5-23-1985

Monitoring The Symbolic Environment Of An Organization: A New Analytic Approach to the Strategic Management of Public Relations

Klaus Krippendorff
University of Pennsylvania, kkrippendorff@asc.upenn.edu

Michael F. Eleey

Recommended Citation

Monitoring The Symbolic Environment Of An Organization: A New Analytic Approach to the Strategic Management of Public Relations

Disciplines

Communication | Social and Behavioral Sciences

Comments

Presented at the 35th Annual Conference of the International Communications Association, Honolulu, Hawaii, May 23-37, 1985

MONITORING THE SYBOLIC ENVIRONMENT OF AN ORGANIZATION:
A NEW ANALYTIC APPROACH TO THE
STRATEGIC MANAGEMENT OF PUBLIC RELATIONS

Klaus Krippendorff

Michael F. Eleey

The Annenberg School of Communications
University of Pennsylvania
Philadlephia, PA 19104

May 1985

Contents

List of Figures and Tables

Introduction

This report summarizes experiences, theoretical developments and research possibilities regarding measurement systems designed to monitor the symbolic environment of organizations and assess the effectiveness of public relations efforts. We start by stating the problem in general terms that cover virtually all organizations. We then present a conceptual framework that has been applied in two different organizational settings, namely a large public service organization (the Public Broadcasting Service) and a large business corporation (AT&T). (The framework could also be extended easily to a large government department, such as the Internal Revenue Service, which has been expanding its marketing and public relations activities in the last three years, to educate the public about forms and procedures, and increase taxpayer compliance.)

This framework then leads to discussions of possible purposes of such information and measurement systems; of units of analysis; and of variables and measures. We illustrate the framework by examining some sample questions such an information system may answer, and conclude by describing the overall structure of a management information system which would embody the approach.

General Framework

Any organization can do no better
than the feedback it receives from
its environment.

Not only are organizations embedded in a physical-economic environment -- from which they extract raw material for conversion, profits for growth and incentives for guidance -- but each organization is also surrounded by a symbolic environment. The symbolic environment defines an organization's identity, establishes relationships to other organizations, recruits employees, and guides customers to products and services available. Goods and services move only in the context of the information available about them, and to the extent the organization depends on this information context, it will be interested in maintaining a public image favorable to its efforts. This is as true for the sidewalk vendor who seeks a prominent location on a busy corner, as it is for the large business which engages advertising agencies, public relations firms, and its own publicity specialists in

order to favorably influence what the public knows about it. It also holds for non-profit organizations, which receive public support for their work only to the extent that citizens believe their supportive participation is worthwhile. Both religious institutions and government agencies, for example, tend to employ specialized information services to cultivate the public's desirable trust.

Information generated and channeled to further the interest of an organization tends not to be the only basis on which the public forms its images about organizations, their products and services: other organizations may compete for attention; unanticipated events enter the public concern; and the mass media exert selectivity by their own standards. In order to be not entirely at the mercy of these other influences, any organization which depends on its symbolic environment must know how its relevant public changes, what its own organizational image is, what influences modify (support or counteract) its promotional efforts, and what actions are required to maintain an informational climate that is favorable for the organization. Such organizations will need feedback mechanisms in order to respond appropriately to changes in the symbolic environment. The basic relationships are shown in Figure 1.
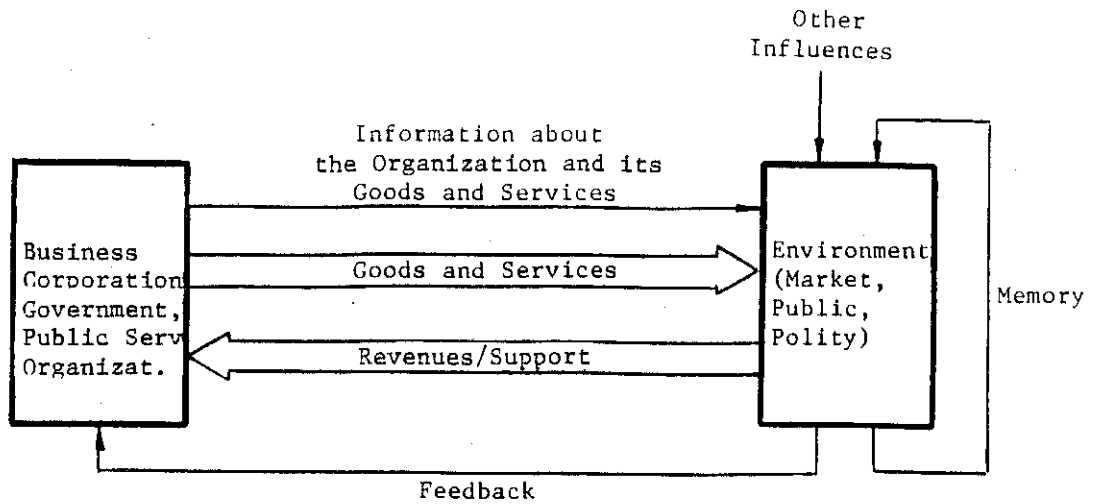
Figure 1

Organization — Environment Interactions

While it is easy to say that the public image of an organization and its products and services ought to be favorable, it is often far less clear what features of the symbolic environment an organization deems relevant and favorable. Our efforts to date at designing adequate feedback mechanisms have included preliminary studies on

- which dimensions of these images are important to the organization;

- which public groups, geographical areas, institutions, etc., are relevant to the organization; and

- what channels of influence, what actions by what other organizations, and what media under the organization's own control impact the formation and changes of these images.

These allowed us to develop a preliminary map of the way an organization in question is connected to its symbolic environment. To improve on such a map, we then proceeded to measure and analyze over time the information available about the organizations' public behavior -- including the information it puts out for consumption by others, and about the public. To this end we have employed the following more detailed framework.

In our experience, information generated by an organization rarely reaches the public directly. Advertising and public relations efforts are channeled through various communications media, which, in turn, not only have their own inclusion criteria, but tend to carry a vast amount of information from other sources as well. Figure 2 offers a representation of what we experienced as typical. Here the mass media are seen as providing the interface between the organization and a public that may not even coincide entirely with the public relevant to that organization. The figure differentiates various forms of organizational output, in terms of public relations, advertising, and goods and services provided. The outflow of goods and services, and the return of revenues are indicated by wide arrows. Information flows -- public relations effort, advertising activities, the mass media and public opinion processes (the public's self-influence loop) -- are indicated by solid lines. Each of these is potentially subject to measurement and feedback paths: these are indicated by broken lines.

Advertisement effectiveness feedback -- correlations of advertising effort and revenues generated in response -- is already a reasonably well-established technique, and has not been our concern.
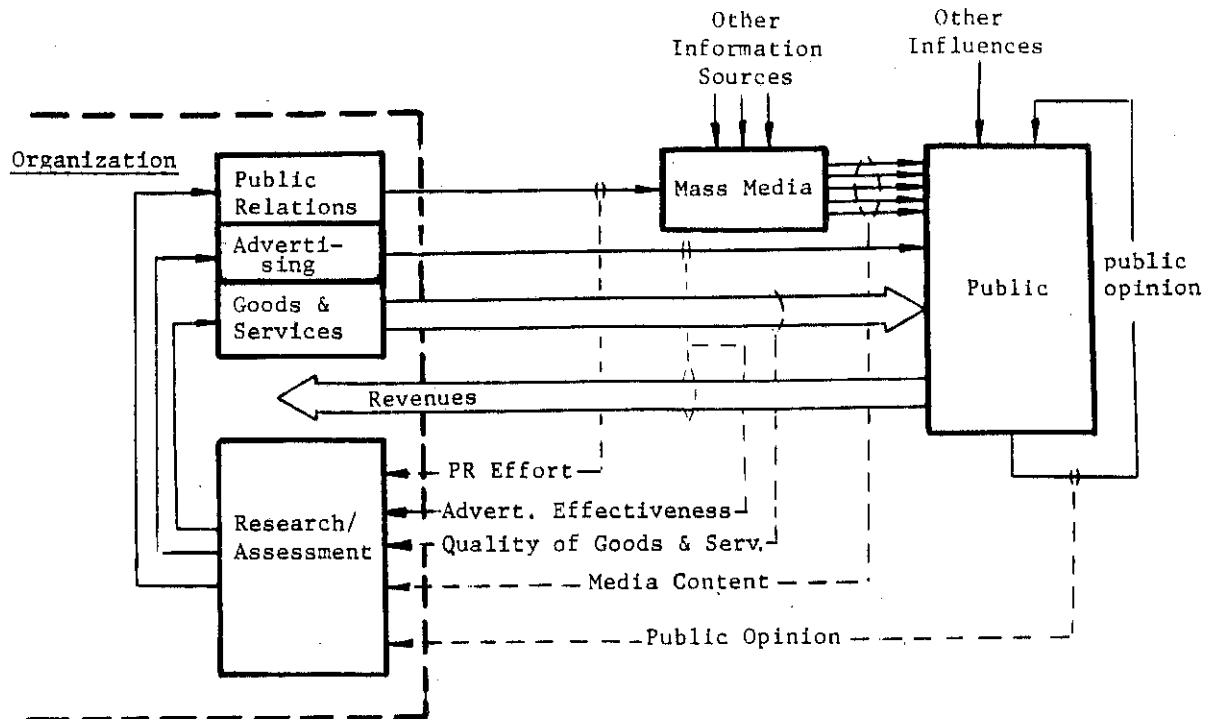
Figure 2

General Framework for the Measurement Effort

Rather, besides developing suitable measures of public relations

efforts, media content and expressions of public opinion -- which are

specific to the particular organization's needs -- we have focused on

developing analytical procedures which integrate the various measures

and present them in forms suitable for decision making. In the

following we review some typical informational needs that an

organization may encounter and for which the analytical system we

propose promises at least partial answers.

Purposes

> Content analysis can provide surveillance
> of the environment and a basis of its
> control.

Surveillance is accomplished by measures that provide an accurate picture of the current state of and changes in the images, attitudes and knowledge of selected features of the environment. For example: content analysis can spotlight the attitudes and prejudices of journalists and editors regarding the organization as a whole; measurement of the public relations effort can shed light on the biases towards particular products and services; and public opinion studies can reveal the state of knowledge held by the public at large about what the organization tries to promote or accomplish. Tying mass media coverage in with public opinion data sheds light on how the public responds to mass media messages. Surveillance yields knowledge about what exists, and how and where it occurs, but not how it might be changed.

Control implies the ability to manipulate some variables, and by applying knowledge of how these controllable variables affect features of the symbolic environment, to cause the symbolic environments to change in desired directions. Information about the effects of actions is very desirable, but also difficult to obtain. Often we have to be satisfied with mere hints as to possible causal connections. For example, by matching actual publicity in the mass media with public relations efforts directed toward the mass media, we obtained

information on: which public relations material was used and which was ignored (the mass media's selection function); which news releases yielded which coverage (the power of public relations effort); whether the publicity so stimulated promoted the desired coverage (controlling attitudes); and how this all affected the public's state of knowledge. The chain of effects is long, and although strict causal interpretations may not be warranted, the associations found may provide hints to better organizational policies.

The validity of control information is strengthened by the use of controlled experiments with various public relations efforts, using our measurements as dependent variables. For example, one might vary public relations content, frequency, volume and targets across different regions, where regional responses provide controls for each other. A somewhat weaker technique would be to correlate the ups and downs of a particular issue important to the organization with public relations activity, advertising effort, and public opinion measurements, and try to separate the effects of public relations activity and advertising efforts, using content analysis data of mass media coverage of other events as controls .

The sources and types of surveillance and control information we have discussed are summarized in Figure 3. Note particularly the increased utility of the information as one moves down the scheme, from single-source measures to measures based on linkages across two or three sources.

Sources of Analytical Data		
P. R. activity	media content	public opinion
<u>surveillance</u>: document the way the internal organization arrays external uses.	<u>surveillance</u>: track the way the issue is presented in the press.	<u>surveillance</u>: track the move- ment of public opinion on the issue.
<u>control</u> find out how effective are public relations strategies in inducing coverage of the issue in the desired direction.		
	<u>surveillance</u>: find out how public opinion responds to variations in the way the issue is covered in the press.	
<u>control</u>: find out how effective public relations strategies are in achieving the ultimate objective of influencing public opinion by means of stimulating appropriate media coverage.		

Figure 3

Types of Surveillance and Control Measures
by Sources of Analytical Information

To get the most from these measures, it is important that the units and variables measured be comparable, that there is sufficient variation in public relation efforts either over various regions or in time, and that uncontrolled influences (the mass media being probably the most important one) are to a large extent accessable. The surveillance task is much more easily realized than the control task. The latter, however, is more meaningful for organizations that have well-developed public relations functions or information services; that play a relatively large role in their relevant public (are mentioned by name, product or service with reasonable frequencies); and that can afford to fine-tune their responses to changes in public images, attitudes and knowledge. In our experience, feedback useful for control has been particularly relevant for large organizations which must cope with large volumes of information and have the resources to process it cost effectively.

Units, Variables, and Data Structures

> The amount of information a measurement
> instrument can provide is limited by its
> complexity and dimensionality.

In this section we outline several kinds of measures which can be developed and applied across a variety of units of analysis so as to obtain comparable data. Depending on the data structures selected,

there are multiple options for the choice of descriptive variables; units of observation; media; and public relations outputs.

In this context, descriptive variables tend to be of three kinds: those which concern the organization's image, those which concern relevant public issues, and those which indicate importance in some way.

The organization's image may be characterized primarily in terms of attitudes. Generally, these may be measured along the affective dimension favorable-unfavorable, or other bipolar attribute scales such as powerful-weak or active-passive. Other specific dimensions which might be appropriate to particular organizations include:

> trustworthiness, dependability
>
> responsiveness to consumer needs
>
> benefits for public interests
>
> efficiency of management
>
> cost-effectiveness of goods and services
>
> innovations in products and services

Images conceived in these terms -- whether held by the public, manifest in the press, or promoted by public relations efforts -- occupy points in a many-dimensional space. Their distribution within this space leads to a variety of comparisons, including the distances between them, observations of their movement over time, and correlations with other variables, including those directly controllable by the organization, such as its public relations activities.

The _relevant issues_ for a given organization are characterized primarily by their content, the cognitive elements they contain, the logical connections they suggest, and by the themes that coocur within public messages.

There are five types of _observation units_ which can be identified for study. These are indicated by the circles in Figure 4. The groups of variables in terms of which units are characterized are indicated in words. Circle (1) contains overt public relations activity directed towards the mass media, e.g. news releases and, where available, press contact reports. Circle (2) contains related information appearing in the mass media, e.g. press clippings, transcripts of TV news items etc. Both (1) and (2) can be subjected to content analysis, in terms of image variables, selected issues, and relative magnitude (importance, attention). Circle (3) adds information on the readership-audience characteristics of the publication or other medium of communication in which the news item appeared.

Circle (4) refers to samples of interviewees in public opinion surveys. Each respondent can be characterized by answers to survey questions pertaining to image variables, to issues, and to intensities of attitudes and extent of knowledge. (It might be noted in passing that the number of questions required here are so few that they can be piggy-backed on any public opinion survey, except that references to news items may not be dated.)

Finally, circle (5) contains measures of the organization's primary output -- i.e. its goods and/or services. Generally such data

Image Variables
Issue Composition
Amount of Attention

(2)
News
Clippings-
TV Tran-
scripts

(1)
News
Releases-
P. Contact
Reports

Image Variables
Issue Composition
Amount of Attention
Nature of Press Contact

(3)
Publi-
cations or
Medium

Size
Frequency
Area

(5)
Goods &
Services

Quality
Indices

(4)
Inter-
viewees

Image Variables
Issue Composition
Attitudinal Strength,
Knowledge

Figure 4

Units and Variables of Measurement

are exhaustively collected and analyzed by standard information systems
(e.g. the accounting system), and include quality control, sales and
production figures.

The data structures we propose below differ in how the various
observational variables and units are analytically connected. In the
figures to follow, light lines connecting the circles denote
correlations to be tested, and heavy circumscribing lines indicate
links to be established.

A link exists when units of observation are matched on a one-for one basis, for example, knowing in which newspaper a clipping appeared implies in which geographical area and to which readership it was distributed, provided the connection is established. A correlation merely compares frequencies across several dimensions, for example, measuring the extent to which favorable-unfavorable press coverage is similar to public relations efforts or public opinion trends, but not whether it was caused by either of them. Correlations thus provide much less information than links; the latter, however, can only be established by specifically matching and coding units, which may be complex and costly.

While in principle the various combination of linking and correlational techniques could give rise to a large number of data structures, we have found only a few to be of practical interest. We will discuss the five most interesting structures, beginning with the simplest.

In Figure 5, media characteristics (circle 3) are added to information derived by content analysis about the news item (circle 2), and this joint information is correlated with content analyusis data about the organization's public relations activities. This can provide separate surveillance of organizational images and selected issues as they appear in either medium, but neither will provide much insights about control. One possible condition under which some reduced form of control information may be obtained from such data is through source identification by the media themselves. While this alternative (Data Structure A) is obviously limited in providing feedback to the public

Image Variables

Issue Composition

Amount of Attention

```
                            (2)
                           News
                        Clippings-
                        TV Tran-
                         scripts          Was Published in
      (1)
     News                                        (3)
  Releases-                                    Publi-              Size
P. Contact                                  cations or       Frequency
   Reports                                    Medium
                                                                  Area
```

Image Variables

Issue Composition

Amount of Attention

Nature of Press Contact

```
          (5)                      (4)
        Goods &                  Inter-
        Services                viewees
```
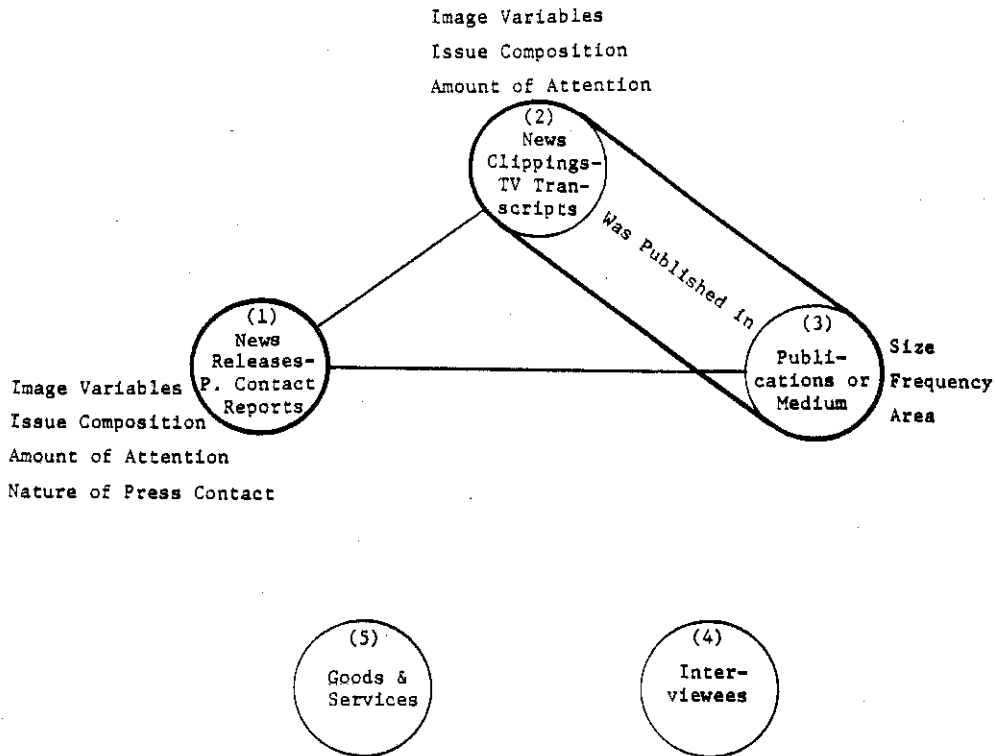
Figure 5

Data Structure   (A)

relations departments, this scarce information should not be

overlooked.

In Figure 6, public relations efforts (circle 1) are explicitly

linked to press coverage (circle 2) and media characteristics (circle

3). To establish their link, information must be available about

specific interactions between public relations staff and the press --

for example records of press contacts or press conferences, or

references made in the news item which identify public relations

efforts either explicitly, or implicity (such as reprinting parts or

Image Variables

Issue Composition

Amount of Attention
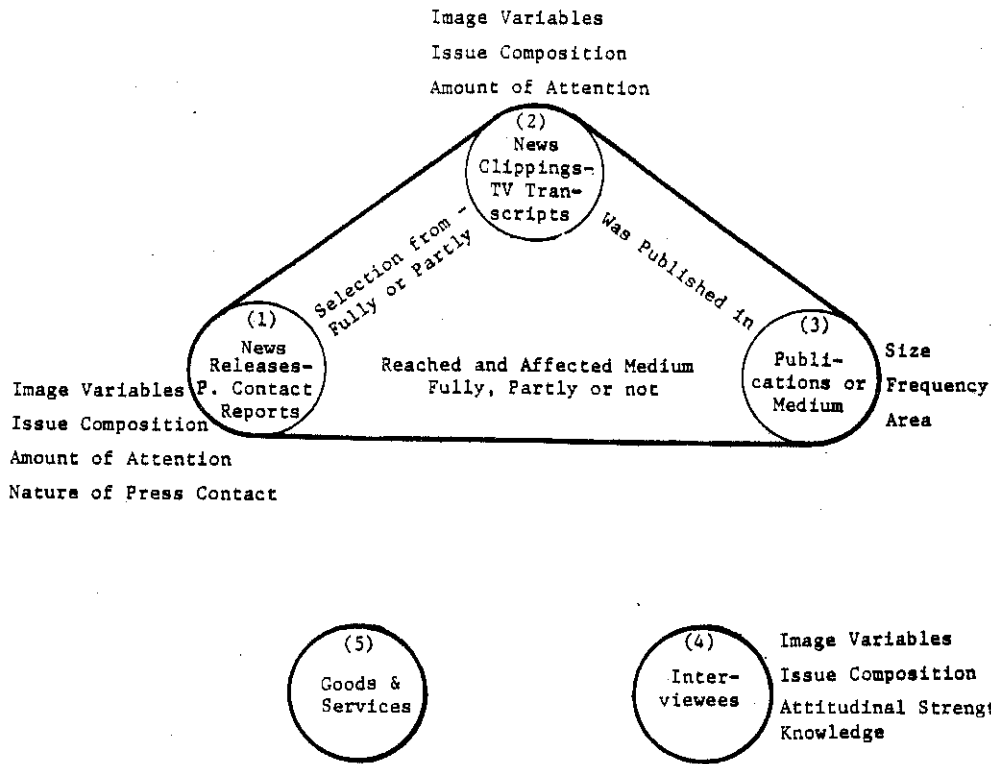
Figure 6

Data Structure   (B)

all of the press release, or other use of "palagarized" material, the
source of which can be identified). This option (Data Structure B)
provides both surveillance and control feedback, but excludes any
relation to public opinion, or the organization's objective
performance. These latter are included Figure 7, in the form of
correlations.

In the case illustrated by Figure 7, respondents would have been
surveyed about their knowledge and attitudes, but not on their exposure
to relevant media stories. The correlational connections involving

Image Variables

Issue Composition

Amount of Attention

(2)
News
Clippings-
TV Tran-
scripts

Selection from - Fully or Partly

Was Published in

(1)
News
Releases-
P. Contact
Reports

Reached and Affected Medium
Fully, Partly or not

(3)
Publi-
cations or
Medium

Size

Frequency

Area

Image Variables

Issue Composition

Amount of Attention

Nature of Press Contact

(5)
Goods &
Services

(4)
Inter-
viewees

Image Variables

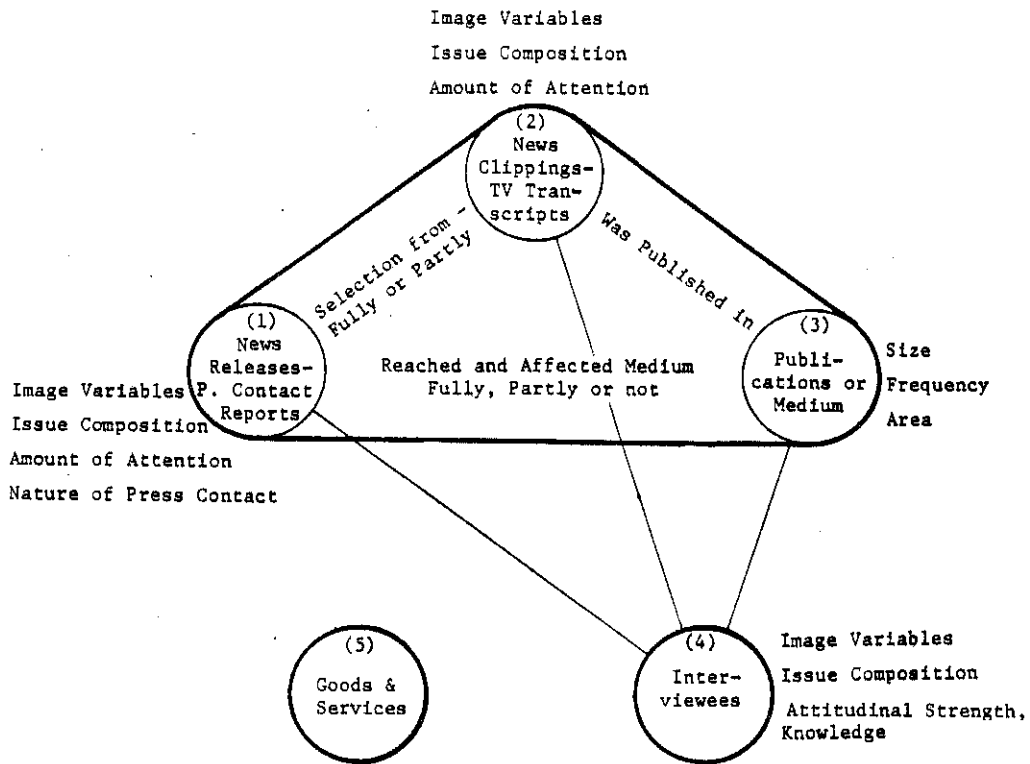Issue Composition

Attitudinal Strength,
Knowledge

Figure 7

Data Structure   (C)

Circle 4 in Figure 7 (Data Structure C) can be used as a source for
validating the results of content analysis, but in themselves are too
weak to allow conclusions about causal relationships between public
relations efforts and public opinion.

Figure 8 presents a more powerful data structure, in which public
opinion information is linked to the public relations–publication
complex.   This would be possible, for example, when survey respondents
are asked explicity whether they have noticed or read particular news
items.   In this case (Data Structure (D)), inferences can be drawn

Image Variables

Issue Composition

Amount of Attention

```
                              (2)
                             News
                          Clippings-
                          TV Tran-
                           scripts

                   Selection from          Was Published in
                   Fully or Partly
          (1)                                              (3)
         News            Was or                          Publi-        Size
Image Variables  Releases-                              cations or  Frequency
       P. Contact   Reached and Affected Medium          Medium        Area
Issue Composition  Reports    Fully, Partly or not

Amount of Attention                      Was not Attended to
                 Reached Destination indirectly
Nature of Press Contact  Fully, Partly or not      Was Exposed to
                                                   Information

          (5)                              (4)            Image Variables

        Goods &                          Inter-          Issue Composition
        Services                        viewees
                                                          Attitudinal Strength,
                                                          Knowledge
```
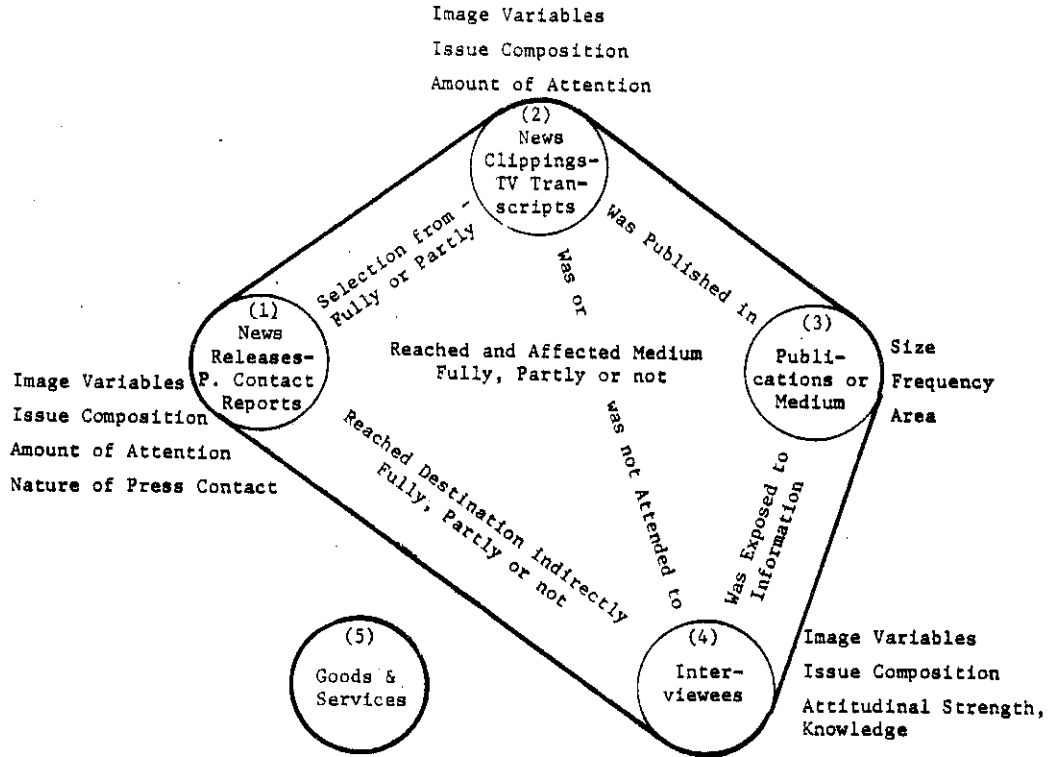
Figure 8

Data Structure (D)

about the effects of public relations efforts on public opinion.

Finally, Figure 9 shows the most powerful structure that generally
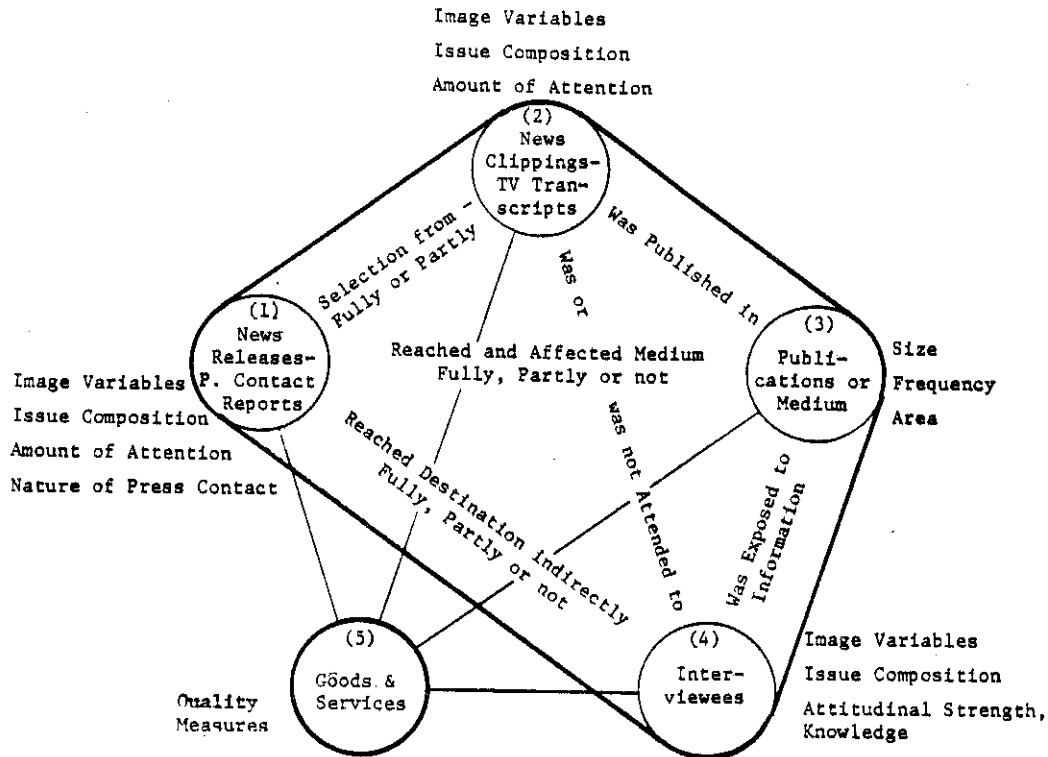would be possible. Here, external measures of organizational output --

Image Variables

Issue Composition

Amount of Attention

(2)
News
Clippings-
TV Tran-
scripts

Selection from -
Fully or Partly

Was Published in

(1)
News
Releases-
P. Contact
Reports

Image Variables
Issue Composition
Amount of Attention
Nature of Press Contact

Was or

Reached and Affected Medium
Fully, Partly or not

Reached Destination indirectly
Fully, Partly or not

was not Attended to

(3)
Publi-
cations or
Medium

Size
Frequency
Area

Was Exposed to
Information

(5)
Goods &
Services

Quality
Measures

(4)
Inter-
viewees

Image Variables
Issue Composition
Attitudinal Strength,
Knowledge

Figure 9

Data Structure (E)

goods and services -- can be correlated with all other measures.
(Since these indices are based on units that are incompatible with the
rest of the measurements, however, it generally will not be possible to
establish links in place of the correlations.)

Uses of the System: Some Sample Questions and Answers

Because the data structures we have in mind are sufficiently rich
in analytical possibilities, they can acccomodate a variety of
practical applications. In this section we use selected data to
present several simple examples which are suggestive of, but do not
exhaust, the range of questions that might be answered. The examples
presented here are based on two large studies we have conducted:

- For the Public Broadcasting Service, we developed a design for
extracting information from large amounts of news items
published about PBS programming, and applied it to a sample of
900 news clippings from over 450 publications around the
country, covering 45 episodes of some 17 PBS television series.
The data base linked information about PBS programs
(e.g. broadcast date, Nielsen audience rating), the publications
in which the news items about the programs appeared
(e.g. geographical location, circulation size), and the content
of the news items themselves (e.g. which aspects of the PBS
program are discussed in the article, what is the article's
positive/negative direction or tone). In adddition to content
variables, the system analyzed other aspects of each news item,
such as its size in column inches, and whether the item was
wholly original, was partly based on PBS materials, or virtually
reprinted the PBS release verbatim.

  The analytical component of the PBS system linked the three data
files (PBS) programs, publications, and news items) in various
crosstabulations and correlational analyses, to answer the
questions posed by PBS about its image, and identify ways to
increase the effectiveness of its press releases and publicity
efforts.

- For the American Telephone and Telegraph Company -- in the days
before divestiture -- we developed a system for the nationwide
monitoring of mass media coverage of the Bell System. The aim
of the project was to give AT&T and its operating companies
continuous and comparable measures of the effectiveness of their
public realtions efforts, and a means for diagnosing
unanticipated changes in their portrayal by the media.
Implemented in 1978, the AT&T system involved the collection of
all news items which mentioned AT&T or any part of the Bell
System (e.g. Bell Laboratories, Western Electric, the regional
operating commpanies, etc. -- these numbered over 60,000 per
year. Content and publication data extracted from the original
clippings were stored in a large data bank, and analyses
involved cross tabulations, graphs, trend curves, indices and

corrections with different AT&T public relations programs and
activities.

The first two examples below illustrate surveillance and control
approaches to the tracking of news coverage over time. The next two
examples contrast surviellance- and control-type analyses of thematic
or issue patterns in the press. The fifth and sixth examples
illustrate control-type information about the geographical
effectiveness of public relations activities and variations in their
effectiveness according to subject matter. The seventh example uses
fictional data to show how news media might exhibit different attitudes
depending on the source of the information. The last two examples are
hypothetical cases, in which we use narrative scenarios to demonstrate
somewhat more sophisticated control applications.

Example 1: Tracking issues over time (Surveillance information)

One simple way of tracing the development of an issue over time is
to track the media's attention to it in terms of the number of
published articles containing that issue. Figure 10 gives an example
of the kind of result we could get from media content measurement.
Here we see that during a (hypothetical) sample period, the frequency
of articles about the Bell System peaked during the week preceeding a
major AT&T optical-fiber transmission experiment, and that most of the
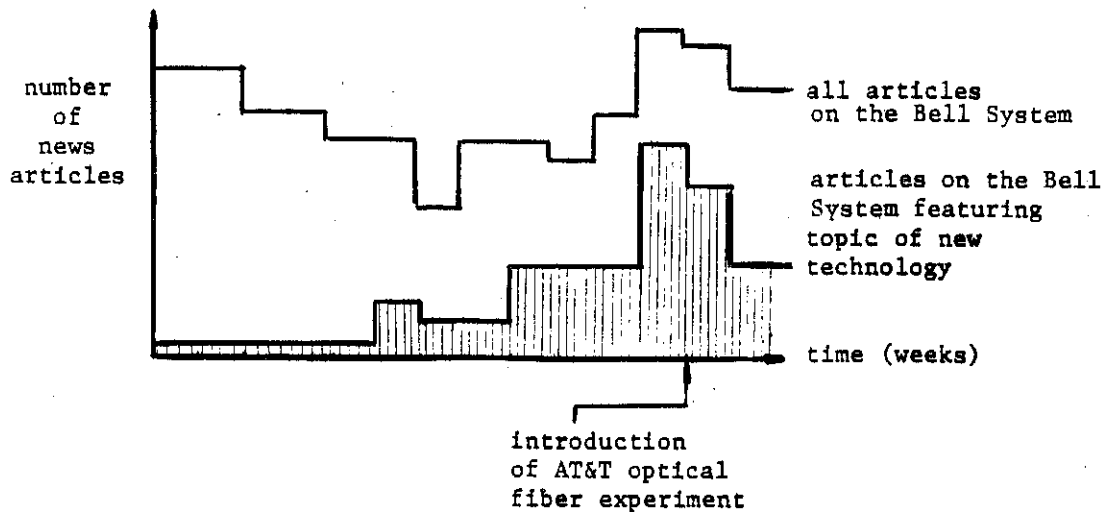Bell System articles involved the theme of new technology (shaded
area).

Figure 10

Media Attention to Issues over Time

Example 2: Generating coverage over time (Control information)

Alternately, we might track the influence of the organization's publicity efforts in generating coverage over time. Figure 11 shows how PBS's share in stimulating publicity about its programs is distributed over the time before and after the shows are aired. Here, the horizontal axis is the relative time in days of publication before and after the program was on the air. The horizontally shaded area represents the proportion of news items stemming from unidentified sources, the diagonally shaded area represents those derived from PBS news releases, the middle area those from other sources, and the uppermost area represents original news items.
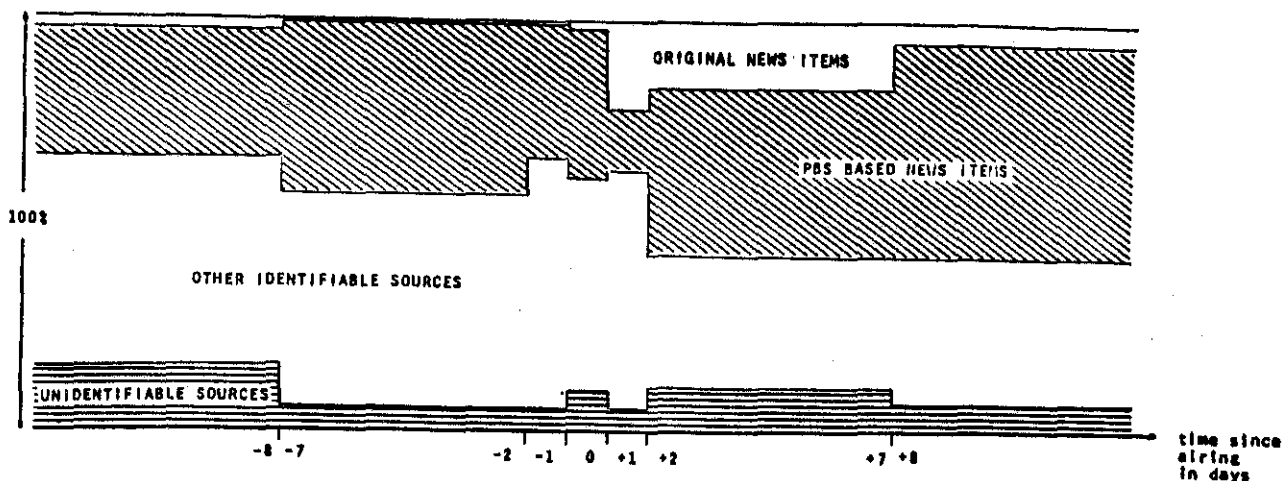
Figure 11

Share of Sources Over Time

We see that the proportion of totally original news items is negligible prior to the date a PBS program is broadcast. Because the original items are largely reviews and critical appraisals, they rise sharply the day after the program appears on the screen and their number declines with the passage of time, as one would expect. What is surprising, however, is that the share of PBS generated news items actually increases after the program has been broadcast. This points to an unexpected and otherwise easily overlooked function of PBS news releases: to provide material for review and discussion.

Example 3: Identifying clusters of issues (Surveillance information)

Topics or issues rarely occur alone as the sole focus of a news item. More often, several themes apear together, and it may be of

interest to know what connections, or <u>clusters of issues</u>, appear jointly. An hypothetical cooccurrence pattern of selected issues is given in Figure 12. Based on an actual document prepared by AT&T
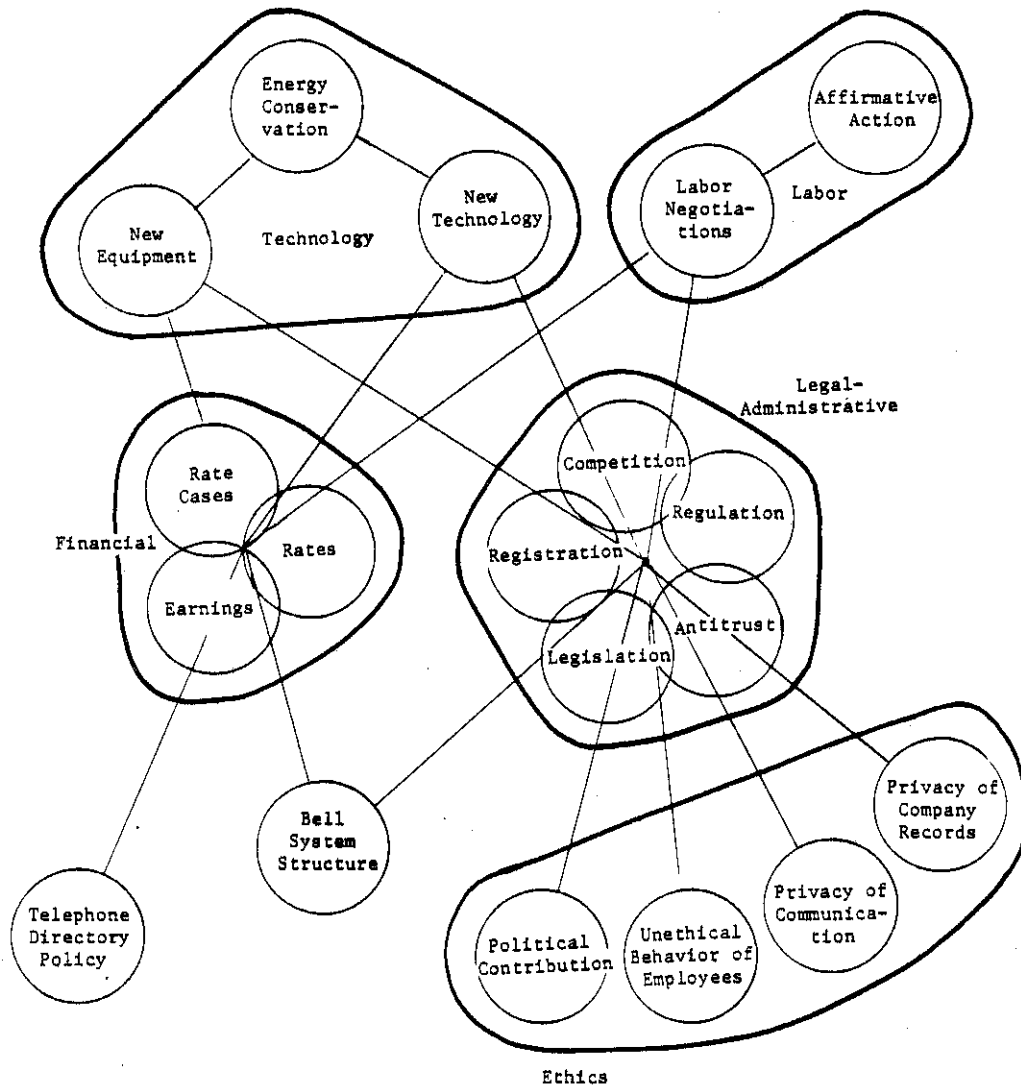

Figure 12

Clustering of Issues

public relations staff, the pattern describes some 19 topics or issues,

and their possible cooccurrences in press items. If the expected
associations did indeed occur in the press, the statistical clusters
generated from content analysis of news items would resemble those
identified in the figure.

Example 4: Comparing thematic patterns (Surveillance information)

In addition to identifying clusters of content themes or issues in
final news items, thematic patterns can be analyzed in the source
material available to the newspaper. Figure 13 compares two such
patterns from the PBS study, in which several content themes were
statistically associated with explicit references to PBS. The pattern
on the left shows the type and strength of associations in the public
relations material (press releases, press conferences, etc.) which
came from PBS, its various stations, and the production agencies
involved, and the corporations which underwrote the production's
funding. The pattern on the right shows the associations which
occurred in the published news articles. (Solid lines and circles
indicate positive relationships significant at the 99 percent level;
the width of the connecting lines is proportional to the relative
strength of the associations). Note that in the source material, all
eight themes are significantly and strongly associated with references
to PBS. In the news items, however, two of the themes are not
associated with PBS references, and the other six relationships are
generally much weaker. Comparing the two patterns gives an idea of the
selection process and filtering that occurs as publicity about PBS
programs is translated into news items. (Further analysis in the PBS
study revealed that the PBS image seemed to bring to the minds of

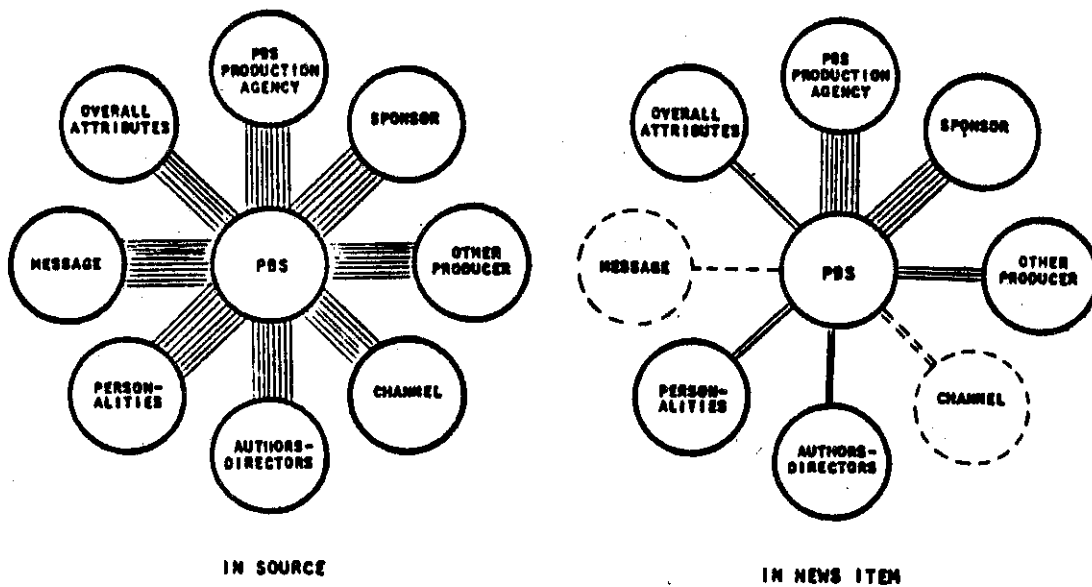IN SOURCE   IN NEWS ITEM

Figure 13

Thematic Patterns in News Items and Sources

editors and television columnists more of the production and

distribution aspects, (the production and sponsor themes), than

substantive information about the program -- the featured

personalities, the authors, the directors, etc.).

Example 5:   Press release effectiveness (Control information)

Public relations effectiveness can be studied in many ways.   One

way is to examine under what circumstances the organization's own press

releases achieve a greater or lesser share of news items than do

competing news sources, such as the government, competing firms, etc.

Geographical differences in the types of news sources used by the press

have been found in several studies. The following data, for example,

suggest that AT&T news releases are least effective in the Northeast,

where a relatively high proportion of original reporting seems to be

the norm.

Percent of articles based on:	Geographical Region			
	Northeast	Southeast	Midwest	Far West
AT&T releases	15%	21%	26%	29%
Bell System operating-company releases	6%	9%	13%	8%
government sources	30%	23%	25%	17%
other sources	30%	43%	31%	40%
original reporting	19%	3%	5%	6%
	100%	100%	100%	100%

Table 1

Bell System Coverage by Geographical Region and News Sources

Virtually the same geographical results were encountered in the

PBS study. In that study however, we also looked at differences by

subject matter, and as Table 2 shows, found that the media may prefer

to use different sources for information about particular issues or

topics. Here we see that PBS news releases were more effective for

some types of programs (e.g. cultural) than others (e.g. non-musical

performance).

Percent of articles based on:	Type of PBS Program			
	Nonmusical Performance	Public Affairs	Musical Performance	Cultural
Original News Item	6%	2%	3%	3%
PBS Source	32%	42%	56%	68%
Non-PBS Source	56%	43%	25%	25%
Unidentified Source	6%	13%	15%	4%
	100%	100%	100%	100%

Table 2

Sources of News Items by PBS Program Categories

Example 6:   Media attitiudes toward sources (Control information)

In using different sources, the media may exhibit different attitudes depending on the origin of the information. The fictional data in Table 3 for example, would show that the company's press releases stimulate favorable coverage in technology-related news items, but unfavorable coverage of its product-liability lawsuit. This would of course suggest that less publicity -- i.e. less stimulation -- might be a better strategy for the litigation issue.

	Percent of Articles Favorable		
Articles based on:	Antitrust Litigation	Product Technology	Average for articles on All issues
news releases	8%	40%	30%
government sources	25%	10%	20%
other sources	15%	20%	10%

Table 3

Favorability of Issues by News Sources

Example 7: Modifying the P.R. mix (Control information)

Assume the following scenario:

1. Surveillance information from public opinion measures at time T_1 shows the prevailing belief about a public utility company to be that there is a tradeoff between the quality of consumer home service provided and development of high-technology services for commercial clients. The public feels (albeit wrongly) that an improvement in one is at the expense of the other, and that the company is currently ignoring consumer home service in favor of commercial clients.

2. Surveillance information from media content measures also taken at time T_1 indicates that recent news items have dealt with

high-technology commercial service twice as frequently as with consumer

home service. To counter this potentially adverse opinion trend, it is
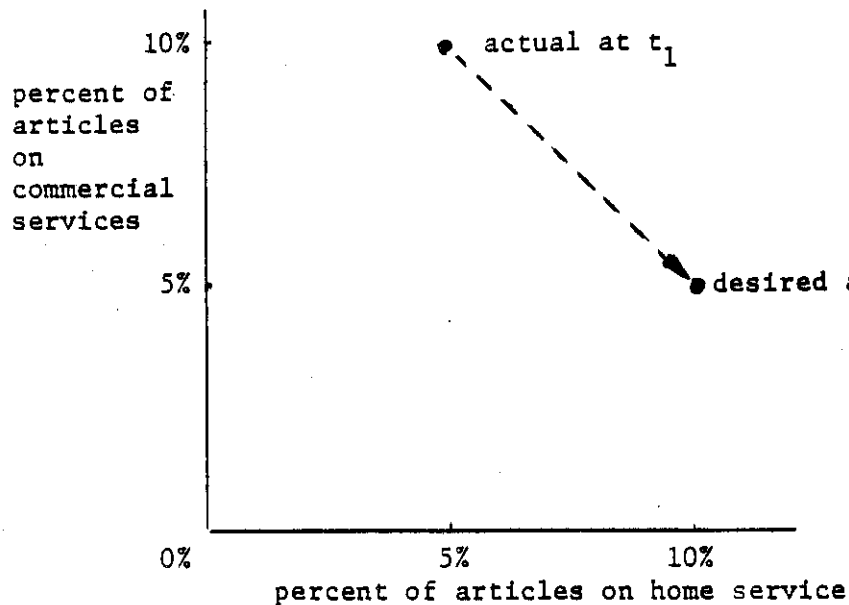

Figure   14

Mix of Media Coverage, Actual and Desired

felt that the ratio of attention to the two types of service should be

reversed. Figure 14 thus shows the actual and desired positions.

3. In order to achieve this desired effect, the decision is taken

to increase the company's press releases on home service themes. It is

expected that a change in the public relations "mix" will stimulate a

corresponding change in media coverage.

4. <u>Joint measurement of media content and public relations activity at time</u> T_1 <u>and later repeated at time</u> T_2 <u>provides control information</u> on what has actually been achieved.   Figure 15
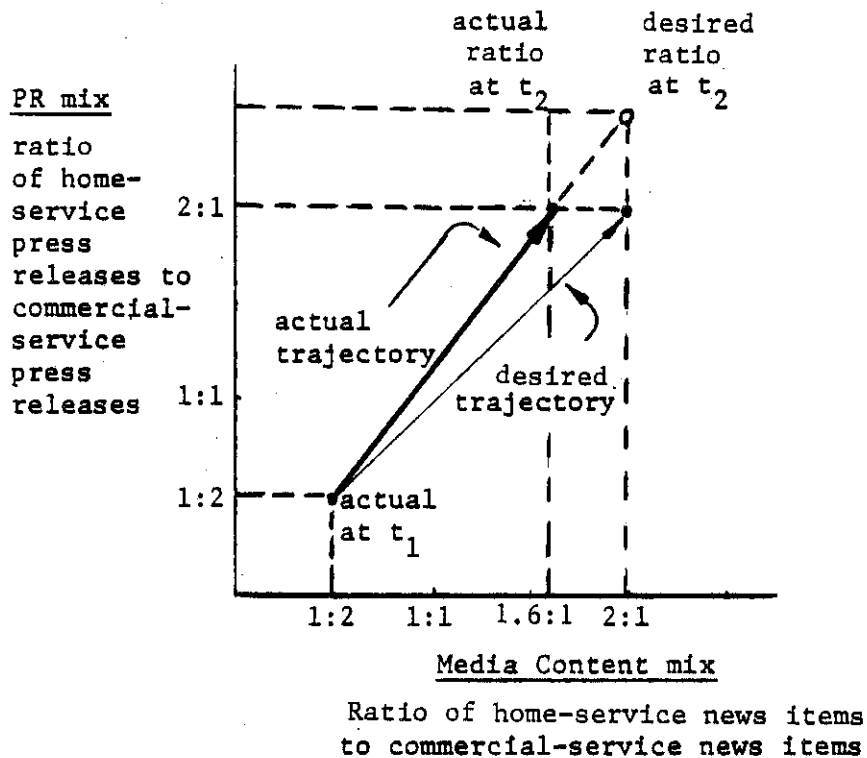

Figure 15

PR Mix and Media Coverage over Time

shows the relationship over time between the public relations mix and the media content mix.   The desired change in the media content mix has not quite been achieved, and it appears that a further increase in home service items, relative to commerical service releases, is needed.

Example 8: Strategic experimentation (Control information)

Assume the following scenario:

Surveillance information reveals that the corporate image at time T_1 occupies a point in a many-dimensional space that is judged not particularly desirable. While being high on some dimensions, it is low
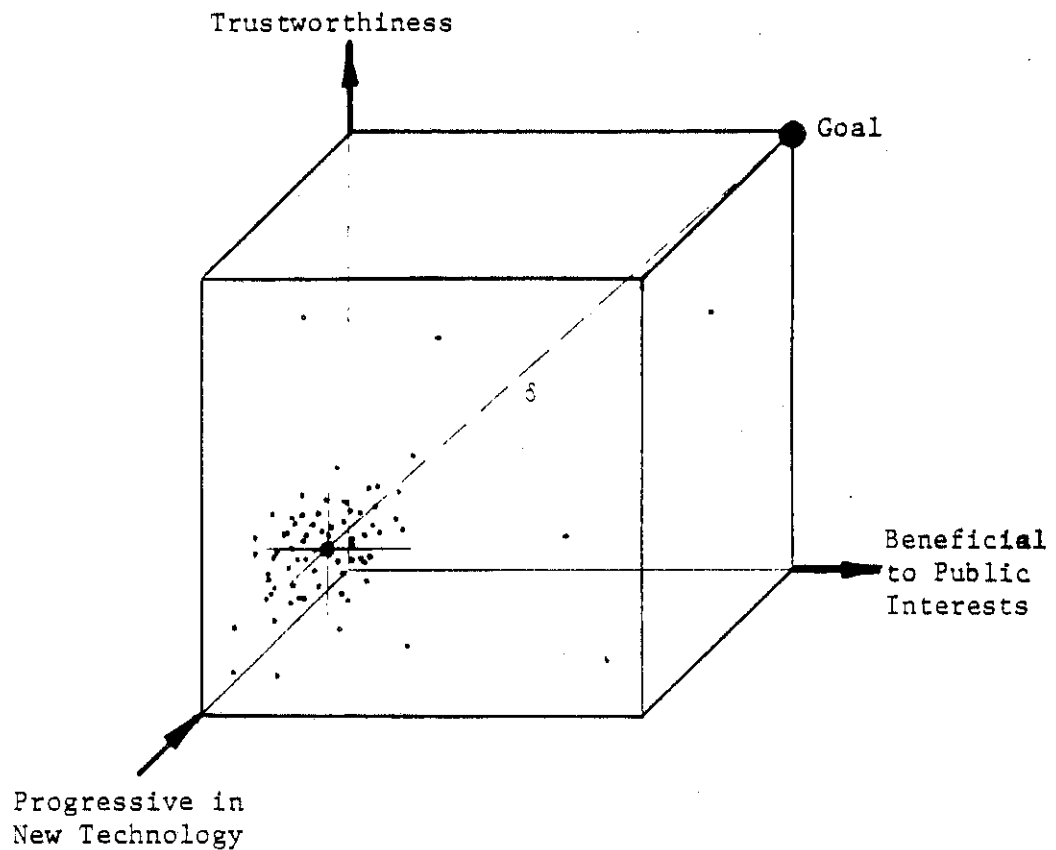

Figure 16

Images - Deviation from Goal

on others. Suppose the image is defective regarding the three dimensions shown in Figure 16. Defining the goal of public relations

efforts as maximization along these dimensions, regional experiments

may be conducted to assess how the corporate image can be changed. The

deviation from the stated public relations objective can be measured

and the best strategy is the one that reduces this distance most

cost-effectively. The results of such experiments might appear as in

Figure 17. It would thus follow from such findings that strategy Y is

PR Strategy $\underline{X}$ PR Strategy $\underline{Y}$
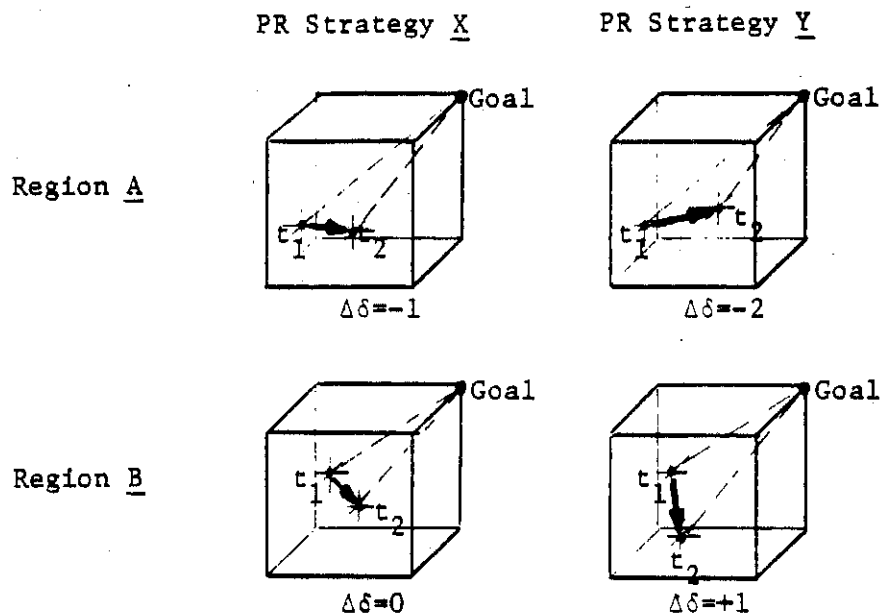
Region $\underline{A}$

Region $\underline{B}$

Figure 17

Differential Effects on Organization's Image,
by PR Strategy and Region

successful in region A but not so in region B, where neither effort

yields desirable results.

The Management Information System

> Information tends to be abundantly
> available, but it is useless unless it is
> comprehended and cast into forms suitable
> for decision making.

The complete public relations management information system we envision would embody the most powerful of the data structures discussed above (see Figure 9). As we have said before, less comprehensive (and less costly) systems can be developed by omitting selected features and basing the system on a less powerful data structure.

The proposed system involves first of all the coding of media content and public relations output into units and variables suitable for data processing. This is essentially a human task and has to be done continuously, as the information is generated and published. This does not apply to the characteristics of the publications or other media (circulation, etc.) which change quite slowly, nor does it apply to measures of the organization's goods and services, or to public opinion surveys, which are already in analyzable form.

A second requirement is that information on the units of analysis -- the press release, the news item, the publication, the survey respondent -- must be compared, matched, and combined to yield data structures strong enough to support the desired inferences. This is partly a human task -- for example, whether a news item was based on a

particular news release. Much of it can be accomplished mechnically

however -- for example, tying the publication's circulation and other

characteristics to news clippings from that publication.

Thirdly, the flow of data so coded and combined will accumulate in

a data base, where it will be available for inspection and analysis.

Naturally, the value of such a data base increases with the volume of

data available, both with respect to time and geographical

distribution. While it is the user's prerogative to add or delete

descriptive variables and categories, it is generally advantageous to

standardize variables as much as possible, and provide as complete a

description as possible in standard terms. Although particular data

structures impose restrictions on the kinds of questions that may be

asked of the data, they should be conceived in the most general fashion

possible, so as to satisfy a variety of future information needs.

In the final step in the operation of the system, the information

available in the data base is selectively retrived, analyzed and

presented to the human user. Here, we envision several software

options:

> Retrieval involves searching for and listing particular
> news items satisfying certain user-specified characteristics --
> for example, items referring to "legislation," "rates," and
> "Bell of Pennsylvania" jointly; or to PBS cultural programs;
> or to product liability in a particular geographic region.

> Tabulation involves presenting the distribution of data
> along user-selected variables. For example, a certain
> issue may be tabulated to show how it evolves over time
> or the extent to which selected forms of press releases
> on the issue stimulated favorable coverage.

> Analysis involves computing summary indices, for example,
> correlation coefficients, percentage differences,, distances,
> clusters, and the like.

Thus the complete measurement process may be depicted as in Figure 18.

By a mixture of human efforts and electronic data processing, it
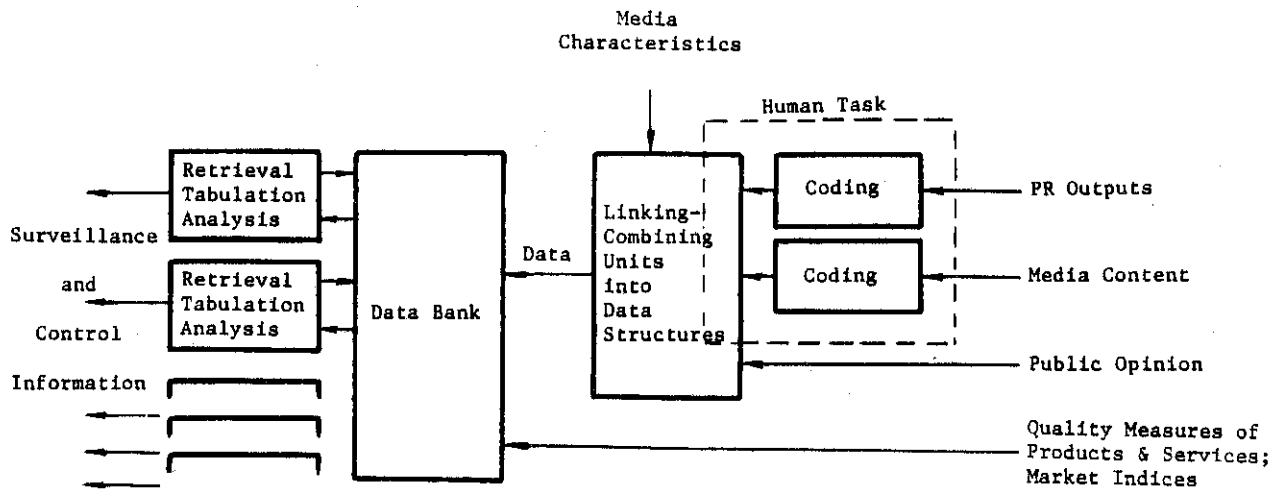

Figure 18

The Proposed Management Information System

accepts four kinds of information on a continuing basis, and

selectively provides surveillance and control information when needed.

It is envisaged that the data base could be available to selected

users within the organization, say to corporate staff groups as well as

the public relations department. Equipped with standard retrieval,

tabulation and analytical capabilities, each may have different kinds

of questions to ask, or different publicity objectives to analyze.

This information system is geared to the common need of the various user groups for both surveillance and control information about the corporate symbolic environment. It would enable these departments to assess on a continuing basis their own effectiveness in press relations, and indirectly, their influence over the direction of public debates of particular issues of interest to the organization. It also gives rise to the possibility of scientific experimentation with different forms of publicity, and to the development and substantiation of differentiated information policies for the organization.