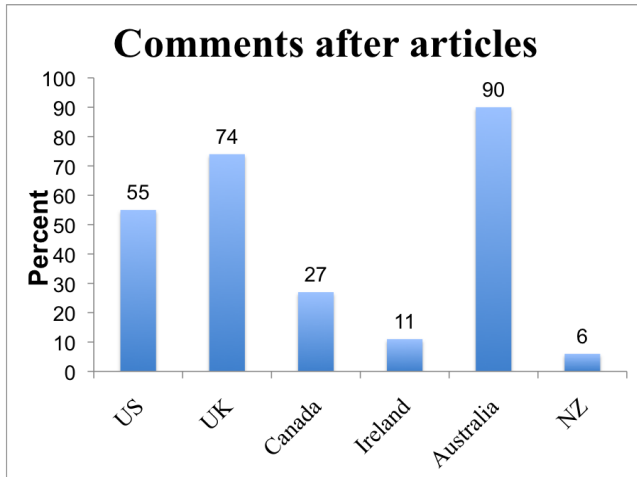


Figure 5: Comments after articles

Reader polls results continued a trend of having Australia in the lead — likely helped once again by the lag time between its 2010 study and the 2007 U.S. study — with the U.S. and the U.K. not far behind. Once again, Canada and Ireland were further behind, with half as many instances as Australia, with New Zealand again pulling up the rear.

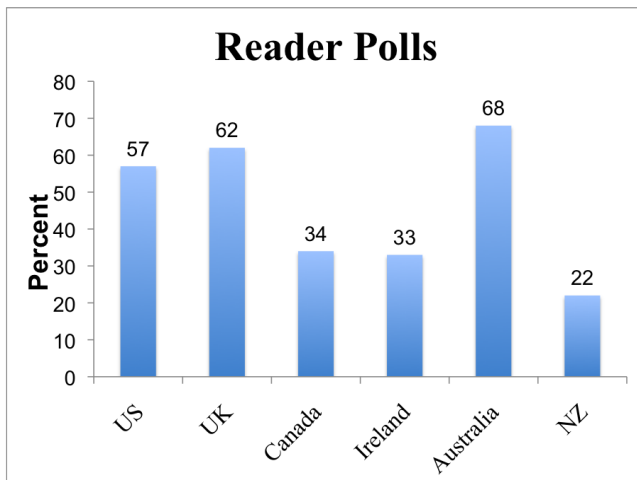


Figure 6: Reader polls

Email links to reporters (either a hyperlink or an email address provided at the beginning or the end of an article, not just in a directory) was a more unique category. Perhaps because of differences in culture or the status of the reporter, there was a huge gap between U.S. and the other countries, especially Australia and New Zealand.

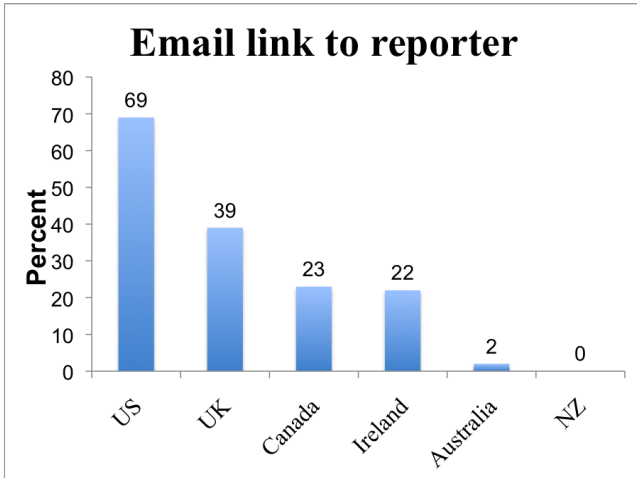


Figure 7: Email link to reporter

Blogs showed the most parity of almost all the categories. While many of the multimedia and interactive features showed wide differences between the countries, all of the countries except New Zealand had roughly 45-60% of their newspapers having at least one blog written by an editor or reporter and about 30% hosting reader blogs on the newspaper site.

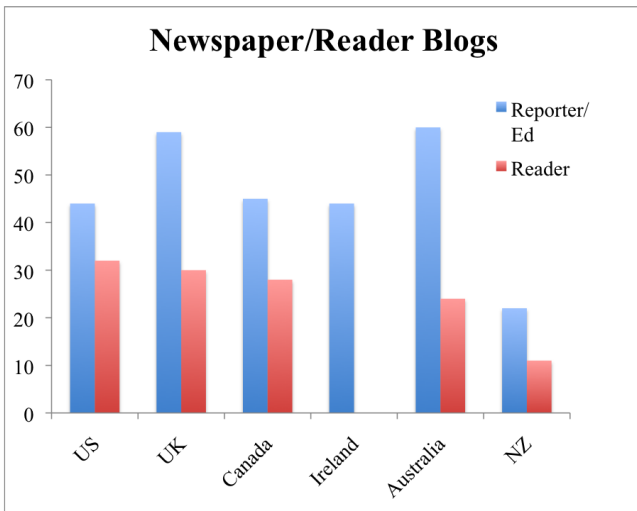


Figure 8: Newspaper/Reader blogs

In many ways, interactive graphics are the litmus test of how much the newspaper is pushing the convergence envelope. These interactive maps, simulations or quizzes are almost always created using Flash and require much more advanced training and costly software than the other multimedia and interactive elements. Typically only the largest newspapers have the resources to produce these pieces, and they only show up on about one-tenth as many newspaper websites as other multimedia features.

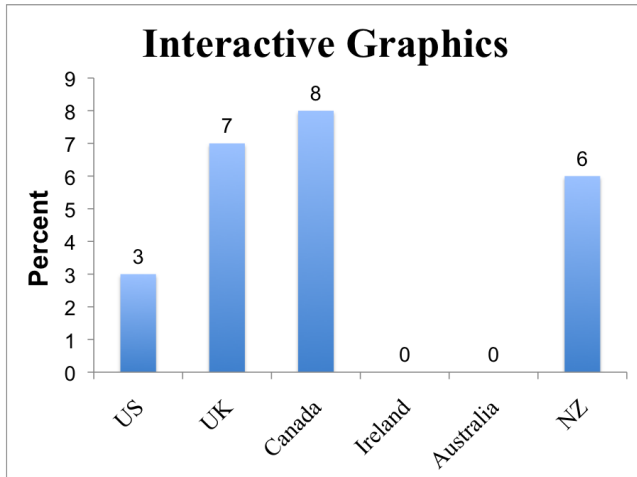


Figure 9: Interactive Graphics

Distribution

Distribution is a category that has become more vital since we launched the first of the studies back in 2007. While we looked at such categories as email digests (about a quarter to half of most of the newspapers used them) and searchable archives (most all of the newspapers had them), the focus now is about pushing the content to mobile devices and iPads. We did check for RSS feeds, which ranged from a low of 33% in New Zealand to a high of 92% in the U.K. A future study of newspaper websites in the countries will look at apps and these distribution elements more closely, as well as looking at the prevalence of paywalls, which were relatively rare at the papers in 2007/2008. We will also be revisiting PDFs and some countries' experiments with e-Editions and providing front pages of their print product. For the most part, the majority of newspapers did not provide their readers with a PDF of their front page, which is a bit surprising because many dailies around the world already submit their front pages to the Newseum website.

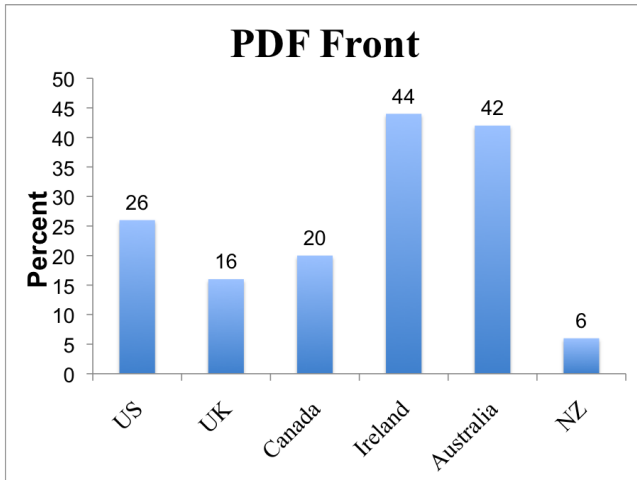


Figure 10: PDF distribution

Discussion

So, what accounts for the difference between the countries in their newspapers' use of multimedia and interactive features? First of all, it is important to keep in mind that the U.S. study was conducted in the summer of 2007, while the other studies were done in 2008 and 2010. So, the higher numbers especially in the Australian papers can be partly explained by that time gap. During that time, more and more newspapers across the world began adding multimedia and interactive features. Two other natural explanations can also shed light on the differences: computer ownership and broadband internet penetration. The more citizens that have computers, the more people there are who can view the newspaper website. In turn, the more viewers the website has, the more ad revenue there is to support convergent features and the more motivation the newspaper has to begin using these features. To some degree, there was a relationship between computer ownership and the convergent media features we found in our study. For example, New Zealand newspapers ranked last in its use of many key features such as audio, video, and interactive graphics, which is in line with its last place ranking among predominately English-speaking countries in this computer ownership graphic based on data from *Economist* (2008).

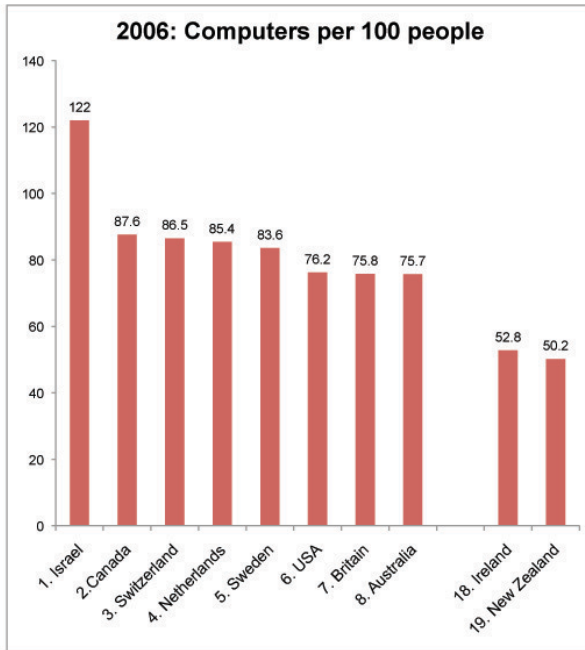


Figure 11: 2006 Computer Ownership

But, computer ownership is clearly not the only factor at work. Canada, for example, was second in the world in computer ownership, far ahead of the U.K. and the U.S., but when it came to multimedia features such as audio and video, Canada's numbers were less than half that of those two countries. Another possible explanation could be in broadband penetration. If most of the viewers are using dial-up, it stands to reason that the newspaper won't be committing resources to multimedia files that would take forever to download via the phone lines. A perfect illustration is Ukraine, which in 2008 had Europe's lowest level of internet access broadband penetration at 1.7%.

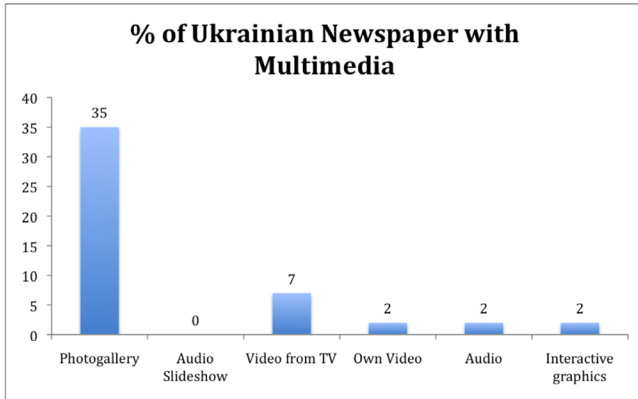


Figure 12: Ukrainian multimedia features

A study of Ukrainian online newspaper websites showed that only 2% were producing their own video, a fraction of the amount of the countries examined in this paper (Bergland and Nagorna 2009). But, while the U.K. did have the highest degree of broadband penetration — in line with its top rank of video on its newspapers’ websites — Canada’s broadband penetration rate was still higher than the U.S. at the time of the studies (note New Zealand is once again at the bottom).

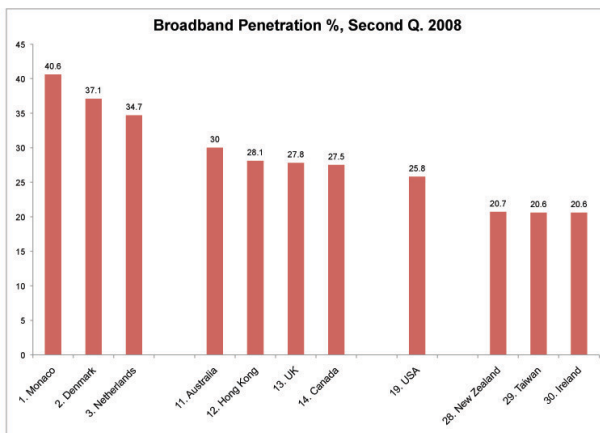


Figure 13: Second Quarter 2008 Broadband Penetration Rates (Point-Topic, 2008)

We can only speculate about other possible explanations. One might be the number of journalism programs with convergent media degrees feeding into those daily newspapers. According to Johansen, Weaver and Dornan (2001), Canada graduates only a fraction of journalism/mass communication students compared to the U.S. — 339 in Canada vs over 35,000 in 2000/2001 in the U.S. — and only has a few journalism

schools with convergent media degrees, although the authors note that Canadian students are more likely to receive non-university training and take courses in both broadcast and print. Many programs in the U.S. offer a major, minor, track or sequence in convergent media. Among accredited journalism programs, 31% of have a major or track, while 93% have at least required or elective courses convergence (Bergland and Hon, 2010), and even as far back as 2002, 85% of respondents at accredited programs in a Lowrey, Daniels and Becker (2005) study indicated their programs either had separate tracks or at least emphasized convergence.

Some other factors in the differences between countries could be the result of varying levels of:

- user expectations of multimedia/interactivity between countries,
- amount of multimedia/interactivity in competing newspapers,
- staffing levels at newspapers,
- financial obstacles and opportunities/financial health of the media industry in the country,
- and ownership models.

This last item is especially important in many ways. For example, in the U.S. prior to the 1996 Telecommunications Act, there were tight restrictions on owning both TV stations and newspapers in the same market, and the easing of those restrictions has had a significant effect on the merging of print and broadcast in several markets. In addition, the amount of chain ownership in a country—and the stress that chain puts on convergence—can have a profound impact on the multimedia and interactivity of its newspapers, and in the smaller countries, on the country's media landscape as a whole.

The biggest factor in whether or not a newspaper in our six countries examined had a certain feature or not was the circulation size.

Size of Publication

In spite of the differences in media ownership, broadband, computer ownership, culture, history, demographics, etc., the biggest factor in whether or not a newspaper in our six countries examined had a certain feature or not was the circulation size. This is not earth-shattering news, of course. Generally the greater the circulation is, the bigger the staff and the more personnel and financial resources to add multimedia and interactivity on the newspaper's website. At a newspaper in a small town with a circulation of 3,000 and only a handful of staff members, the chances of having someone with the time, skills and software to produce an interactive graphic are pretty slim. Taking audio as an example, one can easily see the difference between its occurrence at small vs. large circulation newspapers in Ireland and the U.K.

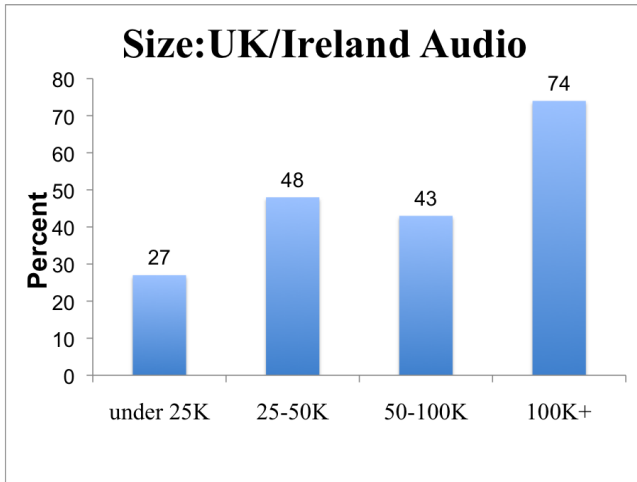


Figure 14: Impact of size on audio in U.K. and Ireland

The size effect for U.S. and Canadian websites is almost identical: 36% of U.S. dailies under 10,000 have audio, while 71% of papers over 100,000 have audio. In Canada, 19% of newspapers under 50,000 circulation have audio, compared with 44% of newspapers over 50,000. The breakdowns are similar for “harder” features like video and interactive graphics, while the differences are less pronounced for “easy” features like photo galleries.

Limitations

As mentioned in the Methodology section, our studies were not without their weaknesses. For one, the one-pass methodology provides only a snapshot of the newspaper on an average day, rather than a comprehensive view of what the newspaper might have done throughout the year. In addition, the U.S. study was only a random sampling, and therefore the +/-4.5% margin of error needs to be considered when comparing the results. One of the biggest weaknesses, of course, is the gap in time. While the one-year gap between the U.S. and the Canada/UK/Ireland studies is important but not a huge flaw, the three years between the U.S. and the Australia/New Zealand studies is very significant, especially given the growth in broadband and likely growth in newspapers’ use of multimedia during that time. Finally, because we were looking at many newspapers across multiple countries, our study does not delve into the impact of chains and media ownership within each individual country. Newspapers with the same ownership group often have the same content management systems and sometimes share stories and multimedia. Consequently, that ownership plays a big role in the multimedia, interactive, and distribution features we studied.

Future Research

With a multi-country snapshot of 2007-2010 newspapers like this, two logical paths for future research emerge: a 2012/2013 update and an expansion into different countries. We plan to do a complete analysis in 2012 and 2013 of the U.S. and all of the other dominant English-speaking countries. As for expanding our study into different countries, we have already begun that process, with Ukraine being one of the first countries analyzed. We have also begun work examining French, Spanish and Mexican newspapers. For readers who come from other countries who would like to conduct similar studies in their native lands, we would be more than willing to share more intricate details of our methodology, as well as our description of categories for coding and our spreadsheet templates.

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This research was originally presented at the 11th International Symposium on Online Journalism, in April 2010.

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Comments in News, Democracy Booster or Journalistic Nightmare: Assessing the Quality and Dynamics of Citizen Debates in Catalan Online Newspapers

Javier Díaz Noci, David Domingo, Pere Masip, Josep Lluís Micó, and Carles Ruiz

This study takes a critical and normative standpoint regarding public debate in order to approach the analysis of comments in news. Beyond the hype of discourses welcoming Web 2.0 as the rebirth of direct democracy, we argue for a performative analysis of online conversations in order to assess the actual quality of the debates promoted by participatory journalism. We complemented the analysis of over 36,000 comments in six Catalan online newspapers with in-depth interviews with online editors. Results suggest that the news websites fall short in fostering the quality of debates they say to strive for in their participation rules.

Introduction

News comments are the most popular feature for audience participation in online news sites. For citizens, it is a very simple way to react to current events and discuss about them, right after reading the story. For journalists it is a very comfortable way to open-up their websites to participation, as it frames the audience as audience and does not challenge the professional identity of journalism (Domingo et al., 2008; Hermida & Thurman, 2008).

While the attitudes of journalists towards audience participation have been already researched in Catalonia¹ (Masip & Micó, 2011), confirming the cautious and reluctant attitude found in other countries (Singer et al., 2012), there was no empirical evidence regarding the quality of the contributions of the audience, a crucial aspect to evaluate the significance of User Generated Content (UGC) to journalism. Professionals are usually worried about the hate-speech and lack of constructive discussions in news comments.

This study was motivated by a query by the Consell de la Informació de Catalunya, the Catalan journalism ethical board, that felt that scholarly research could help in determining adequate guidelines to foster the quality of audience participation in online newspapers.

This study takes a critical and normative standpoint regarding public debate in order to approach the analysis of comments in news. Beyond the hype of discourses welcoming Web 2.0 as the rebirth of direct democracy, we argue for a performative analysis of online conversations in order to assess the actual quality of the debates promoted by participatory journalism. Several scholars have pointed out that the internet fosters communication, but not necessarily fruitful political debate (Sunstein, 2002; Lin et al., 2005). We use normative principles based on the work of Habermas (1984) as a demanding benchmarking ground for comments in news. We believe this is a necessary step towards a rigorous assessment of user-generated content (UGC).

The other contribution of the project is to offer a mix of methodologies in order to achieve a multi-perspective approach that can provide a comprehensive understanding of the quality, dynamics and management strategies of comments on news. The triangulation of methods includes the quantitative analysis of comment dynamics, the quantitative and qualitative analysis of the content of comments, interviews with online editors regarding their UGC management strategies, and document analysis of the ethical and legal norms for audience participation in the studied websites. The sample includes seven online newspapers: *La Vanguardia*, *El Periódico*, *Avui*, *El Punt*, *Segre*, *Diari de Tarragona* and *Diari de Girona*. The first four print editions are distributed in all Catalonia, while the last three have a smaller regional target.

This paper presents an initial snapshot of the results based on a sample of 36,059 comments to 1,754 news stories collected in October-November 2009 and seven in-depth interviews. Quantitative content analysis to assess the frequency of terms indicating conflict or consensus was performed with adequate software. Discourse analysis was aimed at assessing the quality of debates based on Habermas' principles of communicative action. We evaluated if there was dialogue among participants, if they accepted the legitimacy of each other to contribute, if they adopted or backed the positions of others or, instead, attacked them or their ideas.

In order to interpret the results, we considered it crucial to understand the framework within which participation is happening. We analyzed the legal texts of the websites and the instructions to participants, if available. The online newspapers are very cautious and restrictive in their contracts with readers, trying to keep clear that opinions are the responsibility of each user. We also interviewed the editor-in-chief of the online newspapers in order to assess the motivations they had to open up their websites to audience comments, their management strategies and their perceptions regarding the quality of audience contributions and how do they change or challenge journalistic practices and values.

Literature Review

There is a growing scholarly literature researching active citizens participating in content production both outside (Jenkins, 2006), in the outskirts (Brunns, 2005; Allan & Thorsen, 2009) and inside journalism (Heinonen & Domingo, 2008). Recent empirical literature on audience participation in mainstream online news media addresses the implications of

the phenomenon from different angles, from the ethical implications (Singer & Ashman, 2009; Singer, 2011) to the attitudes and strategies of professionals (Thurman, 2008; Hermida and Thurman, 2008; Williams et al., 2010; Bergström, 2009; Bækker and Pantti, 2009; Singer et al., 2011).

Despite the fruitful approximations to the object of study, the actual dynamics of comments in news have been rarely analyzed. The work of Jürgen Habermas (1984) offers a fruitful departure point for a normative analysis.

Comments in news are usually part of these studies, within the bigger picture of UGC management. Reich (2011) provides a thoughtful overview of the literature and an analysis of the management strategies of twenty online newspapers in Europe and North-America. The online editors and community managers interviewed by him and his colleagues state that “comments are less thoughtful and more impulsive, shallow and aggressive than earlier forms of audience participation.” There were two main strategies to deal with comments in news: an “interventionist” one, based on pre-moderation (prior to publication) and taking more responsibility on the quality of the contributions, and a looser one based on post-moderation, that considers comments as a clearly separated space from news production. Reich predicted that this second option would become prevalent in the future, coupled with registration of users, as it requires less human resources, is coherent with the ideology of most journalists to consider audience contributions as a separate arena than news.

Despite the fruitful approximations to the object of study, the actual dynamics of comments in news have been rarely analyzed. And there is a need to go one step back and rethink theoretical frameworks in order to effectively assess the implications of citizen debates in online newspapers. The work of Jürgen Habermas (1984) offers a fruitful departure point for a normative analysis. His theory of communicative action strives to discover what elements make a dialogue rational, what moral principles enable democratic debate. Habermas points out several requisites for an ethical and rational dialogue. Discourses need to be truthful (speakers says what they think) and each of the participants has to acknowledge that others have the same right as him/her to make arguments to defend their points. Debates should be based on the principles of universalization and of discursive ethics: All the people affected by a collective decision should participate in the process and accept its outcome.

The rules for an effective debate are relevant to our study of comments in news, as they set a standard to which compare the dynamics of those discussions. First of all, they strive for coherent argumentation:

- Participants should not contradict themselves.
- An argument applied to a subject should be also applied to other similar subjects.

- Different participants should not use the same expression to define different things.

Second, they foster a collective search for truth, with the mutual recognition of participants as rational citizens:

- Participants should only say what they believe.
- If new ideas are proposed, their relationship with the issue at hand must be explained.

Third, they promote an agreement based on the best argument:

- Every person can participate in the debate.
- Every statement can be questioned.
- Every person can express their opinions, needs or wishes.

Research Questions

Applying these principles to our research object, by observing the debate threads in each of the news stories, we tried to answer three main research questions:

RQ1: Logic and coherence of the comments: Whether the speakers focused their contribution on the main subject of the debate and whether they supported their points with arguments.

RQ2: Cooperative research of truth: Although truth is a very elusive concept sometimes, we wonder whether the readers or speakers recognised each other and respected the other participants' point of view contributing to a dialogue and exchange of ideas. Again, we tried to explain whether there was a presence of insults or contemptuous phrases, both addressed to other readers or to the agents involved in the news items (people, institutions, media or journalists). We checked the presence or absence of different points of view and references to other readers' reasons.

RQ3: Outcome of an agreement based on the best reasons presented in the debate. Specially, whether the people intervening in the discussion agree on other people's reasons or whether they reinforce their reasoning by referring to some reliable information sources.

This would be the core aim of our study, to assess the democratic quality of comments in news. An insight of the motivations, attitudes and strategies of online newspapers regarding audience participation is the necessary context to interpret the factors that have shaped citizens' contributions to that public space.

Methodology

The research commissioned was limited to the online versions of seven Catalan dailies: *La Vanguardia*, *El Periódico*, *Avui*, *El Punt*, *Segre*, *Diari de Tarragona* and *Diari de Girona*. The sample is therefore based on a most-similar cases approach: online newspapers analyzed share the same media market and have the same background,

rooted in the print journalistic culture. This allows interpreting commonalities and differences as consequences of the different strategies for UGC each medium has set in place.

A holistic assessment of comments in news asks for a multi-method approach in order to evaluate not only the quality of the debates, but also the context that enables that debate: the audience participation management strategies of online newspapers and the legal framework they set up for such citizen conversations. The study involved in-depth interviews with online editors overseeing UGC management, reviewing the legal texts in the websites and quantitative content analysis and qualitative discourse analysis of a sample of comments.

Interviews were conducted the fall of 2009 inspired in the work of Singer et al. (2011). They focused on describing how comments in news are managed in the cases studied and assessing the attitudes in the newsroom towards audience participation and the motivations to develop UGC features. Interviewees were also asked to discuss the quality of contributions and how did they benefited or challenged professional journalism. Legal texts analyzed include the terms of service of the websites and the specific instructions for audience participation.

The sample for content and discourse analysis was collected between October and November 2009, constructing a composite week. We added an extra weekday to the sample for a total of eight days. Data was gathered at 8 p.m. CET and included the comments in the top story of the following sections: Homepage, Opinion, Politics, Sports, Most voted, Most read, Most commented. We collected 36,059 comments to 1,754 news items, or 4,507 comments a day as an average standard. The maximum volume of comments was on November 27: 6,425 comments (Figure 1).

Quantitative content analysis assessed the trends in volume of comments in news per section and a group of news items were also analyzed using specific software (LIWC and Concordance) for term-frequency analysis. This method allows us to check whether some words are more commonly used than others and link their use to the relations between comments and the commented subject. Frequency analysis was applied just to the most visited six news items of the sample, and to the first news item of the front (home) page of November 5, 2009, in order to carry on a comparative study that would be sensitive to both popularity of news and synchronicity. With this strategy we intended to get a varied sample from all sections and not necessarily ideologically related to the political and economical corruption cases which dominated the information panorama in Catalonia during those days. In the end, this part of the study was applied to seven news items, two of them taken from *La Vanguardia*, two from *Avui*, two from *El Periódico* and another one from *Diari de Girona*. The rest of the analyzed newspapers had not enough volume of comments to justify the application of this technique.

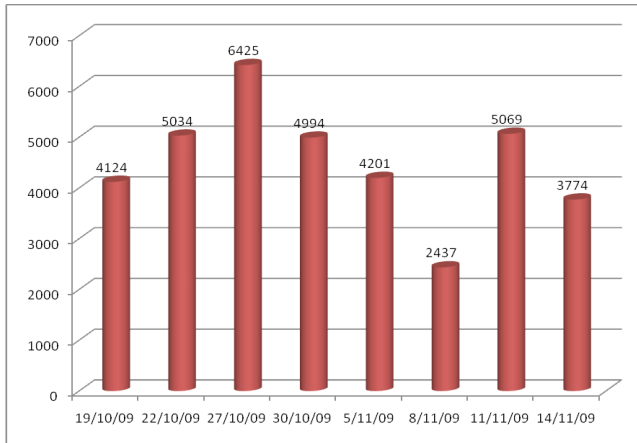


Figure 1. Volume of comments per day in the sample

This method considers for further analysis not any kind of words, but precisely nouns, adjectives and verbs, and the most repeated ones. “Empty words” such connectors, articles or adverbs were not considered. For every news item, we have been able to determine which are the main keywords of the debate. We looked for keywords and their variants, as it is quite usual to find words and phrases not written according to correct spelling. Words repeated more than 15 times were considered to be significant, but it depended on the volume of comments received in each item, so when comment were scarce the number of repeated words — the frequency, in fact — was modulated in relation to the general amount of not empty words present in that specific news item’s comments.

Term frequency allows for relatively easy identification of the main subjects treated on comments, but assessing what is the point of view of readers and the dynamics of debate is considerably more difficult, so qualitative analysis was used as well. Discourse analysis searched for such elements like the presence of dialogue, speakers’ mutual recognition, respectful treatment of the others, acceptance of other speakers’ reasons, etc. The sample for this qualitative analysis was chosen from two groups of news items: The first one consisted of the most commented news stories in all the media, actually related to the same subject: The imprisonment of some elected members of the municipality of Santa Coloma de Gramanet (the beginning of the so called Pretoria case), on October 27, 2009. The second one included the comments to the most read or most visited news item of each newspaper. If this news item was coincident with that of the first group (about the Pretoria case) we chose the second one. This allowed for a transversal comparison of the same topic among newspapers and also for a more diverse sample, the one based on the most popular items.

Results

Strategies for comment management

In their legal texts, online newspapers treat their users both as clients and as authors. They acknowledge that “the people formerly known as the audience” (Rosen, 2006) is now potentially a content provider for the website. The terms of service try to protect the media companies from the actions users may do within the websites, stating that all responsibility for those actions is solely for the user, whom will have to bear with any costs derived from legal suits to the medium. *Diari de Girona* is the most specific: “[The media company] won’t be held responsible for the opinions expressed by users through forums, chats or other participation tools.” The contracts with the users also state that media companies reserve the right to modify or delete content from the website. On the other hand, online newspapers require users that the material they contribute to the website is free of copyright (original) and that they grant permission to the media companies to use it without any compensation.

In their legal texts, online newspapers treat their users both as clients and as authors. The terms of service try to protect the media companies from the actions users may do within the websites, stating that all responsibility for those actions is solely for the user.

Most online newspapers determine what UGC is not appropriate and therefore subject to be deleted. This includes defamation, obscenity, racism and discrimination but also insulting, menacing and promoting illegal activities. Pretending to be someone else, sending commercial advertisement or personal data (telephone numbers, e-mail addresses) is also prohibited. In some cases, such as *Avui*, there is as well a description of the kind of contributions they expect: Users are invited to share their views while staying on topic, and avoid responding to provoking comments.

Despite these principles, our content analysis has detected contributions that do not respect them, especially in the websites with more traffic. Therefore, it is relevant to enquire about the management mechanism for comments in news. Technical solutions, such as software filtering keywords, may not be very effective, as many contributions are offensive without using obscenity. The complexity of semantic constructions is usually out of reach for software filters.

The attitudes among online editors regarding UGC are very diverse, ranging from prudence to enthusiasm. These attitudes end up defining management strategies that clearly shape the nature of audience participation, as they set a framework that exerts more or less control upon the contributions. Management strategies are not neutral: They have specific intentions and tangible consequences. In order to understand the motivations of online newspapers to open up news to audience commentary, it is necessary to explore what are the expectations of the online newsrooms towards the

benefits of UGC.

All the interviewees agree in seeing audience participation as an internet feature, intrinsic to the technology, and a wish of the users. At *El Punt*, they took it for granted in the 2009 redesign of their website: “Nowadays, an online news site without participation does not have the same appeal or reach” (*Diari de Girona*). Even in the case of *Segre*, where comments in news was disregarded as a feature after facing legal problems, they acknowledge the importance of audience participation and have created a dedicated section for user contributions.

There are two perceived benefits of UGC: economic and journalistic. Each interviewee highlights one or the other. At *La Vanguardia* they consider “endless” the benefits audience participation in both facets:

To start with, it fosters user loyalty, which is crucial on the internet, as users jump from site to site. If we are leaders in this strategy, that makes the user the protagonist of news, that makes them feel useful and influential, this makes *La Vanguardia* more useful and influential as well, boosting audience ratings and revenue. [...] For journalism, it is clearly positive. Readers have always been a news source for journalists. Now, they have even more options to let us know what is going on.

There are two perceived benefits of UGC: economic and journalistic. Each interviewee highlights one or the other. To start with, it fosters user loyalty, which is crucial on the internet, as users jump from site to site.

This enthusiasm is coupled with a very optimistic attitude towards the management of comments in news. The volume of comments (they have the most of all media analyzed) is not overwhelming for them, while other newsrooms feel that volume is precisely the reason that puts quality of contributions at risk: “Open comments can discredit your brand” (*El Periódico*). At several online newspapers the editors argue that quantity should not be the aim of comment management. For them, quality should be the main priority and admit that their human resources are too limited and force them to adopt strategies that limit participation in order to avoid being overwhelmed. “We prefer few but qualified contributions, than a lot without any quality. [...] Our users deserve respect whatever is their opinion, [comments in news] should not be a trench” (*El Punt*).

At *El Periódico* the UGC feature was seen as a costly investment (an effort involving scarce human resources) rather than a source of revenue. Instead, at *Diari de Girona*, they saw a direct benefit in the “increase of visits, unique users and user loyalty” after starting to allow comments in news. That was not the case at *Segre* in the few months they opened up for comments. Journalistic benefits were acknowledged by most of the interviewees: “Participation means that we can better know if what we produce meets the [audience] expectations” (*El Punt*). It is a way for journalists to keep track

of audience interests. Online staffers tend to be more keen to see comments in their stories, while print newspapers have mixed feelings. At *El Periódico* reporters “do not feel threatened [by comments], they like that people comment on their story.” “We now have more sources, it is more work, but that’s good news!”, argued the online editor at *La Vanguardia*. At *Segre* they defend that audience participation should be incorporated in the news production process, be an input that ends up even in the print edition. “To have loyal users they need to feel useful.” They do not believe that comments in news give that value to UGC.

Despite that the legal framework is the same for all media, perceptions on legal problems of comments in news vary among online newspapers. At *Diari de Girona* they feel that jurisprudence is “confusing and diverse.” At *Segre*, based on the experience of a legal process against them for a comment in a forum of a subsidiary website, are very cautious: “We have a responsibility on content and comments, there is no doubt about it and that constrains our decisions.” Therefore, as they do not have enough human resources on the online team (with just one journalist fully devoted to the website) to guarantee a thorough monitoring of contributions, they prefer not to have comments in news. Instead, *La Vanguardia*, *El Periódico* and *Avui* considered that the legal framework was not problematic: If they are prosecuted, they will collaborate with justice to identify the author of the abusive comment.

Nevertheless, comments are the most popular UGC feature in these online newspapers, and the only participation feature besides polls in some of them. Participation has grown over time, for example from 800 comments a day in 2006 in *La Vanguardia* to 8,000 in 2009. This was the first Catalan online news site to open up comments in news. In 2006 they redesigned the website and created a team in the newsroom solely devoted to UGC management, with many other features such as user blogs. The other online newspapers added comments in news between 2007 and 2008 and *El Punt* was last in 2009.

Moderation strategies have changed over time in some cases. At *El Periódico* they started off without requiring registration to comment, but they switched to a more restrictive policy when they realized that abusive comments were overwhelming their ability to moderate. “We now have less participation, but also less problems.” At *Diari de Girona* they decided to outsource the moderation of comments, as the newsroom also felt overwhelmed. *Avui* switched to requiring registration to contribute after the company was bought by the owners of *El Punt* and their policies were applied.

Attitudes clearly shape the management strategies and the human resources devoted to UGC. At *La Vanguardia* four people work full time and their optimistic attitude is materialized in post-moderation that does not require pre-registration to comment in news. This is the most open strategy, and the one that more volume of contributions generates. They rely on the audience to warn about abusive comments, and also intend to expand the participation team in the future. *Avui* devoted the six journalists in the online newsroom to do post-moderation. As it is an added task to news production, they also rely on the audience and the print newsroom peers to detect abusive comments they may have overlooked. *Diari de Girona* does pre-moderation without registration, as

the outsourcing allows for a systematic control.

Other media require registration. It is the case of *Avui* since January 2010, but also of *El Periódico* and *El Punt*. They require the national identification number of the citizen, full name and telephone. “An opinion is as important for what you say as for who you are. Anonymous comments are less valuable. Debate is watered down, and those who want to contribute end up just being spectators of quarrels” (*El Periódico*). They argue that registration discourages abuse and they can afford to review comments just every 2-3 hours as part of the many other tasks of the online newsroom. In sensitive news they can activate pre-moderation or deactivate comments altogether. *El Punt* has a journalist from the paper Opinion section reviewing comments in news four times a day. *Diari de Tarragona* opted for the most restrictive option: pre-moderation with registration. They feel that it would be irresponsible to let users comment in news over night without any filter. Therefore, comments are only published during the shifts of the two online journalists devoted to produce content for the website.

Most online newspapers consider that comment moderation should not be left in the hands of the audience, because they would end up censoring comments they do not like even if they comply with the participation rules. “We have a very diverse readership, and if they are partly in charge of moderation other users may feel attacked” (*Diari de Girona*).

The perception about quality of contributions also seems to be very much influenced by the attitude of the newsrooms. At *La Vanguardia* they opt for a very relativistic attitude: You find all kinds of comments, but most of them are valid. How can journalists decide what is best or worst, besides of insulting or abusive comments? [...] Shall we shut it off just because a minority abuses the feature? No, we have to foster it, take advantage of it to grow as a news medium and be responsive to a social demand.

At *El Punt* contributions are very much appreciated: “We have few comments, but they are from people that really have something to say.” Other media are much more critical with what they get: “[Comments] are usually driven by passion, hatred or feelings of agreement or disagreement with a topic. Not much thorough reflections or the intention of contributing new data” (*Diari de Girona*). At *Avui* they do a bittersweet evaluation: “Most of comments have little value, and we only care to delete them if they may bother someone. But, amongst the buzz, there are contributions which are interesting, curious, funny.”

Interviewees agree that participation will keep growing in the future, and still feel uncertain regarding the best strategies for UGC management, to foster quality and prevent it from affecting their media brand.

At *Segre* they argue that stricter criteria are to be put in place if the aim is quality of comments: “You cannot sell as a debate a collection of insults.” At *El Periódico* they

blame advertisers pressure for online media to increase their audience stats as the reason for relaxed quality standards in comment management in some news sites. “This cannot stay like this forever. [...] The audience should be more demanding.”

Interviewees agree that participation will keep growing in the future, and still feel uncertain regarding the best strategies for UGC management, to foster quality and prevent it from affecting their media brand. “This is a brand new area, we have to keep exploring it, being careful that we do not banalize our work giving away too much power to users” (*Diari de Girona*). “We can’t let the beast dominate us, we don’t want to die out of success” (*Segre*). At *La Vanguardia*, future looks brighter: “We want users to feel that the medium is theirs, that they are actors not mere spectators, and that they can help us to improve everyday.”

Quantitative analysis of comments

News items of the seven digital sites received an average of 20.6 comments each. Needless to say, variation is great amongst media. The volume of comments is more modest in local media, and much greater in metropolitan –or national, in Catalan terms– media, like *La Vanguardia* or *Avui* (Figure 2). Political affairs (imprisonment of the major of a town near Barcelona, Santa Coloma, accused of corruption) received no less than 871 comments from 11:20 a.m. to 8 p.m. in *La Vanguardia* and 560 in *Avui*.

The section where most comments could be found was systematically Politics (53.18% of all the comments). Second was society (14.43%), opinion (8.79%) and sports (8.46%) (Figure 3). Politics is, as well, the section where most news items were published: 31.5% of the analyzed news items come from this section. Second are sports news: 24.1%, and third, *ex aequo*, society and opinion (17% each).

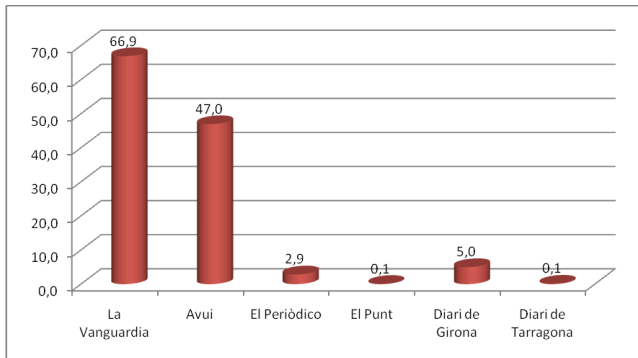


Figure 2. Distribution of comments of the sample among Catalan online newspapers (%)

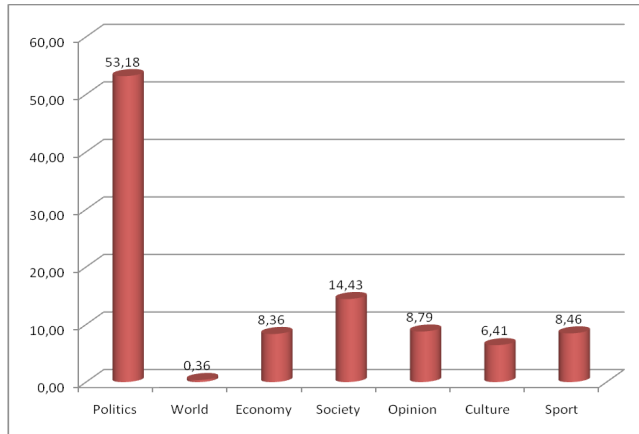


Figure 3. Comments per section (%)

Nonetheless, a relevant difference is to be found calculating the number of comments per story in each section (Figure 4). Economy is the subject that receives more comments (48.6 as an average per item). Politics (34.7 comments per item) and Culture (32 comments per item) are next. Relevance of Economy is, however, to be relativized, since the appeal of this section in our study is given by the importance of just one news item published by *La Vanguardia* that received alone 1,640 comments (45.9% of all the comments of this section). Without this item, the average of comments per news item in Economy is just 22.16.

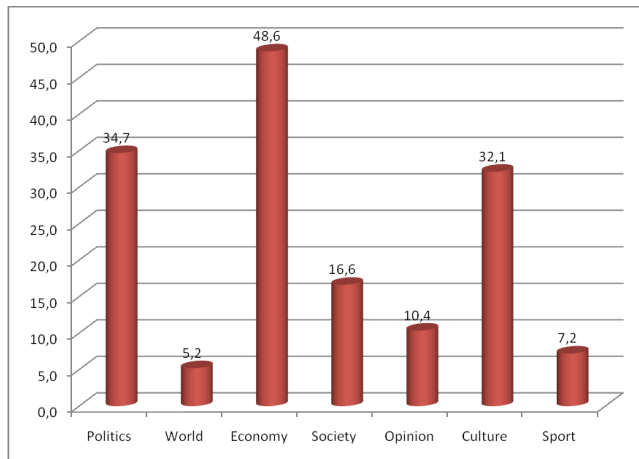


Figure 4. Average of comments per item and section (number of comments)

Term frequency analysis showed that insults are rare –since comments are, in some way, moderated by media or removed when considered inappropriate–, but words

showing disdain towards newsmakers (mainly politicians) are widespread. Insults are more commonly found at *Avui*, where in the analyzed period comments were mainly removed by readers themselves –in 2010 this strategy changed. Accusations of censorship were widespread in the comments of (specially political) news items of *El Periódico*, which had a more restrictive moderation policy.

Words related to political and economical corruption were very present at *La Vanguardia* (and in the other newspapers as well), specially referred to the fraud accusations towards the ex-director of an important cultural institution in Catalonia, the Palau de la Música [Palace of Music]. The most repeated word is “shame” –most probably, a predominant sentiment of Catalan society those days. This disdain or contempt related terms are addressed to the actors of the news items or institutions closely related to them such as political parties, the judicial system and also the news media, including the outlets where comments are published; in every case, the recipients of these attacks are always identified as “the enemy” (Spaniards for the Catalan nationalist audience of *Avui.cat*, conservative citizens and politicians for the leftist audience of *El Periódico*, and the socialist government and their political allies at the conservative *La Vanguardia*).

Qualitative analysis of comments

The eleven news items on which we conducted discourse analysis included 1,976 comments, signed by 1,417 different nicknames. Due to the identification system of the authors used by media it is not possible to determine whether they correspond to 1,417 different persons, or, as it may be guessed, in some cases one person used more than one nickname.

Most (83.65%) of the users (or, if preferred, most of the individual nicknames) sent just one message (Figure 5). It is obviously quite difficult to have a real conversation when everyone participates just once and then quits the debate. Just 8.32% of the nicknames detected are used twice. The number of people that takes part in the discussion more than twice is really poor. A couple of times, both of them in *Avui*, there were two people that sent more than 25 comments. On the other hand, the newspapers that produce more comments are those that have a greater number of commentators.

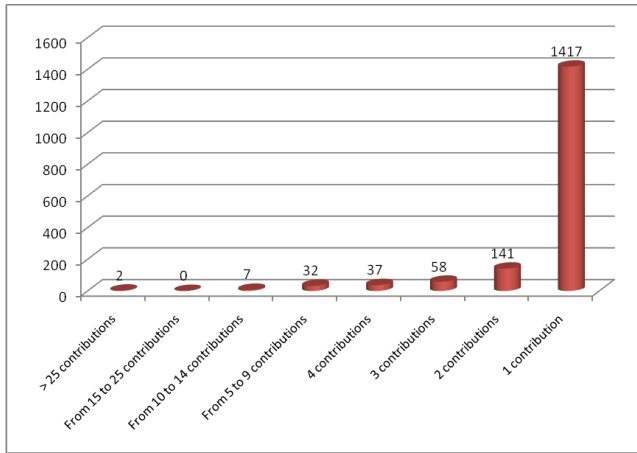


Figure 5. Number of contributions per user in a single news story

Generally speaking, participants in conversations tended to focus on the subject of the news story they commented on, at least if we consider the topic broadly (Figure 6). In some cases, a specific story opened up a debate on the trustworthiness of politicians or on immigration policies. It is even more exceptional to find conversations in which some participants express a different point of view from the hegemonic one. Even when it happens, those minority comments seem to have no effect on the hegemonic position of the debate (Figure 7).

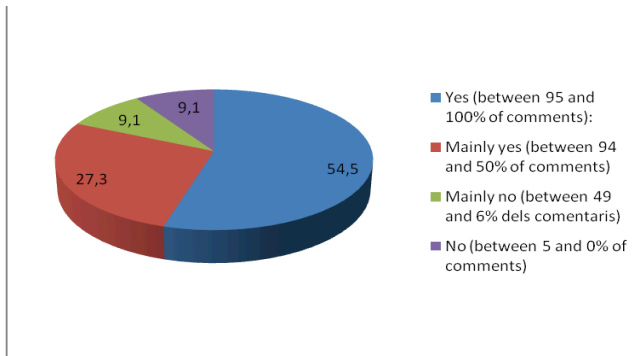


Figure 6. Do users focus their comments on the subject of the debate/dialogue?

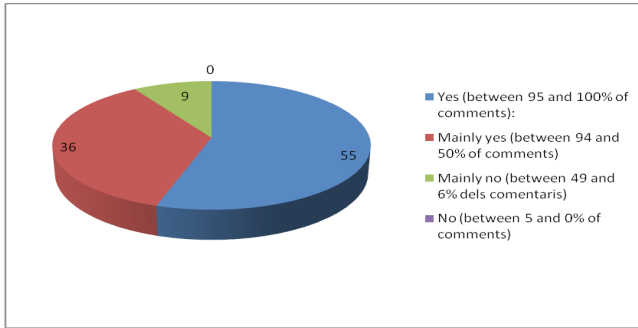


Figure 7. Do users focus on the subject and offer different points of view?

In terms of insults and disdain in comments, participants showed respect for others' opinions most of the time (Figure 8). They tended to contribute criticisms reacting against the opinions of other users, almost contributing any arguments to back their position. Asking other people participating of the discussion for further explanations is not usual at all (Figure 9). More than 50% of the contributions are just bitter criticism, pejorative in some cases. Therefore it is not strange that few people accept other users' reasons (Figure 10). Even more strange is to see users adopting others' arguments in their own reasoning or developing them further (Figure 11). On the other hand, the few questions addressed to the journalists that produced the news are never publicly answered.

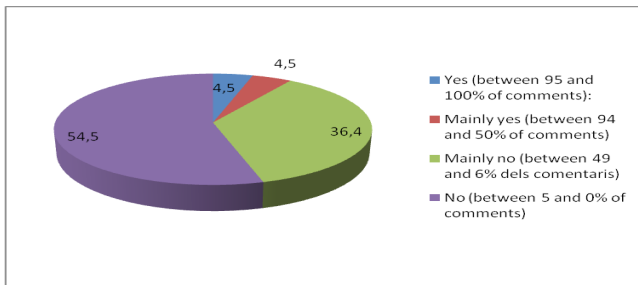


Figure 8. Do users insult or disdain in their comments people or institutions related to the news item?

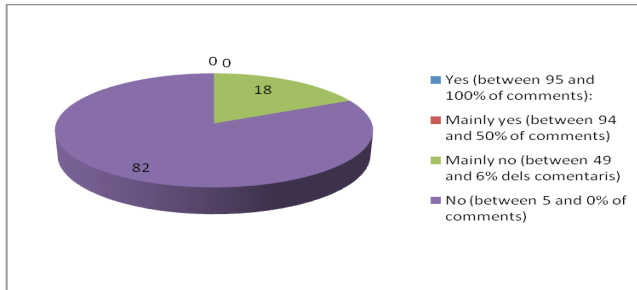


Figure 9. Do users ask other people in search of further explanations?

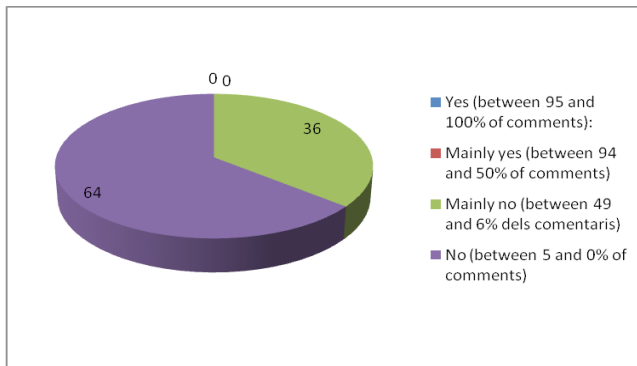


Figure 10. Do speakers show any interest towards the reasons introduced by other people?

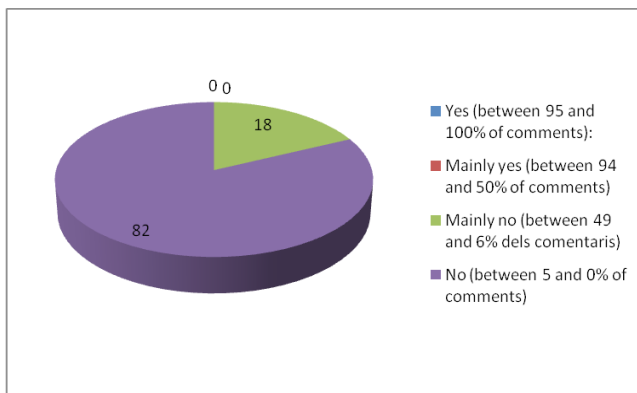


Figure 11. Do speakers accept or develop other people's arguments?

Participants in the discussions do not often mention complementary information sources to complement, clarify or strengthen their own point of view or to correct or support other people's arguments. When it happens, the precision of the reference is not the rule. References are usually quite general and with no rigor. Deviation of the conversation

towards promotional or advertisement elements is also common when references are offered.

Conclusions

The discourse analysis demonstrates that comments in news are not fostering a democratic dialogue. They hardly meet any of the Habermasian principles. The fact that most users make a single contribution is a first drawback, but also the lack of respect for each other, the lack of diverse perspectives or the lack of mature arguments. The majority of comments are not abusive, but they are neither fruitful contributions to a rational debate. It is relevant that the opinion section, the most natural to foster reflections, does not receive the most comments: Politics and economy (and society in the local outlets) concentrate most reactions.

The motivations of Catalan online newspapers to open up news to user comments are economic and journalistic, but the perceived benefits are far more tangible in the first case: user loyalty and increased audience figures. Journalistic benefits of comments in news do not revert directly in the news production process. Interviewees acknowledge that they can know their users better through their contributions, but use other channels for newsworthy inputs.

The main problems online editors see in user comments are related to the legal responsibility of the company if users commit abuse and the risk of being overwhelmed by UGC management. The main appeal of comments, their popularity among users, becomes the main source of trouble for media companies. Interviewees point out lack of human resources as the most common limitation for effective comment moderation in most newsrooms.

Participation norms and legal frameworks in the studied online newspapers aim to guarantee comments in news that are compatible with the principles and values of democratic societies. Users are implicitly subject to these norms from the very moment they start surfing the website, but in many cases the legal texts are not easy to find. The problem is not a lack of principles, but a lack of commitment from the media companies to guarantee that users comply with them.

From an ethical normative standpoint, the ideal situation would be that comments would be moderated before publication, so that only those that comply with the legal framework would be actually posted on the websites.

Most online newspapers have human moderation after comments are published, in some cases with the collaboration of the users to report abuse. From an ethical normative standpoint, the ideal situation would be that comments would be moderated before publication, so that only those that comply with the legal framework would be actually

posted on the websites. This puts a big burden to the newsrooms in terms of human resources, but may be the price to pay in order to guarantee a democratic debate. Online newspapers have mainly incorporated comments in news as a strategic business decision: They are popular among users and therefore a good way to foster their loyalty. Only after deploying this UGC feature have they realized how burdensome is the management of contributions. This is not a criticism to a legitimate business strategy, but to the weak ethical commitment of the newsrooms to guarantee that the participation rules they have set up are respected.

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Endnotes

1. Catalonia is a nation without state in the North-East of Spain. It has its own culture and language, and a vibrant media market.

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Being a Journalist Within the French Regional Press in the Web Age. The Example of the *Dauphiné Libéré*

Maria Holubowicz

The technological revolution's effects can be felt today in the French regional press sector. Facing new competitors, French regional daily newspapers need to reinvent themselves to face up to an uncertain future, for which there is no long-term viable economic model. This is the case of Le Dauphiné libéré (DL), a large daily paper in southeast France, which is trying to enter the era of digital news by launching GREnews, an information-based, multi-level platform available in the city of Grenoble. But the new tools affect the practices of journalists, and affect the perception of their professional roles while working for this multimedia platform.

Introduction

French regional daily newspapers have been family-owned businesses for a long time. Much smaller than the German or British press companies, French dailies have suffered from chronic undercapitalization and insufficient profits that have slowed down their modernization. The arrival of big media groups in the sector in the 1970s, such as Hersant Media Group and Hachette Book Group, with their more rigorous management methods, forced regional press daily newspapers to reexamine their business operations.

Faced with competition from free newspapers, which slightly decreased overall advertising revenue, with regional press readership becoming older, and with the general decline of newspaper sales, these consolidation efforts were insufficient. (Martin, 2002) The technological revolution, specifically new digital tools and the Internet, provided multiple sources for regional information. This has affected the French regional press sector, which had been relatively preserved in comparison to national print media before wide use of the Internet.

Today, due to these factors, regional daily papers (*presse quotidienne régionale* - PQR) need to reinvent themselves in order to face an uncertain future, for which there is no long-term viable economic model.

PQR journalists are very concerned by these developments. We wanted to know how journalists are coping with the new electronic era, at both a practical and philosophical

level. How is it affecting their behavior and professional practice? We also wanted to understand the changes for traditional newspapers following the adoption of new electronic technologies, and try to understand the impact of these changes on professional journalistic practice.

To answer these questions, we chose *Le Dauphiné libéré* (DL), a large daily paper in southeast France, and focused particularly on one of its new Internet-based projects, *GREnews*. *GREnews* is an information-based, multi-level platform available in the city of Grenoble.

For this, we conducted semi-structured interviews with three members of the *GREnews* writing team, as well as Jean-Paul Fritz, the head of the New Media Department at DL. The objective of the interviews was to get a sense of their professional role and their position within the company, as they saw it. We also wanted to know if their work within multimedia platforms and new technologies had altered their perception of the purpose of a professional journalist. This sociological survey was completed by analyzing the factors behind the creation and development of *GREnews* and by analyzing the product itself.

***Le Dauphiné Libéré* and the Strategy of Diversification Via New Media**

Le Dauphiné libéré is a regional daily paper that covers nine French departments. It has a daily circulation of around 250,000, and for most of its existence has known the same ups and downs as its competitors. It was born from the French Resistance movement after WWII, and was originally a family business that fell into the hands of large publishing conglomerates. First taken over by Robert Hersant in 1983, it was later purchased by the EBRA group ("East Burgundy Rhône-Alpes") in 2006, which had been established by Mutual Credit Bank.

The *Dauphiné* benefited from a virtual monopoly in its distribution area, and was practically the last big French daily newspaper to invest in web products. Its site was launched only when the situation forced change in 2005. Confronted with greater competition from new players and new technologies, as well as with the constant decline of its aging readership, *Le Dauphiné libéré* was forced to react.

The first attempts at diversification onto the Internet can be traced back to the middle of the 1990s. *Le Dauphiné libéré* tried to create a niche online business named *Dauphiné Network Services* (DNS). The attempt failed, however, and this happened elsewhere to similar newspapers, simply because the public was not ready to embrace the online revolution at this stage.

The next attempt by daily papers to take their position on the net, more than a decade later, was more successful. It started with the creation of a participatory site for the French presidential elections in 2007. Launched on February 12, 2007, the site mixed journalistic information with interactive feedback. Internet users could publish their own comments without preliminary moderation. This experiment ended with the presidential

election, but was successful enough to inspire other similar ideas.

Grenews, a Multi-Platform Media

In February 2008, *Le Dauphiné libéré* launched the tri-media *GREnews*: a free weekly paper, a website, and a daily web cast news channel. Given the general situation of print media at the time, the development of new media projects became a major economic investment for the *Dauphiné*, as Patrick Peltier, chief development editor for the newspaper, explained. (www.ledauphine.com, 2008, February 6) At the beginning of the project, the team consisted of just nine people: an editorial coordinator, three multimedia journalists, a photo-video journalist, and a team of four to produce the news webcast. An additional person was also responsible for advertising.

The diversification of *Le Dauphiné libéré* to these new platforms was specifically designed to seduce a younger audience (between 18-35 years), most of which had been avoiding traditional newspapers, in particular the regional dailies. Younger readers believed regional newspapers were not taking enough interest in their lifestyle and how they had come to consume news – mostly online. *GREnews* weekly and grenews.com decided then to base the news around entertainment and sports programs, designed to appeal to young, urban people from the Grenoble area. It is worth stressing the demographics of Grenoble, because it prides itself on being a “young” city. It is home to about 60,000 students, who represent almost 50% of the “intra-muros” (metro-area) population of the city.

The diversification of Le Dauphiné libéré to these new platforms was specifically designed to seduce a younger audience (between 18-35 years), most of which had been avoiding traditional newspapers, in particular the regional dailies. Younger readers believed regional newspapers were not taking enough interest in their lifestyle and how they had come to consume news – mostly online.

In addition to the journalistic content (articles, files, slide shows, videos) housed on the site, the electronic version of *GREnews* (grenews.com) places an important emphasis on facilitating reader participation using the interactivity of Web 2.0 technology. This includes linking to social-networking sites (Facebook, Myspace) and content-sharing platforms (YouTube, Dailymotion), and highlighting the increasing value of reader comments, mini-polls and votes, on things from sports personalities to politicians. All of these are used to increase active online interactions. The “young” character of the site is heightened by various design elements, such as video testimonials from users, and by the language used, in particular the language in poll questions. The objective is to create loyal communities at various points around the site, although at the moment, the editorial staff has no money to accomplish this objective. The site has between 1,500 and 3,500

unique visitors a day.

Specializing in hyper-local information, *grenews.com* obviously appeals specifically to the region. Its creators hope, however, to increase users from across France with “search traffic,” which is currently quite low due to a lack of sufficient referencing. Grenoble is considered to be a center for new technology, and is situated in the heart of the Alps. GREnews hopes that information from Grenoble will interest not only the local inhabitants, but have a wider regional and national significance.

The free 30 page weekly *GREnews* reproduces some content from the website. It distributes 40,000 copies every Wednesday to around 800 points throughout the city. According to Peltier, *GREnews* would have generated a profit in its first year of 500,000 Euro (AFP, 2008, December 2). Head of New Media Jean-Paul Fritz claims this has put the company back into profit. He admits, however, that they had to give up incorporating daily television news on *grenews.com* because it was too expensive to produce. He also admits that the online success would not have been possible without the backing of the printed newspaper. It also helps that *Le Dauphiné libéré* was already a well-respected news organization, without direct competitors in their region, and is a member of the biggest regional press conglomerate in the country. As additional proof of the power of a big player, there has been a recent disappearance of the only direct competitor to *GREnews*, another free weekly called “*Grenoble and I*.”¹

Other DL Experiences on the Internet

This formula of a website plus free printed weekly was created in October 2008 in Avignon, south of the distribution area for *Le Dauphiné libéré*. Here there is a daily paper *Vaucluse Morning*, a local version of *DL*. The context is however very different because Avignon is a city of only 160,000, and *Vaucluse Morning* is faced with competition from another daily paper, *La Provence*, owned by Hersant Media Group.

A similar experiment was tried in Annecy, a city of more than 50,000 inhabitants in the northern French Alps, beginning in December 2008. A website was started there under the name of *Arvinews*, but continued only five months due to the lack of a sufficiently large enough market.

Le Dauphiné libéré group also created a multimedia product dedicated to skiing: the *Ski Stopwatch*, a subscription-based magazine with seven issues per year, plus a corresponding website launched at the end of 2006.

Jean-Paul Fritz insists, however, that *DL* has no predetermined new media strategy other than successive trials to see what works. Other journalists of *GREnews* hold the same views, without going into details. This is not surprising because strategic company information can be confidential. These assertions give weight to the observations of Yannick Estienne, author of a book on professional practices in Internet journalism.

Estienne writes, “Online journalism works as a laboratory where a whole journalistic generation, accustomed to new media, experiment with new ideas and their profession.” (Estienne, 2007, p. 291) The next evolution will need to improve upon what already exists, as well as optimizing all the means available within the entire EBRA group. So, the *DL* website is soon going to upgrade to a new software version, putting it onto the same platform as *Le Progrès* and *L’Est Républicain*, two other newspapers of the EBRA group. The mobile phone market, which is still not yet mature, is not a concern at the moment as a potential new project of the *DL*. On the other hand, the “mother newspaper” is also preparing to jump to a multimedia platform by training editorial staff to use web tools.

The online journalism works as a laboratory where a whole journalistic generation, acclimated in the new media, experiments the another relationship to their profession.

So, who are the models for this online news evolution? Jean-Paul Fritz says they are English papers. *The Guardian*, based in London, generates worldwide traffic on its website. To paraphrase Fritz: “This relatively small British national newspaper has everything online: the navigation is magnificent, the basic graphics are superb, podcasts work well and their iPhone application is excellent”.

Patrick Peltier, the chief development editor at *Le Dauphiné libéré*, said at the beginning of 2008 that the group’s objective was to make it so that products other than the daily newspaper should represent 50% of the profit figure in the space of five years. (Tribune, 2008, February 6) He did not specify if that figure is for the entire EBRA group or only for *Le Dauphiné libéré*.

Being a *GREnews* journalist

After the site’s news webcast was abandoned, the *GREnews* editorial staff consisted of barely three journalists in March 2010. This is an insignificant number compared to more than 250 journalists working on the *DL* main desk at the same time, with around 40 journalists in Grenoble alone. Added to those three editorial journalists, *GREnews* employs four local correspondents, as well as some students from the local school of journalism who have a partnership with the company. The supervision of the students is part of the tasks of the editorial staff. To explain the lack of an editorial staff on *GREnews*, one of our interviewees accuses the company’s profit motive due to the gloomy prospects in the print media.

Continuity in Stimulating Environments

Three *GREnews* journalists came from the *DL* desk. They followed classical professional paths to enter the regional press: an internship, a period as a local correspondent, recruitment under a limited-term contract, and working at a local agency before being

promoted to the central desk. None of them graduated as a journalist, or did any specific training course in web techniques before being hired. All of them said they learned on the fly, as one goes along, just by working on the job.

They are all about 30 years old, and close in age to that of their target readers. Their personal qualities were a determining factor in their recruitment for this multimedia project. This may be even more relevant than any master's degree connected to the web, as three members of the editorial staff confess freely. Only the leader of the New Media project admits to being an unconditional geek and as such, he is a resource for his colleagues in his chosen field.

Working both for the web platform and for the daily paper, they consider themselves multimedia journalists, not simply online journalists. They all insist on the notion of continuity with regard to their previous professional practice. "I do exactly the same work as I did before," said Fritz. He takes an opposing view to common opinions and believes that the writing remains the same online as it is in print. There is no specific writing style necessary for this platform, and in fact it requires better legibility.

What has changed, on the other hand, is that much more versatility is required. It is necessary to research the information, to verify it, to shape it, to put it online, to manage interactions with users and with other stakeholders (advertisers), and to supervise the school of journalism students. Our three journalists have to accomplish all of these tasks, a skill set that extends far beyond the demands of a standard newsroom journalist.

Considering the level of professional skills required, having this degree of versatility is difficult to manage, especially given the extremely reduced number of editorial staff members. Consequently, the work within *GREnews* is characterized for everyone by a constant series of deadlines. "To work on a multimedia platform demands constant energy and an obstinacy," admitted one of the journalists. "We scatter a lot, we are not well formed, we haven't enough time to do everything, schedules are impossible," said another one. They also reminded us of the fact that the biggest amount of financial investment is concentrated on the daily news. Yes, experimenting with new business models is good, but on the condition that everything is in balance.

The web platform is known for its immediacy, which is not always simple to manage, demanding the ability to react quickly while doing so with insufficient resources. Interactivity is another specific element to be considered, with its important advantages. Readers can introduce new topics, and their reactions give the editorial staff insights on readers to better understand their wants and needs.

In spite of the workload and the time demanded, *GREnews* journalists consider the experience stimulating and very positive. They are aware of being on the forefront of innovation, and they appreciate integrating new skills that they anticipate as the standards of tomorrow's reporting. And in fact, "To be much more in sync with the evolution of the job," is a reassuring sentiment in the context of general anxiety about the future of print media.

With a fairly autonomous work life and relative job security (all three are under permanent contract), the journalist-writers of *GREnews* consider themselves to be well paid according to their professional seniority, which averages 10 years. This is not an insignificant feat in this time of economic instability with unemployment rates nearing 10% in France. Even with these benefits, they remain conscious of the fragility of the experience and nobody risks betting on tomorrow.

A Traditional Concept of Professional Aims

Given what has been said, we should not be surprised that multi-platform journalism has not enormously changed the vision of practical experience for the journalists of *GREnews*. On the contrary, in a professional context, they consider it necessary to refocus on the fundamental role of the profession, which they describe as “to inform,” “to know how to collection information and process it,” “to entice readers,” and “not clouding the facts with one’s personal opinion.” One of our interviewees said being a journalist means taking time to understand “complex situations where human action and interaction is important.” That journalist also admitted “I always believed that our job is to decipher multiple nuances of grey on a beautiful black and white picture”.

Recited as a belief, and with a certain youthful naivety, these words help to show an attachment by these journalists to traditional journalistic doctrines. A doctrine that sees journalists as a kind of guardian of democracy because the main objective is to be impartial, and to enlighten citizens’ choices. (Mathien, 1999) Naturally, on no account, can this be confused with the reality of daily journalistic practice. For these young reporters, journalism remains a pure mission, no matter the platform on which they are working.

Conclusion

To summarize, the results of our survey above all highlight a continuity of professional practice by the journalists brought to work online. This report confirms studies on the evolution of journalistic practice before the web conducted in France beginning in the 2000s. (Cf. Damian, Ringoot, Ruellan, Thierry, 2002; Pélissier, 2002, 2003; Ruellan, Thierry, 1998) According to these studies, the Internet appears as an accelerator of observable professional changes in the media since the 1980s. Changes which, incidentally, have primarily affected the economy of media organizations, before affecting the professional practices of journalists. (Pélissier, 2003)

The example of *GREnews* also suggests that although the Internet requires changing behaviors, practices and attitudes by establishing new relationships in the workplace, this evolution may be less difficult for employees of major French newspapers, of which *Le Dauphiné libéré* is one, than for other categories of journalists. Indeed, these newspapers, despite uncertain prospects, remain solid enough to face the digital era without abrupt shifts, in particular when it is a question of bringing their employees and journalists to new standards of professional practice. It is evident, however, that the results of this investigation, obtained on the basis of the study of only a small editorial

group, should be confirmed by other studies of this kind to eventually aspire to some generalization of these effects.

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Endnotes

1. Distributed in the capital of the Alps in 40 000 eg (45 000 eg for GREnews) since 2006, Grenoble and I is not available any more in paper version since the end of 2009 but has survived six months on the Web.

This research was originally presented at the 11th International Symposium on Online Journalism, in April 2010.

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Shoveling Tweets: An Analysis of the Microblogging Engagement of Traditional News Organizations

Marcus Messner, Maureen Linke, and Asriel Eford

This study analyzed the adoption and use of the microblogging platform Twitter by newspapers and television stations in the U.S. in 2009 and 2010. The results of a content analysis show that the use of social bookmarking tools on news organizations' websites and the adoption of Twitter have become important tools in news distribution. However, the study also reveals that news organizations rarely use Twitter as a community-building tool and that shovelware still dominates the Twitter feeds. The use of the main Twitter channels has not developed beyond the utilization as a promotional tool.

The popularity of Twitter has grown rapidly in only the six years of its existence. Started as a project by a San Francisco based podcasting company in 2006, the microblogging platform had 100,000 users one year later and was named "best blogging tool" by the influential South by Southwest festival (Hamilton, 2007). Time named "tweet" one of the top buzzwords of 2008 and due to the overall buzz the number of Twitter users quickly increased into the millions (Cloud, 2008).

News events in which Twitter played a significant role in the early news dissemination or in circumventing government restrictions, like the Mumbai terror attacks in 2008, the Green Revolution in Iran in 2009, the earthquake in Haiti in 2010, and the Middle East uprisings in 2011, turned microblogging into an international phenomenon that also demonstrated its political and journalistic impact. The use of Twitter as a campaigning tool in the 2008 U.S. presidential election also stressed its potential for public relations and fundraising (Garrison-Sprenger, 2008; Shirky, 2011; Smith, 2010). By early 2012, Twitter had become the ninth most popular website in the world with 100 million active users and the eighth most popular in the U.S. Only Facebook is a more popular social network today (Alexa.com, 2012a; Stone, 2012).

Twitter has not only gained great popularity with its users, but it has also become a valuable tool for journalists to find sources, monitor conversations and build an online following through social bookmarking and tweeting. Farhi (2009) pointed out that "its speed and brevity make it ideal for pushing out scoops and breaking news to Twitter-savvy readers" (p. 28). Nevertheless, many news organizations struggled to use Twitter beyond the means of news dissemination. As Lowery (2009) stated, "we'd used Twitter

to push our stories, viewing it as another channel by which to market our content,” but acknowledged that “its potential is much greater” (p. 33).

After the initial news events that suddenly turned Twitter into a journalistic tool, many news organizations began experimenting with Twitter. CNN had been one of the early adopters with 150 employees tweeting by the fall of 2008 (Garrison-Sprenger, 2008). However, some professionals also became skeptical of the use of Twitter and its effect on the quality standards of journalism, which led to a discussion over stricter guidelines for Twitter usage. Many news organizations implemented such social media guidelines for their employees (Ahmad, 2010; Morton, 2010).

This study attempted to track the adoption rate of social bookmarking tools for Twitter and the use of Twitter accounts by news organizations in the United States from its initial stages in the spring of 2009. The analysis of the use of sharing tools on news organizations' websites as well as the posts on their Twitter accounts helps to determine whether news organizations are using the microblogging platform to its full potential as a dissemination channel for news content while at the same time actively engaging in the conversation of the social network.

Twitter's ability to spread the news quickly has posed a challenge to traditional news media in their efforts for quick and reliable reporting and led them to adopt social media platforms themselves.

Literature Review

The potential of Twitter as a journalistic tool became known to a broader audience when citizen journalists utilized the microblogging platform for eyewitness reports. The first account of an US Airways jet that landed on the Hudson River in January 2009 came from a Twitter user, who posted an iPhone photo on Twitpic, a website used to share photos on Twitter, all before rescue boats and traditional news media made it to the scene (Johnston & Marrone, 2009). The first reports of an earthquake in China's Sichuan region in May 2008 came from Twitter users while the ground was still shaking (Gabarain, 2008). Twitter and other social networking sites' ability to spread the news quickly have posed a challenge to traditional news media in their efforts for quick and reliable reporting on disasters and led them to adopt social media platforms themselves (Bloxham, 2008; Schulte, 2009).

Twitter functions as a free online service that combines social networking, blogging and texting on the same platform. In 140 characters or less, users post short messages, called “tweets,” to their audience, which is comprised of their “followers.” Each post is published on the user's profile page which includes a thumbnail picture of the user's choice and a short personal description. Users chose who they want to interact with and who they want to follow. Crawford (2009) noted that “Unlike radio, which is a one-to-many medium, Twitter is many-to-many” (p. 528).

At the end of 2008, 11% of American adult internet users used a service like Twitter or another service that allowed them to send and receive status updates. Twitter was found to be most commonly used among young adults between the ages of 18 and 34. However, compared to other social networking sites, Twitter did not have the youngest following. The average age of a Twitter user was 31, while MySpace and Facebook had average user ages of 27 and 26 (Lenhart & Fox, 2009). In early 2011, 11% of internet users worldwide were visiting Twitter on a daily basis. Only one other social network, Facebook, received more visits (Alexa.com, 2012b).

News organizations have been turning to social networking tools in an effort to build their online audiences. *The New York Times* describes its social media marketing as one of the several essential strategies for disseminating news online and as a “brand enhancer” (Emmett, 2009, p. 42). Many media companies have used Facebook to drive traffic to their website through both advertisements and Facebook pages that encourage users to join their fan community. Other news organizations like CNN have taken the use of Facebook further by participating in a project called Facebook Connect. Users register on the CNN website, giving CNN access to their Facebook profiles, posted materials and circle of online friends. Users can import their profiles, privacy settings and friends into the CNN forum and in return are able export their favorite stories, videos and blogs from the CNN website onto their Facebook profile. This exposure resulted in a large increase of web traffic from CNN’s Facebook community (Emmett, 2009).

Many professionals believe that restrictions on social media content will impose restrictions on using social media tools to their fullest potential.

Social networking sites are also being used by journalist as an investigative reporting tool. Many journalists have cited using social networking websites like MySpace and Facebook to track and contact sources. A reporter from the *Boston Globe* used MySpace to study the appeal gang life has on young people. A reporter for the *Milwaukee Journal Sentinel* used information from the MySpace to write a profile story and obtain pictures. Student journalists working for Virginia Tech University’s campus newspaper were the first to post the names of victims of the previous day’s school shooting after searching social networking sites for information (Spencer, 2007).

Research on social media and traditional news media is still evolving at this point. Arceneaux and Weiss (2010) concluded from their research on press coverage of Twitter that traditional news media have encouraged and promoted the use of Twitter. Waters, Tindall and Morton (2010) found that reporters increasingly used social media platforms to find expert sources. Lariscy, Avery, Sweetser and Howes (2009), however, found that business journalists make very little use of social media for story ideas or to find sources. There still seems to be hesitancy in some areas of journalism to use and adopt social media tools. In addition, Ahmad (2010) raised the question whether journalism is “reduced to a tool for Twitter” (p. 154).

As Gordon (2009) pointed out, “with commenting opportunities available on almost any kind of content website ... it’s hard to find a news organization that’s not trying to tap into ‘social media’” (p.7). Morton (2010) stressed that journalists should refrain from debating their opinions with their audience and rather engage in discussions about their journalistic mission. The Washington Post, probably most prominently in 2009, issued social media guidelines that restricted reporters from stating their political opinions in tweets. Many professionals, on the other hand, believe that restrictions on social media content will impose restrictions on using social media tools to their fullest potential. Gleason (2009) wrote that “being up-front about their opinions will make journalists more believable, not less” (p.7).

Twitter has taken on an increasingly prominent role in journalism. However, as Lowery (2009) pointed out, “one of our worst mistakes, and one many news organizations are still making, was to automate” (p. 33). The time restraints within editors’ workflows led many news organizations to treat their Twitter accounts like an automated RSS feed with little audience interaction. Nevertheless, it takes a new approach to Twitter in order to make it work. “We started thinking about our Twitter feed as a separate product, another platform not just to push our journalism, but to do it well” (Lowery, 2009, p. 33). Farhi (2009) also stressed that Twitter could be used as a “community organizing tool for the newsroom itself” (p. 29). Social bookmarking tools allow audiences to share and engage with news content that is then posted in the most popular social networks like Facebook, MySpace and Twitter. That’s where the conversation begins. Hermida (2010) described this new journalistic environment as “ambient journalism.” However, journalists must move beyond automated feeds to engage in or monitor this conversation.

Palser (2009) stressed that “twitter-fluent newsrooms and journalists will use the tool not only as a hook into their websites, but also as a stand-alone channel” (p. 54). Twitter offers for instance newspapers a new way to connect with young and affluent audiences that will not pick up a printed newspaper. Schulte (2009) wrote, “That the social networking scene has pushed into the news business is no surprise, but what is raising eyebrows is how quickly the famously slow-footed industry embraced it” (p. 23). Through the adoption of social media, the user has become an important part of every news story.

However, no research study has yet analyzed the adoption rates of Twitter by traditional news media. It is also unclear whether news organizations are engaging their Twitter communities or use an automated approach to their Twitter news feeds. The dissemination of social bookmarking and sharing tools on news organizations’ websites is also an important area to consider when analyzing the Twitter engagement of traditional news media. This research study, therefore, will break new ground and help to better understand how news organizations are engaging the microblogging platform.

Research Questions

Based on the above literature review the following research questions were derived:

RQ1: How have traditional news media adopted social bookmarking for the microblogging platform Twitter?

RQ2: Is there a difference in the adoption of social bookmarking for the microblogging platform Twitter and other social networking sites by traditional news media?

RQ3: Is there a difference among traditional news media in their use of social bookmarking?

RQ4: How have traditional news media adopted the microblogging platform Twitter?

RQ5: Is there a difference among traditional news media in their adoption of the microblogging platform Twitter?

Methodology

The purpose of this study was to analyze the adoption of social bookmarking tools as well as the adoption of the microblogging platform Twitter by traditional news media. To answer the five research questions, a two-study approach was chosen. The first content analysis examined the social bookmarking adoption and the second content analysis the adoption of Twitter. Data for the content analyses was collected during 2009 and 2010 to be able to determine changes and differences in the adoption of social bookmarking and Twitter over time.

Content samples and the Twitter feeds from national newspapers and television networks, cable news channels as well as local television stations were analyzed for this study.

Both studies examined content samples from national newspapers and television networks, cable news channels as well as local television stations. The use of the top 100 newspapers by circulation as well as national television channels and local television news stations located in the top 24 markets was determined appropriate for this study because of their widespread circulation and viewership across the country. Content was captured from the websites of the largest 100 newspapers in the U.S. based on their circulation as determined by the Audit Bureau of Circulations. However, The Rocky Mountain News discontinued operations and was not included in the coding. The newspaper sample was, therefore, reduced to 99 for both years.¹

In addition, the websites of the five national television news organizations as well as 95 local news television stations in the top 24 television markets in the U.S. based on the ranking by Nielsen Media Research were accessed to collect content. Each local news television station affiliated with ABC, CBS, Fox, and NBC was included in the study. However, the Detroit CBS affiliate WWJ-TV only ran syndicated programming in 2009 and 2010 and had no news department. Therefore, it was not included in the study's

sample. For the purpose of simplification, the national television news organizations and local television stations will be subsequently addressed together as television stations.²

In order to study the adoption of social bookmarking, the websites of the 199 traditional news media were accessed. The coding was done once for each of the websites for March 25 or March 26, 2009 and for August 1 or August 2, 2010. This 16-month period was deemed appropriate to track changes in the adoption rate. The unit of analysis for this first study was the top news story on each of the news organizations' homepages. The top news story was determined by its position on the website and the headline size. Each top news story was opened so that the full article could be viewed and social bookmarking tools could be easily located. Each top news story was then coded for the following: media category (newspaper or television), name of news outlet as well as month and date of access for the coding. In addition, it was determined whether the use of e-mail as the most common sharing tool was available, whether social bookmarking tools were available and how many, as well as the availability of sharing tools for the predominant social media platforms Facebook, MySpace and Twitter. This allowed for a comparison of the adoption rates among different social media platforms.

The second study analyzed the adoption of Twitter itself by traditional news media. Using the same sample of news organizations as the first study, the main Twitter feed of each news organization was searched for in Google to determine whether the newspapers and television stations had adopted Twitter. The searches showed that 90.5% (n=180) of traditional news media had a Twitter account in 2009 and 99.5% (n=198) had one in 2010. In 2009, the available Twitter accounts were evenly split between newspapers (n=90) and television stations (n=90). In 2010, 99.5% (n=198) of the traditional news media had a Twitter account. Only one local television station did not.

Subsequently, 180 Twitter accounts were analyzed in 2009 and 198 accounts in 2010. The content was retrieved by accessing each available account once for April 4 or April 5, 2009 and for August 1 or August 2, 2010. The unit of analysis for this second study was the content of each Twitter post. Each post was coded for the following: media category (newspaper or television station), name of news outlet as well as month and date of access for the coding. In addition, it was determined whether the content of the post was news related, whether the post had a hyperlink and if so whether it linked to the news organization's own website. Each Twitter account was also coded for the number of posts each news outlet posted on the day assessed. In total, 1568 posts were analyzed in 2009 and 1112 in 2010.

The coding manuals for the two studies were pre-tested and revised before the actual coding began. Two trained coders analyzed the website content and Twitter posts. Overall, intercoder reliability was assessed at .87 for Scott's Pi (1955).

Results

In order to determine the adoption rates of social bookmarking tools and the microblogging platform Twitter, two content analyses were conducted, which examined

content in 2009 and 2010. Overall, the websites of 199 traditional news media were analyzed for social bookmarking tools as well as 2,680 posts on the news organizations' Twitter accounts. In the following, the five research questions will be answered separately.

The first research question asked how traditional news media adopted social bookmarking for Twitter. The findings show that this adoption rate has increased greatly from 2009 to 2010. Only 36.7% (n=73) of news organizations had a sharing function for Twitter within the top stories on their websites in 2009. However, by 2010 the adoption rate had increased to 91.5% (n=182).

The second research question asked whether differences existed in the adoption of bookmarking by traditional news media for Twitter and other social networking sites. It was found that the most common sharing tool on the websites of traditional news media was the e-mail function that lets users send articles to other users. In 2009 and 2010, all 199 news organizations had this function available on their websites. Almost all news organizations also made social bookmarking tools available to their users. In 2009, 96.5% (n=192) of traditional news media allowed the sharing of articles via social bookmarking tools. The number slightly increased to 98.5% (n=196) in 2010. However, at the same time the number of available social bookmarking tools increased sharply. While the news organizations only made 16.4 tools available on average in 2009, they made 110.3 tools available in 2010.

The third research question asked whether differences existed among traditional news media in their use of social bookmarking. The analysis found that both newspapers and television stations had high adoption rates for social bookmarking tools. The adoption by newspapers increased slightly from 96% (n=95) in 2009 to 97% (n=96) in 2010). The adoption by television stations increased from 97% (n=97) in 2009 to 100% (n=100) in 2010. While in 2009 newspapers had offered on average 17.9 bookmarking tools and television stations only 14.9 tools, this trend reversed in 2010 when newspapers offered 88.3 tools and television stations 132 tools.

Table 1: Adoption of Social Bookmarking Tools, 2009

	Facebook	MySpace	Twitter
Newspapers	86.9% (n=86)	41.4% (n=41)	44.4% (n=44)
Television	81.0% (n=81)	35.0% (n=35)	29.0% (n=29)
Total	83.9% (n=167)	38.2% (n=76)	36.7% (n=73)

Table 2: Adoption of Social Bookmarking Tools, 2010

	Facebook	MySpace	Twitter
Newspapers	94.9% (n=94)	52.5% (n=52)	88.9% (n=88)
Television	100% (n=100)	67.0% (n=67)	94.0% (n=94)
Total	97.5% (n=194)	59.8% (n=119)	91.5% (n=182)

A stronger adoption trend for bookmarking tools of major social networking sites was found across the board for television stations. In 2009, newspapers had higher adoption rates for Facebook with 86.9% (n=86), MySpace with 41.4% (n=41) and Twitter with 44.4% (n=44). Fewer television stations had tools available with adoption rates of 81% (n=81) for Facebook, 35% (n=35) for MySpace and 29% (n=29) for Twitter. Nevertheless, this trend reversed as well. Television stations significantly increased their adoption rates by 2010 for Facebook with 100% (n=100), MySpace with 67% (n=67) and Twitter with 94% (n=94). The adoption rates for newspapers increased as well, but were slightly lower for Facebook with 94.9% (n=94), MySpace with 52.5% (n=52) and Twitter with 88.9% (n=88). The adoption rates for Twitter increased significantly for both newspapers and television stations (see Tables 1 and 2).

The analysis of the Twitter accounts showed that the use of the microblogging platform increased between 2009 and 2010. The adoption increased to 99.5% in 2010.

The fourth research question asked how traditional news media adopted Twitter. The analysis of the Twitter accounts showed that the use of the microblogging platform increased between 2009 and 2010. While 90.5% (n=180) of the news organizations had an account in 2009, the adoption increased to 99.5% (n=198) in 2010. Only one local television station did not have a Twitter account. In 2009, the news organizations on average tweeted 8.7 times a day, with a minimum of 0 and a maximum of 110 posts. However, despite having an account, 34.4% (n=62) of the news organizations with a Twitter presence did not post once on the day content was collected for this study. In 2010, news organizations only tweeted 5.6 times, with a minimum of 0 and a maximum of 96 posts. Of the news organizations with a Twitter presence, 26.3% (n=52) did not post on the day content was collected. In 2010, the Twitter accounts had an average of 13,116 posts for their lifetime, with a minimum of 515 and a maximum of 145,328 posts.

In 2009, of the 1,568 Twitter posts 94.3% (n=1,478) were news related and 5.7 (n=90) were personal. This finding was confirmed in the following year. Of the 1,112 Twitter posts in 2010 96.5% (n=1,073) were news related and 3.5% (n=39) were personal. Most of the posts in both years also included hyperlinks that directed users to the website of the news organization. In 2009, 93% (n=1,458) of the posts had hyperlinks

of which 98.6% (n=1,438) linked to the news organizations' websites. Only 1.4% (n=20) of the links directed users to external websites. This finding was again confirmed in the following year. In 2010, 95.5% (n=1,062) of the posts had hyperlinks of which 99.3% (n=1,055) directed users to the news organizations website, while only 0.7% (n=7) directed users to external websites.

The fifth research question asked whether there is a difference among traditional news media in their adoption of Twitter. It was found that there was hardly any difference in the adoption rates of newspapers and television stations. In 2009, 90.9% (n=90) of newspapers and 90% (n=90) of television stations had adopted Twitter. Those adoption rates increased to 100% (n=99) for newspapers and 99% (n=99) for television stations (see Table 3).

While the adoption trends were very similar, differences were found in the use of the Twitter accounts. In 2009, newspapers accounted for 65.9 percent (n=1,033) and television stations for only 34.1 percent (n= 535) of the Twitter posts. This reversed in 2010, when newspapers accounted for 29.7% (n=330) and television stations for 70.3% (n=782) of the posts. While newspapers had on average posted 11.5 times on the day content was collected in 2009, they only did 3.3 times in 2010. Television stations, on the other hand, increased their average postings from 5.9 times to 7.9 times. In 2010, newspaper Twitter accounts showed an average of 14,596 posts for their lifetime, while television station accounts showed a lower average of 11,636 posts.

Newspapers and television stations mostly linked to their own websites. In 2010, 99.7% of the newspaper tweets and 99.2% of television tweets linked there.

Table 3: Adoption of Twitter

	2009	2010
Newspapers	90.9% (n=90)	100% (n=99)
Television	90.0% (n=90)	99.0% (n=99)
Total	90.5% (n=180)	99.5% (n=198)

On the Twitter accounts of newspapers, 95% (n=981) of the posts were news related and 5% (n=52) personal in 2009 and 97.6% (n=322) news related and 2.4% (n=8) personal in 2010. Similar results were found for television stations. In 2009, 92.9% (n=497) of the posts were news related and 7.1% (n=38) were personal. In 2010, 96% (n=751) of the posts were news related and 4% (n=31) were personal.

Hardly any difference was also found in the use of hyperlinks. Of the newspapers' Twitter posts 95.3% (n=984) included a hyperlink in 2009 and 97.9% (n=323) in 2010. Of the

Twitter posts by television stations 88.6% (n=474) included a hyperlink in 2009 and 94.5% (n=739) in 2010. Newspapers and television stations also mostly linked to their own websites. In 2009, 99% (n=974) of the hyperlinks directed users to the newspapers website and 99.7% (n=322) of the hyperlinks in 2010. Of the hyperlinks in the Twitter posts of television stations 97.7% (n=464) directed to the station's website in 2009 and 99.2% (n=733) in 2010.

Discussion

The results of this study show that traditional news organizations have been quick in adopting the microblogging platform Twitter between 2009 and 2010. Most news organizations adopted social bookmarking tools for Twitter and are engaged on their Twitter accounts. The use of social bookmarking tools on the news organizations' websites has emerged as an important tool in the news distribution. Nevertheless, this study demonstrates a difference in the adoption of social networking sites in traditional media bookmarking with Twitter quickly increasing its adoption by newspapers and television stations.

The study discovered that every news website studied allowed consumers to share articles by e-mail. Most of the websites included buttons or links that allow users to conveniently share news stories with others on a number of social networking or social bookmarking platforms. From 2009 to 2010 the average number of available social media sharing tools has increased dramatically, especially on the websites of television stations. While television stations were lagging behind in 2009, they have fully caught up with newspapers and are leading the way now.

The study also demonstrated a difference in the adoption rates between Twitter and other social networking sites in traditional media bookmarking. MySpace, for instance, only experienced a modest increase. Facebook, on the other hand, is fully adopted by news organizations. It is a surprising finding, however, that nearly all news organizations had a Twitter account in 2010 while almost every 10th did not provide a Twitter social bookmarking function on its website. For some news organizations there seems to be a disconnect between their own Twitter engagement and allowing their audience to engage directly as well.

Twitter is used like the web during its initial stages in the 1990s. Shovelware still dominated the news organizations' Twitter accounts in 2009 and in 2010.

Traditional news media have fully adopted Twitter accounts as tools for news dissemination. A news organization without a Twitter account has been the rare exception in 2010. However, while Twitter facilitates open dialogue, traditional news media are not using Twitter as a community-building tool, nor are they engaging with their audiences on a frequent basis on their main twitter accounts. While the generalizability of the results of a one-day analysis is limited, it was striking to find

that one-third of news organizations with Twitter accounts did not post anything on the day of the analysis in 2009. In 2010, still one-fourth of the news organizations did not tweet on the day of analysis. This shows that Twitter is not used regularly by all news organizations that have an account. The differences in usage are also underlined by great variation in the number of daily tweets. While some news organization did not tweet at all, others posted around 100 times in one day. Overall, the average of posts also decreased between 2009 and 2010, which could signal a greater selectiveness of news organizations of what they tweet about. Newspapers tweeted fewer times in 2010, while television stations tweeted more. However, the average number of tweets over the lifetime of all Twitter accounts show that there has been great activity by news organizations overall.

The findings of this study show, nevertheless, that Twitter is used like the web during its initial stages in the 1990s. Shovelware still dominated the news organizations' Twitter accounts in 2009 and in 2010. Most posts by newspapers and television stations are news related and link to the news organizations' websites. The use of the news organizations' official Twitter channels has not yet developed beyond the utilization as a promotional tool to drive traffic to their websites. Very few posts point to a personal interaction with Twitter followers. Even television stations, which increased their adoption and use of Twitter, did not change their overall strategy on the microblogging platform.

While Twitter now is fully adopted by news organizations, its full potential as a community building and engagement tool has not been developed, yet. While Twitter facilitates an open dialogue in many areas, traditional news media are not using their main Twitter accounts as a community-building tool, nor are they engaging with their audience on a frequent basis. Instead, Twitter is being used like a streaming RSS service for news stories that promotes and re-distributes previously published news content. News organizations should address this lack of community engagement and develop guidelines that do allow for a better dialogue with their audiences and to make use of Twitter's full potential as a social network.

Conclusion

This study stresses the importance that Twitter has gained in the news dissemination strategy of major news organizations in the U.S. It also found weaknesses in that strategy of most newspapers and television stations, which can be addressed by increasing the engagement with the Twitter community in the news organizations' main Twitter accounts.

As with all research, this study has limitations. This study did not take into account personal Twitter accounts of reporters, editors, producers and anchors. It is likely that individual Twitter accounts of news personnel will show a greater engagement with news audiences. This should be an area addressed in future research. The lack of engagement in the main Twitter accounts of news organizations should also be analyzed in a study that tracks posts over a longer period of time.

Nevertheless, even if a news organization has a strategy in using its main Twitter account as a news promotion tool and leaves the audience engagement to its news personnel, its strategy could backfire. As reporters and anchors change jobs, they will take audiences with them or their personal Twitter accounts will be discontinued. In either way, news organizations are risking to lose their community engagement and to having to rebuild their Twitter audiences. A better audience engagement on their main Twitter accounts will not only allow them to use the microblogging platform to its full potential as a social network, but will also guarantee that their community building and engagement efforts are to last.

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Endnotes

1. The sample of newspapers included the following: USA Today, The Wall Street Journal, *The New York Times*, Los Angeles Times, The Daily News, The New York Post, Washington Post, Chicago Tribune, Houston Chronicle, Arizona Republic, Newsday, San Francisco Chronicle, Dallas Morning News, The Boston Globe, The Star Ledger, Philadelphia Inquirer, The Plain Dealer, The Atlanta Journal Constitution, Star-Tribune, St. Petersburg Times, The Chicago Sun Times, Detroit Free Press, The Oregonian, The San Diego Union Tribune, The Sacramento Bee, The Indianapolis Star, St. Louis Post Dispatch, The Kansas City Star, The Orange County Register, The Miami Herald, San Jose Mercury News, The Baltimore Sun, The Orlando Sentinel, San Antonio Express News, The Rocky Mountain News, The Denver Post, The Seattle Times, Tampa Tribune, South Florida Sun, Milwaukee Journal Sentinel, The Courier Journal, Pittsburgh Post Gazette, The Cincinnati Enquirer, The Charlotte Observer, Fort Worth Star-Telegram, The Oklahoman, The Columbus Dispatch, St. Paul Pioneer Press, The Detroit News, Contra Costa Times, The Boston Herald, Arkansas Democrat Gazette, New Orleans Times-Picayune, Omaha World – Herald, The Buffalo News, The News and Observer, Richmond Times-Dispatch, The Virginian Pilot, Las Vegas Review-Journal, Austin American-Statesman, The Hartford Courant, The Palm Beach Post, The Press Enterprise, The Record, Investor's Business Daily, The Tennessean, Tribune Review, The Fresno Bee, The Commercial Appeal, Democrat & Chronicle, The Florida Times-Union, Daily Herald, Asbury Park Press, The Birmingham News, The Honolulu Advertiser, The Providence Journal, The Des Moines Register, The Los Angeles Daily News, Seattle Post-Intelligencer, The Grand Rapids Press, The Salt Lake Tribune, The Akron Beacon Journal, The Blade, The Knoxville News-Sentinel, Dayton Daily News, Sarasota Herald-Tribune, La Opinion, Arizona Daily Star, Tulsa

World, The News Tribune, The News Journal, Post-Standard, Lexington Herald-Leader, Morning Call, Journal News, Philadelphia Daily News, Albuquerque Journal, The State, The Post and Courier, The Daytona Beach News Journal.

2. The sample of television networks, cable news channels and television stations included the following: CNN, MSNBC, Fox News, CBS News, ABC News; New York: WCBS, WNBC, WNYW, WABC; Los Angeles: KTTV, KABC, KCAL, KNBC; Chicago: WFLD; WLS – TV, WBBM, WMAQ; San Francisco: KTVU, KGO- TV, KPIX, KNTV, Philadelphia: WTXF, WPVI, KYW – TV, WCAU; Dallas/Fort Worth: KDFW, WFAA, KTVT, KXAS; Washington, D.C.: WTTG, WJLA, WUSA, WRC; Boston: WFXT, WCVB, WBZ-TV, WHDH; Miami: WSVN, WPLG, WFOR, WTVJ; Detroit: WJBK, WXYZ, WDIV; Houston: KRIV, KTRK, KHOU, KPRC; Phoenix: KSAZ, KNXV, KPHO, KPNX; Seattle: KCPQ, KOMO, KIRO, KING; Minneapolis: KMSP, KSTP, WCCO, KARE; Cleveland: WJW, WEWS, WOIO, WKYC, Sacramento: KTXL, KXTV, KOVR, KCRA; San Diego: KSWB, KGTV, KFMB, KSND; Denver: KDVR, KMGH, KCNC, KUSA; Tampa: WTVT, WFTS, WTSP, WFLA; St. Louis: KTVI, KDNL, KMOV, KSDK; Atlanta: WAGA, WSB – TV, WGCL, WXIA; Baltimore: WBFF, WMAR, WJZ, WBAL; Orlando: WOFL, WFTV, WKMG, WESH; Indianapolis: WXIN, WRTV, WISH, WTHR.

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The Role of ICTs Inside Egyptian Newsrooms

Ahmed El Gody

This paper aims to study the diffusion and utilization of Information Communication Technologies (ICTs) in Egyptian newsrooms. Furthermore, the study examines whether/to what extent and in what way Egyptian newsrooms incorporate ICTs in their daily routine. For Egyptian media organizations in general, the diffusion of ICTs proved to be a form of slow evolutionary process, with news organizations adopting ICTs according to their structural needs. Studying the utilization of ICTs inside Egyptian newsrooms has revealed wide variations between the types of organisation and their utilization of ICTs. Government media organisations and journalists seemed to not yet understand the use of ICTs. The liberal hopes that accompanied the advent of ICTs in government media management were dashed by a strict centralised political system, which believes that controlling content is important for dominating mass opinion and stabilising the political system. Government media online presence is still seen as an add-on tool to traditional media. On the other hand, independent and non-partisan newspapers are utilising ICTs as a tool that can help journalists to become active in an increasingly dynamic networked society.

Introduction

In the 1960s and 1970s Herbert Gans and Gaye Tuchman wandered into newsrooms asking, 'How is news made?' Both studies emphasized that the utilization of technologies – available at that time – could help in the development of the news industry (Gans, 1980; Jensen, 2002; Tuchman, 1978, 2008). Between 1995 and 2011, several studies (including Bellotti et al, 2002; Cottle, 1999; Domingo, 2006; Firdaus, 2011; Forsberg, 2001; Quandt & Singer, 2009; Thurman & Hermida, 2007; Van Noort, 2008) were conducted investigating the same question and reaching the same conclusions. The results stressed the role of utilizing Information Communication Technologies (ICTs) in the news production process (Forsberg, 2001; Quandt & Singer, 2009).

News has always been influenced by the utilization of technological innovations in the workplace. During the last 15 years news organizations began to diffuse ICT resources in the news making process. The use of new technologies soon altered the traditional newsgathering and production formats, changing the nature of journalism practices and routines (Deuze, 2003; McNair, 1998). The success of newsrooms in the digital era is measured by their ability to adopt, integrate and utilize ICTs and journalism in all processes of production to satisfy their audience needs (Garrison, 2001).

The basis of the information revolution in Egypt centres around the utilization of technological advancements. At its forefront is the growth of ICTs and in particular the internet which offers an active — and indeed interactive — platform for development. New technologies have provided alternative forms of media channels where audiences can become involved in debating current events, criticizing politics and public officials, and sharing personal experiences, regardless of time and space. Many Egyptians utilize this new cyberspace, clustering in networks and creating parallel communication systems each with its own identity and interacting on issues of common concern. On the other hand, the Egyptian print media has always been seen as a 'laggard' when it came to adopting new technologies (Mehasab, 2007).

Witnessing a changing environment, the Egyptian journalism industry has had no choice but to overcome its fear of adopting technologies in order to fit into the new mould (El Gody, 2000). Several newsrooms have adopted ICTs, hoping that the new media could help them to develop their content and reconnect with their audience (Bekheit, 2000).

The Egyptian print media environment for the past 60 years has been shaped by loyalty to the political regime. One can still use Rugh's (1979) classification of media in Egypt as being authoritarian (Rugh, 1979, 2004). By definition, an authoritarian media system is controlled by the government through direct ownership and/or strict laws and regulations. The purpose of newspapers in such a media system is to promote the main political, social and economic programmes of the regime. The government steers the media agenda and the direction of news to filter what receivers hear and see. Egyptian journalists do not explore beyond the limits of a traditional system of a relationship between the political class and the rest of the population (El Gody, 2005; Rugh, 2004). The failure of the Egyptian print media to have an active presence in people's lives has led the audience to turn to other alternative online independent media forms for news (Salama, 2009).

Egyptian print media for the past 60 years has been shaped by loyalty to the political regime. Journalism role was to promote government main policies and an economic plan.

internet technology was introduced in Egyptian newsrooms in 1996 as a government-induced aid for media organizations to develop their telephony infrastructure. The Dar Al Tahrir publication *Al Gomhuria* was the first Egyptian print newspaper to go online with gif/jpg images of clips from the newspaper. Between 1996 and 2000 18 Egyptian newspapers —including the major dailies— joined the cyber world (El Gody, 2000; Mahmoud, 2001). By February 2011, 63 publications, representing 40.4% of the Egyptian print media industry (see Table 1 and Figure 1), had their own websites (Information and Decision Support Center, 2010; El Gody, 2012). Although, superficially, this trend implies development, the question, however, of whether ICTs have been realized and used in the daily routine of Egyptian newsrooms remains unanswered and needs further examination.

Table 1: Number of Electronic Newspapers

Year	Number of Publications
1996	1
1998	4
2000	18
2002	26
2004	29
2006	42
2008	56
2011	63

Sources: El Gody, 2012; Information and Decision Support Center, 2010

In transitional societies moving towards democracy, such as Egypt, political development is a central topic which journalists mediate with their audience. Indeed, journalists inform the audience and facilitate informed choices as ‘gatewatchers’, not as watchdog ‘gatekeepers’, in the power struggle between audience, media and politics. Egyptian journalists have been criticized for not being ‘connected’ with their local audiences, for losing their ability to help citizens connect their everyday life with politics, and for failing in their capacity to encourage local people to participate in political debates or even to provide them with the skills needed for this participation (El Gody, 2012; Eliasoph, 1998).

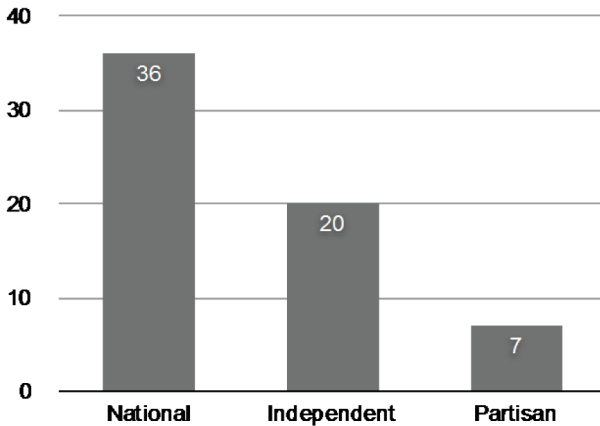


Figure 1: Genre of Electronic Newspapers. Sources: El Gody, 2008; Information and Decision Support Center, 2010; El Gody, 2012

In Egypt a lack of freedom in the traditional media has enabled the alternative independent online media to develop. News websites became the playground for political parties, activists, and groups from various ideologies creating ‘online spaces of flows’ to cater for the emerging needs of the readers. Political actors started to invest in creating news portals to attract communities and to enable these communities to interact with each other’s ideas on the one hand and with the ideas of the news portals on the other (Hofheinz, 2005; Livingstone & Bober, 2005).

Egyptian online discussions were at a high after 9/11 as citizens began to cluster into groups, each with its own agenda, and to foster several scenarios for the democratization process. Egyptians saw in ICT sources a medium that was likely to have profound implications on their country's socio-political democratization. Activists saw in the internet an opportunity to curb government censures, creating a 'space' in which individuals participated in discussions about matters of common concern in an atmosphere free of coercion or dependencies, acquiescence or silence. internet technology led to a more horizontal communication model in Egyptian society, enabling people to bypass the controlled regime and traditional mass media, allowing the society to create a developmental agenda of its own (Bakkar, 2008; El Gody, 2012).

Considering the above discussion, the following questions now pose themselves. Firstly, what role do ICTs play in the news-making process in Egyptian newsrooms? Secondly, what elements of ICTs are adopted and utilized inside newsrooms? Finally, what role do readers (if any) play in the newsmaking process? This paper aims to explore the utilization of ICTs in daily news production and investigate to what extent journalists integrate new media technologies into their work routine, as well as to what extent journalists/news organizations interact with their audience. Such understanding could assist the Egyptian print media to become incorporated into the Egyptian network society.

Literature Review

This discussion stems from the concept of 'network journalism'. Pavlik (2001) stated that journalists who used ICTs acquired the ability to "build new communities based on shared interests and concerns, and since [they have] the almost unlimited space to offer levels of reportorial depth, texture, and context that are impossible in any other medium... new media can transform journalism, hence transforming societies" (Pavlik, 2001, p.29). Bardoel and Deuze (2001) further stated that the journalists cannot work in 'splendid isolation' any more, but will be a node in a complex social network 'between technology and society, news and analysis, annotation and selection, orientation and investigation' (Bardoel & Deuze, 2001, p.101).

Furthermore, Tambini and Cowling (2002) embraced the role played by 'network journalists' to improve citizens' participation in local democratic processes. The authors explained that ICTs networked a 'third sphere' of free, public deliberation, untainted by the state or by commerce, that an audience could access. Through new media an audience can network according to their interests, using new facilities ranging from using government web pages – as a more efficient means to access political information – to experimenting with electronic voting and organizing interest groups and neighbourhood alliances. Journalists in this 'network sphere' are seen as 'gatewatchers' facilitating discussion, knowledge and information between different audiences/networks (Bardoel, 1996; Castells, 2007; Murwira, 2010; Tambini & Cowling, 2002).

A leading exponent of this notion of the relationship between the use of ICTs and democracy is Howard Rheingold, an influential member of an early internet community

called 'The Well.' His book *The Virtual Community* was published in 1993. Rheingold's main argument was that journalists, meetings and facilitations of interactivity in virtual communities "helped citizens to revitalize democracy, or they could be luring us into an attractively packaged substitute for democratic discourse" (Rheingold, 1993, p.276). Rheingold and others have promoted the utopian vision of the electronic agora, an "Athens without slaves." He believed that technology, if properly understood, utilized and defended by enough e-journalists, has "democratizing potential [within the framework of the society] in the way that alphabets and printing presses had democratizing potential" (Rheingold, 1993, p.279).

Rheingold's underpinning argument was that if ICTs were well introduced and utilized in a society through proper journalism, the citizens' willingness and ability to participate would be enhanced and the distance between the elite and the masses would be shortened. Likewise, journalists and audiences would be closer to each other. Ideally, meaningful public discussion within the platform of journalism would be reinforced: today's rather elitist conflict-centred news would be transformed into a source of, and an arena for, vivid dialogue between citizens, authorities and politicians. Ultimately, the news, for its own part, would revive and strengthen democracy. This line of thinking stems from the idea of network journalism, where the task of journalists is not only to inform citizens, but also to enhance meaningful public discussion and audience interaction and participation in news making (Heikkilä & Kunelius, 1998; Rosen, 1991; Russell, 2011; Sirienni & Friedland, 2001).

Journalists in the 'network sphere' are seen as 'gatewatchers' facilitating discussion, knowledge and information between different audiences/networks.

His study stands with Castells' (2003), viewing journalism as the core of network society, with journalists working as nodes and among nodes, strengthening the network communication power and counter power through facilitating discussion among and between different audience organizations and networks, especially in democratizing societies such as Egypt. Deuze (2008) defines the 'internet' journalist as a professional who works as a node in a complex network environment between technology and society, between news and analysis, between different organizations, citizens and interest groups and society. The use of ICTs by journalists and news organizations will help to quicken the convergence and integration of newsrooms and journalists in an audience network. Burns (2005) and Cardoso (2007) describe how the convergence of ICTs inside media organizations would help in the deconstruction and reconstruction of the journalism industry from an analogue unidirectional mode of communication to a digital multi-directional network, where journalists utilizing ICTs could contribute to the interactivity between audience and various civic and political communities, thereby encouraging audience participation in the democratization process (Burns, 2005; Cardoso, 2007, 2008).

With Egyptian society moving into the electronic age more people are communicating in cyberspace not only to access information, but also to create a reality of their own.

Even if it is only virtual, it can cross boundaries to the real world (El Gody, 2012; Parks, 2005). Since 2000 the number of internet users in Egypt has increased sevenfold, reaching 26.54 million users by 2011 with 32.9% penetration and a 38% annual increase in high-speed internet subscribers. In 2011 mobile subscribers reached 78.9 million with 97.3% penetration (Ministry of Communication and Information Technology, 2011).

Since 2000 Egyptians have started utilizing ICTs to debate current events, criticize the government, public officials and political parties, share personal experiences, propose solutions to current socio-political problems, and construct various visions of the country's future (El Gody, 2007; Parks, 2005). Citizens quickly harnessed ICTs, creating online news sites, blogs, video blogs, YouTube posts, podcasts, SMS text messages and mobile phone web publishing, and establishing accounts on social networks like Facebook and Twitter. This was mainly to produce and disseminate the people's journalism and advocacy at a faster pace than that of government control, regulations or censorship (El Gody, 2009; Hamdy, 2008; Ministry of Communication and Information Technology, 2011; Salma, 2009). Pintak (2010) counted 13,500 active citizen news journalism websites in Egypt that provided "politically driven reportage on local events... break[ing] numerous off-limits to the mainstream Egyptian media" by utilizing ICTs and thus clustering citizens around the idea of embracing democratic change (Pintak, 2010, p.299).

The more an audience joins the cyber world, the more networks are created, the more active virtual participation becomes, and the closer Egyptian society gets to changing the user reality, as is demonstrated by the increasing number of activities initiated in the online sphere (Radsch, 2008). Civic activities have started to be initiated, virtually motivated and implemented in the real world. Socio-political development, in this sense, can be attained through the wide participatory process that is intended to bring about social and material advancement for the majority of the people through their gaining control over their environment (Ingraham & Donahue, 2000).

In 10 years, Egyptian online users multiplied not only to access alternative information, but also to create a virtual reality of their own.

ICTs, therefore, are seen as a tool to 'empower' the Egyptian public to think of and develop programs that respond to their specific needs. Furthermore, as a result of this development diversity, alternative/pluralistic networked space has envisioned the diverse role of communications. It emphasizes the multiplicity, smallness of scale, localization, deinstitutionalization and interaction at all levels, as well as an interchange of sender-receiver roles (Bardoel, 2002; Singer & Quandt, 2008).

Internet communication technologies (netCTs) have added a new dimension to the production and the consumption of news journalism in Egypt and have enabled the creation of new communication spaces where diverse voices engage in conversation about matters affecting daily lives. Egyptian mainstream journalism seems to be far away

from that formula (Murphy, 2011). Salama (2009), who reported on Egyptian journalists' use of technology to communicate with their audience, stated that while journalists pretend to know their audience – through technologies – and to generate 'institutional knowledge', they are not utilizing the technology to address citizens' needs or be part of their discussions.

Methodology

While studying Egyptian newsrooms this study has integrated qualitative ethnographic participant observation, structured and semi-structured interviews and document analysis and quantitative survey research. This study sees news as a product of the interaction between journalists themselves and their sources (on and off line), their management, utilization of technologies, as well as their audience. Qualitative ethnographic research aims to provide a 'description' of journalists' uses, understanding and attitude towards the use of ICTs inside three newsrooms: *Al Ahrām*, *Al Dostor*, and *Al Masry Al Youm*.

The quantitative survey aimed to look at the diffusion of new technologies inside newsrooms. Furthermore, the survey aimed to define internal, (personal, organizational, structural) and external (government, economic, legal) barriers affecting the adoption of ICTs inside various newsrooms. Moreover, questionnaires with closed-ended questions enabled the researcher to determine, with greater comprehensiveness and precision, journalists' perceptions of the change in production practices and routines as well as of the use of the new digital technology in news production. The survey, was distributed to 64 journalist/editor inside the three newsrooms.

The researcher spent 109 hours in the three newsrooms. With 32 hours with *Al Masry Al Youm*, 41 hours with *Al Dostor* and 36 hours of observation with *Al Ahrām* newspaper. The researcher decided to spend one week of average observation per each newsroom would be a sufficient time to understand the routines and attitudes regarding using ICTs. After visiting all newsrooms, the researcher then decided to do a follow up visit, for few days (Four in *Al Ahrām*, three in *Al Dostor*, and three in *Al Masry Al Youm*) in order to observe any new phenomena, and to clarify information from observations. Participant observation together with interviews allowed the researcher to directly observe the productive process and the attitudes of journalists towards ICTs in their context. According to Traquina (2003), ethnography makes it possible to see "the trans-organizational dimension in the news production process" and "the informal networking amongst the journalists" (Traquina, 2003, cited in Palacios & Díaz Noci, 2003, p.107), which is one of the primary goals of this study. By conducting semi-structured interviews the researcher was able to describe how management teams (from both print and online media) viewed the online transition process and how it affected the structure and workflow in the organizations. Interviews allowed me to discover the most important factors in the transition as well as how the business model has been reshaped and defined. With analysis the researcher was further able to examine organizations' journalists' online bookmarks, with sources and activities helping to identify journalists' interactivity levels and how the journalists networked with each other, management, their sources and their audience.

Sample

For the purpose of this study, three newsrooms (*Al Ahram*, *Al Dostor* and *Al Masry Al Youm*) serve as cases under study. A case study in ethnography is “characterized by researchers spending... time on site, and [personally been] in contact with activities and operations of the case, reflecting, and revising descriptions and meanings of what is going on” (Stake, 2005, p.450). Case studies answer questions relating to how and why that allowed me to obtain a great deal of information about newsrooms (Weiss, 2008).

In this study, newsrooms (as cases) are studied in order to understand the use of ICTs in daily routine. Indeed, each newsroom case is a particularistic case since the focus is on a particular situation and its final product is a detailed description of the topic under study. Case study goals are not so much verifying hypotheses or drawing up a theory but giving new interpretations, new perspectives, fresh insights and the discovery of new relationships (Wimmer & Dominick, 2011).

In this study, the researcher wanted to be inclusive in presenting different schools of thought and approaches towards the use of ICTs in Egyptian newsrooms by using three comparable case studies. McCombs (2003) argued that a comparative approach to selected cases “give indications of similarities or dissimilarities that may be worth pursuing in further research” (McCombs, 2003, p.40). Indeed, the intensive study of a small number of cases as this can produce a better understanding to organizational and occupational approaches towards interactivity inside newsrooms (Boczkowski, 2004).

Al Ahram Newspaper

Al Ahram newspaper has been and still is the official mouthpiece of the government and a typical model for government-controlled newspapers. With 135 years of news history and a daily circulation of over 200,000 copies, *Al Ahram* boasts the top newspaper circulation not only in Egypt but also in the Arab world. Until the mid-1980s, *Al Ahram* was considered one of top 10 most influential news organizations worldwide, and one of the most successful news business models. Today, *Al Ahram* organization has 16 publications and employs over 15,000 people, including the top Egyptian newsmen and women, opinion leaders, philosophers and thinkers. *Al Ahram* portal (www.ahram.org.eg) is one of the early news organizations that went online, and its model was mimicked by other news organizations which followed.

Al Dostor Newspaper

*Al Dostor*¹ newspaper is an independent opposition newspaper that is considered to be the main voice of opposition in Egyptian media. The aliening of several opposition parties from the current political system made several Egyptians align with independent opposition papers, seeing them as opposition political parties (Abdel Fattah, 2010). Due to its popularity, the newspaper organization decided to move the newspaper from a weekly publication to a daily newspaper in 2008, and established a much anticipated presence over the web. *Al Dostor* employs some of the leading opposition writers in Egypt. *Al Dostor* editor-in-chief, Ibrahim Eissa, is perceived as a pioneer of independent reporting in Egypt and a professional willing to criticize the President and the Government, challenging Egyptian socio-political norms (Article XIX, 2008). Before

establishing *Al Dostor*, Eissa has the distinction of being involved in ten newspapers that have been shut by the Government, often because of his columns (Committee to Protect Journalists, 2008). In 2008, Eissa was the first journalist to be sentenced to six months in prison, under the provisions of the new press law designed to control independent opposition newspapers, on charges of reporting and publishing information about former president Mubarak (El Deeb, 2008). *Al Dostor* organization employs more than 100 journalists and correspondent, hired mainly among fresh graduates. In three years, after turning into a daily newspaper, *Al Dostor* has a daily circulation of 95,000 copies placing it as the leading opposition newspaper and among the top circulated newspapers in the Egyptian market. The newspaper (website www.dostor.org) is considered one of the newest of Egypt's 87 online publications and indeed the savviest, portraying itself as the platform of freedom of expression in Egypt.

***Al Masry Al Youm* Newspaper**

Al Masry Al Youm is considered one of the most successful models of independent newspapers in Egypt. The newspaper was established in 2004, and in just a few years established itself as one of the main newspapers among the Egyptian elite, and is moving steadily to be the most read newspaper in Egypt. *Al Masry Al Youm* boasts a daily circulation of 195,000 copies, pulling many readers from the traditional national newspaper market, with its new production design, layout and sections. Furthermore, *Al Masry Al Youm* attracted several leading newsmen from traditional newspapers and their international offices. Currently, the paper employs approximately 200 journalists (permanent and freelance) across the country. *Al Masry Al Youm* is well known for its editorial policy, which broke many taboos in Egyptian news business raising the level of freedom of expression. The *Al Masry Al Youm* portal (www.almasry-alyoum.com) comes with a newer perspective than that of *Al Ahrām*, which was seen as the model of news portal in the Egyptian 'online media.' With its design, layout, and dynamic features –The portal was the first newspaper website allowing audience to comment over news, interact with journalists, presenting audio-video news- it has become one of the main news portals in Egypt, and most read newspapers online in Egypt. In 2009, *Al Masry Al Youm* presented a new portal (www.almasryalyoum.com) as the first 24/7 news portal in Egypt.

Results

Newsrooms have always been shaped by management's/journalists' utilization of technology. New communications technology brought major benefits for newsrooms and unnerving changes in work practices and routines. Almost all aspects of newsroom operations, including production, layout, composition, delivery, circulation, and archives are computerized. A few deadlines a day have been replaced by rolling news. The newsroom computer system has evolved from a simple layout, text typing and wire browsing system, to a multimedia workflow engine that spans well beyond the newsroom floor and production. The potential of computer networking for journalism has been increasingly recognised. The digital newsroom is fast becoming the core groupware platform and workflow engine of successful newspaper organisations.

ICTs have crept their way into Egyptian newsrooms. Many factors determine the degree of adoption of different elements of ICTs inside newsrooms, including organisation ownership, economy, competition, management structure, editorial policy, and journalists' attitudes towards different technologies.

Table 2: Newsroom Infrastructure

Technology	<i>Al Ahram</i>	<i>Al Dostor</i>	<i>Al Masry Al Youm</i>
Internet	Yes	Yes	Yes
Intranet	Yes	Yes	Yes
Wireless Internet Service	No	No	Yes
Computers	Yes	Yes	Yes
Digital Database	Yes	Yes	Yes
Telephone	Yes	Yes	Yes
Fax machine	Yes	Yes	Yes
Organisation Email	No	No	Yes
Organisation Mobile	No	Yes	Yes
Organisation Laptop	No	No	Yes
Satellite Television	Yes	Yes	Yes

Al Ahram was the first news organisation to receive an internet connection among Egyptian newspapers in 1994. For *Al Ahram* management, the internet was seen as a tool to help document and verify already known facts and sources. This explains why internet connectivity was limited to the organisation's archive department located next to the editors' offices. With the increase of the internet's popularity among journalists and their pressure to wire the newsroom, as well as (most importantly) increased internet connectivity in other Egyptian news organisations, *Al Ahram* management allowed internet connectivity first outside the newsroom in the tenth floor journalist lounge. The internet was introduced inside the newsroom in 2001, with the change of wire service delivery to a standard online reception. However, *Al Ahram* management allowed there to be an internet connection partly inside the newsroom within the editor's section. internet connectivity was restricted to four workstations, called the 'computer section', in order to make sure that journalists only used the technology within "limits of *Al Ahram* policy." Computers with internet access were made available in the journalists' lounge room where journalists used a 'booking sheet' to access the internet. These computers are always busy with journalists "striving to do their work," as stated by an undisclosed journalist. Inside the newsroom, journalists have access to computers with the internet for only a few minutes, "just to pull information" (Salem, 2008, Pers. Comm.; Aziz, 2008, Pers. Comm.).

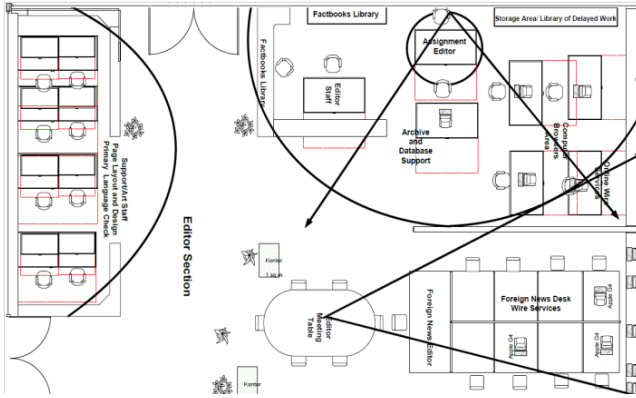


Figure 2: Cross Section of Computer Area inside *AI Ahram* Newsroom

Theoretically, the *AI Ahram* organisation is properly wired, but the internet has not been upgraded since 2005 even though the organisation receives its internet service from the Government. The internet is only allowed in high-managerial and editors' offices. internet and technology services are maintained through the *AI Ahram* Management And Computer Center (AMAC). The internet service inside the organisation follows heavy censorship. Access to social media and 'unnecessary websites' are banned inside the organisation. The centre conducts a high level of surveillance on internet access, as well as over the organisation's email system, which explains why *AI Ahram* journalists prefer using commercial emails rather than the organisation emails to escape organisation pressure and censorship. Wireless internet access is not permitted inside the organisation (El Tohaiby, 2008, Pers. Comm.)

AI Ahram management restricted internet connectivity inside the newsroom within the editor's zone ICT Infrastructure Inside the AI Ahram Newsroom.

"The computer system inside the organisation needs real upgrade," explained Sameh Abdallah, Online Editor and Multimedia Project Manager. The number of personal computers is inadequate, with just "one computer for every 15-20 journalists." Touring the newsroom, the computers inside the newsroom are "old and slow", in the words of one journalist. The computers are regularly "down because they are not authentic and way too old and over used." The management does not invest in purchasing authentic computers or software programs... the money is spent instead on painting the entrance to the organisation's building and upgrading 'editors' offices' rather than technological infrastructure," as discussed by another journalist. *AI Ahram* staff members are not encouraged to bring their own laptops into their workplace. Even if they do bring in a laptop, there is no printing facility for their work, limited internet cables to share on the claim of necessity to maintain the bandwidth speed so it does not get overloaded. The layout and design computer is an Apple Macintosh G4 on which 'Al Nasher Al Sahafi',

an Arabic-specialised program for publishing, is installed.

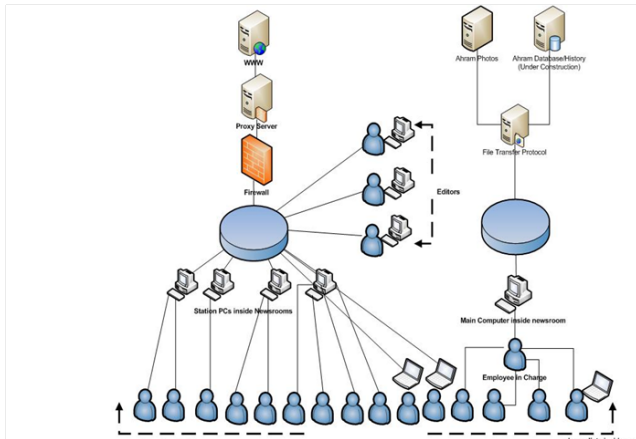


Figure 3: *AI Ahram* Foundation Networking System

The AMAC is also responsible for the creation of the *AI Ahram* Intranet work portal. The portal hosts the *AI Ahram* website portal, various *AI Ahram* publication websites, email system, and database. As mentioned earlier, *AI Ahram* is the owner of www.ahram.org.eg and its mirrors www.ahram.com and ahram.co.uk, so it is not mistaken for other newspapers. Within the *AI Ahram* ownership package is the *AI Ahram* email system (@ahram.org and @ahram.org.eg). The organisation offers email to its management, editorial board, senior writers, and a number of ‘trusted’ journalists. The majority of journalists are not offered organisational email addresses, fearing they could use the *AI Ahram* name to conduct personal reporting for other publications, which provides another explanation as to why members of the *AI Ahram* newspaper use commercial emails. The email system is hosted via the *AI Ahram* Intranet work portal.

AI Ahram maintains a simple database which stores *AI Ahram* archived files (since 18 July 1998). Journalists and readers can retrieve past issues by searching for the date; however, they cannot search the dataset using keywords. The organisation has a ‘form’ of Intranet to transfer files from the newsroom to the layout department and to send pictures from the archive, the newsroom, and to the layout department.

AI Ahram spent EGP 12,000,000 (\$1.6 million U.S.) in creating its photo-database. “This is our success story,” stated a Vice Editor of *AI Ahram*. The organisation owns one of the most valuable photo-documentation databases in Egyptian media, with over 14 million photos added since the early 1900s. To keep this ‘image treasure,’ AMAC launched a project where all pictures were scanned, properly documented, and stored in the archive library. A computerised archive room was then established where pictures from the news agencies were filed into the archive system. Access to the photo-database is restricted to a few library personnel. Journalists who need archived pictures must go to the library and browse the database with the librarian to choose the required picture. The picture

is then transferred via the Intranet work portal to the newsroom, to be observed by the journalist and editor in the 'archive' computer run by another library staff member, which can then be approved and then sent for layout. AMAC is working on the development of 'an ambitious program' where *Al Ahrām* documents, including past issues, can be scanned, text-object recognised, and archived.

In a closed centralised newsroom system, and also for financial reasons, *Al Ahrām* does not offer mobiles, laptops, or other forms of technologies to its employees. However, through the Egyptian Journalism Syndicate, *Al Ahrām* journalists are provided with special offers on laptops and special rates on mobile phone lines and equipment to encourage them to use the technology. The journalists' union inside *Al Ahrām* provides such a service, but on a limited basis.

The *Al Ahrām* newsroom is equipped with six television sets located in the newsroom next to the editor's office. The TV sets are only hooked to satellite receivers, which are programmed to only receive 'approved' news channels. The televisions operate when "major events take place and need to be seen." The main technology present inside the 'journalists' quarters' in the newsroom are telephones. Fifty-seven landline telephones were counted inside the journalist section. Accessing internal lines can be done directly, however accessing outside lines is done through an external number. Accessing mobile phone lines requires calling the operator, requesting the number and outlining the purpose of the call, details of which are inserted in the telephone log book.

ICT Infrastructure Inside the *Al Dostor* Newsroom

Internet infrastructure in the *Al Dostor* newsroom was laid a few months before the Government closed the newspaper in 1998. The internet service was reintroduced with the re-establishment of the newspaper in 2005. The organisation depends on link.net as its internet service provider. Although the company is privately owned, its history as a government company makes *Al Dostor* employees believe that the constant outage in internet service is planned. "Whenever we complain, the company always put the blame on the telephone company, not them, as the service providers. We are seriously thinking [about] having employees stationed at the telephone company and the internet service providers to make sure the service is running" (Mansour, 2008, Pers. Comm.).

The organisation provides internet service to all staff members though a 10MB service in order to maintain website access and monitoring speed. *Al Dostor* staff and journalists can access the internet via the internal wiring network, as well as via a wireless router. Each of the *Al Dostor* newsrooms has between two and four computers assigned to them. Each journalist can log on to any workstation and provide a username and password to upload their profile.

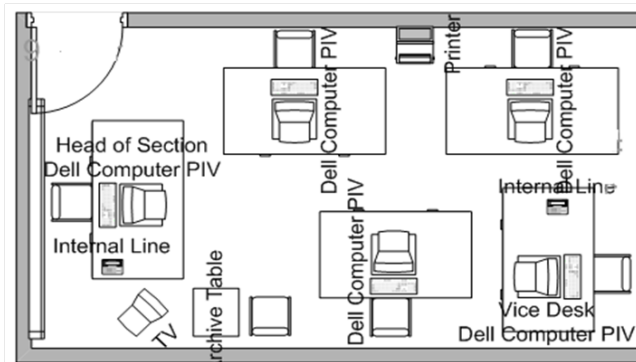


Figure 4: AI Dostor ICT Map of the Foreign Desk

AI Dostor's financial problems do not allow the organisation to upgrade its computer system. However, all available computers –observed during the time of study (except for two newsrooms) were a Dell Inspiration model with Intel Pentium IV processor, 320 GB hard disk, and two GB of RAM, which are considered to be rather old models of technology to handle journalism and multimedia processing. All the computers have access to printers, fax machines, and the news organisation scanner. The organisation installed 17 inch monitors for better viewing and handling of the multimedia operation. The layout room computers are Apple Macintosh for design and publishing purposes. The other section that uses a different system is the online editor (webmaster), who uses a highly technical (at the time) Hewlett Packard laptop with dual-core processor, 320 GB hard disk, and 4GB of RAM, which makes it easier for the webmaster to work and monitor the website and feedback interactivity mechanism anytime and anywhere. The webmaster is also provided with mobile internet access for use in emergencies. The rest of the staff, however, are not provided with mobile phones. The organisation has six mobile phone lines which are paid for by the organisation for work purposes, in addition to four other lines for the editor-in-chief and other senior editors. Members of the *AI Dostor* organisation who are members of the Journalism Syndicate are encouraged to take advantage of the syndicates' offers when it comes to technology. Journalists who are interested in purchasing laptops or mobile equipment can apply for an interest-free partial loan from the organisation.

Financial pressure limits the organisation from investing in a complex intra-network system. The internal system consists of the login system and the journalist's profile, as well as a common hard disk space for journalists and editors to share story files, pictures, and page layouts. The organisation has a complex database archive for its online news and previous issues which are available to journalists and readers. Because of limited news resources, the organisation created "internet Teams" whose jobs were to create an internally implemented database archive of several topics that are of interest to the organisation, i.e. alternative and opposition political systems.

The organisation's website registration and host is outsourced in the United States to be out of the Egyptian Government's reach. The website is a personal initiative shouldered

by *Al Dostor's* editor-in-chief, because the management does not have enough funds. The website registration is basic; in other words, it does not provide an organisation database or email service. Journalists and editors use commercial email providers, such as Yahoo, Hotmail, and Gmail. It was notable that in the quantitative survey editors preferred Gmail, stating that that it has less spam than other commercial counterparts.

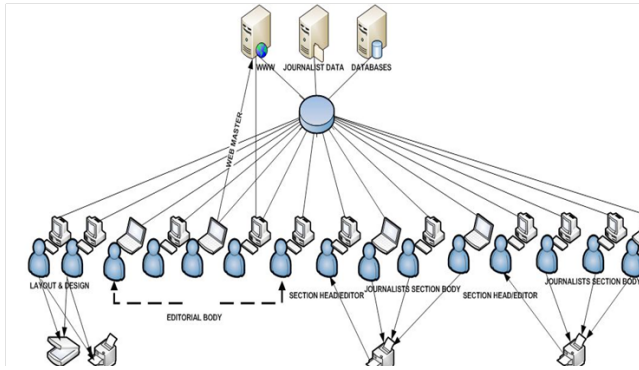


Figure 5: *Al Dostor* Networking System

Two telephone lines are placed in every newsroom — on the desks of the newsroom editor and the vice or/senior journalist of the section/department. Mobile calls are available directly. Finally, there are two televisions available inside two newsrooms — the first is inside the Foreign Desk where it is hooked to a satellite, mainly to browse news network channels for news and analysis, and the second is placed in the neighbouring Sports Department.

Al Masry Al Youm management aims to prepare their staff to be mobile journalists, able to report, type and publish their news from the scene.

One noteworthy observation is that the mobile signal is weak throughout the newsrooms, as the structure of the rooms does not allow for a strong mobile signal. In order for journalists to make or receive a telephone call, they need to go outside the newsrooms to the outside of the corridor or towards the balconies to receive a signal: “It is not an efficient technique... but it is something we have to live with and deal with it” (Bakr, 2008, Pers. Comm.)

ICT Infrastructure Inside the *Al Masry Al Youm* Newsroom

The *Al Masry Al Youm* organisation introduced internet services in 2004, coinciding with the introduction of the newspaper. Moving to its current premises, the ICT infrastructure was incorporated within the blueprint design of the newsroom. The management provides two forms of internet service within the newsroom. First, a T1 high speed internet service for wired service, intra-network, website maintenance, and a 10MB wireless Local Area Network (LAN) for mobile access. All journalists are assigned a

cubicle inside each department. The mobile furniture system allows for several changes inside the newsroom and each cubicle has a workstation and/or laptop access.

The computers have new Pentium dual-core stations with flat LCD 17-inch monitors. Since 2007, all journalists who passed one of several organisation computer training courses received their own Dell dual-core processor laptop with mobile internet access. The training course is designed and run by the BBC Arabic service and intended for all *Al Masry Al Youm* employees, including editors.

The management aims to prepare their staff to be 'mobile journalists', able to report, type and publish their news from the scene. In August 2008, the newspaper started (and is currently implementing) a new training course also designed by the BBC Arabic service in audio-visual reporting, which trains journalists to shoot and record events using handheld mobile devices. Journalists who complete the training course are offered smartphones with internet access. All computers within the newsroom have access to a printer, fax machine, and scanner.

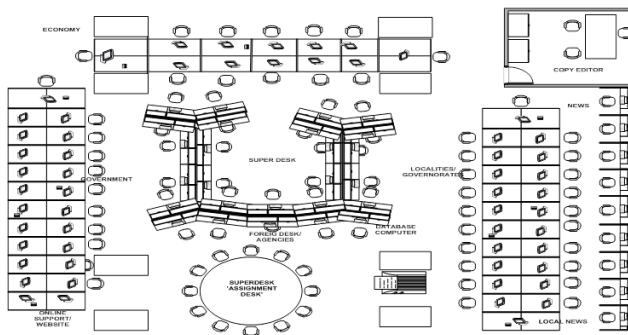


Figure 6: AI Masry Al Youm ICT Map

Al Masry Al Youm possesses a more advanced and more secured intra-network system than *Al Ahram* and *Al Dostor*. Journalists can access their profile accounts, their organisation email, the organisation database, the organisation website and website database, submit their stories, and track their submissions and their personal story history via the intra-network system. Section/Department editors have access to all of their department's journalistic work. Editors can edit their stories online, choose the running stories, archive work, and place it in the layout order. Accessing profiles is important for assessing journalists' work and development. Copy editors and senior editors have access to the entire system, including the layout and design, past and pending stories, financial, and human resources system. The organisation hired a specialised computer company that 'Arabised' a prototype program from *The Guardian* newspaper. The organisation further obtained a strong database system, subscribing to different specialised media companies. Part of the multimedia department's role is to enrich the organisation's database with news, especially from Egypt and the Arab world.

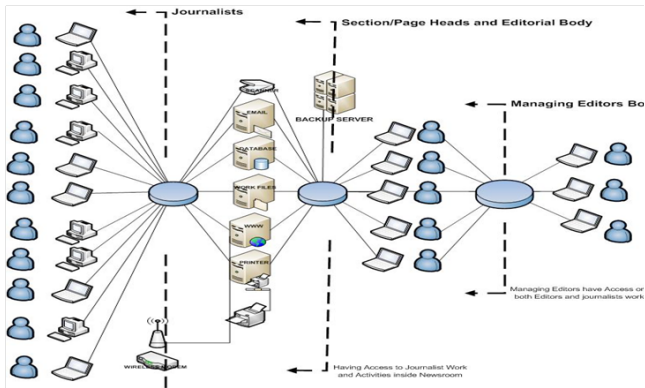


Figure 7: AI Masry Al Youm Networking System

Twenty telephone landlines were counted inside the newsroom. The open-space newsroom allowed easy access to all telephone lines, fax, and printing facilities. Mobile calls are also directly available. Finally, there are two televisions available inside the newsroom. The televisions are Sharp 40-inch flat LCD screens placed on two walls that can be viewed by the entire newsroom. The screens are hooked to a satellite system. During the period of study, both televisions were on, with one tuned to the Egyptian Nile News channel and the other tuned to the independent Al Arabia channel.

The Use of ICTs in the Egyptian Newsroom Daily Routine

What makes a newsroom’s identity is its influence on how news is defined and how journalists report their news and stories. As mentioned earlier, the use of technology inside newsrooms is beyond the linear notion that ‘news journalism’ or ‘network journalism’ is ‘caused by’ or a ‘result of’ technological developments. Considering the newsroom’s social, cultural, and economic contextual factors is important as they influence the extent journalists use new technologies.

Table 3: Journalists’ Use of ICTs inside Newsrooms

	Al Akhbar				Al Dostor					Al Masry Al Youm				Total (n)	
	Daily	2/ week	2/ month	Rarely	Never	Daily	2/ week	2/ month	Rarely	Never	Daily	2/ week	2/ month		Rarely
Read Publications Online	62.9	15.4	7.7	0	7.7	100	0	0	0	0	85.7	14.3	0	0	0
Read Email	84.6	15.4	0	0	0	92.3	0	7.7	0	0	100	0	0	0	0
Participate in Usenet/Chat Groups	0	16.7	8.3	16.7	58.3	23.1	15.4	15.4	15.4	30.8	28.6	28.6	14.3	28.6	0
Browse WWW for Story Ideas	14.3	28.6	21.4	21.4	14.3	76.9	7.7	0	15.4	0	38.5	53.8	7.5	0	0
Download Multimedia Material	23.1	30.8	0	46.2	0	61.5	15.4	7.7	15.4	0	21.4	7.1	50	21.4	0
Looking for Experts Interviews	23.1	0	15.4	53.8	7.7	69.2	23.1	7.7	0	0	28.6	28.6	14.3	21.4	7.1
Total (n)	37	37	37	37	37	19	19	19	19	19	27	27	27	27	27

Table 4: Journalists' Sources

	Al Ahram					Al Dostor					Al Masry Al Youm					N
	Daily	2/ week	2/ month	Rarely	Never	Daily	2/ week	2/ month	Rarely	Never	Daily	2/ week	2/ month	Rarely	Never	
Press Release	50	28.6	0	0	21.4	36.4	18.2	0	9.1	36.4	14.3	14.3	28.6	14.3	28.6	
Organisation Sources	46.2	7.7	0	23.1	23.1	25	33.3	16.7	0	25	21.4	35.7	14.3	21.4	7.1	
Telephone	53.8	0	0	15.4	30.8	16.7	16.7	0	16.7	50	14.3	14.3	14.3	21.4	35	
Fax	61.5	7.7	0	7.7	23.1	54.5	18.2	0	0	27.3	28.6	21.4	28.6	21.4	0	
Wire Service	100	0	0	0	0	53.8	23.1	7.7	0	15.4	71.4	21.4	7.1	0	0	
Satellite TV	66.7	13.3	0	0	20	20	30.8	7.7	15.4	23.1	23.1	21.4	35.7	21.4	0	
WWW	73.3	13.3	0	0	13.3	58.3	33.3	8.3	0	0	71.2	28.6	0	0	0	
Email	42.9	14.3	7.1	0	35.7	46.2	15.4	0	30.8	7.7	28.9	35.7	28.6	7.1	0	
List Serve	15.4	0	15.4	15.4	53.8	25	8.3	16.7	8.3	41.7	7.1	14.3	14.3	21.4	42	
Audience Feedback	0	0	0	7.7	92.3	38.5	30.8	7.7	0	23.1	14.3	7.1	21.4	42.9	14	
Total (n)	37	37	37	37	37	19	19	19	19	19	27	27	27	27	27	

Al Ahram Journalists' Use of ICTs in Daily Routine

Although the number of *Al Ahram* journalists/editors (approximately 800 journalists) outnumbers both *Al Dostor* (approximately 100 journalists) and *Al Masry Al Youm* (approximately 200 journalists) combined, the newsroom was empty but for a few journalists throughout production hours (between 9.00 and 16.30). The maximum number of journalists who were present inside the newsroom was 43 journalists/editors, which followed the story of the burning of the Egyptian Parliament. The number of journalists averaged 27 throughout the observation tiers. One of the main reasons, as interviews revealed, is that journalists do not need to be physically inside the newsroom because "it is often they call their sources, write the story and dictate by phone to the editorial secretary," as an undisclosed reporter put it. The journalists in the newsroom are the ones looking for a break into publishing and these are the journalists who are interested in utilising ICTs in their work.

Observation analysis showed that acquisition of technology does not mean physical availability of technology. While conducting in-depth interviews, several journalists stated that *Al Ahram* does not have enough ICTs available for them to use: in fact, "Computers are usually out of service." This was further reflected in some of the comments provided by journalists stating that not everyone has access to internet technologies or computers; others stated *Al Ahram* management are using obsolete technologies that cannot satisfy the pace of gathering and using information.

Fifteen years after the introduction of ICTs inside the *Al Ahram* newsroom, journalists are still finding their way using ICTs in their daily routine. The majority of journalists do not use ICTs inside the newsroom. The quantitative survey showed that only 23.2% of journalists/editors use at least one form of ICT once per day. On the other hand, 26.3% of editors and senior journalists (over 50 years old) stated that they do not use ICTs inside the newsroom and do not intend to.

During the period of study, 71 journalists were seen during the entire period of study (averaging seven journalists per day) spending almost 104 hours in the newsroom.

The maximum number of journalists using computers was limited to 14 over the span of ten hours. Typing was seen as the primary use of computers inside the newsroom. Throughout the period of study, only six journalists brought their own laptops in to work, three of which brought their own mobile dongle for a personal internet connection. The rest relied on two cables for internet connectivity.

ICTs are seen by journalists as a tool for their ‘personal use’ or to ‘pass time at work,’ not as tools that can help develop their work. Examining *Al Ahram* journalists’ response from the 2008-2009 survey tier (see Table 3), reading publications online and checking personal emails are journalists’ top priorities while using the internet. Elements of interactivity with the audience, browsing the internet to search for information, and exploring multimedia materials, among other computer assisted reporting techniques (see Table 3, Table 4, and Table 5) are still rarely if ever implemented by *Al Ahram* journalists.

Table 5: Typical Day of Technology Use Inside the Al Ahram Newsroom

	<i>Al Ahram</i>									
	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	17:00
Mobile Phone	3	4	2	1	1	3	4	6	6	6
Telephone	1	6	7	7	4	4	3	7	11	11
Fax	2	0	0	0	1	3	12	2	0	0
Wire Services PC	1	1	1	1	1	1	1	1	0	0
Satellite TV	0	0	0	0	0	0	0	0	0	0
Computers/WWW	2	4	3	5	5	3	2	1	1	1
Total Journalists (n)	12	19	20	19	20	20	23	23	20	20

To complete their work, journalists’ depended mainly on the telephone. *Al Ahram* journalists conducted 608 landline telephone calls and 380 mobile phone calls during the course of observation. The ‘traditional brown-dashed papers’, which are still seen as the primary form of writing news and press releases from the Cabinet of Ministry and other government bodies were seen lying throughout the newsroom. Results from the survey confirm that journalists still depend on traditional forms of data gathering, such as press releases, faxes, and *Al Ahram* sources. The newest form of technology used by journalists is satellite television, with 66.7% of *Al Ahram* journalists using satellite channels as a source on a daily basis.

As mentioned earlier, using new technologies is seen as a complement to traditional media. Journalists cannot present their news stating that the internet or any of its sources are their primary source of information as management would immediately refuse to publish. The internet is seen by the management as an add-on to traditional news values, seeing ICT resources as untrustworthy in comparison to the traditional government ‘news releases’.

***Al Dostor* Journalists’ use of ICTs in Their Daily Routine**

Developing a career in journalism in today’s competitive independent and opposition media market takes more than just basic journalism writing and editing skills. The effective use of ICTs in developing stories and interacting with readers is the key to survival. Although *Al Dostor* management faces financial difficulties, making the best out

of exploiting the technology is the key to understanding news operationalisation inside the *AI Dostor* newsroom (El Sergany, 2008, Pers. Comm.; Attia, 2008, Pers. Comm.). On a general note, one needs to look at *AI Dostor*' ICT facilities as fixed items, with journalists revolving around the technologies as teams produce their work. During the course of study, in a typical newsroom, the Foreign Desk, for example, had three teams rotate to computer sets for eight hours to create three main tasks — the daily newspaper production, the weekly production, and adding to the database. That is why newsrooms are always busy with journalists/editors working around the clock.

During the course of study, 57 out of 65 journalists (88%) were available in different office newsrooms using computers at some point in time. The total number of journalists using computers and the internet during the period of study was equivalent to the total number of observation hours. Journalists understand that they need to utilise the technology to come up with new ideas and stories in order to continue working.

Table 6: Typical Day of Technology Use Inside the *AI Dostor* Newsroom

	<i>AI Dostor</i>								
	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Mobile Phone	3	3	5	4	3	3	3	3	2
Telephone	3	2	3	0	4	0	4	2	2
Fax	0	0	1	1	1	0	2	2	1
Wire Services PC	4	4	4	4	4	4	4	4	4
Satellite TV	0	1	0	1	1	1	1	0	0
Computers/WWW	11	14	14	17	14	14	23	21	20
Total Journalists(n)	24	24	36	34	33	35	39	39	39

Reading publications online is one of the *AI Dostor* journalists' main daily activities (see Table 3 and table 6). In order to overcome the Government's tight control over resources, reading publications online has become a primary tool in gathering information about Egypt. As mentioned earlier, *AI Dostor* is interested in hiring fresh graduates with language capabilities. During the observation study, three new trainee journalists were hired because they had Spanish, Italian, and German language capabilities. They were asked to browse the internet to extract news and information of interest to *AI Dostor* readers. In fact, learning how to localise stories is the first lesson they learn when they train to become journalists in *AI Dostor*. The majority of *AI Dostor* journalists participate in newsroom discussions and browse social media and multimedia websites searching for story ideas and interviews.

As mentioned earlier, *AI Dostor* journalists use whatever source of information they can find in order to report their stories. This is mainly because *AI Dostor* journalists have limited work experience. Information sources can include copies of newspapers, magazines, press releases, and faxes mixed with printouts of emails, websites, and wire services. In order to curb government control and to receive government documents and faxes, *AI Dostor* journalists, usually "have their sources inside different government ministries for tips and information" (Mansour, 2008, Pers. Comm.).

Results from the survey confirm the previous statement, where the majority of journalists use the internet as their primary source of information. Using press releases, journalists

were split with 36.4% of journalists stating they use press releases on a daily basis and another 36.4% stating that they never use press releases in their news coverage.

Al Masry Al Youm Journalists’ use of ICTs in Daily Routine

The *Al Masry Al Youm* newsroom centres on the utilization of ICTs. As discussed earlier, each journalist has their own workstation or laptop. During the period of study, the use of computers outnumbered all other forms of technology inside the newsroom. Journalists use their computers to search the database, create and arrange for their interviews, and type and submit articles through the organisation’s intra-network.

For Al Dostor and Al Masry Al Youm ICTs it is about audience utilization of their online service. A way to create a parallel platform for the audience to interact and react to news and create a network sphere away from the government’s traditional one.

The majority of journalists use ICTs inside the newsroom. The quantitative survey showed that 93.2% of journalists/editors use at least one form of ICT at least once a day. Reading online publications, participating in chat discussions, especially audience feedback, is a daily ritual for journalists as it is considered a source of news and story ideas (see Table 3). *Al Masry Al Youm* journalists depend on both traditional and new media for story ideas on a daily basis, with an advantage edge for new technologies (see Table 4).

During the period of study, nearly all journalists/editors used computers at one time, with 123 out of 128 journalists (96%) observed using a computer. The majority of journalists used the internet, specialised databases, document software, and email. Journalists used computers in their work production during all hours of observation inside the newsroom.

The organisation created different teams headed by an editor of the department or the Vice Editor. The teams work in four shifts a day, and their aim is to trace information for the newspaper production, build their own database, and to train journalists on the *Al Masry* online news portal launched in 2009 and on multi-platform production (mobile publishing started early 2010).

Table 7: Typical Day of Technology Use Inside the Al Masry Al Youm Newsroom

	<i>Al Masry Al Youm</i>								
	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Mobile Phone	4	5	8	7	7	6	6	7	3
Telephone	4	4	3	2	3	1	3	2	3
Fax	1	1	0	0	2	0	0	2	1
Wire Services PC	8	8	8	8	7	6	5	8	6
Satellite TV	0	2	2	0	3	0	1	1	3
Computers/WWW	21	16	17	16	16	17	15	14	14
Total Journalists(n)	38	38	38	38	38	34	34	34	34

Audience Role in Newsmaking Process

With the development of Web 2.0, people started utilizing ICTs for communication and interaction. This trend forced newspapers to accept the notion of citizen involvement in the news-making process and journalists thus started to collaborate with their audience in content creation. In democratising societies, journalists' virtual interactivity with their audience and facilitation of discussions between different activists, political bodies, and citizens helps to revitalise democracy. The journalists' role, therefore, expanded from simply reporting the political process to being active participants in the democratisation process. In other words, the journalism process shifted from a top-down lecture model to an open dialogue with the audience.

Journalists' traditional role as gatekeepers has changed, with the audience becoming more 'information-watchers' between different society members' 'nodes'. In Egypt, the notion of the changing role of journalists is still in its primary stage. For journalists in *Al Ahrām*, especially senior editors, this concept does not exist. *Al Ahrām* editors see themselves as the 'guides to social welfare': "We know the inside of the political process, and we can see what people are not aware of" (Ahmed, 2008, Pers. Comm.). A number of journalists in *Al Ahrām*, especially senior journalists, also refuted the idea of the shift, adding that leaving this role is seen not only 'as bad for the society' but also as impossible for a country like Egypt, where news must maintain stability in order to avoid chaos: "We are the keepers of the social norms and welfare system... the audience lack political knowledge and we are the one close to the decision-making ring so our role is to educate people about that process" (Metwali, S, 2008, Pers. Comm.).

Contrary to this stand, journalists and editors at the *Al Dostor* newspaper see the audience as 'partners' in the news-making process, a 'compass' pointing towards the social agenda. In such a view, better journalism occurs when journalists are 'networked' with their audience. Although the concept of 'gatewatcher' was not heard within the newsroom, except from three journalists, the core of the concept was still understood by the majority of journalists: "Journalists are part of the society; if we don't listen to the street... then we are not doing our job... [we will then be just] another newspaper in the market," stated Ibrahim Mansour, Managing Editor of *Al Dostor*, who added that "news is becoming an ongoing process and people are becoming as much a part of the news-making process as professionals... as the government and the President himself." Journalists agree that their news organisation is turning into a forum for the audience to go beyond consuming news to "reflect, analyse, and examine the effect of news on their daily lives and we need to be part of that discussion and report with and about it." (El Amir, 2008, Pers. Comm.)

Similarly, the journalists and the editorial body of *Al Masry Al Youm* welcome the change in the journalist's role. The majority of journalists see that the change of their role is good for the profession and society, as it will encourage more people to interact "and the silent people will have confidence and speak their minds." Ultimately, "this will put pressure on the government to speed up the political reform process (El Hawary, 2008, Pers. Comm.). "We need to speak the people's language, reach them and provide them with ideas that they can discuss, and reach conclusions and results that satisfy their

needs” (Mahmoud, 2008, Pers. Comm.). Unlike *Al Dostor*, many of the *Al Masry Al Youm* journalists defined their role as an ‘active bridge’ (node) between the events on the streets and different political actors and citizens.

For Al Ahram, the audience needs to embrace their role as ‘silent recipients of the news’ where as Al Dostor and Al Masry Al Youm see audience interactivity as ‘a source for news and part in the news making process’.

For the majority of *Al Ahram* journalists, the audience should embrace their role as recipients of the news. “All discussions about citizen journalism and users comments on news are hype and it will soon be over... Journalism is a business and it has enough troubles already”, stated Abdel Moneim Saïid, former Chairman of the Board of *Al Ahram*. Audience interactivity is not an option “as the audience is not ready yet,” as stated by one of the senior editors of *Al Ahram*. Similarly, audience discussions are not material to be discussed in the newspaper: “one cannot truly learn anything from people’s ‘venting’ as in most cases it is personal and without any solid proof,” answered Mr Samy Metwali, Managing Editor of *Al Ahram*, answering the query whether the newspaper was ready to use audience feedback as story ideas. His opinion, shared by the majority of the editorial staff as well as senior journalists and a number of reporters, saw audience discussion as belonging “to the coffee shops” and not on the pages of *Al Ahram*, which needs to “continue its role as a guard” for journalism not part of “yellow journalism trend,” stated a number of *Al Ahram* journalists.

For *Al Dostor* journalists, interactivity is a tool not only to ‘create a democratic platform’ for citizens but also ‘a tool’ to get news and information: “I find that audience online discussions and feedback are fruitful for my work... many good ideas are generated ... in many cases I find threads for breaking news, follow-up news... it is a tool to fight the scarcity of news resources” (El Amir, 2008). Further, for editors of *Al Dostor*, audience discussions and interactivity and feedback on stories are seen as tools to measure the organisation’s popularity, journalists’ popularity, and are even “growing to be a tool for journalist evaluation,” stated Ibrahim Mansour, Managing Editor of *Al Dostor*. He added: “I have the Multimedia Editor in the same room to brief me on audience feedback.”

During the course of the observation, audience feedback did indeed seem to be a tool for evaluating journalistic performance. Readers sent 13 feedback messages correcting factual errors in seven stories and a further 34 messages were counted in 18 stories providing missing information. On two occasions, audiences sent comments accusing journalists of plagiarising their stories and provided links to the original stories as proof. An investigation followed and three journalists were penalised. A number of *Al Dostor* journalists and editors pointed out that in some cases audiences would send text that could be used as stories and the management did publish them: “one of the newspaper collaborators in the governorate of Qina used to send us news from the city and when events of fights erupted in the city we emailed him to report to us about the events,”

(Mansour, 2008, Pers. Comm.)

Likewise, for *Al Masry Al Youm*, journalists' interactivity is seen by the majority of journalists as a way to get story ideas and develop further relationships with their audience. While in *Al Dostor*, journalists have the choice to interact and be part of the discussion, *Al Masry Al Youm* managers created teams of journalists to be part of the audience feedback mechanism. Since the multimedia department has two journalists whose job is to monitor the feedback mechanism, *Al Masry Al Youm* journalists work in shifts twice per week to monitor audience feedback and report to their colleagues and the management about possible story ideas and audience feedback. For the management, audience feedback is again part of the journalistic evaluation process. It is also seen as a tool to develop a competitive sense among their journalists and a way to ensure the organisation's journalists are part of the citizens' world.

Some journalists, especially senior writers, stated that they are getting tired of audience feedback: "it is OK to say thank you, this boosts our moral... but I am getting tired of the criticism," stated Abdel Salam Mohamed when examining some of his journalists' reactions to the feedback received. A number of journalists tried to curb management evaluation of their work based on interactivity by giving out their email as the source for interactivity with their audience and asking management to remove audience feedback forums from their stories. The management decided, however (because most of these journalists are outside collaborators), that they only use the organisation email to monitor audience interactivity. Saying that, it must be noted that the majority of *Al Masry Al Youm* journalists "are interested in going and seeing audience feedback on their job" (El Zalaky, 2008, Pers. Comm.). Some of the scoops of *Al Masry Al Youm* emerged from audience interactivity and links posted on the newspaper's page on Facebook.

Al Ahram website is seen as a tool for interactivity. During the study period, the *Al Ahram* website was not accessed inside the newsroom except in three cases by journalists checking if their news was included in the online edition of the newspaper. *Al Ahram* sees its website as a tool to expand the print version's circulation. The newspaper management sees 'letters to the editors' and personal meetings as the ideal methods of interactivity. This further echoes previous discussion that there are minimal forms of interactivity when using the website, people seldom use the website to send letters to the editor, and the email account is seldom checked by the webmaster to see if readers communicated with the organisation. "If readers want to communicate and send their complaints, it is easier to send a snail mail, and better to send their documents of proof, so we can verify their complaint and publish it," stated one of *Al Ahram's* copy editors in a personal interview. Furthermore, citizens can visit the *Al Ahram* building, but they are not allowed into the 'journalistic area' and are instead shown to a sitting area next to the entrance door, where they can write down their complaints and give them to the Public Relations Department, which sends the paper via internal post to the editor.

Use of ICT interactivity was not witnessed inside the newsroom. A number of journalists reported that social network websites are not accessible and filtered by the newspaper management "to control access for unnecessary information" (Korashi, 2008, Pers.

Comm.). Journalists were only counted using social network websites (Facebook) three times, however they were using their own laptop computers and used a mobile dongle for internet access. “We have to find a way of accessing information... we have to find information beyond the government and we need to get published, but the trick is not attributing the information and interactivity to the management,” stated one journalist from the Foreign Desk. “This explains why fewer people are visiting our website,” stated Sameh Abdallah, Multimedia Editor of the *Al Ahrām* newspaper, who added that “readers need journalists who are engaged with them online and yet we are still looking for a better and faster printer.”

The *Al Dostor* website is seen as an extension of the organisation’s open forum, where the audience is welcome to come and discuss their problems and meet journalists and editors: “It is a way to further gather story ideas; people don’t come to complain or ask for help. They know that the government hates us, but they come to discuss government injustice, seeking to get their stories out there so the people know” (Mansour, 2008, Pers. Comm.). Further, the *Al Dostor* website plays a role of an “open platform for audience to interact,” not only via comments and feedback mechanism but also through the *Al Dostor* pages on Facebook, Twitter, and YouTube. Furthermore, *Al Dostor* allows their journalists to have links to their own blogs. The organisation also has its own blog, *Mudawnat Dustoria*, to expand the interactivity universe and network with the audience.

Al Masry Al Youm regards its website audience feedback and email as a proper tool for interactivity: “We receive some 5,000 feedback messages per day and we see it as an efficient tool to interact with our audience” (El Zalaky, 2008, Pers. Comm.). However, for *Al Masry Al Youm*, the presence of the news organisation in Kasr Al Aini Street makes it the best place to have direct contact with the people. “This street is visited by at least 1,000,000 people per day and there is at least 100 coffee shops... one way to look for new ideas and to know people’s ‘topic of the day’ is the good old coffee shop where people gather and talk about the problems they have. It is there that you will find our journalists sitting and interacting” (Mohamed, 2008, Pers. Comm.). Similarly, “It is like reviving the concept of the public sphere but with journalists sitting and deliberating over ideas” (Mahmoud, 2008, Pers. Comm.).

Conclusion

The adoption and diffusion of new ideas, technologies, and practices takes time in any social system, and journalism is no exception. Reviewing journalists’ attitude towards incorporating ICTs in their routine, both survey and ethnographic research showed the gradual diffusion of ICTs ‘online’ elements in ‘offline’ routine activities. The results showed that journalists do use ICTs for developing their own work and in order to keep up with the competition in the market. However, the journalists’ level of interactivity with news media did not exceed accessing information online. Furthermore, qualitative observations showed clear differences between news organisations of different types, i.e. government, non-partisan opposition and independent news organisations.

Examining newsrooms, the three newsrooms, *Al Ahram* behaved like typical traditional newsrooms, where journalists depended mainly on the telephone, press releases, and wire services in their daily work. Non-partisan and independent news organisations, on the other hands, have integrated ICT elements in their work routines more than journalists in the government-controlled media. For both types of media, ICT applications were seen as a tool to diversify their sources, escaping the tight government control over news sources. For government news organisations, 'trustworthy' government sources were more important than diversified or alternative sources.

Although *Al Dostor* management faces financial difficulties, making the most of existing technology is the key to developing their daily routine. *Al Dostor* management created around-the-clock 'online teams' whose job it is to gather information for daily production and to supplement the organisation's database. During the course of study, the total number of journalists using computers and the internet was equivalent to the total number of workstations. In other words, workstations were occupied all the time. *Al Dostor* journalists understood that they needed to utilise the ICTs to come up with new ideas and stories in order to continue working. Furthermore, the majority of *Al Dostor* journalists participated in various newsgroup discussions and browsed social media and multimedia websites searching for story ideas and interviews.

For *Al Masry Al Youm*, developing a brand name in the journalism industry in today's competitive media market takes more than just basic writing and editing skills. The effective use of ICTs in developing stories and interacting with citizens is the key to survival. This, in a nutshell, explains the journalists' and managements' attitude towards integrating ICTs into their daily routines. Indeed, the *Al Masry Al Youm* newsroom centres on the utilization of ICTs. During the period of study, the use of workstations outnumbered all other forms of technology inside the newsroom. Journalists used their workstations to search for story ideas, to search the database, to arrange interviews, to write and edit, and to submit their work through the organisation's Intranet. Nearly all journalists and editors used workstations at one time or another. The majority of the journalists were observed browsing the internet for work purposes, searching specialised databases, writing, and sending or reviewing emails. Like *Al Dostor*, the management of *Al Masry Al Youm* created different teams to trace information for the newspaper production, to build their own database, and to review audience comments. Sixteen years after the introduction of ICTs inside the *Al Ahram* newsroom, journalists were still feeling their way in terms of using ICTs in their daily routine. The majority of journalists did not use ICTs inside the newsroom. The quantitative survey showed that less than 25% of journalists and editors used at least one form of ICT once per day. Furthermore, 26.3%, mostly editors and senior journalists, stated that they did not use ICTs inside the newsroom and do not intend to. During the study period, an average of seven journalists per day was recorded working behind computers. Typing/writing was seen as the primary use of computers inside the newsroom. ICT-related activities inside the *Al Ahram* newsroom were limited to browsing the internet. Most ICT elements, especially web 2.0 elements, were not yet diffused in daily journalism production, including online databases, specialised website materials, blogging, audience feedback and viewing audio-video material. In their daily routine, journalists depended mainly on

telephones, with 608 landline telephone calls and 380 mobile calls counted during the course of observation. The 'traditional brown-dashed papers' are still seen as the primary form of writing news and press releases from the Cabinet and other government bodies were often seen lying throughout the newsroom. That said, when touring the Al Ahrām newsroom, a new generation of journalists and junior editors who believed in utilising ICTs to develop their journalistic skills were visible. Throughout the period of study, six journalists brought their own laptop in to do their work. Three of these used their own mobile broadband dongle to access an internet connection in an attempt to utilise ICTs away from the organisation's and government's control when producing news.

Interviewee Names and Positions

Abdallah, Nagwa, Senior Reporter, Al Ahrām newspaper
Abdallah, Sameh, Editor, Al Ahrām Online
Abdel Hasib, Mahmoud Taymour, Managing Editor, Al Ahrām Organization
Ahmed, Abdel Salam Editor Foreign Desk Al Masry Al Youm
Aly, Emad Reporter Al Masry Al Youm newspaper
Arafa, Eman Reporter Al Dosotr newspaper
Attia, Mohamed, Senior Reporter Al Dostor newspaper
Badr, Ahmed Senior Reporter Al Dostor newspaper
Bakr, Ahmed Vice Editor Foreign desk Al Dostor newspaper
El Amir, Mohamed Editor Foreign Desk Al Dostor newspaper
El Gallad, Magdy Editor-in-chief Al Masry Al Youm
El Tohaiby, Adel Editor Al Ahrām Management and Computer Center
El Zalaky, Ihab Multimedia Editor Al Masry Al Youm newspaper
Eissa, Ibrahim Editor-in-chief Al Dostor newspaper
Emad, Zakareya Reporter Al Ahrām newspaper
Farid, Mohamed Samir Editor El Masry Al Youm newspaper
Fouad, Hazem Reporter Al Dostot newspaper
Hassan, Nadia Reporter Al Ahrām newspaper
Kamal, Hany Reporter, Al Ahrām newspaper
Korashi, Essam Senior Managing Editor Al Ahrām Organization Editor-in-chief Al Ahrām Weekly
Mahamoud, Ahmed Senior Editor Al Masry Al Youm newspaper
Mansour, Ibrahim Managing Editor Al Dostor newspaper
Metwali, Sami Managing Editor Al Ahrām Organization
Metwali, Ahmed Reporter Al Ahrām newspaper and Al Ahrām Online Editor
Mohamed, Hazem Reporter Foreign Desk Al Dostor newspaper
Mohamed, Nagy Editor Al Masry Al Youm newspaper
Nassar, Gallal Editor Al Ahrām Organization

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Endnotes

1 In 2010, the former Egyptian government exerted pressure on the publishers of *Al Dostor* forcing them to sell the newspaper to Al Wafd party businessmen Reda Edward and El Sayed El Badawy, which turned out to be a plan to shut the newspaper and remove its Editor-in-chief from the political scene prior to the parliamentary elections. Editors and journalists refused the changes imposed and published the newspaper online. After the January 2011 revolution, most of the staff and editorial board of *Al Dostor* issued a new newspaper *Al Tahrir*. *Al Dostor* online version continues to publish as a symbol of the original experiment.

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