An investigation was made of the impact of the visual display terminal (VDT) on the "gatekeeping" function of the newspaper editorial staff, in which editors selectively evaluate stories for publication. The VDT is a computerized device that displays copy on a screen and provides for highly flexible alteration of copy. Six hours of field observation of copy editors on duty was conducted and extensive notes were kept on a minute-by-minute basis. Content analysis of editing changes of four selected wire stories was performed. The results of the study were as follows: the editing system did not substantially interfere with gatekeeping performed at the newspaper; very little actual gatekeeping was done using the VDT, as most evaluation of stories was done using paper copy; and the combination of several wire stories into one story, copy editing, and headline writing were the major tasks performed on the VDT. (Extensive observation notes are included.) (DF)
THE ELECTRONIC GATEKEEPER: EDITING
ON THE COPY DESK OF A METROPOLITAN NEWSPAPER

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

Bruce Garrison is an assistant professor of journalism in the College of Journalism at Marquette University. He would like to thank Dean James F. Scotton for his support and The Milwaukee Journal for its cooperation. Special acknowledgement for assistance is given to Dr. Ron Ostman, Cornell University, for his advice on this project.
Without question, the newspaper industry has experienced vast technological changes in the past decade with incorporation of the computer into newsrooms and composing rooms. Computerization has affected all departments, from circulation to advertising to news and editorial. Newsrooms are often carpeted with little or no noise in contrast to the tiled or wooden floors and constant clatter of typewriters just a few years ago. Electronic/editing systems have replaced the manual typewriter, pencils, erasers, scissors, and glue pots. The modern reporter and copy editor work today on a silent electronic device known as the video display terminal.

Numerous mass communication theorists have written about the possible effects of such technology on all communication behavior. Their arguments are, in general, that technological innovations change the communication process. McLuhan stated that the predecessor of the VDT in the newsroom, the typewriter, caused "an entirely new attitude to the written and print word." He also wrote that the typewriter, once in use, had an explosive character which had an immediate effect on regulating writing mechanics. He pointed out that perceptions of the typewriter's effects were so influential upon newspapers that the typewriter was given a "lukewarm reception for some time after its development." Carpenter believed that the medium is a major part of the message. "...Each communication channel codifies reality differently and thus influences, to a surprising degree, the content of the message communicated," he wrote. The emergence of various forms of mass communication affect the societies in which they
develop, theorists have indicated as well. Among this group are De Fleur and Ball-Rokeach, who look not only at how the media affect society, but offer thoughts about new technology and how it affects the media. De Fleur and Ball-Rokeach believe the time-shared computer will be one technological development which will alter the communication process and the communicator, illustrating this with the computer equipped with video display panels. Video display panels, known in the newspaper newsroom as video display terminals, are major components in electronic editing and reporting systems. Study of these devices has not kept pace with the developing technology, and the literature is thin.

Study of the impact of technology on communication, electronic technology such as the video display terminal in particular, should examine the VDT role in newsroom activity involving reporting and editing. One clear area of inquiry is that of gatekeepers, those individuals who use new technology the most in the newsroom. A typical copy editor will perform most gatekeeping tasks at the VDT. Fields studied the types of tasks performed by the copy editor and determined that copy editors using conventional paper and pencil editing devoted the greatest portion of their time to editing local copy. He also found that headline writing was the second greatest time-consuming task. Copy editors are faced with many tasks involving news copy. The literature documents these thoroughly, and these tasks do not require discussion here.

What has not yet been documented in the literature is the activity of the copy editor as a gatekeeper using an electronic editing system. This study attempts to record through first hand observation:

1) Directly observable behavior in a natural setting — that is, what the copy editor says to other copy editors and what his physical
activity is at the video display terminal during the gatekeeping process as well as other times.

(2) Impressions as they occur in the form of inferences about gatekeepers' perceptions, motives, and feelings.

Furthermore, the study attempts to answer the following specific research questions about electronic editing:

(1) In what form do news stories move through the decision gates? What are the roles of hard (paper) copy and soft (electronic) copy in gatekeeper decisions?

(2) Has electronic editing affected gatekeeping decision processes?

(3) What are the major copy editor tasks completed on the video display terminal? What major copy editor tasks are completed employing pencil and/or paper?

Method

The study was conducted at a newspaper utilizing one of the largest electronic reporting and editing systems in the nation. An afternoon daily, The Milwaukee Journal depends on four Hendrix 3400 systems which became operative May 24, 1976. At the time of the study, there were seventy-four video display terminals in the newsroom. The copy desks -- divided into metropolitan, state and national desks -- have twenty-three video display terminals for approximately thirty to thirty-five copy editors and news editors.

The case study approach to gatekeeping and gatekeeper decision making has been employed by numerous investigators. Numerous studies in the literature rely on case study for data collection. Cutlip looked at only four newspapers while Liebes studied eight. Hart, Murray, and Stempel based research studies on case analyses of metropolitan dailies. Aber analyzed selection and rejection of press releases using only three cases.
There are numerous examples of the single case approach to the study of copy editors.  

Investigation employed field observation as the primary methodological form. Literature on field observation strategy readily points to the advantages it affords the investigator, including (1) intimate knowledge of the individuals or group being studied, (2) modification and change in exploratory observations, (3) natural field observation with minimum observer influence on those being observed, and (4) greater use of observer impressions and reaction during the research process.

Grey used the observation technique to study the decision making tasks of a reporter covering the U. S. Supreme Court in Washington. In Grey's work, and in this study, a diary record was kept of observations. As Grey noted, observation procedures obviously are limited in the amount and quality of information they can acquire. A meeting between the observer and the observed was held immediately after the session in an effort to enhance data quality and evaluation of data.

A pretest of the observation to eliminate problems in recording data was conducted; this also made the observed journalists feel more comfortable during the actual observation session. To lessen possible effects of the observer, the pretest was conducted two days prior to the observation under the pretext of being the actual observation session. The observer recorded data in a notebook using a set of preprinted schedules. A newsroom clock was used to note the time and the running account was later transcribed for analysis. A weekend copy desk shift, from 5:45 a.m. until the end of the second major deadline of the day for the edition, 11:15 a.m., was the time frame of the study. Copy editors working the Saturday morning shift on February 10, 1979, provided the situation for data gathering.
To further examine the editing activity of gatekeepers using the video display terminal on the observation date, a content analysis was conducted on selected wire stories handled during the editing cycle. Desk activity prohibited complete data collection and analysis of all stories edited on the desk, but a sample of one story edited through all gates was taken from each of the primary copy editors for the two editions. The content analysis was performed to analyze each story for editing changes, such as style, story length, reorganization, rewriting, corrections, combinations of dispatches, and insertions. A total of four stories at all gates --- copy editor, slot editor, and news editor --- was analyzed over nine content categories.

The national desk of the newspaper faced two deadlines, with the first coming at 9:45 a.m. for the Latest I edition, and at 11:15 a.m. for the Latest II, or final edition. Later in the same day the desk went through three additional deadlines for publication of the Sunday editions. The national desk will produce a substantial amount of the Saturday edition, traditional policy at The Journal with light news runs from the state and local news desks. Carroll, the slot editor for the day, arrived at 2:30 a.m. to read wire copy. His rim staff is scheduled to arrive a 6:15 a.m. He is sorting piles of copy --- in typed sheet (hard copy) form provided by a high-speed printer connected to Associated Press and United Press International circuits. The national desk budget for the day is provided in the Appendix.

The Observation

5:50 a.m. --- Carroll sorts hard copy. He does not use either of the two VDTs available to him inside the slot of the copy desk.

5:55 --- Carroll complains out loud that there is too much spot news and not enough news hole. He continues sorting copy.

Only first names are used to assure anonymity of respondents.
6:00—Carroll continues sorting copy, and begins to write headline orders on some stories. These will be given to rim people as they arrive.

6:07—Carroll sits quietly. He is alone, making headline assignments on the copy which he has selected for Saturday's national desk run.

6:14—Stuart, a rim copy editor, punches in on a time card, checks in, disappears out of the newsroom again.

6:15—Carroll asks an observer about an obituary of poet Alan Tate. "Is this guy a biggie?" Carroll then states that he has seen several long obituaries in the wire service offerings, and pulls two from The Washington Post and The New York Times news services. He finishes sorting his copy, and begins working on the national desk budget at a manual typewriter kept near his seat. It is one of two manual typewriters available for use by the copy desks.

6:21—Carroll complains that the "...UPI drives me nuts. I got twenty write-throughs already on Iran." He begins to work on the budget again. He sorts piles of hard copy as he types.

6:22—Chris, another rim editor, arrives. She talks briefly with the metropolitan editor, then makes a phone call. She sits at the copy desk.

6:24—Carroll gives Chris a story slugged IRS, with a two-column, 36-point headline order on it. She signs on the VDT, then stops. She gets up, saying, "I sat at that one yesterday and didn't like it!" She moves to a different VDT. Before beginning to edit the IRS story, she leaves the newsroom.

6:26—Stuart and Chris both return to their VDTs.

6:27—Carroll gives Stuart a story to edit. He signs on.

6:28—Carroll puts finishing touches to the budget. Stuart leaves again.

6:29—The Librarian asks Carroll if there are obits to be researched for file art. He reviews the pile of copy with the librarian and she leaves to locate art. He returns to finish the budget.

6:32—Carroll has finished the budget. He goes to the Picture Desk to check on available art to list on the budget. He reads through his budget, makes notations on it, and copies it. He circles all Ks on the budget to indicate that some item in the story needs to be changed or updated if the story goes beyond the next edition scheduled.

6:35—Chris continues to edit the IRS story. Stuart is still absent from the newsroom.

6:40—Stuart returns from the library with art to accompany and stops at the Picture Desk to inform a picture editor that he could not locate art on one individual.
6:43---Stuart passes along this information to Carroll. He asks Carroll which way he would prefer a headline written on the story he is editing, since two major elements will not fit into the short headline. At this time, Chris completes the IRS story.

6:45---Chris begins a second story provided by Carroll. Carroll begins reading copy, called slotting, which has been sent to him electronically by Stuart and Chris.

6:48---Stuart is given the Bhutto story, and is told to keep the length at ten inches. Carroll and Stuart exchange thoughts about the Bhutto story for a moment.

6:52---A newsroom messenger brings a handful of wire service copy to a basket in front of Carroll. In the last hour, approximately two dozen stories are run for national desk. The copy rests in the basket without Carroll's attention.

6:53---Stuart and Carroll discuss the Shang story, with Stuart noting that it had been in an earlier Friday edition. Carroll corrects the error in the budget. Editing continues.

6:56---Librarian returns with art from files for obituaries.

7:01---Chris stops in mid story to get coffee.

7:06---Chris returns; Ruth arrives on news desk.

7:07---Carroll stops slotting to review latest wire trim. He sorts this hard copy into piles. Stuart starts on headline for Bhutto story, a one-column, 24-point italic, three-line. He uses the hard copy, and not the VDT version for review to write the headline.

7:10---Carroll reviews Friday's States edition overset with photo copies of the actual type, but does not use the electronic system.

7:12---Carroll and Stuart go over possibilities for Stuart to edit. After deciding to wait on the Oil story, because a reporter is being sought to review it, Stuart takes the Estate story. Carroll hands him a collection of wire copy for the story.

7:14---Stuart reads through the wire service versions of the Estate copy. He does not call up the electronic version to judge the content of each story.

7:20---Chris is given the Tate obit. She leaves the newsroom briefly.

7:24---She returns, speaks briefly to Ruth, the assistant news editor. Chris then begins to read the Tate hard copy.


7:30---Roger, another rim copy editor, arrives to start work on rim. He sits at the same VDT which Chris refused to operate.
7:33—Another wire trim is brought to the desk.

7:34—Chris and Roger talk about Tate; Roger signs on, and electronically reads on his VDT the same story Chris is editing.

7:36—Roger is given several wire shorts for the briefs page slugged Britain, Refugees, and Italy.

7:38—Chris and Roger break for coffee.

7:40—Carroll gives Stuart the Oil story, stating that the lead should not cause problems, according to Ruth.

7:41—Carroll sorts new wire copy. He remarks that there has been more copy on Iran transmitted by the wire services. He sorts the copy. Chris and Roger return to their VDTs.

7:42—Roger opens electronic versions of the news briefs and begins editing one.

7:46—A VDT in the nearby sports department malfunctions, attracting the attention of the copy editors on the national and local copy desks. Copy editors are momentarily fascinated by the repetitive pattern printed on the screen by the VDT. But as quickly as it happened, the malfunction is corrected after a telephone call to the computer center on the next floor. The copy editors return attention to their screens, with Chris remarking that it had happened to her once before.

7:51—Roger asks anyone who hears him on the desk about proper crediting style for a news service seldom used. Carroll is unsure; Stuart confirms proper usage.

7:53—Chris asks Roger about splitting credit lines for wire services at the top of stories. The discussion of proper format consumes several minutes.

7:56—Carroll sorts copy in the basket. He notes a story slugged urgent, but does nothing more than read it through since it is on Iran. He holds up a large pile of wire copy on Iran for the rim to see. He then talks to Roger about the Iran situation.

7:58—Chris asks about a style matter in crediting a 1964 photo of Tate. She asks how to write it. Carroll helps her solve the problem.

8:00—A list of photograph cutlines to be edited arrives from the Picture Desk.

8:03—Carroll tells Roger he will handle all Iran copy for the day. But Carroll first gives Roger the Strike story to edit.

8:04—Roger reads hard copy on the New Orleans strike. He then key-punches the VDT to find the story by using a search --- an electronic search for a story in the computer system. The story appears; he begins to edit it.
8:05—Carroll gives Stuart the day's China copy. He summarizes it for a moment for Stuart, picking out the highlights. He instructs Stuart to place material on Indonesia at the end of the story. Stuart begins reading the China copy.

8:08—The national desk phone rings. Carroll answers, but says very little. He remains on the line for about five minutes.

8:13—He hangs up. He summarizes the call for Stuart, since it affects the China story editing. More wire copy arrives at the basket.

8:15—He asks Stuart to hold off on the China story for a while after an initial inquiry about progress in editing it. He then talks to Chris about Tate. He wonders if the clips in the library should be checked for a local insertion. He then gives Stuart briefs to edit on Economy, Dole, and FTC, while waiting on China.

8:16—A story slugged Farmer is given to Chris. Carroll then reads through some hard copy momentarily.

8:17—Stuart reads the hard copy versions of the briefs copy.

8:20—Roger finishes Strike story. Carroll looks at clips copies from library on Tate and determines Tate spoke two or three times in Milwaukee.

8:21—Roger starts to work on Morris copy before he takes Iran.

8:24—Carroll reads through more hard copy in the slot.

8:25—Carroll receives another telephone call, which lasts only seconds. Carroll says nothing.

8:30—Roger finishes Morris story. He and Carroll then start to go through the large quantity of Iran material together, and determine the best way to edit it. "Not much politics today," Carroll says. "Just shooting." Roger takes the Morris cutline to edit, and completes the task before beginning the Iran story.

8:32—Roger begins editing electronic version of Iran.

8:37—The rim is involved in uninterrupted editing with deadline nearing. First edition deadline of the day is an hour away.

8:44—Carroll calls the national editor at home. They discuss the staff story from Washington.

8:47—Wire copy placed in basket by messenger. Carroll, busy slotting finished copy, has not noticed the new wire copy.

8:50—The reporter calls back from Washington; Carroll answers. They talk for a moment, then Carroll transfers the call to a nearby stenographer who begins to take dictation. The stenographer is seated at a VDT, and keypunches the story into the editing system. Carroll continues slotting.
8:51—Carroll checks on Chris' status, and assigns her to handle a number of news briefs, including Marvin. She also handles Police, a rewrite of short stories involving arrests and other police activity.

8:52—Roger finishes the Iran Story. Begins working on the headline. Finishes the headline in about two minutes.

8:54—Roger receives three briefs to edit: Carter, Canal; and Torture. He opens one and starts editing it.

8:57—A copy editor from the local desk asks Carroll about his morning budget story slugged Carter. Roger answers the question since he handled the story the day before.

8:58—The news arrives at news desk.

9:04—Stuart asks if he should resume editing China after completing the brief he had been assigned. Carroll says that it would be okay if he avoids the Taiwan aspect for the moment. Stuart says that will be no problem.

9:05—The reporter is still giving dictation to the stenographer, but Stuart works on the China copy.

9:07—A press release on foreign trade is brought to the basket on the wire desk by a messenger. Carroll ignores it.

9:12—Another set of wire copy is delivered to the desk. Again, Carroll ignores it as he is consumed in slotting.

9:13—Carroll cleans out the in-basket for copy. He sorts it. Included in the set of stories is an update on Iran, which he passes to Roger. Roger glances at it.

9:14—He finds another Iran story to give Roger. Roger looks it over, and returns to his VDT to work on the Torture brief. In a moment, Roger announces that he is finished with Torture. At this time, Carroll, who is reviewing the pile of wire copy, finds a new lead on the New Orleans police strike story. He gives it to Roger, who reads it in hard copy form. "I suppose I ought to sub this," he says to Carroll. Carroll turns to Ruth and tells her there will be a new police strike story.

9:15—Roger starts to work on the substitute story. He checks the original version on his VDT. He again decides that the new version is best. "It's short anyway," he tells Carroll.

9:16—Roger writes a memo to the composing room to substitute a new Strike story for the old one for the upcoming edition. He decides to call the new story Strik2.

9:17—Roger begins editing Strik2 from scratch. He uses none of the information from the original version in the system.

9:19—Carroll asks Stuart about the status of China. Stuart reports the current story length at thirteen column inches, and is told this to be acceptable. Stuart then locates the unedited electronic version of the
staff story before finishing China. He reads the Carter story.

9:20---Carroll asks Chris the status of Police. He tells her that she will do People, a round-up story on celebrities, when Police is finished.

9:21---Chris finishes and tells Carroll.

9:22---Chris begins People. Carroll and Chris talk over the content of People. She asks a question about style. "Regular every day (style)?" she asks. "Dot-dot-dot," he answers.

9:24---Roger finishes content of Striker and writes a memo for the slot and news editors which tops the story in all caps type: "ALL NEW." He starts on the headline on the story.

9:25---Roger says he is ready for a new story. Carroll responds quickly, giving him Shoot.

9:27---While Roger works on Shoot, Carroll slots Striker and finds a questionable name spelling. He asks Roger to double check the spelling of the name of the mayor of New Orleans. He checks the hard copy and verifies the version to be correct.

9:29---News editor for this edition, Ruth, asks Carroll: "I presume you'll have some kind of Strike story?" Carroll: "Yes, it's Strike Two. You'll have it in a minute." Chris finishes People.

9:30---Page one headline orders are provided to Carroll by the make-up editor. Carroll instructs rim people on new headline orders on stories which apply. Some headlines will have to be rewritten. Fifteen minutes to first deadline.

9:33---The reporter in Washington calls to make content changes in the Carter story. Additional wire copy is dropped into the basket, but Carroll does not react to the new copy.

9:34---Carroll sits at his VDT and makes content changes in Carter. He tells the Washington reporter that the story still reads okay. He hangs up the phone and returns to slotting copy.

9:35---Roger and Chris finish their editing. They read Friday's edition and talk about make-up on the page. A story with a split follow-up story has drawn their attention.

9:39---Carroll asks the rim people for jump words for their page one stories. All respond quickly.

9:40-9:45---All rim people work on remaining late headline orders.

9:45---Latest I deadline arrives. Desk pace quickens with some copy still unfinished.
9:46---More headline orders come for Chris, who gives one to Stuart to ease the load.

9:47---Roger writes an IRS headline after Carroll suggests that he help Chris with it. Stuart notes that there is already a 2-36 headline on the story he is handling, and suggests that it be spread over four columns for the 4-36 he was supposed to write. Carroll consents. Roger reads IRS throughout in its electronic form to help Chris with the headline with deadline two minutes past.

9:48---Chris gives up on improving the Food headline, saying that there must be a better headline, but she cannot get it. Roger still works on the IRS headline.

9:50---Carroll clears out incoming copy basket. He notes that there is still more new Iran copy. He notes the situation is grave. The Washington reporter calls again. Carroll passes the phone to Stuart to make another change in the story on Carter. A sentence is added on the electronic version after Stuart takes a moment to find it in the system.

9:52---Roger works on Food headline. He sends a version in electronic form to Carroll to appraise. Roger then walks around the desk to Carroll's VDT and the pair work on the headline together.

9:53---Stuart hangs up. He finishes an insert in the story and sends it to the slot.

9:54---Ruth asks if the desk is clear of copy. One headline remains, Carroll responds. Nine minutes past deadline.

9:56---Chris finishes Farm headline, Carroll reads it in his queue and makes a change after consulting Chris. Roger still tries a better headline on Food. He finishes one, and electronically sends it to Carroll. Carroll is busy looking through a pile of hard copy and never checks his VDT --- he lets it sit inadvertently in a queue. It never makes the edition.

10:00---The desk pace has eased. Chris leaves the desk. Stuart surveys some hard copy at his VDT.

10:01---Phone rings. Carroll speaks briefly, hangs up. He tells Roger that composing has lost a cutline and that it needs to be re-sent immediately. Roger finds it in the system on his VDT, punches through a series of commands and the task is complete.

10:03---Stuart and Carroll talk over the China story.

10:08---The national editor, Carl, arrives.

10:10---Roger begins to work on Monday States edition picture page cutlines on his VDT.

10:14---Stuart takes a break by reading hard copy on China. Carroll sorts more hard copy, selecting a number of short filler stories for the Sunday States edition later in the day. He places headline orders on the copy and leaves them on the desk for anyone on the rim to select and edit. He also
selects a number of longer stories and marks them for the Accent section with headline orders.  

10:15—Pace is slow. Carroll hands Roger a photocopy proof of page one for the Latest I edition which he has been given by the make-up editor. They say nothing. 

10:16—Carroll begins to go through new hard copy. The make-up editor gives a short rundown on a series of trims which were made during make-up of the briefs page (Main section, page 3): 

10:18—Carroll asks Roger to check the briefs page to make sure the trims make sense and to handle one substitution. To do this, Roger uses the page proof and hard copy, and does not use his VDT. 

10:19—Carroll looks at the picture page proof. Suddenly he utters: "Uh, oh. Something wrong here." He quickly turns to his VDT and calls up the cutlines for the picture page. He hurries to the Picture Desk. 

10:20—Carroll asks Stuart to straighten out the problem with the cutlines. He tells him that the cutlines are set in the wrong type size format. 

10:22—Carroll reviews more hard copy. Stuart goes to the Picture Desk to clarify the situation on the picture page. He talks with Ruth about the status of Pres2. 

10:25—Carroll writes a note for the composing room on Pres2. 

10:26—Carroll gives Roger additional Iran copy from the wire services which notes additional deaths and a new threat of war. Carroll and Roger talk over the new developments using hard copy only, pointing to sections of the new stories. 

10:27—Telegraph overset from the Latest I edition is brought to the national desk by a messenger. Bhutto is among the stories which were not published. 

10:33—Carroll reviews the overset. He creates a list of major overset. 

10:34—Additional wire copy is brought by a messenger. 

10:35—Most rim people are taking a between-editions break. 

10:37—Carroll talks to Ruth about major overset stories. 

10:38—Carroll sorts new wire copy resting in basket. 

10:40—Headline assignments from the make-up editor for Latest II edition arrive and are passed out to rim persons who handled specific stories for Latest I which will change for the next edition. Chris is given the jump headline for Food; Roger is assigned a jump headline for Strik2. 

10:43—Roger completes his changes on the briefs page. He hands the briefs proof to Carroll with the kill memo attached. It is placed in the news editor's basket, and then moves to the composing room by a messenger.
and pneumatic tubes. Roger begins more work on the Iran story.

10:44---The composing room inquires by phone about changes on the briefs-page for Latest II. Carroll summarizes the changes, noting that there is an Italy update. Now reflecting an update in the story.

10:45---Carroll begins to sort a pile of hard copy. He turns to his VDT to read story. He then returns to the hard copy and assigns headlines to a set of Accent stories.

10:48---A new wire trim arrives at the national desk.

10:49---Carroll assigns a new headline on Farm for the final edition, Latest II.

10:50---Carl, the national editor, leaves a desk on the other side of the news room to talk to Carroll. He asks Carroll to see the Latest I briefs page proof. Carroll reads through it quietly.

10:51---Carroll sorts the newest wire copy. He finds new copy on Iran from UPI and passes it to Roger to read.

10:52---Carl asks Stuart if he can route some copy to other desks electronically. Stuart is given a pile of hard copy with queue designations, and he begins to call them up on the VDT by tape number. Each is electronically routed, and the hard copy is discarded.

10:55---Carl approaches Carroll with a change on the briefs page. They review the proof, or tear-up, and Carl asks for a specific story to be switched. Carroll passes along the task to Stuart. He then tells Carroll that he would like to have two overset stories from the Latest I, Bhutto and Mei, for the States edition for Sunday—which has a deadline of 4 p.m. later in the day.

10:58---Stuart makes the additional revisions on the briefs page. Chris is working on the Farm headline and Roger is completing updating of Iran. He looks at Farm after sending Iran to Carroll's queue. Carroll slots the new copy as it comes to his queue.

11:00---Roger starts on a new Iran headline for Latest II. He writes the head after the story has left his queue, but refers to it nevertheless. Fifteen minutes remain before the Latest II deadline.

11:04---Latest I editions arrive in the newsroom from the pressroom. Work on the rim stops momentarily while all persons skim the new edition. But, after less than a minute, all copy editors are back at their VDTs handling their assigned stories.

11:05---Stuart finishes briefs and thumbs through the paper.

11:08---Chris finishes Farm and is given a story on Mort Sahl to edit. Roger finishes Iran headlines and stops to read the Latest I.

11:11---Carroll sorts the new copy, and passes along another Iran update.
to Roger. Roger reads it through without comment.

11:12—Carl asks if any Sunday fillers, or shorts, have been put out for the rim to handle. Carroll says no one has started them, so Carl collects the pile of hard copy and returns to his desk. He promises to return them as he leaves.

11:14—Carroll and Roger decide to review the day's budget.

11:15—Latest II deadline arrives. All work is completed. Rim is caught up in editing and headline writing for the moment, and relaxes by reading the Latest I.

11:19—Carroll cleans up around his desk to leave. Roger moves from the rim to the slotting position on the desk.

11:26—Ruth asks Stuart about a typographic error she has spotted in Pres2. Stuart finds the story in the system and makes the correction. He is told before finishing by the news editor that there is a second error to correct. Stuart makes this change as well. He then re-sends the story to the composing room without sending the story to another slot editor.

11:28—Roger calls composing to anticipate the new version of Pres2. He tells Carroll that a Pres3 will be arriving soon in make-up.

11:29—Additional wire copy is brought from the wire room by a messenger.

11:36—Carl arrives at the national desk and begins reading copy for the States edition of the Sunday Journal. All rim persons have left the desk on lunch break.

Discussion

Nearly six hours after the observation began, data gathering is completed. The day's events are shown in the chronological diagram in Figure 1. The diagram indicates the nature of gatekeeping tasks performed at the VDT against the context of the two deadlines during the observation period.

Research Question One:

1. In what form do news stories move through the decision gates? What are the roles of hard (paper) copy and soft (electronic) copy in gatekeeper decisions?

The copy flow system used by copy editors at The Journal is a combination of hard and soft copy. The actual flow begins with hard copy sources,
FIGURE 1:
VIDEO DISPLAY TERMINAL USAGE DURING GATEKEEPER OBSERVATION PERIOD

Key:
T: Desk correction of typographical error
L: Desk idle during lunch
* Shaded areas represent late page one headline writing or late jump page headline writing

Morning Shift Begins

5:45 a.m. Carroll in slot
Stuart, Chris on rim

6:45
7:45
8:45
9:45
10:45
11:45

General Copy Editing, Headlines
Cutlines

9:45 a.m.
Latest I Deadline
Heads p. 1, jump page*

11:15 a.m.
Latest II Deadline
Heads p. 1, jump page*
such as printers from United Press International and Associated Press, providing material for the slot editor, who made selection decisions based on hard copy as the observation diary indicated—very early in the day. His selections were then forwarded in hard copy form to the rim copy editors, who made the transition from hard to soft copy by editing the electronic versions with the hard copy. Edited copy electronically sent to the slot of the national desk, where it is again edited in electronic form and hard copy is no longer an important part of the copy flow. From the national desk slot, copy is transferred electronically to the news editor, who reads it, but does not edit it, before sending it in final form to the composing room.

It is quite clear from this gatekeeping study that the editing system does not substantially interfere with gatekeeping performed at the newspaper. While it could occur that such technology would create significant changes in the flow or copy movement throughout gates in the newsroom as McLuhan and others propose, it does not appear to be a major factor in this step in the communication process. In short, the system appears to have been designed to fit the previous hard copy system and is only minimally obtrusive. The copy desks, then, did not have to change to fit the system.

Research Question Two:

(2) Has electronic editing affected gatekeeping decision processes?

Decisions regarding selection and rejection of news stories are made by gatekeepers at two levels. The national editor or a substitute will select stories from the wire offerings of the day and provide the best versions to the rim—usually in more than one version. The second level of selection and rejection is at the rim, where copy editors are given the responsibility of combining key elements from the different stories.
The electronic editing system does not play an important role on either level at this point, since the national editor selects stories based on hard copy from the wire services, and the copy editors on the rim working on assigned stories are selecting base versions to edit using hard copy as well. Very little actual gatekeeping is done using the VDT. Evaluation of stories is most frequently still done by use of hard copy. Copy editors and national editors both depend upon hard copy for the evaluation process—that is, making decisions about what specific elements of selected stories will be used in the published version of the story. However, editors do not use hard copy for editing; hard copy is used for double checks of information which is edited on the screen—such as when the slot editor asked a rim copy editor to verify the spelling of a name for the Strike story. No editing was observed on hard copy, although copy editors during the de-briefing discussed infrequent occasions in which they edit hard copy—such as extremely long stories which must be cut extensively.

Copy editors were observed writing headlines on the VDT without pencil and paper. Copy editors made extensive use of the conveniences built into the system—such as automatic headline count. This enabled copy editors to attempt many different ideas for headlines—what one called during the de-briefing "trial and error" headline writing. Copy editors appear to be more willing to try different word combinations and count them, in less time, it appears, than with hard copy. Many different "offerings" are made to the slot editor, and he often makes a selection from the two or three headlines written with a given story, and moves the choice to the news editor. The observation data indicate many forms of experimentation in headline writing and, of course, the possibility that many copy editors may work on the same headline at the same time if deadline is near—as
was done with hard copy systems.

Research Question Three:

(3) What are the major copy editing tasks completed on the video display terminal? What major copy editor tasks are completed employing pencil and/or paper?

Findings of content data gathered from selected stories handled by copy editors and observation on the national desk suggest types of tasks performed during copy editing, and the time devoted to related decisions during the day. Results of the analysis are presented in Table 1. Observed tasks are displayed in Figure 1. The content analysis data indicate that in these selected stories copy editors made more style change decisions and story shortening decisions per paragraph than any of the other categories. However, the level of changes was low, with less than one change per paragraph. And as observations indicated, changes were made at the rim level, and not at the slot or news editor levels. In the copy flow system, the key gatekeepers are the rim copy editors. Data in Table 1 support this point.

Copy editors invariably combine stories from the multiple versions provided by the wire services. Rather than provide only one story for the rim copy editor, the national editor will delegate considerable gatekeeping by providing all significant versions of a given story to the rim copy editor for selection-rejection, and for combination. The combination process was observed to be similar across copy editors: story identification numbers are located on the hard copy and keypunched into the electronic editing system during a star search. Using a combination procedure on the VDT, the copy editor temporarily stores the first story and searches for the second story. The process is repeated until all desired versions are combined into one long version on the screen.
of the copy editor. The editor then proceeds to edit by deleting large portions of the stories which are not needed in the final version. The role of hard copy varies in this editing task, since some stories of considerable length require that hard copy be used as guide in the editing-trimming process. And the observer also noted that the degree of usage of hard copy may vary from individual to individual.

The time consumed during the observation period was dominated on the national desk by copy editing at the VDT. Nearly every moment is consumed by some degree of copy editing of stories by at least one copy editor, but more likely, by more than one copy editor. The second-leading task performed at the VDT was headline writing, but at The Journal, it is a distant second place in terms of total time consumed using the VDT. At The Journal, headline writing takes place throughout the day, with a majority of stories assigned headlines initially. However, these headlines may change if a story is re-assigned to page one—since the assumption is that none of the stories will be on page one when the budget is constructed. Thus, a rush of headline rewriting dominates Figure 1 immediately before each deadline. Copy editors work under deadline pressure most frequently writing headlines, and editing copy. The two deadlines experienced by the national desk on this day indicate that most copy editing is done in a non-deadline situation. Cutline writing, a minor task on the desk, involved comparatively much less work, since cutlines are produced by another desk and read by national desk copy editors. Copy fitting cutlines is a major duty on this desk in the cutline processing task. Very little time is spent in correction of typographic errors once these are published; only one incident was recorded, immediately after the second edition deadline.
TABLE 1

EDITING CHANGES PER PARAGRAPH FOR SELECTED STORIES

<table>
<thead>
<tr>
<th>Story Slug-Copy Editor</th>
<th>Paragraphs Length</th>
<th>Style Changes</th>
<th>Story Shortening</th>
<th>Reorganizing Story</th>
<th>Rewrite Content</th>
<th>Correct Error</th>
<th>Grammar Correction</th>
<th>Combine Stories</th>
<th>Subheads</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRS-Chris</td>
<td>11</td>
<td>0.91</td>
<td>0.36</td>
<td>0.09</td>
<td>0.18</td>
<td>0.09</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>IRS-Carroll</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>IRS-News editor</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Bhutto-Stuart.</td>
<td>15</td>
<td>0.27</td>
<td>1.20</td>
<td>0.33</td>
<td>0.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.13</td>
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<tr>
<td>Bhutto-Carroll</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
</tr>
<tr>
<td>Bhutto-News editor</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Strik2-Roger</td>
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<td>0.36</td>
<td>0.60</td>
<td>0.04</td>
<td>0.00</td>
<td>0.00</td>
<td>0.04</td>
<td>0.08</td>
<td>0.08</td>
</tr>
<tr>
<td>Strik2-Carroll</td>
<td>12</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.08</td>
<td>0.08</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Strik2-News editor</td>
<td>12</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>Strike-Roger</td>
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<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.14</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*According to Journal desk policy, a story edited to the length of Bhutto will not be given subheads. It was too short.
APPENDIX

NATIONAL DESK BUDGET, FEBRUARY 10, 1979

Listed below is the budget created by the slot editor of the Journal national desk, listing the news run of the desk for the day. This budget competed against budgets from the metropolitan and state desks for space in the newspaper's editions for the day. Obviously, not all stories were used.

The budget, as prepared, in unedited form:

NATIONAL DESK LIST FOR SATURDAY, FEB. 10

PAGE ONE POSSIBILITIES

Iran, 3-36-2, savage battles in Iran, sections of armed forces fighting each other. Developing. Probably over 20.* W/Morris below.

China, 3-36-2, US warns China on Vietnam, Soviets angry with China, too; lots of related developments. 20-25. (K)+

Strike, 36, Mardi Gras saved as New Orleans gives into police demands. Around 15.

Mel, 36a, art sought, owner of Mel's Sporting Goods may be final victim of Patty Hearst and SLA. Around 15.

Food, 3-36a-2, 2/one col., George McGovern becomes a recruit in Ronald McDonald's army. Around 20.

Morris, 24a, art available, veteran LA Times reporter killed in Iran. Around 10.

Oil, 36, exing wup story on reduced gas deliveries. Around 20. (K)

Bhutto, 24a, many new appeals to spare Bhutto. Around 10.

Flood, 36, FBI asked to probe jury tampering in Flood case. Under 15. (K)

*Story length in column inches.

+Indicates story will be killed or updated after Latest I edition.
IRS, 36, gives ground on private school rules. Under 15.

Farm, 36, Carter in interview has bad news for farmers, other de vels. Around 15.

Estate, 36, Rocky's $66 million estate adds widow, 2 young sons, Megan, Marshall and some museums. Around 20. (K).

Tate, 243, famed southern poet dies—Under 10.

Obits, stock hed, several other deaths. Under 10.

BRIEFS— economy, draft, Lee Marvin, Carter campaign, Love Canal, torture report, Dole, Concorde, People, police, Britain, refugees, Italy. (K).

one 8 pica short—Westy.

Belt only—Shang.
Footnotes


14 Chris later stated that the VDT she did not like to use was "hanging up on the body count. It has for several weeks." By this, she was stating that the machine was mechanically freezing when a copy editor commanded it to automatically count the length of a story on the screen. Rather than face this problem, she simply selected another machine.

15 Carroll explained the need for this notation on the budget during a de-briefing session following the observation day's end. This is standard procedure on the copy desk.

16 The wire trim contains seventeen Associated Press stories and eight United Press International stories transmitted between 5:30 and 6:41 a.m.

17 The Bhutto story was given to Stuart in three forms: a UPI story from Pakistan, and two New York Times News Service stories also from Pakistan. The Times copy included a first lead write through which was transmitted about four hours after the original stories. Stuart reduced the volume of copy to 8.1 column inches of the type based on The Times versions. Carroll, in slotting, further reduced the copy to 8.0 inches by deleting one line of type. The story became overset for the Belt edition.

18 The message was unclear to the observer. It began with "Do not ..." but could not be recorded accurately due to the speed it was flashing across the screen. Apparently, from de-briefing discussion, the message was a reaction to an erroneous command given the computer, which started a cyclical warning message.

19 The telephone call is from a Journal editorial writer in Washington, D.C. The writer has attended a meeting with President Carter the previous afternoon and plans to file a story with the national desk. Carroll in a de-briefing, recalled that he promised the reporter to talk to the news editor about the story and would determine whether this story would affect the overall China coverage for the day's editions. The reporter said he would call back in later in the morning.

20 At a de-briefing, Carroll could not recall the nature of the conversation.

21 At a de-briefing, the matter was explained. Usual style for People is to combine material by using ellipses instead of normal punctuation.

22 At the copy desk of The Journal a headline order also indicates a specific range for story length. A story with a 36-point headline order, for example, will normally be edited to about twenty column inches of type. Accent copy will be placed in a queue for the Accent editor to slot. Accent copy is undated as a rule and used as need demands. It is usually handled by the national desk several days ahead of publication, often a week ahead of schedule, and on occasion, even longer than a week.

23 At this point, the role of the VDT is diminished in the decision-making process. Discussion of updating the important Iran story centers
exclusively upon the hard copy from the wire printers, and the electronic versions in the editing system are ignored.

24Story in its original form totalled fifty-five column inches. Chris was asked by Carroll to trim the story to fifteen to twenty column inches, a task typical of the assignments on the national desk.

25Carroll is completing his shift in the slot. Roger will serve as slot for the afternoon's editing through the Sunday States edition while Carl performs his role as national editor. The difference is that for Saturday's Latest I and Latest II, Carroll performed both roles. For the larger Sunday editions, there is simply too great a volume of copy to monitor and slot for one person, Carl said in an interview on January 30, 1979.

26The diagram was suggested by a similar presentation by Grey, p. 426.