Pairing Q Methodology And Case Studies To Explore Journalists' Attitudes Toward New Media Forms

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ABSTRACT: Q method's scientific study of subjectivity, combined with the more qualitative interviews and observations of a case study, work well together to enhance the credibility of research findings. The researcher using both methods has a wide variety of measurement items to compare and relate, ranging from what goes on inside respondents' heads, to their modes of personal expression, to the elements of their social environment. This article describes the complementary aspects of the two methods, then applies them both in a look at how American newspaper journalists view the effects of technological changes in the way information is delivered to the public.

Introduction

The practical wisdom of the land surveyor, who knows that an accurate picture of a landscape can be obtained only by observing and measuring it from a variety of perspectives, has long been acknowledged by the social science researcher. The surveyor's term for the process, "triangulation," has even been borrowed and adapted to mean the use of different types of measures or data collection techniques to examine a problem (Neuman, 1991).

When the problem in question lends itself to qualitative inquiry, the value of multiple methods increases. In fact, some scholars specifically define triangulation as the combination of qualitative and quantitative approaches (Wimmer and Dominick, 1991). All scientists seek credible data. But one key test of credibility is not available to the qualitative researcher, whose work is based on interpretive assumptions and rests on recognition of the ever-changing nature of any situation. What can be observed is always contingent not only on time and place but also on the individual researcher, the human "instrument" (Lindlof, 1995). The nature of the approach calls into question the notion of reliability, or the stability of observations despite variations in time, observer or item observed.

Credibility can be greatly enriched by use of a complementary method, with each way of tackling the problem adding its own insights. The study described here

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combines the qualitative case study method with Q methodology — a more objective, scientific study of human subjectivity (McKeown and Thomas, 1988) — to explore the attitudes of newspaper journalists toward online delivery of information. Taken separately, each method reveals a strong belief within U.S. newsrooms that new media formats are well and good as long as they do not result in a less valuable sort of journalism. Taken together, each method reinforces the other's findings and provides a richer, deeper understanding of them; at the same time, the pairing of methods reveals variations among individual attitudes and mental constructs about industry changes more clearly than either method could do alone.

This article, then, looks at how the two approaches work together to answer research questions that are subjective in nature. That discussion is followed by a summary of the findings.

Overview of the Methodologies

Q methodology is concerned with a person's point of view on any matter of personal or social importance (ibid.). It searches for patterns and typologies but is a wholly self-referential process: No meaning exists until the respondent creates it by sorting Q statements or other artifacts. Factor analysis of the sorts reveals categories of operant subjectivity inherent in the original concourse (Brown, 1986). As described by William Stephenson, concourses represent all the conversational possibilities about the topic as seen from the standpoint of the individual involved in the situation. A concourse exists for every concept, declaration, wish and object in nature (Stephenson, 1978). The philosophy behind Q method is dedicated to the importance of preserving individual viewpoints. The goal of Q method is to give structure and form to subjective opinions so they can be observed and studied.

"A methodology is not merely a technique," Stephenson wrote, "but a profound way of approaching nature. ... What communication means, what its effects are, what may or may not result from it, is never directly a matter of ideas, notions, beliefs, attitudes, opinions, wishes or the like, but always directly ideas, notions, beliefs, etc., **of a person**" [emphasis in original] (1988, 31-32). Case studies also are concerned with the individual. They involve an in-depth examination of one "case" — an environment, a product, a person — among many. They are conducted in a real-life environment and generally do not seek to artificially isolate variables in the way that an experiment does; the wealth of contextual data they provide is best used in addressing "how" and "why" questions about a topic (Wimmer and Dominick, 1991).

This contextual emphasis makes the case study especially valuable for studies of new media because of the ever-changing nature of communication technology (Williams, Rice and Rogers, 1988). The "cases" described here are three newsrooms affected by the newspaper industry's growing involvement with online delivery of information — more than 1,500 U.S. papers now offer an interactive

delivery of information — more than 1,500 U.S. papers now offer an interactive product (*Editor & Publisher*, 1998) — and, specifically, the metro reporters and editors who work in them.

Interviews are crucial to case study research; people are interviewed "to understand their perspectives on a scene, to retrieve experiences from the past, to gain expert insight or information, to obtain descriptions of events or scenes that are normally unavailable for observation, (and) to foster trust" (Lindlof, 1995, 5). Because they require many of the same tools used by reporters — powers of observation, interviewing techniques, basic "legwork" — case studies may be a particularly fine way to study journalists: The method is both recognizable by and respectable to the subjects.

One of the main advantages of field research is the presence of an observing, thinking researcher on the scene, not just for empirical notation but for interpretation (Babbie, 1983). The researcher in this study acted as an observer-participant, a role in which observation is the primary agenda rather than direct participation or lengthy immersion in the environment under study (Lindlof, 1995). Although first-hand knowledge of activities being observed is not required, it does multiply the layers of understanding available to the scholar (Anderson, 1987); the researcher here drew on her professional experience as a reporter and editor in both print and online newsrooms.

In its underlying philosophy, then, the case study might be dubbed the *subjective* study of subjectivity, in both contrast to and complement with Q method's more objective approach to the same basic topic: the way an individual views the world. "First among the fundamental concepts of qualitative research is the axiom that the study of human life is an interpretive science," said ethnographer James Anderson (ibid., 244). "The causes and consequences of human behavior are not in objectified attributes but in the meanings that are held by individuals. It is the purpose of the social scientist to make explicit those meanings by interpreting the social action of others."

The combination of Q methodology and case studies clarifies meaning and offers the researcher an opportunity to gain complementary insights about the subject under study. The two methods are excellent tools to use in tandem because of their similarities and their differences.

Similarities and Differences Between the Two Methods

Although Q method uses quantitative techniques, primarily factor analysis and rotation, in analyzing the results of respondents' sorts, it shares many

attributes described by Pauly (1991) in his monograph on qualitative research. Among them:

- Q method is iterative rather than static. It involves an ongoing process of discovery, description and rediscovery.
- It focuses on meaning making, not information transferal or processing. Meaning is viewed as a fundamental research issue.
- It is holistic and contextual, recognizing that both internal and external realities are complex.
- It is designed to be illuminative, not complete in itself. It points to additional questions for researchers to pursue.

It is in this last sense that Q method is abductive. It seeks to reason *to*, rather than *from*, a hypothesis; researchers seek explanations that account for the particular distribution of statements (Sanders, undated). Like a case study, the application of Q method can be based on theory, but both also are theory-building methods that yield knowledge about what questions to ask. They are premised on a logic of discovery rather than the logic of confirmation used in deductive approaches. A good hypothesis should lead to interesting new questions, said Stephenson. Both Q method and case studies are heuristic, seeking to build understanding; they are less concerned with "what" than with "how" and "why." There are no right or wrong answers for participants; the value of the research lies in their opinions, attitudes and behaviors. Both methods seek patterns and encourage consideration of a variety of explanations for those patterns.

Both methods also are more interested in relationships than in causes *per se*. Because Q method deals with states of mind rather than "observables in states" (Brown, 1986, 73), researchers are hesitant to assign definitive causes to the operant subjectivity revealed through Q. Nor do case studies focus on cause-effect dynamics, which are best explored in the controlled environment of an experiment. Case studies are conducted in uncontrolled environments, and deeper understanding of that natural environment is often the goal. The contextual nature of case studies has already been described; Q method also emphasizes context in the actions of both the respondent, who considers all items in completing the sort, and the researcher, who interprets the sorts holistically (McKeown and Thomas, 1988).

Both Q method and case studies are intensive. Their concern is not with large numbers; nor is it with how many people or cases fall into a particular category. Rather, they focus on the individual — be it a person or a case — and seek to preserve that individual's uniqueness rather than lose it to the aggregation of computer coding. In addition, both are non-random methods. The researcher using either of these methods does not seek representative samples of respondents or cases but focuses on individuals from which he or she suspects the most can be learned — even, when appropriate, the deviant "out-lier."

Both methods also draw on common sense and creativity, allowing the researcher to pursue hunches, consider various interpretations and explore the

most likely avenues to understanding. In Q method, much of this creativity is applied *post hoc*, during the analysis phase; the case study researcher must be able to think quickly on his or her feet. But the subjective part of interpreting Q sorts is not so much in combining data as in explaining combinations. Interpretation is creative, but the explanations must make sense: They must fit the data, be likely and be internally consistent (Sanders, undated).

Q method and case studies are similar in that both are based on what real people say. In a Q study, the voices come through in interviews and readings used to compile the concourse of statements, which are conversational in tone; they also are heard in respondents' comments on items at the extreme ends of distributed sorts. In case studies, participants' voices are heard directly, through interaction with the researcher.

Despite these similarities, however, there are crucial differences between Q method and the case study approach — and those differences also help demonstrate why the two work so well together. Perhaps the key difference involves the pains taken by Q researchers to separate the observer from the observed. Q method relies on the operant subjectivity of the respondent, independent of the researcher's own subjectivity. No meaning exists in a Q study until it is supplied through its expression by the respondent — or, as McKeown and Thomas (1988) point out, by the respondent's impression of meaning, given that Q method is concerned with what goes on inside the individual's head. With Q method, the subject, not the researcher, defines the situation.

A case study, on the other hand, deals with "external" reality, as seen, recorded and interpreted by the researcher: The researcher is the one who defines the case study situation. Furthermore, the case study researcher is present in the environment being studied and, therefore, cannot avoid having at least some minimal effect on it.

Q method also is a more quantitative approach, particularly in the factor analysis phase used to identify Q typologies. Case studies tend to be less concerned with the distinctions and commonalities revealed through this mathematical process. Factor analysis helps researchers see how variables are related; its primary value is in describing and interpreting interdependencies (Ferguson and Takane, 1989). Factor rotation does encourage the Q researcher to follow hunches about likely explanations of data, but in a more systematic, prescribed way than is usual in analyzing case study data. The mathematical rigor of factor analysis is an important safeguard against the potential bias of a case study. However, the case study's flexibility is a key attribute. Q method is a less open-ended process; it is harder to pursue new avenues of inquiry without jeopardizing the entire study, especially after a concourse has been constructed.

The nature of the data used in the two methods also may differ. Q method is concerned with human beings and the workings of their minds; Q sorts operationalize that internal process. While case studies can and do include human

subjects, they are apt to draw on multiple data sources, from documents and other artifacts to the logistical arrangements in, say, a newsroom.

Pairing the Two Methods

Both the similarities and differences indicate the advantages of using the two approaches together. First, Q method is interested in typologies: What ways of assigning meaning do individuals share? The factors that result from analysis of the Q sorts are, in effect, composite portraits of individuals who view some aspect of the world in a particular way. Using that insight and typological organization as a starting point, case studies allow the researcher to probe how those individually held views are made manifest in an external, social setting. Psychodynamics revealed by Q method would be unfathomable in an interview, no matter how in-depth. Once revealed, that information can lend purpose and structure to the analysis of the case study.

Q method concentrates primarily on the individual. Though it seeks to explore how one individual may be like or unlike others, it does not place its respondents in a physical place with other people. The case study does. It is more sociological in nature; while Q method's heritage can be traced to particle physics, the case study is a tool created and honed by social scientists. Together, the two approaches round out their subject: the individual as individual, and the individual in a social and natural environment. The researcher can apply a physical context to the understanding of subjectivity derived from the case study. He or she can explore how a subjective world view manifests itself in the overt behavior of an individual, the workings of a social group such as a newsroom, or the conception and development of a concrete product such as an online news service.

Q method and case studies also are complementary in less esoteric ways. Bias is a hazard in case studies. It is easy to fall into the trap of seeing what the researcher wants to see, asking questions that lead to predictable answers and so on. Q method and the process of factor analysis provide a safety net. If something doesn't fit a researcher's idea of the factor, he or she hasn't figured it out yet. Meaning comes from the respondents; the Q researcher's job is to explain each factor completely and in a way that makes sense. While interpretive skills are important, the researcher's own subjectivity must bow to that of the respondents. It is much harder to insist on seeing only what one wants to see if what one wants to see doesn't match the data.

Q method and case studies also fulfill complementary scientific criteria. Case studies tend to be valid in that the intended object of study is, in fact, the particular case. But they encounter reliability problems because they are based on the dynamics of the relationship between the researcher and the individuals being studied; the data are hard to replicate. Q method is more reliable. A Q sort can be administered by (and to) different individuals, but the revealed factors should be interpretable in comparable ways. As for generalizability, neither method is intended to explain how many people (or cases) are like the ones being studied;

that is a question for R studies, which seek to generalize from a sample to a population. But Q method represents an effort to arrive at generalizations of a different sort: It focuses on individuals in order to learn how they are like or unlike other individuals. In addition, the factors themselves are composites or generalizations. Case studies are less generalizable, though particular cases may have been chosen on the basis of characteristics shared with other cases.

The combination of the two methods, then, lends credence to interpretation of the data. First, there is the connection between the respondents' perspective (represented through the Q study) and the researcher's perspective (which helps inform the case study). In addition, the researcher using both methods has a wide variety of measurement items to compare and relate, ranging from what goes on inside respondents' heads, to their modes of personal expression, to the elements of their environment.

Application of the Two Methodologies

These two complementary methods were applied in a study that sought an enhanced understanding of newspaper journalists' attitudes about changes associated with new delivery mechanisms such as the Internet. Two related research questions, directed toward metro editors and reporters, informed the study: "What do I do as a newspaper reporter or editor? And how is that role — including the skills and values I bring to my job and career — affected by imminent, or ongoing, technological changes in the way the stories I write or edit reach my audience?"

The data-gathering methods were used in tandem; journalists who participated in case study interviews were given a Q sort to complete immediately after the interview. The case studies were conducted at three papers in the South, the Midwest and the West. In qualitative inquiry, most sampling techniques depend not on principles of random probability but on purposeful selection of "information-rich" cases most likely to reveal processes and structures of interest (Lindlof, 1995). Focusing on symbolically significant people, places or events "clears a space in which the researcher can tell his or her story" (Pauly, 1991, 12).

A sort of "typical case" sampling method, common in communication studies (Lindlof, 1995), was used here. The researcher chose newsrooms whose involvement with interactive media varied in two key ways: their philosophical and practical approach to online delivery of information, and their stage of involvement in interactive media at the time of the study in the summer of 1995. A total of 66 journalists were interviewed. Fifty-five worked on the metro or city desk; the rest were higher-level news executives, online staffers or other people beyond the primary focus of the study. Fifty-nine of the interviews were tape-recorded and transcripts later produced.

The pool of potential Q study respondents consisted of the editors and reporters who took part in the case studies, along with a number of journalists who worked at other papers around the country that also had begun exploring online

delivery of information and who agreed to participate in the research. In all, 27 journalists — including 19 case study interviewees — completed valid Q sorts for this study. The Q study participants were not re-interviewed after completing their sorts.

Qualitative researchers "cannot feign certainty. The goal is to render plausible the terms by which groups explain themselves to the world." (Pauly, 1991, 7) In Anderson's words, the overall purpose of qualitative research is "to approach an understanding of social action from the perspective of the actor" (Anderson, 1987, 352). Both those constructs overlap with the purpose and philosophy of Q methodology. At some point, though, even qualitative research requires sorting out the evidence so some sense can be made of it all. Coding of interview transcripts is an integral part of interpreting communication; it "demands that the analyst decide what is worth saving, how to divide up the material, and how a given incident of talk or behavior relates to other coded items" (Lindlof, 1995, 219).

For this study, Q statements were used as the primary coding scheme for interview transcripts, serving two purposes. First, the statements provided a ready-made framework conducive to the goal of qualitative coding: to tag interview segments of interest and to look for ways to categorize talk that will lead to a broader explanation (Lindlof, 1995). Second, it facilitated the analysis process, adding human voices and contextual richness to patterns provided by the Q study. Additional ideas not contained in the Q sorts, such as references to children's computer usage or time constraints on the reader, also were coded by keyword.

Before summarizing the findings, a couple of interesting things that emerged in the analysis process merit a quick mention. First, certain Q statements attracted "clusters" of people — and people who talked in similar ways about the idea contained in a particular statement during their case study interviews were likely to wind up on the same Q factor. In addition, the coding revealed similarities that hadn't been obvious in the interviews. Multiple comments by a single interviewee about the same topic became apparent because they wound up being coded in connection with the same Q statement. A subsequent check of the Q data was indeed apt to show the person belonged to a factor that tended to feel strongly about that particular statement. A predisposition on the part of the researcher toward this indirect confirmation of one set of findings by the other might be argued ... were it not for the fact that most of the transcripts were coded before the Q data were analyzed.

Let's turn now to an overview of those factors, supplemented by the insights gained in the case study interviews.

Findings of the Study

When the Q sorts were run through QUANL, a common tool for analyzing Q data, and subjected to varimax rotation, three factors were identified. They consisted of 10, nine and eight individuals, respectively. The factors accounted for more than 46 percent of the total variance , with eigenvalues of 8.3413, 2.5371 and 1.6387.

These relatively high eigenvalues indicated at least one additional factor might lurk within the three groups.

A second data run, requesting four factors, was made in an effort to coax it out. With the four-factor solution, two of the initial groups remained virtually unchanged; the third was split, producing one factor with four individuals and another with six (one editor who had been on a different factor joined the latter group). The new total variance was boosted to more than 51 percent; all four eigenvalues remained significant, with the lowest now 1.3627. Emerging from the factor analysis were:

- **The Benevolent Revolutionary,** the most enthusiastic about new communication technology (see Appendix, Factor 1). The Revolutionary evaluated change largely in terms of the opportunities it offers, especially for journalists to do their existing jobs better.
- **The Nervous Traditionalist,** who disagreed (see Factors 2 and 3). The Traditionalist was much more likely to fear new technology than welcome it, perceiving far more drawbacks than benefits. The four-factor solution revealed two separate strains of thought contributing to that skittishness.
  - **The Beyond Nervous Traditionalist** was burned out and saw new media as one more reason why journalism is just no good any more.
  - **The Nervously Hopeful Traditionalist** harbored hope about the future of the profession (and his or her own future career). The Nervously Hopeful mistrusted new media but did not see technology as a harbinger of doom; indeed, he or she saw journalism surviving in the end, once journalists figure out how to overcome the dangers.
- **The Serene Separatist** had nothing major against new media technology, primarily because the Separatist didn't think the changes have much to do with individuals at all (see Factor 4). The Separatist did not predict significant effects on the journalistic role, product or process in the foreseeable future.

Combining case study interviews with the factor-analyzed Q study results added flesh to the bones of these character sketches. By allowing the researcher to examine the individual as a unique human being and as a member of a social organization, the process painted a more holistic picture of both the multiple facets that make up the person and the component parts that make up the group. The use of both methods also alleviates the problem of a researcher inadvertently leading an interview in directions that might not reflect a respondent's own attitudes. Indeed, at the end of the interviews, when the author asked for final thoughts about new media, several journalists replied, "Well, we didn't really talk much about..." with the missing subject ranging from privacy to pornography. Although the Q study does not deal directly with those subjects either, it does reveal the complex psychodynamics of attitudes that incorporate and encompass them.

The flip side of ignoring topics of interest to individual journalists is that the researcher occasionally had to struggle to keep respondents on the topics of interest to her. The case study transcripts indicate sometimes-lengthy diversions,

especially with interviewees who were unfamiliar with interactive media and much more articulate about the ups and downs of the newspaper business. Those digressions are a benefit of the case study method; they allow insight into interrelated facets that make up the complex environment and mindset of each respondent. But straying too far from the research topic can be a drawback.

Here, too, use of the two methods proves invaluable. The case studies provide information about topics that have a bearing on the main research interest — the journalists' attitudes about their job and how it is changing — but could not be obtained from the Q sorts. And by offering only statements relating to new media technology, the Q study provides a structure that allows the respondent to bring his or her ideas about that particular subject into sharper focus.

A couple of other comments are appropriate before looking at ways in which the two methods work both to reinforce common findings and to reveal distinctions among respondents' attitudes. First, a majority of the 55 journalists interviewed in the case studies did not complete Q sorts. Again, neither method is designed to answer "how many" questions, and respondents cannot be considered representative of any population. But it is interesting that the case studies indicated a less polarized view of interactive media than did the Q sorts.

At least two explanations are possible. One is that the Q study did what it is designed to do: It revealed aspects of subjectivity that may be inaccessible through other methods. Attitudes that the researcher didn't pick up on or that were concealed from her (or even concealed from the respondent and buried in his or her subconscious) may have surfaced when the journalist completed the Q sort. The other explanation is that those who took the time and effort to complete the sorts were the ones who were most interested in new media technology, or felt most strongly about it, in the first place. In other words, the people who elected to participate may have held the most polarized views, either pro or con.

The data do suggest this latter explanation may have at least some merit. It may be particularly important in looking at the Benevolent Revolutionary, whose sorts indicated the most support for technology. A closer look, provided by the interview data, reveals that this factor contained all the people who had used online media extensively. This raises a chicken-and-egg question: Are they the most experienced because they are the most excited, with their interest driving them to explore the online world? Or are they the most excited because their experience has shown them benefits not yet apparent to those with less exposure to new forms of communication? The methods used here are not sufficient to answer that cause-and-effect question. But mere enthusiasm may be too simplistic an interpretation of this factor's outlook. It may be that they just know enough about technology to see a potential that others are unable to envision.

In general, though, findings from the Q study and case studies were highly supportive. It has already been mentioned that people who talked extensively about a particular aspect of new media tended to wind up on a factor that felt strongly about that aspect. For example, a reporter who was enamored of getting "ink on

your fingers" and being able to clip and save the newspaper was highly loaded as a Nervous Traditionalist, the only group to strongly agree with the Q statement suggesting the tangibility of the print product offers distinct advantages.

In addition, clusters of people who tended to belong to the same factor and to talk in similar ways about the idea contained in a particular statement offered interesting insights into the workings of the two methods. The Benevolent Revolutionary, for example, was alone in agreeing with a statement that access to vast amounts of information provided by new media is empowering. Transcripts show that idea came up in conversation with six of the eight Revolutionaries interviewed; the other two were mail respondents. "Humankind to date has shown an unquenchable thirst or appetite for information," one Revolutionary who loaded highly said during his interview. "How much information you can sell is dependent almost solely on how much information you can offer."

A consistently supported finding was that journalists believe what really matters is ... journalism. Indeed, many of these reporters and editors discounted the effects of new media technology precisely because they did not perceive it as having much relationship to journalism. That sentiment was apparent in both case study interviews and Q sorts. All the original factors agreed strongly with the statement, "You can come up with all kinds of technological advances, but the journalism that people care about is still going to depend on good writing, good interviewing, thoughtfulness — things that predate computers by many centuries." As a Traditionalist said in his interview: "There is still a place for a journalist who is good with words and who can make people smile and make people want to read."

Interestingly, though, the coded case studies did not reveal much discussion about this and some of the other polar items. For example, although both the Revolutionary and the Separatist disagreed most vehemently with the notion that interactive media will make journalists obsolete, the coded case study transcripts show that only one person (a Revolutionary reporter) talked about the idea at any length. Perhaps these items are so all encompassing — or considered so self-evident — that they are taken for granted in conversation and can be made manifest only in a self-referential process such as Q sorting.

The Q sorts also revealed a general perception about the primacy of journalistic skills regardless of the medium that serves as their outlet. All the factors agreed fairly strongly (+ 3 or + 4 on a scale from - 5 to + 5) that "We need journalists to make sense of the information available online and to put it in perspective." In the words of a Serene Separatist from the Western paper: "A newspaper reporter is paid to, and has the time to, digest this information that could be available online to the general public. Explain it in context, provide analysis ... tell people what it means. And all the raw data in the world isn't necessarily going to help a person if they don't know how to utilize it, if they don't know what it means. So there'll always be that need for a, how shall I say, an information processor."

Further support for the value of journalists came from general agreement with the statement: "The skills I've developed in the newsroom would be useful in putting out an online product." In addition, the factors unanimously disagreed with these two statements: "Interactive media will make journalists obsolete" and "People without strong technical skills will never be hired to work on online media, regardless of how good they are at reporting or writing or editing." One Revolutionary editor at the Midwestern paper emphasized in his interview that only the delivery system was different "Everything we're doing now, we'll still be able to do. And more. So I don't really see that changing."

The combination of two methods also revealed differences among the participants — in fact, it made them more apparent, often strikingly so. From the case studies alone, it would have appeared that despite individual variations, most of the journalists had adopted something of a *laissez-faire* approach toward new media technology. Yet the Q sorts revealed some attitudes to be decidedly positive and others to be sharply negative. The positive elements were easier to see in the case study interviews, especially because they tended to be discussed by relatively knowledgeable people. The negative sentiments about new technology, however, can be particularly hard to locate in the case study transcripts — and may be couched in other terms.

One reason may be that in conversation, people were hesitant to express negative attitudes about technology to an outsider with an obvious interest and a perceived expertise in the area — especially people unfamiliar with online media, a characteristic of the Nervous Traditionalist. No one wants to look stupid. Indeed, several people echoed the Traditionalist who, after discussing his concerns about new media's potential to further alienate people from their neighbors, immediately added, "I don't know, a lot of this is probably sort of silly from your end." Despite reassurances to the contrary, fear of saying something "silly" probably muted some concerns — concerns that surfaced in Q sorts of statements with no implicit value judgments.

The Traditionalist's fears of change and of the unknown were there in the interviews if one looked closely enough. But they were difficult to see beyond an outline sketched by dismay over a variety of other aspects of newspaper life in the 1990s, from smaller news holes to a bigger emphasis on presentation and style rather than substance. The Q sorts not only colored in that outline but also set it against a backdrop that better illuminated the research questions of interest here. When the coded case study transcripts were re-examined in light of the Q sorts, the comments stood out as indicative of misgivings not just about life in general but about new media in particular.

A common technique is to go back and focus on the most purely loaded individuals on a factor to probe the nature of that composite (McKeown and Thomas, 1988). The most highly loaded individuals on each of the three original factors were all middle-aged reporters: a Benevolent Revolutionary and a Nervous Traditionalist from the Southern paper, plus a Midwestern Serene Separatist. (The

same Traditionalist was the most purely loaded Beyond Nervous Traditionalist in the four-factor solution; his Nervously Hopeful counterpart was a mail respondent who was not interviewed. Because of that missing component, the discussion that follows refers to the three-factor solution.) Their comments related to two statements that elicited different reactions from different groups bear a look.

First, a three-way comparison shows it was a gatekeeping statement that sparked the widest disagreement. Each group's z-scores differed from those of both the other factors in the original three-factor solution by an absolute value of more than 1.00 on the statement, "Our role as gatekeepers will not change because information is going out over a modem rather than in hard copy." The Separatist agreed most strongly that the role will not change (+ 4, z=1.72); the Traditionalist was equally convinced the statement was wrong (- 4, z=-1.47), and the Revolutionary was in the middle (+ 1, z=0.08). Here's what the reporters who loaded most purely had to say about gatekeeping during their interviews:

> REVOLUTIONARY: "I think newspapers are already abdicating that [role]. So maybe this is just the next step. You know, we abdicate it completely and turn 'em loose on the World Wide Web."
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> TRADITIONALIST: "When you picked up the [newspaper], you had a sense that at least a few people had read over the copy and ... thought about it and actually considered is it stupid or is it bright. And so that, you lose, probably, some reliability and some credibility on the Internet."
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> SEPARATIST: "If we give [readers] a medium that makes it so much easier for them to specialize themselves, it's not that we're abdicating our role as a community educator and a broadener of thought—that's probably not even a word—but it's that we're just making it easier for people to ignore and not get around to seeing the other points of view."

A statement with which the Revolutionary did agree, and strongly at that (+ 4, z=1.69), was that "The online product is not competition for the newspaper, nor a substitute for it — the two media do different things. You layer media, you don't replace them." The Traditionalist was ambivalent (0, z=-0.09), and the Separatist was the one in between this time (+ 1, z=0.45). The most highly loaded Revolutionary was not so sure about this one though the factor as a whole seems to have overridden his doubt:

> REVOLUTIONARY: "Clearly, the technology is taking away many of the advantages that newspapers have enjoyed for a large amount of time, which are the ways of gathering news and distributing it ... It shouldn't make any difference in what we do here. But I think the thing that's missing is that the Internet allows other people to go out and gather the information as well. There's nothing I did on the Internet yesterday in pulling down this stuff that an ordinary person couldn't do as well if he wanted to take the time."
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> TRADITIONALIST: The paper's "franchise is certainly eroding with TV and the Internet and talk radio and all these other ways that people get information. It's certainly not as powerful as it was, no question about that."

> SEPARATIST: "People can get basic information so many other places now that they look at the newspaper for many different things. ... Maybe we don't have room in the paper to print the State of the Union address, but if we can say 'Dial 4289 and you can hear it,' well, great."

Finally, the environment in which they worked — a manifest part of the case studies, but not the Q study — did seem to create a difference in attitudes among journalists at the three papers. The composition of the Q factors confirmed that people in newsrooms where dissatisfaction over the paper's general direction was widespread were most likely to be the ones unhappy with its technological direction, too; those at happier places tended to take a more wait-and-see approach. "It's just another way to deliver information," said a Serene Separatist editor, in an almost exact paraphrase of a Q statement she had not yet seen. "Do you get your dish detergent in a box, in a sack, in a refill container, in a solid, in a liquid, in a powder?" A reporter drew a parallel with another recent technology introduced to the newsroom. "It's like saying, 'Has my job changed with pagination [computerized design and layout of a page]?' No. But it has changed the way that we deliver our product," said this second-most-highly loaded Separatist. "It's still within the newspaper as opposed to an external change, and it's a huge one for the newsroom, but it hasn't changed my role."

That serenely confident sentiment is a good place to stop and summarize the benefits of pairing the results of these two methods. Both approaches reveal a perception that online ventures have very little to do with what really matters: good journalism. Changes in delivery method offer an existing product in a new format but are not seen as profoundly affecting the actual stories nor, for the most part, the process of gathering material for those stories. For the foreseeable future, technology may modify (for better or worse) vital journalistic tasks of collecting information, making sense of it and turning it into a story. But it does not fundamentally alter those tasks.

But there were variations among the individuals who took part in the case studies — variations brought into starker relief by their Q sorts. Taken together, the Q study and the case studies indicate considerable support for the findings of each one taken separately. The Q study is particularly valuable for highlighting individual differences; the case studies lend depth to the analysis as well as insight into how those individuals are situated in a social setting that affects their perceptions.

We can close, then, by returning to our land surveyor, whose map of the terrain is valuable to those who subsequently build on the surveyed ground precisely because it is drawn from a variety of perspectives. In the same way, future research can build with more confidence on the findings of this study because they are based on a triangulation of two highly complementary methods.

Selected Bibliography

Anderson, J. A. (1987). *Communication research: Issues and methods.* New York: McGraw-Hill.

Babbie, E. (1983). *The practice of social research* (3rd ed.). Belmont, CA: Wadsworth Publishing Co.

Brown, S. R. (1986). Q technique and method: Principles and procedures. In W. D. Berry and M. S. Lewis-Beck (Eds.), *New Tools for Social Scientists* (pp. 57-76). Beverly Hills, CA: Sage Publications.

Editor & Publisher. (March 1998.) Web site: http://www.mediainfo.com/ephome/npaper/nphtm/stats.htm.

Ferguson, G. A. and Takane, Y. (1989). *Statistical analysis in psychology and education* (6th ed.) New York: McGraw-Hill Publishing Co.

Lindlof, T. R. (1995). *Qualitative communication research methods.* Thousand Oaks, CA: Sage.

McKeown, B., and Thomas, D. (1988). *Q methodology.* Newbury Park, CA: Sage Publications.

Neuman, W. L. (1991). *Social research methods.* Needham Heights, MA: Allyn and Bacon.

Pauly, J. (1991). *The beginner's guide to doing qualitative research in mass communication.* Association for Education in Journalism and Mass Communication monograph.

Sanders, K. P. (Undated). "On interpretation of Q factors." Unpublished course materials, Advanced Research Methods (Journalism 458), University of Missouri-Columbia.

Stephenson, W. (1978). Concourse theory of communication. *Communication 3,* 21-40.

Stephenson, W. (1988). *The play theory of mass communication* (2nd ed.) New Brunswick, NJ: Transaction Books.

Williams, F., Rice, R. E., and Rogers, E. M. (1988). *Research methods and the new media.* New York: Free Press.

Wimmer, R. D., and Dominick, J. R. (1991). *Mass media research: An introduction* (3rd ed.). Belmont, CA: Wadsworth Publishing Co.

Appendix

Factor 1: The Benevolent Revolutionary
STRONGEST AGREEMENT (+ 5, + 5, + 4, + 4, + 4) with:

"You can come up with all kinds of technological advances, but the journalism that people care about is still going to depend on good writing, good interviewing, thoughtfulness — things that predate computers by many centuries." z = 2.07

"Once journalists start using new technology more, they'll be less put off by it. The light bulbs will go on and we'll see all sorts of interesting ideas for ways to use online media start bubbling up." z = 2.02

"A story is a story, regardless of whether it's on a tablet or a fluorescent screen. The technology is just a different way of getting people the information they want — it's nothing to be afraid of." z = 1.86

"The online product is not competition for the newspaper, nor a substitute for it — the two media do different things. You layer media, you don't replace them." z = 1.69

"User control is one of the most attractive features of interactive media, permitting people to retrieve what they want when they want it." z = 1.52

STRONGEST DISAGREEMENT (- 5, - 5, - 4, - 4) with:

"Interactive media will make journalists obsolete." z = - 2.27

"I fear that good writing will become irrelevant in the media environment of the future." z = - 1.76

"Producing content for the online product is a high priority in my newsroom." z = - 1.49

"It's scary to give people the power to choose what stories to see and not to see because if they have to think ahead of time about which specific stories they want to read, they'll miss other stories they might also care about." z = - 1.23

"The type of information people will want or use online is the same as the type of information they want or use through traditional media such as the newspaper." z = - 1.18

Factor 2: The Beyond Nervous Traditionalist
STRONGEST AGREEMENT (+ 5, + 5, + 4, + 4, + 4) with:

"You can come up with all kinds of technological advances, but the journalism that people care about is still going to depend on good writing, good interviewing, thoughtfulness — things that predate computers by many centuries." z = 1.87

"My prospects of getting a better job would improve if I knew more about new media technology." z = 1.80

"A newspaper is tangible, finite, discrete. A drawback of online media is that they are none of those things. For instance, there's something reassuring about how a paper is in discrete form; the implicit idea is `This is all I need to know today.'" z = 1.74

"I feel guilty that I don't know more about computers and new media technology." z = 1.37

"The anonymity afforded by online media is a problem. You don't really know who's providing information you see online, so you don't know how credible or even legitimate it is." z = 1.35

STRONGEST DISAGREEMENT (- 5, - 5, - 4, - 4, - 4) with:

"The new media will narrow the information gap between the rich and the poor." z = - 2.18

"The people I'm closest to in the newsroom take online media seriously." z = - 1.71

"I am knowledgeable about what's going on in the newspaper industry today relating to new media technology." z = - 1.60

"New media technology can help create a better sense of community." z = - 1.59

"The benefit to our readers of the online product's timeliness — the fact that they can get updated information immediately — outweighs any concerns about possible competition with the printed newspaper." z = - 1.56

Factor 3: The Nervously Hopeful Traditionalist
STRONGEST AGREEMENT (+ 5, + 5, + 4, + 4, + 4) with:

"The anonymity afforded by online media is a problem. You don't really know who's providing information you see online, so you don't know how credible or even legitimate it is." z = 1.90

"I fear that good writing will become irrelevant in the media environment of the future." z = 1.88

"We need journalists to make sense of the information available online and to put it in perspective." z = 1.56

"I'm concerned about the number of voices that will be heard with the new electronic media. I'm worried that the technology may mean fewer voices are heard, and that the same people will be controlling all the news." z = 1.38

"Once journalists start using new technology more, they'll be less put off by it. The light bulbs will go on and we'll see all sorts of interesting ideas for ways to use online media start bubbling up." z = 1.38

STRONGEST DISAGREEMENT (- 5, - 5, - 4, - 4, - 4) with:

"The new media will narrow the information gap between the rich and the poor." z = - 2.56

"Interactive media will make journalists obsolete." z = - 2.50

"Using new media for sources sure beats hanging out on a street corner." z = - 1.56

"New media technology can help create a better sense of community." z = - 1.54

"Whether online newspapers succeed over the long term has little or nothing to do with how well they are integrated into the newsroom product and routine." z = - 1.44

Factor 4: The Serene Separatist

STRONGEST AGREEMENT (+ 5, + 5, + 4, + 4, + 4) with:

"A story is a story, regardless of whether it's on a tablet or a fluorescent screen. The technology is just a different way of getting people the information they want — it's nothing to be afraid of." z = 2.02

"You can come up with all kinds of technological advances, but the journalism that people care about is still going to depend on good writing, good interviewing, thoughtfulness — things that predate computers by many centuries." z = 1.91

"Our role as gatekeepers will not change because information is going out over a modem rather than in hard copy." z = 1.59

"Once journalists start using new technology more, they'll be less put off by it. The light bulbs will go on and we'll see all sorts of interesting ideas for ways to use online media start bubbling up." z = 1.43

"Input from online readers is time-consuming to go through, and it may not produce a lot. Sure, readers can contribute story ideas through interactive media — but they're not necessarily very GOOD ideas." z = 1.36

STRONGEST DISAGREEMENT (- 5, - 5, - 4, - 4, - 4) with:

"Interactive media will make journalists obsolete." z = - 2.30

"Newspapers are the dinosaurs of the information age. They are headed for extinction." z = - 2.04

"New technologies make us lazy. They discourage us from doing the basic legwork, finding our own sources, getting out and talking to people more." z = - 1.80

"I fear that good writing will become irrelevant in the media environment of the future." z = - 1.71

"The new media will narrow the information gap between the rich and the poor." z = - 1.59