The Textual Analytics of Foundational Literature Reviews

Whether you address the media effects literature in the first decade of the last century or the first decade of this century or, for that matter any decade in between, you will find the same basic arguments being presented. There is always a smattering of positive articles, mostly touting the educational/instructional capabilities of the media, but some prosocial effects studies as well, often the product of single author or small group of contributors. The great bulk of the literature, however, is negative. The authorship may be moralist, social activist, public intellectual, critic, or scientist, but the message of harm is the same.

The media can be theatre, newspapers, gazettes, dime novels, nickelodeons, movies, radio, comic books, television, video/computer games, social networking sites or whatever technology will next provide. The victims can be children, boys, girls, young men and women, immigrants, the masses, lower classes, the less educated, of specified or hinted race and ethnicity but never, in our reading, the moralist, social activist, public intellectual, critic, or scientist (who apparently are made of sterner stuff). The list is inclusive enough and historically deep enough that it is safe to say that every one of us has been a potential victim and a person of concern at some time or station in our lives. The harm (in more or less historical order) can be an increase in crime (or more knowledgeable criminals), social, cultural, and economic exploitation, sustaining and expanding prejudice and stereotypes, moral decay of every sort, sexuality among young people, drinking, smoking, drugs, gambling, the critical impairments of class, race, and gender, and of course, violence—in terrorist attacks, school ground massacres, on the streets, in their neighborhoods (and soon ours), on the playgrounds and sport fields, in school classrooms, corridors, and lunchrooms and in living rooms everywhere. In short nearly every social and

cultural disorder has been attributed, at least in some part, to the media, but the mainstay has been violence.

The attack on the media has been so broad, so persistent, and so diverse across approaches and lines of evidence, that we have come to view it as an ideology in and of itself. It appears to be one that frames its own epistemological foundations and devises methodologies that produce the necessary outcomes (*******, 2008). We have called the scientific approaches "symbolic science" (*******, 2008) following Edelman's (1964, 1971) lead in his notion of symbolic politics. Just as symbolic politics gives the appearance of actual political redress, thereby calming social unrest, symbolic science provides an "answer" to some pressing social problem without requiring any actual social change or, equally important, making a terminal epistemological contribution. Symbolic politics allows each new generation of political operatives to proclaim its dedication to the people without threat to existing power structures. Symbolic science allows each new generation of social science practitioners a ready-made avenue of activity and recognition with little threat to those who will follow or to existing power structures.

Symbolic science is dismissible science as evidenced by the over 50 years of media violence research that has reached a consistent conclusion but resulted in no significant social policy either through legislation or regulation. It has worked hand in hand with symbolic politics, however, producing dozens of congressional hearings (*******, 2008). Dismissible science weakens a discipline. According to ISI data, the impact factor for the top 45 communication journals in 2008 was 0.96 and showing decline (http://www.icahdq.org/publications/2008_Impact_Factor_Communication.pdf; Accessed October 29, 2009). By contrast, the *New England Journal of Medicine's* JIF is in the 30s. We

need to discover the lines of argument that have fallen into symbolic science (or its larger cousin symbolic scholarship) in order to strengthen the health of the discipline, its effectiveness with funding agencies and its impact on society.

The presence of symbolic science is documented in historical work that reveals the repeated appearance of the same or similar arguments with only cosmetic changes in focal objects or methodologies. Our conclusions came out of a multi-year effort to build an historical and current document archive of effects research published in mainline scholarly and popular press. The archive as it stands now reaches back to the 1860s and ends with a system of automatic notifications as new entries are added to selected databases. The intent for this archive is not to have every publication but to have a sufficient and diverse number that the major themes of what is being written can be adequately characterized. A number of publications and papers have come out of this archive (******* 2008a, 2008b; *******, 2007; 2008), but we still consider it a work in progress.

The purpose of this paper is to encourage any scholar—but particularly the entering scholar—who is developing a program of research to conduct this foundational historical work. This foundational work is quite different from the ordinary literature review that is rhetorically charged with advancing a particular position that will support a subsequent claim. A foundational review is a neutral, grounded approach that is directed toward illuminating the characteristics of scholarship's aggregated labor. We believe we are on our way to accomplishing that review in the media effects domain. We hope to use this paper to share the lessons learned and the resources discovered in order to promote the more widespread appearance of this sort of work and the scholarly sophistication that we believe it produces.

Advances in on-line databases, the availability of more and more published work in electronic formats, the overall movement of libraries to digitize their serial holdings, coupled with available-light digital cameras and effective software for creating searchable electronic files have made this work an ordinary possibility for anyone who wishes to more deeply understand the state of any line of argument. To say that the work is an ordinary possibility is not to say that it is without its challenges. Work prior to the 1970s is just coming online, and earlier work is years away, copyright holders are still embargoing content with some organizations refusing to digitize content, library holdings vary widely all of which require a dedication and resources to obtain the necessary depth of the record. Perhaps, not surprising, the greater challenges, however, come after those of creating the archive have been met. How to deal with the great mass of data that has been collected? It is to those challenges that this paper is directed.

**Literature Reviews, Meta-Analyses and Foundational Reviews: Assessing the Differences**

The term "foundational review" enters into a conversation already well versed in concepts of literature reviews and meta-analytic reviews and hopes to carve out space for a review of a third kind. In the following paragraphs we attempt to draw the distinctions among these three kinds of reviews and to begin to develop the unique value of the foundational sort.

The general consensus in the literature is that literature reviews are driven by and provide support for the problem at hand. In their analysis of 131 manuscript reviews for the *Journal of Business and Psychology*, Rogelberg, Adelman and Askay (2009) note the primary complaint is the failure to integrate the literature review with the goals of the study. Rocco and Plakhotnik (2009) are equally definitive in declaring that "All empirical studies—qualitative, quantitative, or mixed methods—must be connected to literature or concepts that support the need for the study, be related to the study's purpose statement, and situate the study in terms of previous work" (p.

120). Kwan (2006) in her review of work on literature reviews indicates that first and foremost the rhetorical purpose of the literature review is to justify one's research and to situate that research as a unique contribution to the field (pp.31-32). Similar arguments can be found in Creswell (2003), Hart (2001) Landrum 2008, and Rudestam and Newton (2001), among others.

More complex and historically deep reviews appear in the literature under the titles of "meta-analysis," "meta-analytic review," "longitudinal meta-analytic review," "systematic literature review" (mostly outside of communication), "review article," and "bibliographic analysis." Meta analysis enters the literature in the mid 70s following the work of Gene Glass and Robert Rosenthal (Salwen, 2000) who independently developed the methods for combining separate statistical findings into a common conclusion. Meta analysis has come to mean, for many, a test of the strength of the effect that has been found across multiple studies. Meta analyses of these sorts take each finding at face value with no evaluation of method or design, presuming that those differences or errors will wash out in the mix (Franke, 1992).

As with most things in communication, the definition of meta analysis has not stood still. In 1999, the then titled *Critical Studies in Mass Communication* ran a review section on meta analysis in critical work (e.g., Allen, 1999). In contemporary times, we find meta analysis and meta analytic review holding to the 1970s meaning but also referring to any review process that attempts to achieve a synthesis of knowledge (e.g., Josselson, 2006).

The remaining terms apply to what algorithmic reviewers call "narrative meta reviews." While somewhat dismissive in use, it is a fair term in that discursive reviews intent to "tell the story" of what's out there in the literature. Much of what is told is about what's new and recent, and much is about the consilience of claim.

We claim that the foundation reviews that we are proposing are different both in intent and in methodology. The differences in intent start right at the beginning with the scope of the project. Most reviews—even large meta-analytic reviews—hone in on some topic methodology combination to set the boundaries of the review. For example, Hetsroni's (2007a) review of 57 content analysis studies of prime-time network programming from 1962-2004 sets the boundary along topic (violence), method, (content analysis), medium (television), and program type (prime-time). Boundary setting of this sort is considered good form for meta-analytic reviews (Kennedy 2007).

We would agree for meta-analytic reviews but recommend taking a more genre-based approach that would greatly broaden the scope of the search. The multiple researchers who produced the 57 content analysis studies were not working in a professional vacuum. They were undoubtedly influenced by the entire stream of scholarly work, critical evaluation, and popular press comment that was appearing simultaneously with their work. Without any lessening of the importance of the meta-analytic review, such reviews must necessarily miss this larger picture. Foundational reviews are directed toward this larger view. In taking a genre approach, foundational reviews would allow the analyst to plot a much larger scholarly field of endeavor.

When we couple Hetsroni's work on violence with her work on 25 content analyses of sexual content over three decades (Hetsroni, 2007b), we get to something closer to the approach we are espousing. In two studies, Hetsroni has assembled a resource that would allow her to be more knowledgeable about the genre of content analysis than most of us. We can presume that this foundation served her well in his own content analysis (Hetsroni, 2008), investigating the cultivation effect across topic (contrary to expectation, the effect varies).

If breadth serves to distinguish the intentions of foundation reviews from those of most other reviews, its focus on historical depth serves to complete the separation. Anyone who regularly publishes is well aware of the so-called decade bias. The force of our scholarly culture is such that sources get old after 10 years and with the exception of certain seminal works (e.g., Bandura, Ross & Ross, 1963 for violence studies), a piece with all contemporary sources is rarely criticized on that grounds. Meta-analytic reviews might reach back 25 years (e.g., Kinross, 2006) but 10 years is a favored span (e.g., Freimuth 2006). Petticrew and Gilbody (2006) give the traditional advice about why these spans are typical.

There are good reasons in meta-analytic reviews for these limitations: technology changes, methodology changes; and there are bad ones as well: the work is too hard, nothing happened earlier anyway. We would argue that going beyond the good reasons of meta-analytical reviews and reaching beyond changes in technology and methodology allows the character of the sustaining cultural argument to appear. In our own work (*******, 2008) we would have so clearly seen the sustaining argument of fear of the other (including the child as other) in media effects studies except that it is repeated over a dozen decades, multiple technologies, and different methodologies. Time, media, or method doesn't matter; the argument is sustained across all these changes (see, *The Phaedrus*).

Foundational reviews differ from literature and meta-analytic reviews in breadth and scope in their intentions to accomplish a genre-based review that has substantial historical depth. They also differ in their complexity of analysis. Most review forms focus on one particular element in the literature. For quantitative meta analysis, it is the statistical results; for most literature reviews, it is the findings, though often methodology takes center stage. For

foundational reviews, the unit of analysis is the entire article as located in its cultural and scholarly provenance.

As post-modernists, we do not seek refuge in explanations based on the invisible hand of science or its progressive nature. Rather we would hold that one cannot properly understand the course of media effects research except that one sees it in light of the tensions of immigration that mark the first part of both the 20th and 21st century; the fear of totalitarian ideologies of the 1930s, 1950s, 1980s and post-9/11; the collapse of behaviorism and subsequent rise of cognitivists protocols that greatly simplified the empirical analysis of media effects; the concentration of expertise directing the war effort of the 1940s; the subsequent federal funding and its hegemony of leadership; the paradigmatic change in the economy of scholarship with the explosions of new journals in the 1930s and again in the 2000s; the demonstrable, continuing, and outstanding political value of scapegoating the media; and on and on. Of course, all of this is more than you need to know to do the ordinary work of our journals, but it is inescapable learning that results from the practice of foundational reviews.

What has helped us in that learning has been the systematic investigation of the entire article. In these initial studies, we have paid particular attention to the introductory and concluding sections of the articles, assuming that the cultural impacts and sustaining arguments would most likely appear in those sections. Nonetheless the resources for, say, a methodological history, a quantitative meta analysis and its comparison with a qualitative discursive analysis, as well as investigations into the economy of scholarship, the alliance with symbolic politics, the cultural work of effects studies are all in place.

## Developing the Archive

Conducting foundation literature reviews is a career rather than a project activity. The current state of technology allows each scholar to appropriate libraries of source work that will support long-term, career-developing activities. Nonetheless in mentoring graduate students and entering faculty, we have found that individuals carry over what might be gently called undergraduate habits of work for the short term. Sources are collected but not archived; bibliographies are built but the citations are not retained in an easily retrievable manner. The good practices of foundation literature reviews will support a successful career. In the following sections we list those practices and the techniques that we have found useful. We start with some preliminaries.

*Electrons for Carbon*

Without denying the pleasure of the physical text, carbon based texts are not addressable, or searchable and cannot be easily manipulated or meta-tagged. Addressability has to do with location of access. If the journal is in the office and analyst is at home, the problem is obvious. Electronic copies can be placed on a restricted website (copyright provisions still prevail), which makes them available wherever one has Internet access. They can also be copied into an e-book or other player or kept on a flash memory drive, though these methods also require a physical presence. Searchability refers to the ability to search for strings of text in individual articles or whole archives. Most know how to search a PDF or Word document; some may not know that Windows allows the analyst to search sets of files in standard folders or the new Windows 7 "libraries" for particular text strings. The ability to manipulate texts is the key to effective coding and the codes themselves become meta-tags that allow the rapid access to ideas and concepts in the literature.

The fullness of these advantages, however, is not realized unless the texts are in "live file" formats. Bitmapped or image files have addressability but nothing else. The work of building foundational archives makes the problem of image files real. The analyst gets caught in the current year embargo set by certain publishers, in the pre-1990 practice of storing image rather than live files of some journals and databases, and in the limited historical reach of online databases that forces one to the library copy camera in hand. When presented with an image file, it is necessary to run the file through some process of character recognition. While there is free character recognition software available for downloading, we use what is touted as the industry standard, Nuance's OmniPage Pro.[1] This software has a very high success rate, multiple options for document formats and file types, and allows the analyst to retain graphics and to capture statistical tables in original format. Our justification for its cost is that image files are often of poor quality, which increases the number of recognition errors that have to be hand corrected. That time sink is a motivation killer.

*A Classification System*

Our individual archives contain over a couple of thousand source files representing journal articles, newspaper clippings, book chapters, and even entire books (out of copyright). Additions are made nearly every day. All of these sources have been catalogued in reference software (we use EndNote), which allows us to attach key works and to link the reference to the source file. A search on say "agenda setting" will pull up all the references that have those key words. The links will allow ready access to the actual article. All of this work can be done in the time it takes to read the abstract.

That work, however, is not enough. We have found that one needs a systematic file naming protocol. We use three elements in every file name: first author, date of publication, and

topical key word(s). A fourth element is used when the article presents some unique feature such as an unusual context, technology, or respondent group.

Those files are then further classified in a system of folders that have major headings—such as theory, methodology, effects, and media literacy—appropriate to the interests of the analyst. Those are further broken down by subtopic. It seems clear that we have reached the limits of this system—too difficult to track files, too many duplicate copies required, not enough information available—and that we will have to begin exploring file management software such PowerDesk Pro 7, SuperCat, or M-Files. The goal is to do a small amount of work on the front end to save a lot of work at the project level.

*Setting Domain Boundaries*

What is the domain of media effects literature: violence, sex, body image, gender, campaigns, media literacy, agenda setting, something else? What methodologies should it include? What manners of practice: science, criticism, journalism, popular comment? We recommend casting a very wide net, at least in the beginning. As with qualitative analysis, the center will come into focus as the analyst gets experience with the texts. It is easy to pull the boundaries in, but difficult to recognize when they are drawn too close.

We also recommend doing the historical work (described below) first. Early work has not differentiated itself into specialties. As new work comes in, it strives for legitimacy by making connections to existing work. Those connections are invaluable. In short we recommend a grounded approach: Let the work define the archive.

*Building the Archive*

A foundational archive is composed of actual source material not references to source material. The construction task is not advanced until the live file of the source resides in some

addressable location. This requirement poses different challenges over the history of our scholarship. The contemporary challenge is that the field is held in over 200 hundred different publications, which easily overwhelms the archivist unless a restricted search algorithm is used. The historical challenge is that there was no intact discipline of communication prior to the 1950s. Consequently, the work is held in education, English, speech, journalism, psychology, sociology and now defunct off shoots like audio-visual instruction. Further, that work is held in physical copy which itself is unevenly distributed across locales. The contemporary problem requires the archivist to determine which journals will form the basis of an electronic search.[2] The historical problem requires the decision as to which institutional libraries one will be responsible for. The criterion in play is not the impossible dream of everything or the equally implausible everything important; it is rather simply enough—enough material that is accumulated in a realistic, consistent, and describably reliable manner.

At some point the archive gets large enough that criticizing it for not having a particular journal or source appears more than foolish. At the same time, we hold to no purity of process and are opportunistic in adding sources outside these boundaries. The nice way to say this is that boundaries are in place, but they are permeable, though we promise no consistency in addressing other opportunities. Those boundaries are regularly reviewed, however, which is why we always consider the archive to be work in progress. New journals come available, new editors change the character of old journals. Managing the archive keeps one exquisitely up to date.

*Capturing the Wiley Source*

Perhaps it has something to do with our moral character, but the historical work has been much more fun for us. Part of the fun is in the discovery that our ideas that we hold so new and dear have had long standing precedents in a literature no longer addressed—the qualitative turn

looks something like introspection; post modernism is a lot like pre-modernism. The other part comes out of the tedious work of paging through dusty journals looking for traces and tracks of work in media. Finally finding something and then recognizing the source of some long-standing truism in media effects is an actual experience of Latour and Woolgar's (1986) construction of scientific facts in action.

But the fun comes at the expense of a lot of work. The first part of which is to investigate library holdings in the light of the most likely historical sources within the genre of choice. From there it is a snowball process of using one source to find another. To manage this process, the archivist needs to negotiate with the library for a method that will allow physical access to the journals (paper and online indices are not much help in our experience), allow the journals to be pulled, and the articles copied. Articles should be copied by a camera in black and white mode and saved in a low resolution file[3], using some form of a copy stand that will hold the text square to the camera frame. A bit of investment in a squaring jig will save hours of OCR correction work later. An afternoon's work by two people might generate 20-30 sources. Preparing those JPEG image files for the OCR software led us to becoming minor experts in Photoshop. Images had to be straightened and cropped, exposure corrected, and the like. We found that it was faster to create an image for each page in Photoshop rather than work around the spine in OCR or to reframe the camera shot each time (20 sources might be 400 pages). Fortunately, Photoshop can automate much of the work through action macros.

The tasks involved in capturing contemporary sources will depend on the subscriptions that a given library holds and how advanced its technology of delivery is as well as how accommodating the members of its interlibrary loan staff are. Again, involving library staff is an

important part of the process. They are librarians: finding stuff and making it available is what they do. The archivist just needs to be a priority in their work life.

## Coding the Work

The creation of an extensive archive of original works has enduring value in and of itself. The greater payoff, however, comes from systematically addressing the aggregated content. It is one thing to serially read the literature, but quite another to read that literature for the relationship among its elements. That sort of reading illuminates the lines of argument that constitute a domain of work and moves the practitioner to a higher level of expertise. The work also has very high publication value, but that is a secondary consideration in this paper.

### *Approaches to Coding*

Readers of this paper are undoubtedly familiar with the two main approaches to coding: One uses an a priori approach with codes developed outside the text and the other a grounded approach with codes emerging from the text. In actual practice there is less difference between these methods than what the description suggests. No a priori coder would fail to pretest the efficacy of a code set or resist adding codes when new ones were needed. No grounded coder is naïve about the requirements of the argument to be developed or surprised when the appropriate codes appear. Perhaps the greatest difference is the hand off of the actual coding to an independent pair or team by the a priori coding process. One might call this marionette coding because the so called independent coders are trained and supervised to produce consistent results. On the other hand, a single individual coding can result in idiosyncratic outcomes.

We recommend a pragmatic approach with a lot less ideological baggage. This approach begins with some a priori codes based on what the analyst knows of the literature and wishes to be able to document in the literature and couples that with a grounded approach that is open to

what the literature holds. Instead of training independent coders (the mini-me's of objectivity), we use each other as auditors of our respective coding. Neither of us is shy about pulling the trigger on the other, when the work does not make sense.

We code by paragraph and require that each paragraph have a code attached to it. One can also code by sentence or idea, but we found that sentence level coding loses too much continuity and involves too much labor (just extracting the sentences takes enormous time) and the boundaries of an idea are too vague to provide a consistent coding entity. (Authors are also not consistent in holding to their own boundaries.) The paragraph seems to work well. It has clear textual markers (unlike sentences); it allows continuity in reading; and requiring at least one code provides a check against coding while sleeping.

*Software Support*

Coding can be done in word processing, spreadsheet, database, or HTML applications, but in an archive of several hundred entries, those approaches are not practical. We recommend one of the major QDA applications such as NVivo 8, Atlas ti, or Framework. Any will work about as well for text; they are all expensive, but NVivo 8 gives 30 days of full capacity trial use and student discounts.

The advantages to using a high end QDA application are several: Each source can be entered into analysis as one unit of that analysis. The source can be globally coded with unit descriptors such as date of publication, genre, methodology, keywords, and the like. It also maintains the original file identity (and link) thereby keeping the information provided by the naming protocol. All of that unit information is retained as the analyst parses the article into its components (introduction, problem, method, etc.) or codes. A unique advantage of the software is the ability to pull up all text fragments represented by a given code or component identifier

(along with the unit information) to permit axial coding—the reduction of a fragment into subcodes—or to investigate the cultural or argument character of a particular textual component—the cultural work that a competent introduction accomplishes, for example. It also allows comparison of common codes across the unit information such as by decade of appearance, genre of presentation, analytic methodology, source of publication and so on.

Software can also provide a check on the quality of the coding work. There are a number of text analysis applications as well as some publically available free services. The applications we are familiar with include fellow ICA member Joe Woefel's Galileo, T-Lab, and Wordstat. The services are TAPoR funded by the Canadian government and Professors Chris Greavs and Tom Cobb's Lextutor website housed at the University of Quebec at Montreal. All of these are some form of a concordancer (an excellent search term for other sites) that returns a list of common/important/distinctive words, phrases, or structural forms depending on what you ask (see Wiechmann & Fuhs, 2006 or Thelwall 2005 for further discussion).

By examining blocks of text, say over time or genre, for example, the analyst can identify significant concepts by virtue of the rate of certain words and phrases. That information can then be used to check the code list to be sure the concept is included. Figure 1 shows a typical return from one of the tools available on TAPoR. In this demonstration, we created three sets of sources for comparison by taking texts from the 1930s and 1940s as one set, from the 1980s for the second set and from the 2000s for the third. Each set was about 20 pages, but as one can see from the summary information very different word counts. The tabular information shows the most common words within each set.

The lists of words show an obvious shift in the focal technology going from motion pictures and radio to television to video games. There are some subtle differences as well. The texts of the 30s and 40s were more sociological in approach, concerned with the social

Figure 1

1930s and 1940s

**Data Bench Tool Result**

**Summary: There are 2516 unique words other than those in the stop list, there are 5379 words other than those in the stop list. There are 11627 words in total including the stop words.**

| Words | Count |
|---|---|
| motion | 75 |
| pictures | 51 |
| radio | 45 |
| picture | 43 |
| public | 40 |
| life | 30 |
| social | 28 |
| people | 26 |
| television | 25 |
| mass | 23 |

1980s

**Data Bench Tool Result**

**Summary: There are 1250 unique words other than those in the stop list, there are 2682 words other than those in the stop list. There are 5141 words in total including the stop words.**

| Words | Count |
|---|---|
| television | 71 |
| violence | 63 |
| aggression | 53 |
| children | 39 |
| aggressive | 31 |
| viewers | 22 |
| behavior | 21 |
| viewing | 20 |
| research | 18 |
| heavy | 17 |

2000s

**Data Bench Tool Result**

**Summary: There are 1313 unique words other than those in the stop list, there are 3403 words other than those in the stop list. There are 6214 words in total including the stop words.**

| Words | Count |
|---|---|
| violence | 111 |
| violent | 98 |
| video | 84 |
| media | 76 |
| aggressive | 73 |
| games | 51 |
| exposure | 50 |
| game | 43 |
| behavior | 41 |
| effects | 39 |

Figure 1. TAPoR demonstration using three sets of media effects texts.

consequences on the public, particularly the mass public. The texts of 80s and the double naughts[4] show the shift to a psychological perspective and its focus on cognitive behaviorism. In these decades and, importantly, for these selected texts, there is an almost monolithic concern with violence and aggressive behaviors

The particular value of using a computer-based concordancer is that the computer examines every word or phrase (using a sliding window) with none of the physical impairments or reading errors to which we humans are prone. Concordancers can also make their own contribution to a subsequent study as Hakam (2009) has shown in her discourse and concordance analysis of the "cartoons controversy" in English language Arab newspapers. And, as perhaps

we have suggested in our demonstration, when research is examined with a wider lens we can begin to ask the larger questions.

*The Value of Coding*

Coding extensively and repeatedly reviewing the coding process adds tremendous value to the archive, not to mention an advanced level of domain familiarity for the analyst. For example, in our archive, if we want to trace the moral justification for a concern with sexual content in the media, we can pull up all the sources in the archive that are coded by a keyword denoting a sexual content focus, parse those sources into both introductions where the significance of the problem should be stated and implications and conclusions where the consequences for society should be located. (Note that we would have no interest in the findings or results, here.) We can then extract the lines of argument as they are presented over time, noting, for example, where arguments leave and enter the literature. *Science as Moralizing Agent* might be a provocative title for the resultant article (see Taylor 2005 for this sort of cultural agentry).

## Concluding Thoughts

We have positioned this paper mostly on the practical side of foundational reviews, but there is also sound theory for advancing the practice coming from cultural studies and, most particularly, critical rhetorical theory and discourse analysis. Scholarly and scientific writing are both rhetorical structures and discursive forms that are located within cultural systems of power (for the philosophy of these lines of argument, see Fuller, 1997; Gross, 1990; Prelli, 1989; Shapin, 1995). The cultural work accomplished and value accrued are demonstrated across the breadth of examples of this sort of writing. One-off reading has its value when a particular problem has to be solved or an obvious hole in one's argument has to be patched, but it leads the

reader to no sophistication as to why that problem exists or why the hole in one's own writing appears obvious. Reading and writing of that sort simply reproduces the cultural dynamics that allows us to believe we can safeguard the privileges of middle America with no social disruption simply by changing the media.

The science and scholarship of communication continues its fight for notice, legitimation, and a place at the table. We think that part of the strategy should be becoming better scholars and scientists and offer the practice of foundational reviews as an integral part of that strategy.

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[1]It's expensive, but Nuance provides educational discounts and bundles. Call for the best price.

[2] For example in EBSCO host web based databases, we use the following filter in an advanced search algorithm: (JN "American Communication Journal") OR (JN "Communication Monographs") OR (JN "Communication, Culture & Critique") OR (JN "Communication Quarterly") OR (JN "Communication Research") OR (JN "Communication Research Reports") OR (JN "Communication Studies") OR (JN "Communication Theory (10503293)") OR (JN "Conference Papers -- International Communication Association") OR (JN "Conference Papers -- National Communication Association") OR (JN "Critical Studies in Media Communication") OR (JN "Human Communication Research") OR (JN "Journal of Broadcasting & Electronic Media") OR (JN "Journal of Communication") OR (JN "Journal of Computer-Mediated Communication") OR (JN "Journal of Radio Studies") OR (JN "Journal of Applied Communication Research") OR (JN "Journalism & Communication Monographs") OR (JN "Journalism Monographs") OR (JN "Journalism Quarterly") OR (JN "Journalism Studies") OR (JN "Review of Communication") OR (JN "Southern Communication Journal") OR (JN "Media Psychology") OR (JN "Western Journal of Communication") OR (JN "Qualitative Inquiry") OR (JN "Qualitative Research") OR (JN "Qualitative Research Reports in Communication") OR (JN "Qualitative Social Work") OR (JN "Qualitative Sociology") OR (JN "Journal of Contemporary Ethnography") OR (JN "Communication, Culture & Critique")

[3]The surprise for us was that high-resolution files introduced detail that was miss-read as characters by the OCR software. This occurrence was especially true for articles defaced by underlining or comments. Archivists have a special place in Hell for those who mark up work.

[4] Pardon a certain playfulness, but we like referring to the 2000s as "the naughties."

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