Content analysis of communications in historical development: From rock paintings to the WWW.

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Abstract

Content analysis is one of the most common research methods applicable for studies of marketing communications. It has long been recognised as a valid approach to researching communication messages. Content analysis is not limited to a particular media. It has been evolving over the time and has embraced new communications, as they have become available. Centuries ago, content analysis could be used by scholars of religious songs or ancient manuscripts. Today, it is an equally effective and recognised approach to studies of a new generation of communications. Many of the recent content analysis studies of the World Wide Web show that it is still a fully functional research method and it can be used to analyse online marketing communication messages. This paper summarises contemporary approaches to content analysis of the WWW.
Introduction

This research paper has been completed with the aim of analysing and discussing ongoing evolution of content analysis as a research method that has been applied extensively for studying a wide range of communications. The paper outlines the principle qualities and characteristics of content analysis as well as the requirements that researchers should be expected to meet to have their content analysis of the WWW recognised as a valid and objective study. The paper discusses the framework for content analysis studies that has generated over the years as well as examining modern applications of content analysis. Particular emphasis has been paid to content analysis of online marketing communications, such as commercial websites.

Content Analysis (Definition)

Berelson (1952) describes content analysis as a systematic, objective and a quantitative method for studying communication messages. According to the later definition, content analysis is a research technique that can be used for making replicable and valid inferences from data to their context (Krippendorff, 1980).

Early works that have been completed in this area (Berelson, 1952; Berelson and Lazarsfeld, 1948) proved content analysis to be a valid tool that can be utilised to study content of messages. Lin and Ware (2000) state that over the years, content analysis has been adopted by a wide range of academic disciplines such as communications, psychology, sociology, organisational theory and political science. Marketing communications can be rightfully added to the list.

Characteristics of the Content Analysis

Evolution of the content analysis has been gradual. The principal use of content analysis as a research method has been re-formulated and added to on an ongoing basis (Berelson, 1952; Krippendorff, 1980; Lin and Ware, 2000). Contemporary applications of content analysis are not confined to a particular culture, industry or method (Krippendorff, 1980). Nor are they limited to the analysis of verbal or written data only. Its applications are in fact much broader (Krippendorff, 1969). The scope of the content analysis is not restricted to any particular form of communication. All of the message carriers can be subjected to content analysis. Content analysis as a research method has been acknowledged and utilised by researchers worldwide (Adam and Deans, 1999; Casty, 1973; Kinnier and Ostlund, 1997; Lin and Ware, 2000; Rosengren, 1981).
While it has been mostly common to use content analysis to study particular types of communication messages such as newspaper articles, political speeches and letters, the same approach can be successfully used to study paintings, facial expressions, intonations in speech, music and all the other forms of communication that may very well be non-linguistic (Krippendorff, 1969). Content analysis is not limited to a particular structural framework. There are many ways of structuring a content analysis study. Structure of any content analysis may vary depending on the specific requirements of the research question raised (Lin & Ware, 2000).

**Content Analysis as a Valid Research Method**

Lin and Ware (2000) believe that the research questions that can be effectively addressed through content analysis are almost limitless. The major issue, researchers have been facing when using content analysis has been the issue of developing a set of clear guidelines for all of the procedures that are necessary to validate the research and to ensure that the research is conducted with complete objectivity and accuracy.

From a researcher’s perspective, it is important to be able ensure the validity of content analysis conducted. Krippendorff (1980) believes that validity of a content analysis is based on three key factors. These factors are stability, reliability and reproducibility.

According to Weber (1985), stability refers to invariability of results of the content analysis over the time. Reproducibility usually refers to consistency of the results achieved, regardless of the coding methods used by the researchers. Accuracy commonly refers to extent of correspondence of the text analysed to the established standard or norm. Weber believes that valid content analysis has to comply with all of the three requirements listed above.

**Computer-aided Content Analysis**

New technologies have been instrumental in improving the quality and the validity of content analysis. (Gerbner, Holst, Krippendorff, Paisley & Stone 1969; Krippendorff, 1980; Lin & Ware, 2000). The major breakthrough took place during 1950’s-60’s. During these two decades, computers made significant progress towards developing into powerful research tools for content analysis. By the late 1960’s, computer-aided content analysis had already been recognised as a very effective approach to studying communications (Gerbner et al, 1969).

Pro-active use of computers has been instrumental in revolutionising some of the most important and most critical aspects of content analysis. If the study is conducted in the area of statistical (quantitative) analysis computers are the most valuable tools available. Computers also have the advantageous capacity of being able to process large volumes of data at high speed. They can be instrumental in ensuring otherwise unachievable level of accuracy.
In recent years, new powerful tools for the analysis of various kinds of communication messages have been developed (Adam and Deans, 1999; Deans and McKinney, 1997; Fan, 1997; Ho, 1997; Mc Tavish, 1997; Miller, 1997). Researchers are now able to gain access to the data that has previously been inaccessible or alternatively too expensive to access with the help of global networks and electronic databases (Lin and Ware, 2000.)

**Content Analysis Evaluation**

Content analysis has successfully withstood the test of time, as a method for studying inferences from the content of data. It has proved to be a solid method of analysing the content of communication messages that is both valid and reliable. Content analysis’s reliability and validity has been confirmed by a number of recent studies (Adam and Deans, 1999; Deans and McKinney, 1997; Fan, 1997; Ho, 1997; Mc Tavish, 1997; Miller, 1997; Lin and Ware, 2000) that have been successful in utilising content analysis as their major method of interpreting messages in data.

**WWW: Features and Functionality**

According to Rafaeli and Newhagen (1996), there are five major distinctions that exist between the WWW-based communications and traditional mass media. Rafaeli’s and Newhagen’s five distinctions are: 1) WWW’s ability to mix multiple media, 2) lack of tyranny of author over reader, 3) no one can control the audience’s attention, 4) the Internet can make communication processes continuos, 5) interactivity of the WWW.

Ju-Pak’s (1999) content analysis of advertising on the WWW shows that some of the major content dimensions such as creative appeal/strategy used, the amount and the particular type of information contained as well as certain descriptive characteristics are absolutely unique and can be utilised on the WWW only. While that particular study was limited to one category of messages (advertisements) only, Ju-Pak’s observations are of the conceptual nature, so they can be used for general comparison of WWW against other types of media.
Methodology for the Content Analysis of the Commercial Websites

There are various approaches to content analysis of commercial Web sites (Adam and Deans, 1999; Ho, 1994; Hoffman and Novak, 1995; Hoffman, Novak and Chatterjee, 1997; Deans and McKinney, 1997). Ware and Lin (2000) believe that categorisation is the key to content analysis of the World Wide Web. According to Ware and Lin (2000) the development of a comprehensive and at the same time mutually exclusive categorisation scheme by which individual recording and context units are to be described is the single most important component of any content analysis.

Hoffman et al (1997) define six functional categories of commercial Web pages. The six functional categories are 1) online storefront, 2) Internet presence (flat ad, image and information), 3) content (fee-based, sponsored, searchable database), 4) mall, 5) incentive site, 6) search engines. Ideally all six should be part of an integrated Website building strategy.

Ho (1997) suggests that there are three different categories of commercial web sites. All of the commercial Web sites belong to one of these categories. The commercial web sites can be classified as: 1) Web sites that specialise in promotion of products and services, 2) Web sites that specialise in provision of data and information, 3) Web sites that specialise in processing of business transactions. Ho also identifies four types of value creation: 1) timely, 2) custom, 3) logistic, 4) sensational. Combinations of Web site categories and value creation activities provide a sufficient framework for content analysis of commercial websites.

Adam and Deans (1999) question validity of Ho’s study. Ho’s findings appear to lack reliability due to the insufficient feedback from the customer side. Further research is required to confirm the validity of Ho’s findings.

Deans and McKinney (1997) use commercial Website content analysis to establish the level of the website sophistication in New Zealand. The analysis is conducted on the basis of nine assessment criteria. Each criterion is assigned a particular weight that can vary depending on its significance.

Adam and Deans (1999; 1997) employ content analysis of commercial websites as part of their WebQual project. The project is based on content analysis of 300 commercial websites that are to be selected randomly. The content analysis will include assessment of commercial websites by both organisations that have been chosen for the study as well as independent researchers. The WebQual Audit is a longitudinal study and it aims to compare organisational use of the Net and Web across a number of countries.
Integrating Content Analysis of Online and Offline Marketing Communications

It is possible to use content analysis as a research method for studies that are based on close examination of both online and offline communications. As part of his postgraduate research in RMIT university, the author is currently involved in a research project that is examining the degree of integration achieved between offline and online marketing communications and attempts to identify the problems that companies experience on the way to achieving integrity. The degree of integration will be determined on the basis of the content analysis of both online and offline promotional materials. The assessment of the promotional materials will be based on the WebQUAL Conceptual Model for Content Analysis (Adam and Deans, 2000) and a modified version of the Resnik-Stern Advertising Procedure (Resnik and Stern, 1977).

Conclusion

Lin and Ware (2000) point out that categorisation and approaches to content analysis are dependent on the nature of the specific research questions that are to be addressed by the particular study. This field of study is fairly new and is still in its infancy (Lin and Ware, 2000). It has been argued that Web-based business models are continuing to develop. At this point in time there are no obvious criteria that can be used to evaluate the effectiveness of commercial websites (Ho, 1997). However, a number of recently developed frameworks for evaluation of commercial Web sites (Adam and Deans, 1999; Ho, 1997; Hoffman et al, 1997) demonstrate that content analysis of the WWW is possible. It is a realistic task and it can be accomplished successfully.

Content analysis is one of the oldest forms of scientific inquiry. It has a long and eventful history. However, its development and diffusion have been primarily spurred by the speedy rise of mass media. If the 19th century can be rightfully credited with triggering rapid development of the printed mass media, the 20th century is fully responsible for development and growth of electronic media. Since its inception, the WWW’s rapid development has been no less spectacular than development of printed mass media and electronic media. The WWW is a truly global, decentralised network of hyper-linked multimedia objects. It has been having a great impact on the existing communication structure and it is opening new realms for content analytic research (Lin and Ware, 2000).
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