The Print Newspaper in the Information Age: An Analysis of Trends and Perspectives

by

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Disclaimers

This study is an academic undertaking in pursuit of knowledge. Although the study relied on reliable sources for data, the results contained herein are specific to the context of the study. Readers are advised to exercise prudence regarding the use and application of this study to real life setting.

Abstract

As the end of the first decade of the twenty-first century sees yet another drop in print newspaper paid circulation and a sharp increase in newspaper operations closures in North America, perceptions of newspapers as a troubled or even agonizing medium continue to arise from the industry, audiences, and media writers alike. There's a perception of the decline in newspaper circulation as a global phenomenon, affecting the newspaper industries of countries all over the world in a similar way, and hard economic times and the increasing popularity of the Internet are often pointed out as main causes. But these conclusions may be too casual. A comparative statistical analysis of economic, technological and media trends for several countries in a representative period of the past decade is presented to show how the industry has actually been performing in the context of different national realities and to provide a context in which several of those perceived behaviours and causal relationships can be tested and analyzed in a scientific way. A literary review of cultural changes in the audiences of mass media, the emergence of broadcasting, technological disruptions, questionable business decisions, the role of the audiences' needs and expectations in choosing or replacing media and emerging new perspectives for the industry is provided to inform the conclusions that the newspaper industry is experiencing a local rather than global phenomenon, with specific macroeconomic traits of local national realities defining different performances and patterns of causality between circulation, economic performance and Internet use. These new perspectives then allow for a discussion and projections on the future of this medium: new distribution and business models and emerging portable electronic technologies will all impact newspapers as they find its new place in the Information Age likely as a niche, a print "version" of a robust online news delivery system that is likely to dominate the news media scene.

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In the period between 2000 and 2009, the Internet shifted from being an "emerging communications technology" to become a mature and widespread mass medium. According to the Internet World Stats website, the growth in the global Internet user base was in the order of 399.3 per cent in the above mentioned period, with the number of users surpassing 1.8 billion by the end of 2009. Accordingly, the perception of the Internet as a medium among people of most countries appears to be one of commanding sustainable rise in comprehensiveness and ubiquity. However, the same cannot be said of the print newspaper. A sense of loss and replacement seems to be associated with this familiar medium as more and more of its original functions and appeal appear to be better delivered by information found online. These two perceptions seem to point to a causal relationship: as the Internet advances, newspapers are replaced by the new medium, losing ground and user base. As reports show a dramatic spike in the number of newspaper operations shutdowns in the early months of 2009 (Yelvington, n.d.), another apparently obvious conclusion can be drawn: the global recession experienced in that period is a main cause of that phenomenon. There is no dispute that the traditional newspaper industry is on the decline in North America – all the numbers of circulation and financial performance seem to support that. But apart from pedestrian perceptions, how much of the print newspaper decline as a mass media is really on a global scale and due to it being replaced by the Internet as the main news outlet and made worse by economic downturns? This study aims to examine these assumed causal relationships.

Competition from emerging communications technologies are not a new challenge to newspapers. Actually, as Meyer (2004) points out, newspapers experienced the peak of their

household penetration (average daily circulation as a percent of households) in the United States in the early 1920's and, starting with the emergence of radio in that same period, has been declining ever since. The introduction of television also precipitated a similar milestone decline in newspaper penetration numbers, seeing it go under 100 per cent for the first time. This persistent decline in penetration didn't prevent the newspaper industry from flourishing and being exceptionally profitable for the most part of the 20th century. Neiva (2007) explains how the adoption of the emerging technology of photocomposition in the mid-1950s created such an increase in the industry's profits that precipitated a change in tax appraisal laws. That, by its turn, ended up provoking a change in ownership models and business culture that many argue to have caused a deterioration in the newspaper content as near-term profitability became the norm. In an effort to cater to bigger audiences, newspapers have shifted their focus from serious news and opinions to softer and more appealing content (Hickey, 2007).

Motivations for media use, choice and replacement have been extensively researched during the twentieth century. In their "uses and gratifications" theory, Blumler, Katz & Gurevitch (1974) argue that media audiences actively choose and utilize media content to satisfy needs and obtain gratification. Content, however, is not the single variable involved in obtaining gratification from media use. According to Blumler & Katz (1974), exposure to the media per se and the social context of the exposure are also important, and that includes a cultural perception of what that activity means to different individuals or social groups. Brown, Cramond and Wilde (1974) argue that the introduction of a new media with similar functions to those of an old one causes a complex phenomenon of functional reorganization of media use, rather than a simple replacement of one by the other. In their "dependency theory", Ball-Rokeach & DeFleur (1976) point to turbulent periods in the history of societies (including hard economic times) as catalysts

of a higher dependency of people on media as a way of coping with their problems.

A cultural shift in the cultural expectations of media use by people following the Industrial Revolution is explained by Fowles (2007) as a result of an increased sense of social detachment experienced by urban populations, as opposed to rural social groups. Williams (2007) shows the emergence of consumerism in the beginning of the 20th century as being another turning point in the relation between audiences and media.

Meyer (2004) points to a phenomenon of "generational displacement", with new generations increasingly abandoning the newspaper reading habit.

In the business aspect, Wilkinson (2009) argues that some business models of certain countries are more affected than others by the current economic downturn of 2008-2009. Newspaper companies with high debt, traditional business cultures or media markets with a high Internet penetration rate will see their financial hardships exacerbated.

But newspapers are in the best position to lead the online news market because of their credibility and journalistic expertise (Meyer, 2004). However, a profitable business model for online news delivery is not yet available (Wolff, 2007). The Project for Excellence in American Journalism & Edmonds, R. (2007) defend that news websites are "potentially" profitable, but it could take a decade or more for the industry to see online business contributing half of their revenue.

Some argue that the newspaper format even has advantages over the Internet format. Newspapers have a "catalog function" in the sense that it allows users to interact with it by turning the pages to find information (Meyer, 2004). The Internet, on the other hand, offers a fragmented view of the world when it displays information in the "disjointed, layered fields of the computer screen", according to Wilson (as quoted in Boswell, 2009).

The Internet contributes to a trend towards the increasingly specialized media at the expense of the mass media system. Meyer (2004) sees the formation of smaller audiences seeking very specialized and customized information as a phenomenon he calls "demassification" of the media. The mass media have been fracturing the audiences into smaller segments and promoting cultural differentiation in such a way that an overload in their ability to receive and process the messages is currently observed. In this context, Cruickshank (as quoted in Akin, 2009a) sees a situation where newspapers will remain the only medium that will actually talk very broadly to audiences.

Akin (2009c) mentions that Canadians are still more engaged than Americans in the everyday issues that newspapers deal with so well. For that reason, advertisers in Canada are less susceptible to the negative perception issue and still believe in newspapers as an effective medium to reach their audiences.

Akin also sees the general negative perception of newspapers as an issue, as it can become a type of "self-fulfilling prophecy" mechanism where the industry hurts more as more people perceive the medium as a declining one (2009b).

As shown above, many factors seem to compound in defining the future of a medium in the presence of a new one. In this study, the perceived – or assumed – relationships between Internet growth and hard economic times and the decline in paid newspaper circulation in different national realities will be examined. Business and demographic reports and statistics provide most of the required data for the statistical analysis. While Media Studies (including Media Effects) provide the theoretical foundation for this study, pertinent literature in newspapers' historical evolution and current media business issues is examined to provide a background for the analysis of the collected data. Within this framework, this research aims,

through a process of analysis that is described in a subsequent section of this paper, to offer insight into the following research question "How does print newspaper paid circulation in North America relates to national economic performance and Internet penetration, when compared with that of other countries?"

Literature Review

Media and Audiences

Media Effects. An understanding of the relationship between the mass media and their audiences has been sought by many researchers during most of the 20th century. Mass communication literature has been showing a persistent conflict about how powerful media are in control of culture.

Initially, the "powerful-effects" paradigm, represented by the "hypodermic-needle" model - also known as the "magic bullet" perspective and rooted in the 1930s behaviorism created by the Frankfurt School - supported that mass media had a direct, immediate and powerful effect on their audiences and repetitive exposure to media messages was sufficient to change the attitudes and behaviors of large numbers of people in important ways (Kline, Miller & Morrisson, 1974). Based on psychological and sociological assumptions rather than empirical evidence, this model failed to get validation from later research. Several subsequent hypotheses tried to explain this contradiction.

In 1955, Paul Lazarfeld & Elihu Katz developed the "two-step flow hypothesis", in which mass media information is channeled to large audiences not directly, but by informing opinion leaders who in turn influence others using interpersonal communication. The

"reinforcement" approach articulated by Joseph Klapper in 1960 supported that the relationship between mass communication and audience effects is mediated by intervening variables. In his 1973 hypothesis of "selective exposure", Raymond Bauer observes that audience members are selective in their exposure to information and tend to select information consistent with their attitudes. These developments pointing to further variables mediating media effects allowed for the emergence of a "limited-effects" paradigm.

Uses and gratifications. The "uses and gratifications theory" is an example of an approach to mass communication that falls under the limited-effects paradigm. This influential tradition in media research in its current form is credited to Elihu Katz, Jay G. Blumler and Michael Gurevitch. The uses and gratifications theory supports that, rather than being passively affected by media messages, individuals forming the media audiences actively choose and utilize media contents to satisfy their social and psychological needs and obtain personal gratification. The approach, therefore, assumes the audiences to be active, discriminating, and goal-directed, and that the uses made of media messages by the audiences act as intervening variables in the process of effect. Kline, Miller & Morrisson (1974) argue that gratifications sought from the media serve as a deterrent of media content effects. Johnstone (1974) writes that "media can have little or no impact on persons who have no use for them, (...) media fare is selected rather than imposed, (...) particular media offerings are chosen because they are meaningful to the people who choose them"(p. 35).

In spite of recognizing that the research on mass media use suffers from the absence of a relevant theory of social and psychological needs, Blumler & Katz (1974) point to different conceptions of audience interests and concerns when choosing media as either unifunctional (purely escapism or need of social contact), bi-functional (fantasist-escapist and informational-

educational), or four-functional (including surveillance, diversion, correlation, and personal identity). McGuire (1974) discusses a more extensive list of human motivations grouped according to several sociopsychological dimensions, as summarized in the following graph:

| | Initiation | Active | | Passive | |
|-----------|-------------------------------|--------------------------|-----------------|--------------------|--------------------|
| Mode | Orien- tation Stability | Internal | External | Internal | External |
| Cognitive | Preservation | 1. Consistency | 2. Attribution | 3. Categorization | 4. Objectification |
| | Growth | 5. Autonomy | 6. Stimulation | 7. Teleological | 8. Utilitarian |
| Affective | Preservation | 9. Tension- Reduction | 10. Expressive | 11. Ego-Defensive | 12. Reinforcement |
| | Growth | 13. Assertion | 14. Affiliation | 15. Identification | 16. Modeling |

Fig. 1 - A structuring of 16 general paradigms of human motivation – reproduced from McGuire (1974)

Blumler & Katz (1974) argue that, in addition to the actual media content, audience gratifications can also be derived from exposure to the media per se (as in the perception of reading as an "elevated" activity) and the social context of the exposure (as in watching TV with the family or going to the movies with friends). They also point to the fact that different media seem to offer: (a) characteristic contents, (b) typical attributes (as in print vs. broadcasting modes of transmission, iconic vs. symbolic representation, reading vs. audio/audiovisual modes of reception), and (c) typical exposure situations (location, company, control) that can render each

medium more or less adequate for the satisfaction of different needs. The specific technological and aesthetical attributes (or a unique "grammar") of each type of medium may facilitate a "division of labor" among media for the satisfaction of audience needs. Media that differ (or are similar) in those attributes are more likely to serve different (or similar) needs or, conversely, "needs that are psychologically related or conceptually similar will be equally well served by the same media (or media with similar attributes)" (p. 25). Katz, Gurevitch & Haas (1973) were able to order five media in a circumplex with respect to their functional similarities: *books-newspapers-radio-television-cinema-books*. In that scheme, each medium shares functions with adjacent media as they share aesthetical or technological attributes.

Brown, Cramond & Wilde (1974) researched the replacement of existing media consumption habits in children by the introduction of television. Initially, they recognize a phenomenon of piecemeal functional displacement based on functional similarities between different media, with a new medium "taking over the job of catering to the needs it is best suited for, pushing to the sidelines those media and activities that previously served them" (p. 95). Later in the research, they argue that television, due to its wide range of content, is a multifunctional medium for the average child. When multifunctionality prevails, the impact is less likely to be restricted to the absorption of a new set of media, but rather to trigger off a complex chain reaction of functional reallocation they called "functional reorganization", with people restructuring their functional orientations to the media.

Despite the significant status the uses and gratifications approach holds in communication research, it receives criticisms both on its theory and methodology. Most notably, many authors are critical of the attachment of uses and gratifications approach with functionalist paradigms in sociology and psychology. Carey & Kreiling (1974) points to how

functionalist paradigms - by labeling certain social and psychological behaviours as appropriate, utilitarian, or contributing to the equilibrium of a functionally interdependent system, are perceived as conservative and supportive of the status quo. For that reason, they see research in uses and gratifications incompatible with studies in popular culture, so critical of the social structure and the problems associated with the differential distribution of power and opportunity in society. They mention, however, that "in showing that mass media consumption has functions, uses and gratifications research does not show that it is the only way or the optimum way of satisfying these functions" (p. 230). McLeod & Becker (1974) support that limited-effects theories make audience members so active and selective that any effect can be obtained by any message, making the content of the media unimportant. But Blumler & Katz (1974) reject the idea that the application of the uses and gratifications approach to media policy will inevitably support or exonerate the producers of junk or the status quo of media content. Elliott (1974) mentions that "there has been a long debate in sociology about the relative merits of the functional and conflict perspectives" (p. 261). He is also critical of conclusions about the mass communication process abstracted from culture and social structure, and reasons that uses and gratifications research point toward a justification of the status quo as it links media output to stable gratifications, locking media and audience in a stable equilibrium.

Some authors argue that neither the powerful- nor the limited-effects paradigms currently have much credibility and that they represent a polarization of positions around the topic. Other theories have proven to portray a more moderate and complex picture than either the limited- or the powerful-effects models.

Dependency Theory. Originally proposed in 1976 by Sandra Ball-Rokeach and Melvin DeFleur, the "dependency theory" is consistent with uses and gratifications theory in the sense that it predicts people depend on media to meet certain needs and achieve certain goals, but it includes the larger social system in the relationship among audiences and media (Littlejohn & Foss, 2005). Ball-Rokeach & DeFleur (1976) support that, as the social structure in a society becomes more complex, people lose contact with that social system as a whole, becoming less aware of what's going on beyond their own position in the structure. People then start to depend on media to help them engage in maintenance, change, and conflict processes at the societal level. Different people do not depend on all media equally, and will become dependent on media that supply information that is more central to them. Also, the degree of dependency of an individual on a certain medium is affected by how many needs they help satisfy and the degree of social stability in a society. People living in conflicted or unstable societies (like in situations of war and calamity) will rely more on media for information. In that sense, dependency theory hopes to "account for changes in the cognitive, affective and behavioral aspects of people's social realities brought about by mass communication information" (p. 5) by considering the relationships between audiences, media, and society.

A work that predates the work of Ball-Rokeach & DeFleur has also concluded that periods of national crisis influence media use. Peled & Katz (1974) examined the behaviour of Israeli media audiences during the Yom Kippur War in October 1973, and concluded that audiences developed a fixation on television as a form of therapy and vicarious participation in the events and also as a way to "learn the forms of expression proper to the occasion" (p.65).

The topics discussed in this section, dealing with the relationship between media and audiences, including media effects and media replacement, will be an important theoretical

background as the behavior of a traditional medium in the presence of a new one and during periods of social stress is analyzed.

Newspaper and Mass Media Evolution

The printing press ends the Middle Ages. When examining technological innovation and diffusion, Winston (1998) introduces the concept of "supervening social necessities" as a prerequisite for newly developed scientific competences to become widely adopted new technologies. Supervening social necessities are defined as generalized social forces coalescing to function as a transforming agency in the innovation process, and ranging from objective requirements to mere perceived needs. Without the proper supervening social necessities, a perfectly functioning technological prototype can be rejected by a society that sees no use for it. Carter (2007) shows that the technological competences leading to the emergence of the printing press (such as the invention of paper in 105 A.D., techniques in rubbing from stone, printed silk, stencil, seal, stamp, and well-defined block prints as early as 770 A.D.) had been in development for centuries in eastern cultures before the emergence of the printing press in Europe in the mid-1400s. Mumford (2007) appears to support the need for supervening social necessities by writing that those principles of printmaking "might have been applied to the printing of books at almost any moment for the last 2500 years. But before the method was applied to books a new social medium was necessary: a community that had abandoned slavery and was ready, indeed eager, to equalize cultural advantages once reserved for the ruling caste" (p. 92).

Several transformations in the European society in the mid-fifteenth century may have accounted for the required social necessities that precipitated the "invention" of the movable type printing press by Johannes Gutenberg around 1455. Presser (1972) writes that "no century

suffered more from change and unrest than Gutenberg's" (p.348) as he mentions the replacement of traditional medieval authorities by new emerging forces interested in the promotion of knowledge. Another important historical event followed in the sixteenth century that contributed decisively to the diffusion and development of the printing press was the demand of the new commercial elite to review the Christian dogma in favor of accommodating capitalism. This inquiry led to the Protestant Reformation, during which time Reformers (and their opposition) found in the printing press a great ally for the dissemination of propaganda (Burke & Ornstein, 1997/2007). Graff (2007) points that the struggles for Reformation depended upon rising lay literacy and that Protestantism was vital for the propagation of literacy in Europe. Catholic reformers also promoted lay literacy in their effort to combat the advance of Protestantism.

The advent of printing exacerbated the contrast between a society based on an oral tradition of communication and one based on a written tradition, resulting in a number of social, psychological and ultimately, cultural consequences in the very culturally diverse universe of European readers at the time (McLuhan, 1962). The rise in literacy and the establishment of reading habits caused the "displacement of pulpit by press" and the replacement of discourse by silent scanning, and face-to-face interactions by more impersonal ones, precipitating a weakening of community ties and intrusive effects in some forms of sociability (Eisenstein, 2007). She supports that "by its very nature, a reading public was not only more dispersed; it was also more atomistic and individualistic than a reading one" (p. 102). Mumford (2007) points to a "loss of firsthand experiences and contacts" (p. 94).

The emergence of newspapers. Although periodical publications of news and information began to appear in Europe in the second half of the sixteenth century, the precursors of the

modern newspaper were the "corantos" - printed weeklies with compilations of news – that started to be published in European cities by 1607. The early corantos offered mainly foreign news, and the circulation of these early forms of newspaper helped create in readers a sense of a world of events beyond their immediate surroundings. By 1750, London had five well-established daily papers and several less frequent news periodicals (Thompson, 2007).

A massive expansion of newspaper and popular book publishing was made possible by the advent of the Industrial Revolution with the application of steam power to the industrial processes of printing in the early 1800s. That further reinforced rising literacy and demands for mass political participation ("Industrial Revolution" Wikipedia article).

The 1880s and 1890s are seen by many writers as a "golden age of journalism". Profits were exceptionally high, but so was the amount of capital necessary to start a new title. "The newspaper in Victorian society was no longer a mere appendage of the print industry, but had become an important industry in its own right" (Smith, 1979, p. 146).

Cultural changes resulting from the Industrial Revolution are important in examining the role of newspaper during those times of intense social and economic changes.

Fowles (2007) describes how in North America one of the most important consequences of the Civil War was the rapid urbanization of the country. In opposition to a stronger social emphasis on conventionality, cohesion and personal definition experienced by people living in rural areas, the higher density of cities increased the extent of impersonality and "normlessness" in city dwellers. Deprived of a sturdy framework of purpose, safe guidelines to beliefs and behaviour provided by religious and community pressures, urban populations became more individualistic and subject to anxiety and mental distress. With the manufacturing sector of the economy growing rapidly and wages rising steadily, "city dwellers were people with coins in

their pockets and time in their hands" (p.190). The need for models of personality started then to be fulfilled by movie, theatre and sports stars, persons who projected an idealized, perfect image and a confident behaviour that inspired and anchored the urban populations. The "Star System" paved the way for an emphasis in entertainment as a product to be consumed.

The beginning of the 20th century witnessed a "revolution" in consumption patterns.

(Williams, 2007). In a very convenient development towards the emergence of an industrial society, "consumer goods, rather than other facets of society, became focal points for desire" and businesses started to appeal to consumers by "inviting them into a fabulous world of pleasure, comfort, and amusement" (p. 172). Consumerism and entertainment found in the newspaper the perfect media during that time.

Broadcasting and the shift to a visual culture. The early 1920s saw the newspaper industry peak with a household penetration (average daily circulation measured as a percent of households) of 130% (Meyer, 2004) and started to show a steady decline ever since. Another landmark decline in circulation is experienced in the early 1950s when household penetration first went under 100% (Wolff, 2007). It's probably no coincidence that newspaper performance suffers immediately following the emergence of Radio and TV in the beginning of those two decades. Stephens (2007) writes that "Radio gave newsmongers back their voices, television restores their faces. Indeed, the television newscast seems to resemble that most ancient of methods of communicating news: a person telling other people what has happened." (p. 276). Both Radio and TV as mass media brought with them certain inherent biases and new "languages" to be mastered by the audience. However, visual media are nearer to narrative and depend much more upon the episodic (Carpenter, 2007). The audiences of TV are rendered more

passive and less interested in subtleties and abstractions. Carey & Kreiling (1974) support that there's a basic cultural disposition to seek symbolic experience that is "once immediately pleasing and conceptually plausible" (p. 242). The preference for entertainment, developed in the industrial society and better provided by those new media, started to take a toll on newspaper reading.

Postman & Paglia (2007) support that literacy poses a challenge for readers, making them dwell in a realm that is "unnaturally silent" and leading to a less physically active life and less developed senses. They point to the fact that people born in a world within a more visual culture (mostly after the advent of television – baby boomers) have a "multilayered, multitrack ability to deal with the world" (p. 287) not present in previous generations.

The displacement of newspaper reading by broadcasting - especially television – is examined by Mendelsohn (1974), in a sociological profile of the American population. He points that three-quarters of total labor force of the country (in the early 1970s) worked in manual or clerical jobs that required no college education or substantial utilization of cognitive output. The cultural themes that permeated the life experiences of those persons included feelings of inadequacy with regard to intellectuality and power, insecurity - especially in the economic sphere, suspiciousness against out-groups, a disdain for abstractions and matters intellectual, a high regard for traditional norms and morality, and a chronic sense of economic and political powerlessness. This profile points to a population more inclined to passively consume audiovisual entertainment than to accept the cognitive challenges involving in the reading of a newspaper.

Similarly, Cazeneuve (1974) examined the role of television as a source of need satisfaction for the general public. He supports that the social structure of the modern society

deprives most individuals of important material satisfactions, so a system of compensating satisfactions is set up through identification with stars and escapism, facilitated by television fiction. In that way, the function of television is to compensate for the insufficiencies of industrial society by promoting the integration of its economically weaker members.

He points to the need of man to confront and accept his "human" condition by three mechanisms that once were provided by myths and rites in primitive societies: the achievement of a sense of security by binding to a set of accepted rules, an attraction to that which is beyond or trespasses those rules as a sign of power, and a transcendental tendency of placing the rules and their violation in the realm of the Divine. Television gets its suggestive power and fascination from the fact that audiovisual communication - as opposed to conceptual communication - reaches the individual directly without the need to decode written signals, affecting the individual's sensitivity without engaging his intellect. It is also the best means of expressing symbolic thinking as it functions as a link to the world of the marvelous. Mass media - especially television – "by transposing reality and fiction into the spectacular, is able to offer the comfort both of a circumscribed world governed by rules, and of the sharing with an undetermined realm" (p. 219). Television is well integrated into everyday life, quickly acquired a huge public, and seems to fill a gap in the life of the average modern man because it "has helped him to accept himself, to confront his own condition, between that which is determined and that which is unconfined" (p. 220).

Ownership and business models. Until the mid-1950s, small family-owned dailies were the norm in the American newspaper industry. These private owners tended to view their papers as local institutions and value a high quality of editorial output (Neiva, 2007). Driven by a sense

of social responsibility, private owners of small monopoly newspapers tended to manage their businesses to maximize their influence and central role in the functioning of their communities rather than to increase their fortunes aiming at near-term profitability (Meyer 2004). Most of those private owners settled for reasonable profits in return for the ego boost that went with putting out a quality newspaper and were prepared to accept a weak quarter and a downturn in revenues (Nichols, 2007). This panorama started to change in the period following the end of World War II.

An important development in corporate America in general – not just among media companies - has been the gradual dispersion of ownership from family and friends of the founders to institutional investors. "In 1950, less than 10% of corporate equities in the USA were owned by institutions such as pension funds and mutual funds. "By the turn of the century, institutions controlled about 60%" of those (Meyer, 2004, p. 13).

Neiva (2007) explains how production costs for the newspaper industry, stable for several decades, soared with the economic pressures associated with that post-WWII period. In addition, television and magazines began to penetrate markets that once were newspapers' monopoly. Under pressure to reduce costs and regain profitability levels, the industry was eager to embrace the emerging technology of photocomposition to replace the cumbersome, expensive, and labor-intensive process of hot-metal typesetting then universally used. This shift to this cost-effective technology in the mid-1950s was made possible an aggressive policy of renegotiating with the labor unions that culminated with a dissipation of their bargaining power. With the widespread adoption of the technology, the profits of the newspaper skyrocketed in the early 1960s. The rapid increase in revenue didn't go unnoticed, and the IRS promoted a change in tax law and started to appraise due taxes based on the market value of the companies instead of their nominal

value. The result of this change was that private owners started to find it increasingly difficult to meet their estate tax obligations and had either to go public or sell their companies to bigger publicly-owned companies.

Meyer (2004) writes that some newspapers went public to raise capital for acquisitions and some to avoid estate taxes that small companies have to pay if they accumulate "excessive reserves."

An "all-out acquisition frenzy" between 1960 and 1980 represented the consolidation of the newspaper industry into its current state where a few media conglomerates control most of the newspaper companies. Under the control of Wall Street financial analysts working on behalf of shareholders, the business focus of most newspapers shifted to near-term profitability. This shift involved pressures towards further acquisitions and business diversification that ate up considerable portions of their profits, and a more homogenized journalism that "slowly carved the souls out of local papers that long had bound communities together" (p. 17). All that ended up causing a decline in the newspapers' quality and value (Neiva, 2007).

A current panorama. For generations, U.S. monopoly newspapers were the only connection between local retailers and their customers. While across the whole range of retail products the average profit margin is around 6 to 7 per cent, a monopoly newspaper in a medium-size market could command a margin between 20 to 40 per cent. A natural newspaper monopoly was based on the heavy capital cost of starting an operation. But with today's retailers finding new ways to get their message out, newspapers have been slow to adapt because of a culture that is victim of that history of easy money. Counting on the fact that advertisers and readers keep using media out of pure habit even when better options become available,

newspaper have responded to declines in revenue by reducing costs and raising the prices. This strategy worked for many years because of the newspaper's historically strong market position and respected brand names (Meyer, 2004). Edmonds (2007) shows that the period between the 1960s well into the 1990s was financially a "golden era" for newspapers because of three factors: their near-monopoly pricing power and attractive demographics, a virtual lock on the highly profitable classified advertising, and strong department store advertising. With the weakening of the traditional department store by the growth of Wal-Mart and the emergence of massive competition from nontraditional direct-to-the-consumer marketing and electronic media - especially in the classifieds - the decline in financial performance became stronger by the end of the century.

The shift from individual and family ownership to public ownership increased the demand for higher short-term profits. Stockholders and stock analysts with no knowledge or commitment to journalism keep demanding newspaper margins equal than those generated in less turbulent times. (Hickey, 2007). Shareholders demand profit margins that are generally twice the average for other industries, and greet any softness on the bottom line with demands for draconian cuts (Nichols, 2007). Meyer (2004) calls that "Wall Street's myopic preoccupation with quarter-to-quarter changes" and notes that all the money invested into the industry, either by acquiring the competition or spending in buildings and presses has been cost-justified on the basis of that fat profit margin. But harvesting the market position by raising prices and lowering quality, trusting the customers will continue to be attracted exclusively by the brand name, is a non-renewable, "take-the-money-and-run" strategy.

Clamping down on operating costs and budgets can fatten the bottom line and make the company a more attractive takeover target (Hickey, 2007). Carr (2007) agrees by writing that

"private equity owners have limited investment horizons and tend to milk properties for cash flow, clean up the balance sheet, and then flip the property to what is technically known as a "greater fool" (p. 21). There's pressure to create "softer" stories to increase ratings, and trim costs in detriment of news processing. Wilkinson (2009) summarizes by writing that "for debt-ridden companies, there is little long-term thinking; it's all harvesting".

When it comes to revenue models, Meyer, 2004 writes that by the 1950s, in the United States, advertising accounted for 71 per cent of newspaper revenue, with circulation being the other 29 per cent. By 2000, this ratio was at 82-18. Classified advertising, the category most especially subject to changes in the business cycle, grew in importance within the three main categories of advertising (national, retail, and classified), creating a less stable model.

In Canada, the newspaper industry earned over two-thirds of its operating revenue from advertising in 2005. It's still a big reliance on advertising, forcing publishers to look for new ways to compete with other media. Furthermore, national and classified advertising are more affected by economic slowdowns than local advertising (Bone, 2007).

As it deals with the specifics of the newspaper business and culture with both a historical and current approach, this section provides several theoretical perspectives that will be useful as the analysis of the economic and social repercussions of our findings is performed.

Industry Perspectives in the Information Age

A survey of current problems. Statistics pointing to the steady decline in newspaper readership and general circulation in North America in recent years, combined with news of more and more newspaper operations being shut down, don't indicate a good future for the industry, with many even envisioning its complete demise in just a few years ahead. According

to Epstein (2007), 80 per cent of Americans once read newspapers, while now less than 50 per cent do. In the 1990's alone, daily readership fell from 52.6 to 37.5 per cent, and from 1999 to 2004, according to the Newspaper Association of America, general circulation dropped by 1.3 million. Dumpala (2009) writes that 105 newspapers were closed in the United States in the first semester of 2009, with a loss of 10,000 jobs. Print ad sales fell 30 per cent in the first quarter of that same year and 23 of the top 25 newspapers reported circulation declines between 7 and 20 per cent. Meyer (2004) notes that newspaper advertising as a share of the GDP fell from 0.7 to 0.5 per cent in the past half-century. Some authors, however, have a less apocalyptic perspective of this phenomenon.

Akin (2009b) shows that there were still more than 1,400 dailies in the United Sates and 98 dailies in Canada at the end of 2008, "most of which are believed to be profitable, despite the recession". Wilkinson (2009) calls the death of the newspaper "one of the great exaggerations of today's economic downturn". He explains that what's currently happening is that newspaper companies in certain countries like the United States, Canada, United Kingdom and Australia have certain business models and circumstances that make them more vulnerable during a recession time, while newspapers in other countries are not so dramatically affected by it. He differentiates between "less affected" and "more affected" operations based on their business models using the following criteria:

| Less affected | More affected | | |
|---------------------------------------|--|--|--|
| Subscription-based | Single copy-based | | |
| Paid newspapers | Free newspapers | | |
| Distribution in a tight geography | Distribution in a broad geography | | |
| Less than 60 percent of revenue comes | More than 60 percent of revenue | | |
| from advertising | comes from advertising | | |
| Low reliance on classifieds in the | n the High reliance on classifieds in the | | |
| advertising mix | advertising mix | | |
| Low debt | High debt | | |
| Non-union | Union | | |
| Capital expenditures not tied up in | xpenditures not tied up in Capital expenditures tied up in print | | |
| print operations | operations | | |
| Low penetration of broadband internet | High penetration of broadband internet | | |

Fig. 2 – More and less affected newspaper business models - from Wilkinson (2009)

When considering a shift in business models, newspaper executives today contemplate either moving from a "more affected" to a "less affected" model or integrating a digital business model. Wilkinson concludes that the "more affected" description fits the typical American metropolitan scenario of a single big monopoly newspaper.

Even within the United States, however, a different scenario emerges outside of the big cities. This view is shared by Meyer (2004), when he writes that community newspapers are doing better than metropolitan ones. Plothow (2007) points to how, in spite of how large papers still account for the majority of the national circulation, 96 per cent of all titles published in the country have circulations under 50,000. Owned by smaller companies, small-town newspapers

are staffed by younger people who are less burdened by traditional business practices, making them more agile and willing to try new possibilities. Profit margins for community newspapers remain high despite of the recession.

The dynamics and isolation of smaller communities enhance the demand for a newspaper. Papers in larger markets have lower penetration due to greater distribution problems. This is a reflection of a less cohesive public caused by greater population diversity and more distractions in the form of alternate news sources. Bigger markets also have lower ratios of news to ad space, as they use their economies of scale predominantly to increase the amount of advertising. Big-city newspapers are more subject to competition and more likely to have deal with unions than their small-city counterparts (Meyer, 2004).

According to Wilkinson (2009), the financial hardships of the corporations that own those highly visible big-city monopoly newspapers - clearly exacerbated by the current economic downturn - are mostly due to a highly leveraged ownership and the massive debt accumulated during the aggressive consolidation period between the 1960's and the 1980's. He mentions that "the calamities generating headlines are about debt – not operations". With traditional large profit margins dropping in the recession, even if the newspapers operations remain reasonably profitable, the parent companies remain in the red.

In addition to the above, some other factors can be listed as contributing to the decline of the big metropolitan newspapers. The consolidation of department stores in the last 25 years and the flight of classified ads to the Web in the last 10 years were also important factors that hurt newspaper ad sales (Carr, 2007). Further explanations are city-to-suburb migration (causing increased distribution costs), a growing transience that prevents people from establishing local roots that nurture the newspaper reading habit, and changes in work and commuting patterns.

The quality of editorial content is also a problem in many markets (Shafer, 2007).

Furthermore, Meyer (2004) defends that the newspaper readership decline "is a matter of generational replacement" (p.17), with the new generations abandoning the newspaper reading habit, as seen in the graph below:

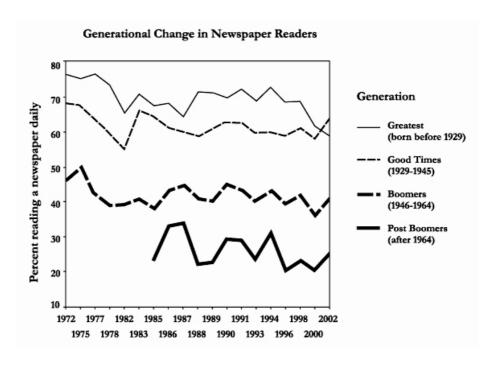


Fig. 3 – Generational change in newspaper readers – reproduced from Meyer (2004)

The subject of the shift in audiences' demand and the consequent deterioration of quality in media content have been examined by Hickey (2007). Years of thriving economy in the United States made people less concerned with the traditional hard news stories, and the collapse of communism and the end of the cold war turned the country inward, less interested in international news and narcissistically fixated on local life. Audiences have been drifting away from traditional news sources as mainstream print and television increasingly offer "more

"lifestyle" stories, trivia, scandal, celebrity gossip, sensational crime, sex in high places, and tabloidism at the expense of serious news in a cynical effort to maximize readership", creating a "fatal erosion of the ancient bond between journalists and the public"(p.107). Media companies management, under pressure to increase ratings to meet bottom line expectations of shareholders in the current ownership landscape, have been shifting the content towards more of lifestyle stories and soft news. In the period from 1977 to 1997, this type of content increased from 15 per cent to an astonishing 43 per cent of the total media output. Madigan (2007) notes that "pandering – to readership, market surveys, and focus groups – has helped strip the modern newspaper of its own voice and its own values" (p. 7). Mindich (2007) writes that "in trying to make newspapers matter to young people, they make them matter to no one" (p. 215). Hickey (2007) also argues that traditionally, news companies have offered coverage of the real important issues regardless of being an express demand from audiences in it, and that this has helped create public interest in matters that are important for citizens in a democracy.

The online news front. Despite the fact that newspaper readership has been declining since the 1920's, total newspaper circulation in the United States didn't start to decline until 1990, leading to some casual conclusions that the Internet is the problem (Nichols, 2007). It is true that the Internet multiplied the number of available sources of information and provided a convenient and up-to-the-moment access to news, but it's important to examine how exactly the emergence of this new offering is a bad thing for newspaper operations.

Barabási (2004) conducted a research to test the idea that the Internet, because of its instantaneous availability and virtually non-existing costs of publishing and content censorship, embodies a democratic and egalitarian forum where everybody finally gets the same chance – as

opposed to the traditional mass media system - to be heard and noticed. The results of that research showed that not to be true. Making information available doesn't guarantee that it will be actually viewed by anybody. He concluded that the topology of the World Wide Web determines that only a small fraction of the billions of documents available online ends up generating significant traffic to actually create an audience. The architecture of the World Wide Web is instead dominated by highly connected nodes he called "hubs", which are locations or nodes formed in information networks that are extremely visible and referenced by other locations. He elaborates by saying that the domination of the web traffic by hubs is "the strongest argument against the utopian vision of an egalitarian cyberspace" (p.58).

Many authors argue that newspapers, because of their established tradition and credibility as generators of news, are in the best position to dominate the Internet news game by establishing their online versions as the most trusted nodes of news traffic in the web.

Meyer (2004) writes that "newspapers, because of their editorial content and not in spite of it, are positioned to yield more information than any of the substitutes" (p.61), and that an internet-based medium can't easily duplicate their influence. Newspaper analyst Donna Logan (as quoted in Boswell, 2009) describes newspapers as "the foundation of the entire media game", leading the news agenda and paving the way for other sources. She points that TV, radio and the Internet news are very dependent on newspapers specialized staff, databases, and large newsrooms. Similarly, Nichols (2007) writes that the Internet has yet to emerge as a distinct journalistic force or speak with the same authority of traditional daily newspapers. These "continue to establish the parameters for what gets covered and how", and that "neither broadcast nor digital media have developed the reporting infrastructure or the level of credibility that newspapers enjoy" (p.177). According to Boswell (2009), The Canadian Newspaper

Association says newspapers have managed to maintain a solid presence in their communities in a rapidly shifting media landscape due to their influence in public affairs and trust among citizens.

The online version of the local newspaper is the local news site in most North American cities (LaPointe, 2009). Communities tend, in the long run, to support a single marketplace, to converge on a spot where buyers and sellers are more likely to find each other (Meyer, 2004). Former magazine publisher Mitch Joel (as quoted in Boswell, 2009) mentions that 40 per cent of all Internet traffic goes to newspaper websites. Akin (2009b) examines the dominance of web news by online versions of traditional newspapers in Canada. He points that Canadian newspapers have been successful online precisely because their offline popularity and credibility. Madigan (2007) notes the unchecked, unprofessional, passionate and factless nature of online content. With many questionable news sources on the Internet, a major daily stands out as a trustable one.

Online news is actually complementing the paper instead of replacing it, and can be an opportunity to flourish instead of a threat to survival for newspaper companies (LaPointe, 2009). Readership of the print version of newspapers in Canada remained steady from 2007 to 2008, with over 14 million people (73 percent of the adult population) saying they read a newspaper at least once a week. When you aggregate the print format with the web, newspapers are actually reaching more people than ever before (Akin, 2009b). Making newspaper online versions profitable, however, has proven to be a challenging step.

Wolff (2007) mentions that "no clear form or adequate business model exists for online news delivery" (p.141). Newspaper Web advertising is growing, but not fast enough to cover the declines in print advertising (Boswell, 2009). The Project for Excellence in American Journalism

& Edmonds, R. (2007) mention that, even though newspapers have the best-trafficked websites in their markets, with ad revenues having grown at a 30 cent rate from 2001 to 2006, online typically still contributes only 6 or 7 per cent of ad revenues. The commitment of time and attention from a typical online reader is much lower so that he is worth only 10 to 15 per cent of the US\$350 a year a print reader is. Potential profitability of news websites is theoretically high but also conjectural, and it is estimated that the industry is at least a decade or more away from seeing online business contributing half of the revenue. It is also too early to predict a scenario in which lucrative web operations would pay for single newsroom serving both the online and a slimmed-down, more targeted print edition.

How print still appeal. Even though audiences may be giving up the newspaper habit, their appetite for news is growing (Schafer, 2007). The Internet represents the latest advance further contributing to a trend towards the consumption of increasingly specialized media at the expense of the mass media system. This "demassification" of the media is caused by the formation of smaller audiences seeking very specialized and customized information that only the Internet format of dissemination of information is efficient enough to provide. The mass media has been breaking up the audiences into smaller segments and promoting cultural differentiation. The nature of the audiences has been changed with new communications technologies, and what is currently seen is an overload in their ability to receive and consider so many messages (Meyer, 2004). Shafer (2007) writes that, even as "the complete gestalt of local, state, national and international news plus sports, comics, classified, opinion and hints on fashion, home, entertainment, and food" (p.130) offered by a print newspaper remains attractive, many buyers are taking advantage of the web capabilities of "unbundling" the news they want

from the news they don't want.

This phenomenon of increasing segmentation of the information can, however, lead to a renewed importance of a medium that actually retains the "mass" character of the information. John Cruickshank, publisher of the Toronto Star (as quoted in Akin, 2009a) mentions that the extraordinary fracturing of audiences in television and radio seen today, coupled with a rapid aging of television audiences, can lead to a situation where newspapers will remain the only medium that will actually talk very broadly to audiences. For Cruickshank, "there still isn't an alternative to the print product that works for advertisers the way that print does".

Akin (2009a) writes that "one of the keys to the return of investment for media buyers is making sure the advertisement is seen by the right audience in the right place at the right time", and advertisers say the printed version of newspapers – for the right products - remains among the most effective medium for achieving that. Advertisers also like the fact that consumers often seek out the advertising just as much as the editorial content in a newspaper. Sunni Booth, president and CEO of ZenithOptimedia, one of Canada's largest media agencies (as quoted in Akin, 2009a), defends that newspapers are still a very good retail medium because they draw attention and have an immediacy and credibility associated with them. Akin (2009c) also shows that there is less interest in newspapers in the United States than in Canada, with Canadians still more engaged in the everyday issues that newspapers deal with so well.

Significant differences in the quality of the experience provided by the print and online news have also been examined.

Meyer (2004) defends that the "catalog function" has been one of newspapers' strengths in competing with television, that turning the pages to find specific product information, a reader makes the newspaper a good information retrieval machine because you can interact with it. The

Internet was able to combine the added appeal of images with this ability to get detailed information. However, outgoing Librarian and Archivist of Canada, Ian Wilson (as quoted in Boswell, 2009) defends that "seeing the information in the disjointed, layered fields of the computer screen too often leads to a "fragmented" world view that the newspaper experience – paper in hand, to be leafed through – surpasses every time".

Four out of ten newspaper website readers read the traditional print product, and two out of ten actually subscribe. Even with this overlapping, people use the two versions of the product differently: they use the online product as a utility, as a way to get quick access to information that is useful to their lives (Meyer, 2004). Newspapers have been able to retain their market relevance partly because they are connected with a physical geography at a specific point in time that few if any online resources can be (Akin, 2009b).

Even though computers are getting smaller, more portable and increasingly incorporating wireless capabilities, a newspaper still beats the Internet in portability (Meyer, 2004).

A survey of current perspectives. Edmonds (2007) projects a change in current newspaper ownership structure by pointing to an emergent trend in which "private investors see better possibilities for newspapers than Wall Street does" (p.60). Meyer (2004) mentions that the unrealistic profitability expectations of publicly-owned media companies create a non-sustainable business model. As a traditional paper compromises its standing in a community with a product of less quality, there must come an inevitable moment when upstart competitors, not burdened by tradition and prohibitive initial costs, will be able to start a paper for a fraction of the cost of acquiring one and get excellent return for their investment with profit levels that are normal for competitive markets.

Nichols (2007) points to how European citizens and governments take seriously the role of newspaper in building a civil and democratic society, and offers an example of a government offering subsidies to encourage the development of local newspapers to compete with bigger established newspapers to maintain a healthy competition. He proposes that the government should promote the reestablishment of "competition and innovation by encouraging the breakup of chains and the sale of big-city dailies to local owners who value the role a great newspaper plays in the community" (p. 187). He argues that civic-minded families are more suited to run newspapers than distant investors, but that foundations and trusts are also an interesting option when it comes to changing the current ownership model.

Wolff (2007) points to yet other ownership option – what he calls "the billionaire solution". Very wealthy private individuals who are from old generations more appreciative of quality news may find a "rediscovered glamour" in owning their own newspapers with high editorial quality, and are prepared to lose money to retain the privilege. Madigan (2007) calls that a "speculation that what big-city journalism really needs is a new generation of the Hearsts and McCormicks and Pulitzers and Chandlers" (p. 6). Meyer (2004) mentions that in the "golden age" of newspapers – a period falling generally right after World War II - wealthy and public-spirited owners of newspapers with market domination found personal pleasure and pride in producing influential newspapers without an exclusive focus on profits.

The role of public policies in promoting public engagement in news is also examined. A change in society's expectations about news consumption and political involvement, with knowledge of civic and current events required or at least valued by national standards or colleges could change young people's attitude and habits towards important issues. Also, a revitalization of civic life would re-ignite interest in news and vice-versa. In the 1960s, with in a

much regulated broadcasting market, a higher percentage of the programming was devoted to news and public affairs by broadcasters concerned about having their licenses renewed by the FCC. Since the 1980s, deregulation caused a weakening of the imposed ethical standards on broadcasters (Mindich, 2007).

Wilkinson (2009) mentions that "there's an inexorable, long-term consumer movement away from print newspapers and toward digital consumption of news", but that, in the short term, "the main revenue opportunities remain in print". He proposes the recession should be an opportunity to promote a cultural change in the newspaper business focus, with increased funding for marketing and research, a shift to digital, slimming down editorial departments, and faster decision-making. Smolkin (2007) defends that print's role in the mix may change to a "kind of a guidebook to more and deeper experiences in a digital world" (p. 31).

Newspapers have been successful recently in finding ways to meet more specialized needs within the framework of the umbrella newspaper. Examples are geographic zoning, special sections, foreign language editions and non-daily products directs at niche audiences (Meyer, 2004).

Edmonds (2007) sees the newspapers retaining their function as the preeminent source of news, that are then recycled by aggregators and blog commentators in digital format, while the print edition becomes slimmed-down and more targeted.

Finally, Madigan (2007) concludes that "the remaining great city papers will not disappear overnight. They may be diminished. They may figure out how to tap the promise of the Internet. They may revert to an ownership that looks a lot more like the era of the media barons in the late nineteenth century than the shareholders of the late twentieth. No matter to what direction they turn, they still create millions upon millions of dollars in profits everyday" (p. 9).

This section, as it discusses several current perspectives available for the newspaper industry in general, will provide the theoretical background as the findings are confront with the possible projections of the future of this medium.

Research Question

Even though the theoretical foundation offered in this literature review focuses on many social, historical and economic aspects the newspaper as both a medium and a business, it was felt that, in order to understand what has been happening to newspapers in recent past, a search for variations in indicators that could be objectively measured, analyzed and compared was needed, with the theoretical background later helping to explain how and why they behave in certain ways. As this examination was originally centered in trying to contextualize a preestablished decline that has been overwhelming the industry despite strong efforts to contain it, it was judged that a focus on the economic side of the industry was necessary. The fate of products is generally defined by how well they do financially, and an examination of their financial performance is likely to reflect its acceptance as a viable offer. As a means to establish or refute causal relations between certain economic and media trends, numbers on local economy performance, Internet penetration and paid newspaper circulation for six countries are examined, and a quantitative justification for this statistical analysis is provided. A trend study measuring how these variables change in the period of nine years - from 2000 to 2008 - in each of the analyzed countries is proposed. As the yearly variation of each of these indicators is examined within the context of the others (on a comparative analysis), patterns of causality may or not emerge, and four proposed hypothesis will be evaluated. Data will be collected from reliable

national statistical reports and surveys, published both in print and online.

Out of the many topics examined in the literature review, four stood out as requiring further examination and were chosen to be addressed and discussed on this document: (1) different countries with different business and media cultures and different levels of government involvement and regulation in the media industry are experiencing different rates of paid newspaper circulation decline is higher in the United States than in Canada; (3) paid newspaper circulation decline is higher in countries with high Internet penetration; and (4) recent acceleration in paid newspaper circulation decline can be attributed to the current economic downturn. All of these topics seem to have in common the fact that they propose the existence of a trend in the context of another. They can also provide a starting point for further discussion around the future of newspapers and the whole mass media scene, especially in North America. For the purpose of providing a methodological framework of this study, the above mentioned four topics are presented as hypothesis to be tested by this research as a means to address our research question "How does print newspaper paid circulation relate to national economic performance and Internet penetration in North America, when compared with that of other countries?".

Methodology and Approach

Process of Analysis

According to de Vaus (2001), cross-sectional research designs, by not incorporating a time dimension, help establish a "snapshot" of a current reality, and can only measure differences between groups rather than change. Longitudinal research designs, on the other hand, by incorporating the dimension of time, are descriptive tools that enable researchers to examine change or stability and establish temporal order. Since a collection reported statistics that establish national economic performance, Internet penetration and paid newspaper circulation in six different countries is being proposed, this research design does incorporate a time dimension, but can be better classified as a trend study (or a repeated cross-sectional study) - in which patterns of change will emerge from comparing the same variables in successive years - rather than a longitudinal study. Because information is being collected in large scale national settings (with a different sample at each time point) individual change is not being tracked, but this collection should be able to produce a longitudinal analysis of those variables on a year-to-year basis. As the behaviour of different variables in time is compared, conclusions of causality can be drawn by detecting correlations in their variance.

The period chosen for the data collection (2000-2008) represents almost a full decade, and is representative for including two periods of global economic downturn (2001-2002, precipitated by the events of 9/11, and the beginning of current one, the financial crisis initiated in 2007) and intervening periods of economic upturn, providing context to test the fourth hypothesis (circulation decline vs. economic downturns). Data for 2009 was not yet available as this study was being developed.

Performance indicators of each local national economy were examined to address that fourth hypothesis, but at a local level. The most recognized local stock market indexes were assumed to be benchmark figures that reflect the volume of economic activity and overall economic health of each of the analyzed countries: the Toronto Stock Exchange (S&P/TSX Composite Index) for Canada, the Dow Jones Industrial Average index (DJIA) used in the New York Stock Exchange for the United States, the Amsterdam Exchange Index (AEX), used by Euronext Amsterdam for The Netherlands, the Nikkei 225 index used in the Tokyo Stock Exchange for Japan, the Bovespa index used by the São Paulo Stock, Mercantile & Futures Exchange for Brazil, and the Bombay Stock Exchange Sensitivity Index (BSE Sensex) for India. The end-of-the-year figure is used to represent the performance of the whole year. Periods of local economic downturn and upturn will potentially provide a context for the analysis of the behaviour of newspaper circulation trends.

Internet penetration, defined in this case as the percentage of Internet users in relation to the total population of a country, is an important trend that will help evaluate the third hypothesis (circulation decline vs. Internet advance). Variation in Internet penetration alone may show the pace of adoption of the technology, but can't inform on media replacement until examined in the context of the variation in newspaper circulation in the same periods.

Finally, total paid newspaper daily circulation numbers were chosen to reflect the newspaper industry's performance for each country. As much as profit and revenue numbers would provide a more accurate picture of this performance, these numbers are not readily available, especially for privately-owned businesses. For the purpose of this study, it was assumed that newspapers will print no more and no less than the demand they encounter for their product and that the print newspaper is their main revenue-generating product. As the study tries

to isolate print from other types of revenue the newspaper companies and divisions might be generating, the intention is to validate circulation numbers as a reliable indicator of the financial performance of a newspaper in its "traditional" print form.

Justification of Sample

In total, six countries were selected for analysis, as a means to reflect both the different local cultural habits of media use and the different business models adopted by the local newspaper industries. In that way, the first proposed hypothesis is addressed. Canada and the United States were chosen for local relevance, compatibility with literature examined, and for their similarities (or differences) being the subject of the second of the hypotheses proposed. Even though The Netherlands trail Iceland, Norway and Sweden and is only the fourth country in the world with the highest Internet penetration rate, it was chosen to represent the European scene for being the leader among countries with population above 15 million, a number judged to be a minimum to be truly representative. Japan was chosen to represent the Asian scene for being the country with the five most circulated newspapers in the world. Brazil and India were chosen to represent emerging countries - with one having the highest and the other the lowest rate of Internet penetration of that block - in an attempt to introduce enough contrast to shed light on the third hypothesis. The chosen number of countries (six) also allows for three one-on-one comparisons, with the criteria for the pairing up being a higher similarity or contrast between the two national realities.

Findings

This study was conducted as a statistical analysis of reported numbers that establish the behaviour of national economic performance and Internet penetration year-to-year variation during the chosen time period for the six countries in comparison to the variation in the paid newspaper circulation in the same context and period. Graphs comparing paid newspaper circulation variation to each of the other two trends in each country are shown for a better visualization of how they might relate to each other in each national context, with the raw data and percent variation for these trends provided on Tables 1, 2 and 3. It's important to emphasize that the graphs show exclusively percent variation and not absolute numbers, with any points plotted above the central zero percent line representing an increase in relation to the previous year and points below that line representing a decrease. Furthermore, a causal relationship between paid circulation and economic performance would be defined by a suggested link in their numbers (one increasing as the other also increases), while a causal relationship between paid circulation and economic performance would be defined by an inverse correlation.

Statistical Analysis Overview

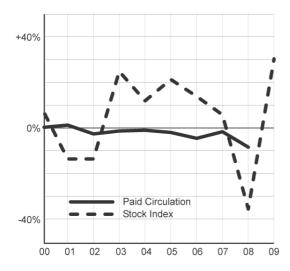
As expected, as a reflection of the globalized character of modern international economy, the economic performance of each of the six countries, despite certain local peculiarities, display an overall similar behaviour during the studied period. The two downturn-upturn cycles included in the period are clearly defined in each national reality. Similarly, Internet penetration rates have been going up in all six countries on almost every year of the examined period. This becomes an excellent shared reference, a backdrop against which local differences in circulation trends

become more noticeable. Each trend comparison (paid circulation vs. economic performance and paid circulation vs. Internet penetration) will be discussed for each country individually and on a one-on-one basis, with the purpose of facilitating the quantitative approach in detecting contrasts and similarities.

Individual country review

Canada. Paid circulation in Canada keeps decreasing with different rates during the whole period, with a single exception in 2001 when it showed a marginal (0.3%) increase. Although it shows a consistent downward trend, variation in paid circulation shows no direct relation to the country's economic performance (Fig. 4). Paid circulation at times follow the economy, goes in the opposite direction, or remain unaltered in the presence of strong change in economic indicators. A possible relation can only be observed in the significant year of 2008, when both numbers clearly decreased more than in previous years.

Internet penetration rate increase peaked in 2002 (as in most countries examined) at +36 percent with only a slight impact in paid circulation decrease, and has been constantly increasing since then in more moderate rates that somehow could be matched with the decrease rates in circulation, except in 2008, when circulation dropped dramatically (-8 percent) in relation to a steady and moderate increase in Internet penetration of only +3.5 percent (Fig. 5).



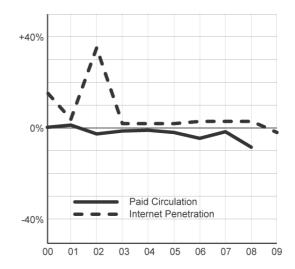


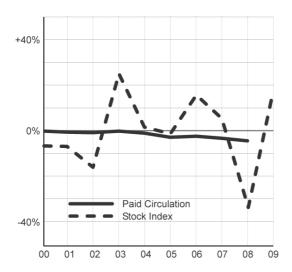
Fig.4 - Paid Circulation x Economic Performance in Canada 2000-2009 (percent variation)

Fig. 5 - Paid Circulation x Internet Penetration in Canada 2000-2009 (percent variation)

United States. Not surprisingly, the behaviour of economic indicators in the United States are, in overview, similar to that in Canada, a reflection of strong trade relations between the two countries. The US displays, however, a higher volatility and suffers more yearly losses than Canada. The variation in paid circulation in the US in the period is also steadily on a moderate decline, but appears to suffer a slightly more direct effect from the economic cycles, as increases and decreases in the trends tend to match up a little bit more (though not maintaining a proportional correspondence) than in Canada (Fig. 6).

Like in Canada, the consistent increase in Internet penetration rates in the United States is matched by that consistent decline in circulation. On a more year-by-year focus, that behaviour also appear to inversely match that of decrease rates in circulation in most years examined, but with the actual percent variation being different (Fig. 7). The exception here seems to be 2008, with a lower increase in Internet penetration (+3 percent compared to +4 percent in the previous

year) seeing a higher decrease in circulation (-4 percent compared to -3 percent in 2007).



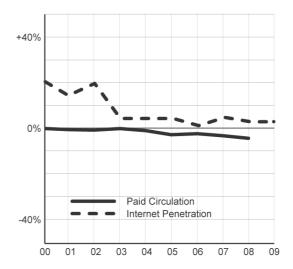
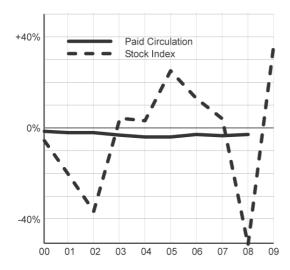


Fig.6 - Paid Circulation x Economic Performance in the United States 2000-2009 (percent variation)

Fig. 7 - Paid Circulation x Internet Penetration in the United States 2000-2009 (percent variation)

The Netherlands. Of all the countries examined, the Netherlands are the most affected by periods of economic downturn, with their economic indicators showing the biggest losses in both 2002 and 2008. Paid circulation shows a fairly constant decline during the whole period examined, but with decrease rates actually becoming smaller since 2005. The dramatic swings in the economic health do not reflect in the slight variations in the circulation rates at all, and even show an inverse relation at times, like in 2008, with the circulation decrease rate actually easing (-2.1 percent in relation to -2.9 in the previous year) in the presence of a dramatic (-52 percent) economic loss (Fig. 8).



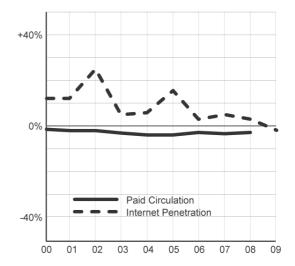


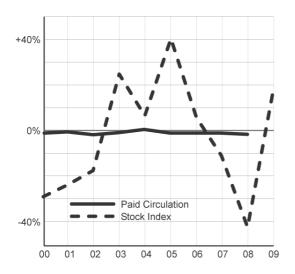
Fig.8 - Paid Circulation x Economic Performance in the Netherlands 2000-2009 (percent variation)

Fig. 9 - Paid Circulation x Internet Penetration in the Netherlands 2000-2009 (percent variation)

Internet penetration spiked both in 2002 and 2005 with no considerable effect in the circulation rates (Fig. 9), even though, like in the Canada and United States cases, the overall correspondence between declining circulation and Internet advance is clear during the whole nine-year period. Since 2005, as further increases in the country's already high penetration rates (in the +70 percent levels) become more difficult, they show much lower increases and even a decrease (as shown in the -1 percent decrease in 2009), while the decrease in paid circulation, as mentioned before, has been easing. This could point to an isolated causal relationship in the absence of other factors.

Japan. Japan also displays more dramatic changes in its economic indicators than North American countries, both on downturns and upturns (Fig. 10). Japan entered the 2000's in the aftermath of its "lost decade" and didn't really have a period of economic growth before the 2001-2002 downturn. Due to a strong newspaper culture, paid circulation decrease in Japan in

the studied period is slow (with variations mostly under -1 percent/year) and interrupted by an isolated period of marginal increase in 2004. No parallels between economic activity and the behaviour of paid circulation can be drawn from a comparative analysis, with their variations sometimes compensating and at times reinforcing each other.



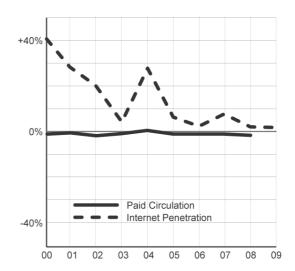


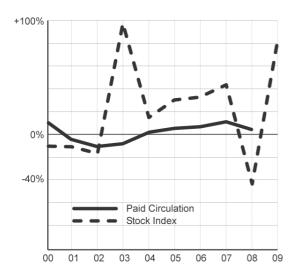
Fig.10 - Paid Circulation x Economic Performance in Japan 2000-2009 (percent variation)

Fig. 11 - Paid Circulation x Internet Penetration in Japan 2000-2009 (percent variation)

As for Internet penetration, Japan does show the inverse relationship seen in the other developed countries, but not as sharply defined (Fig. 11). As this rate remains increasing very random, paid circulation sometimes responds inversely (as it increases as Internet penetration increase eases from +28 to +7 percent in 2003) or directly (as it also increases as Internet penetration spikes in 2004). This added to the small variations in the almost flat circulation decline curve don't allow for clear interpretations of yearly correspondence in this case.

Brazil. Emerging countries show spikes in economic growth during upturns of much

higher magnitude than developed countries. Between 2002 and 2007, Brazil's stock market performance has been formidable, including a staggering spike of more than 97 percent in 2003 (Fig. 12). When paid circulation is contrasted with the economic trend, a clear correspondence is found, with the variation in circulation following the variation of the stock index in every year of the period except 2004, when a deceleration in the economic growth (but still representing a positive variation) saw the beginning of an upward trend in circulation. This upward trend is maintained even through the significant year of 2008 (-41 percent economic retraction) with the positive variation easing from +11.8 percent but to a still healthy +5 percent.



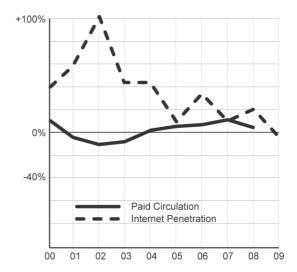


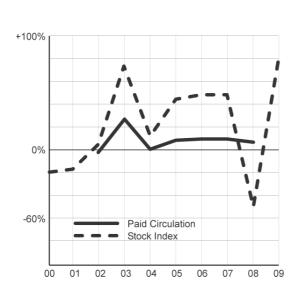
Fig.12 - Paid Circulation x Economic Performance in Brazil 2000-2009 (percent variation)

Fig. 13 - Paid Circulation x Internet Penetration in Brazil 2000-2009 (percent variation)

Internet penetration also appears to have an impact on circulation in an inverse manner during the whole decade in a year-by-year focus, the only exception being 2005, when a strong deceleration in Internet penetration variation (+10 percent in relation to +44 percent in the

previous year) saw circulation increase going up from 0.8 percent to a strong +4 percent (Fig. 13). But in an overall focus, as Internet penetration remains climbing, the shift from decrease to increase in circulation that starts in 2004 is a contradiction to the previous correspondence.

India. India's economic performance during the period is much like Brazil's, with a less strong 2003 compensated by a stronger 2005. Also much like in Brazil's case, the correspondence between the behaviour of circulation variation and that of the economy is clearly defined for every year in the examined period (Fig. 14). There is also an upward trend in circulation that starts with a spike in 2003 at +26 percent and remains up even during the 2008 economic crisis.



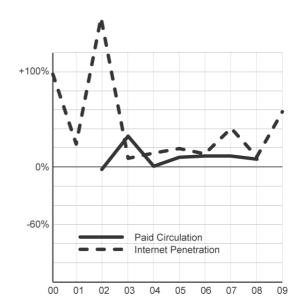


Fig.14 - Paid Circulation x Economic Performance in India 2000-2009 (percent variation)

Fig. 15 - Paid Circulation x Internet Penetration in India 2000-2009 (percent variation)

The interpretation of the Internet penetration numbers in India requires a relative perspective. Internet penetration rate in India is so low (staying below 3 percent of the population

for over much of the period) that a high year-to-year variation may not represent a meaningful increase in the user base, even with the high population numbers considered. Having said that, an inverse relationship between Internet penetration and circulation variations can also be detected in most years, with an exception being detected only in 2005 (Fig. 15).

Country comparisons

Canada and the United States. The differences and similarities between these two countries are the subject of our second proposed hypothesis. Akin (2009b, 2009c) paints a picture of both Canadian readers and advertisers being more interested in newspapers than their American counterparts. Both countries have been experiencing a steady decline in newspaper circulation during the whole decade with Canada actually experiencing more spikes in decrease variation than the United States. Circulation behaviour in Canada is less related to economic cycles, but responded in a more negative way to the 2008-2009 financial crisis than that of the United States (-8 percent against -4 percent). To probe a little bit further on this topic, the newspaper penetration for both countries (defined as circulation per 100 inhabitants) was examined, as shown on Table 4. It was found that the United States has actually consistently kept a margin of more than 3 percent above that of Canada also in newspaper penetration during the whole decade, and that this margin has been consistently expanding to finally exceed 4 percent during the recession of 2008. In general, paid circulation in the two countries was found not to be affected by economic cycles, but to respond to the consistent increase in Internet penetration with a consistent decline.

The Netherlands and Japan. Despite representing two very distinct realities, these two countries have in common the most susceptibility to high variation rates in the economy. Both, however, display a steady but consistently decreasing circulation curve, albeit flatter than their North American counterparts. This also suggests a lack of any correspondence between economic activity and paid circulation. In Internet penetration, they display similarities only in the overall inverse relationship between a consistent decrease in circulation and increase in penetration during the whole period, but not in punctual year-by-year behaviour. The answer for a similar overall behaviour in such distinct countries may lie in their shared characteristics of rich countries with high purchasing power, high standard of living and education levels, and a traditional appreciation for reading as a leisure activity.

Brazil and India. The two emergent countries show an almost identical behaviour of their economic numbers during the period. Unlike developed countries, these two show a clear correspondence of their paid circulation curves with economy (direct) and Internet penetration (inverse). Paid circulation before 2004 is much higher and more linked to the economy in India than in Brazil, but its behaviour becomes almost identical in the two countries starting in 2004, displaying an upward trend that contrasts with the consistent downward trend in North America, Asia and Europe. The effect of Internet penetration on circulation is limited: as the Internet advance is clear throughout the period, there's a clear shift from decreasing to increasing newspaper circulation that starts in 2004. Explanation for this phenomenon could rely on the strong increases in purchasing power experienced by countries with emerging economies and the fact that both countries still display much lower Internet penetration rates (however equally increasing) than in the other examined countries.

Discussion

The first important observation from the data analysis is that the consistent decline in paid circulation seen in the whole examined period by the four developed countries is not shared by the developing countries. Both Brazil and India saw that trend shift to a circulation increase starting in 2004 that remains positive even as their economies decline considerably in the 2008-2009 economic crises. In the comparative analysis, causal relationships between paid circulation and local economic performance also could only be reasonably established for the two developing countries (Brazil and India) but not for the other four. In the developed countries examined, paid circulation variation responds quite randomly to economic swings, sometimes following and sometimes going in the opposite direction, suggesting a complete lack of causal relationship. Here it is argued that the populations of developing countries are more affected by economic downturns by seeing their already lower purchasing power decrease, and that paid media consumption is one of the consumption habits that is accordingly dropped or replaced.

A similar picture emerges from the comparative analysis of paid circulation and Internet penetration: only in Brazil and India paid circulation shows a significant response to variation in Internet penetration in an inverse way, being reasonably random in the other four countries. Here it is important to notice that Internet penetration rate remains much lower in these two countries than their European, Asian and North American counterparts throughout the whole examined period, and is therefore subject to a much higher potential of increase. This is particularly important in the case of India, which still experiences a very low Internet penetration rate in relation to all other countries examined. That may suggest that Internet penetration variation may affect circulation in a lesser way after that rate reaches a certain critical value, and that that value

was not yet reached by either India or Brazil, as the latter experiences a peak at 37.5 percent in recent years in comparison to peaks in the high 70 and even 80 percent in developed countries.

In that way, our first hypothesis, projecting different realities for the newspaper industries in different countries, is judged to be confirmed. Furthermore, the only mechanism of differentiation that could be found was the overall level of economic wealth of the examined countries. Massive cultural differences between the Unites States and Japan, for example, are not reflected in the similar behaviour of their newspaper industries performance. However, countries with emerging economies, but in context less wealthy than rich and developed countries like the United States, Canada, the Netherlands and Japan, seem to be experiencing a recent increase in paid circulation of newspaper compared to a continuous decline of those four. A recent increase in purchasing power fueled by a strong economic growth in countries of the "emergent block" in the past decade may account for a change in media consumption habits in those nations that could explain the increased demand for newspaper. Since this research did not examine any countries that could be classified as "really poor", it is here pointed as a further topic for research the examination of this detected upward trend in paid circulation as the focus is shifted from "rich" to "less rich" to "really poor" countries.

The second hypothesis, suggesting a smaller decline in paid circulation in Canada than in the United States is refuted by the analysis. The paid circulation curve in Canada shows actually a more severe downward variation than in the United States in almost every year of the period, being almost twice as high in 2008. When the analysis was turned to newspaper penetration (circulation per population), for a relative perspective, it was found that this trend also favored the United States in every year of the examined period and the gap has been consistently expanding. If a better perception of paid newspaper by readers and advertisers in Canada exists,

it doesn't reflect in circulation and is probably due to other factors such as those suggested by Akin (2009c): higher readership, less reliability on classified ads, better integration of offline and online operations, less restrictions in the use of telemarketing techniques and assimilation of flyers and insert distribution business.

The third hypothesis, proposing a relationship between paid circulation and national economic performance is confirmed in certain countries and refuted in others for the examined period. This relationship is detected in developing countries with emerging economies and not in rich developed countries, suggesting a possible relationship between purchasing power (more affected in poorer countries) and media consumption. It is concluded that this relationship is present in a local level in specific macroeconomic conditions, not being, therefore, a global phenomenon.

Furthermore, the analysis was not able to detect any significant examples of an increase in paid circulation as a consequence of a recession that could potentially be interpreted as a manifestation of Ball-Rokeach & DeFleur's dependency theory. If the two economic downturns of our examined period made people more dependent on media in the examined countries, it didn't reflect in a significant way in circulation numbers, what could suggest that the higher demand was for TV and other media more committed to entertainment and escapism than newspapers.

Finally, as a causal relationship between paid circulation and Internet penetration variation was found only in developing countries, the fourth hypothesis is judged to be confirmed in a similar way to that of third one: at a local level and related to absolute Internet penetration numbers under 40 percent, as in the case of Brazil and India. At some point above that, the penetration rate appears to reach a critical value that affects circulation in a lesser way.

Conclusion

In an effort to better understand the dramatic changes experienced by the newspaper industry and the print newspaper as a product in recent years, this study aimed to test what appears to be general but as yet scientifically unproven perceptions that this medium has been declining, especially in North America, in response to the emergence of more dynamic and exciting media alternatives and that its decreasing demand for newspapers is exacerbated by the turbulent economic times that marked this first decade of the twenty-first century. Comparative statistical analysis of variation trends involving economic performance and technological adoption in different national contexts has shown the newspaper industries behaving in a quite local manner, with their evolution during the 2000-2008 period clearly following national patterns of response (or lack thereof) to each other as opposed to the globalized behaviour seen in the world economy today. Furthermore, these local rather than global trajectories appear not to be linked to shared cultural or geographic factors, but to very specific macroeconomic indicators that differentiates them and allows their grouping in certain "blocks" of countries as "developed", "developing" (or emerging) countries and "underdeveloped" countries. From our sample, countries considered to be rich developed countries, with very diverse cultural backgrounds, which have been experiencing a quite stagnant evolution of their economic growth and purchasing power, all display a steady decline in newspaper circulation through all of the examined period, and this trend doesn't seem to respond in a very significant way to economic swings. The countries with emerging economies, also with very distinct cultures, seem to align themselves in a different direction to that of the richer countries – their spectacular economic growth during this decade appears to have spurred a feeling of noticeable improvement in their

education, purchasing power and consuming habits that precipitated an actual increase in the demand for newspapers among other forms of media. A more closely matched behaviour between circulation and economic activity is detected in these countries, what suggests a higher susceptibility of the consumption habits of populations of less wealthy countries to economic downturns.

As for the growth of the Internet as a factor influencing the demand for newspapers, in developed countries - despite a general connection during the whole decade, with the continuous increase in Internet penetration seeing a continuous decrease in circulation - year-to-year variation correspondence between these two indicators is far too random to suggest a causal relationship. Developing countries, on the other hand, despite also been experiencing a rise in Internet adoption throughout the whole decade, have been seeing their newspaper circulations shift from decrease to sustained increase during the period. But in a very interesting way, even in the presence of this apparent contradiction, year-to-year variations match considerably, suggesting a causal relationship in which the pace of variation paid circulation do respond to the pace of the adoption of the new technology. That suggests that an immediately noticeable impact of Internet adoption on newspaper circulation exist while the absolute numbers are still relatively low, and diminish as they reach higher levels.

The current media scene in the whole world is a very turbulent one. Different types of media compete for larger audiences that keep looking for gratifications of different kinds from their exposure to them. Blumler & Katz (1974) show how audience gratifications can also be derived from exposure to a certain medium *per se* in addition to the content being transmitted. It can be concluded that there will always be people interested in print newspapers not only because they provide the most credible news, but because of the perception that reading and

handling a newspaper is a more "intellectual" and "elevated" activity. Some aren't willing to give up certain ergonomic and cognitive traits of newspaper reading even as new technological offerings like the sheet-sized Apple iPad media manager and non-emissive electronic readers like the Amazon Kindle promise to offer a more "natural" reading experience. People seeking that kind of gratification are unlikely to abandon newspapers altogether as "flashier" options become available. Print newspaper will survive as a niche, with its size only being able to be estimated as the generational replacement proposed by Meyer (2004) is complete, with all news audiences comprised of people raised with online, TV and radio news as options.

Increasingly streamlined newspaper companies have been finding out that, even though that might be a smaller niche, it's one they will continue to dominate. With that niche secure, they have been finding out that their expertise in news generation is a backbone that puts them in the best position to dominate the Internet news market. Barabási (2004) shows how the Internet is a less "democratic" and "equalitarian" medium than most people believe, and traffic will ultimately concentrate around brands with credibility and tradition in news content. As the business models for online media mature from their current insipient state and Internet news profits start to live up to their estimated potential, a likely scenario for the future is Internet news becoming the main product of profitable news operations and providing economic viability to a "print version" of those news to meet the demand from that smaller niche.

As a niche and not the primary source of revenue for news companies, the print version won't need to make any concessions and will be able to focus on hard news and serious political reporting and editorials without worrying about the bottom line or ratings. This situation in which a less sought-after product is however the most respected and influential one is already experienced by the industry, but in this scenario, its function will be to lend credibility and status

to the whole media brand as it continues to produce "softer" products to cater to larger audiences in other platforms. The news industry will see a two-tier audience of news conforming to the Lazarfeld & Katz's "two-step flow hypothesis": one formed by highly educated or influential people that can be classified as opinion leaders served by print newspapers and the general public and their more mundane expectations served by less "challenging" media.

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Table 1
Statistical analysis of economic and media indicators in Canada and the United States

| | Canada | | | United States | | |
|------|---------------------------|-----------------------------|-------------------------|---------------------------|-----------------------------|-------------------------|
| | Local financial indicator | Internet penetration | Paid daily newspaper | Local financial indicator | Internet penetration | Paid daily newspaper |
| | (S&P/TSX Index) | (users per 100 inhabitants) | circulation (thousands) | (DJIA Index) | (users per 100 inhabitants) | circulation (thousands) |
| 2000 | 8,933 | 42.27 | 5,167 | 10,787 | 43.08 | 55,945 |
| | (+5.32%) | (+16.68%) | (0.00%) | (-6.17%) | (+20.16%) | (-0.06%) |
| 2001 | 7,688 (-13.94%) | 45.17 (+6.86%) | 5,185 (+0.34%) | 10,021 (-7.10%) | 49.08 (+13.92%) | 55,578 (-0.65%) |
| 2002 | 6,614 | 61.59 | 5,005 | 8,341 | 58.79 | 55,186 |
| | (-13.97%) | (+36.36%) | (-3.47%) | (-16.76%) | (+19.78%) | (-0.70%) |
| 2003 | 8,220 | 63.98 | 4,930 | 10,453 | 61.70 | 55,185 |
| | (+24.28%) | (+3.88%) | (-1.49%) | (+25.32%) | (+4.94%) | (0.00%) |
| 2004 | 9,246 | 65.96 | 4,911 | 10,783 | 64.76 | 54,626 |
| | (+12.48%) | (+3.09%) | (-0.38%) | (+3.16%) | (+4.95%) | (-1.01%) |
| 2005 | 11,272 | 67.92 | 4,799 | 10,717 | 67.97 | 53,345 |
| | (+21.91%) | (+2.97%) | (-2.28%) | (-0.61%) | (+4.95%) | (-2.34%) |
| 2006 | 12,908 | 70.36 | 4,573 | 12,463 | 68.93 | 52,329 |
| | (+14.51%) | (+3.59%) | (-4.70%) | (+16.29%) | (+1.41%) | (-1.90%) |
| 2007 | 13,833 | 72.85 | 4,675 | 13,264 | 71.83 | 50,742 |
| | (+7.17%) | (+3.53%) | (-2.23%) | (+6.43%) | (+4.20%) | (-3.03%) |
| 2008 | 8,987 | 75.43 | 4,295 | 8,776 | 74.00 | 48,598 |
| | (-35.03%) | (+3.54%) | (-8.12%) | (-33.84%) | (+3.02%) | (-4.22%) |
| 2009 | 11,746 (+30.70%) | 74.90* (-0.70%) | N/A | 10,428 (+18.82%) | 76.30* (+3.10%) | N/A |

Table 2
Statistical analysis of economic and media indicators in the Netherlands and Japan

| | Netherlands | | | Japan | | |
|------|---------------------------|-----------------------------|-------------------------|---------------------------|-----------------------------|-------------------------|
| | | | | | | |
| | Local financial indicator | Internet penetration | Paid daily newspaper | Local financial indicator | Internet penetration | Paid daily newspaper |
| | (AEX Index) | (users per 100 inhabitants) | circulation (thousands) | (NIKKEI 225 Index) | (users per 100 inhabitants) | circulation (thousands) |
| 2000 | 637.60 | 43.98 | 4,443 | 13,785 | 29.99 | 71,896 |
| | (-5.03%) | (+12.25%) | (-0.87%) | (-27.19%) | (+40.20%) | (-0.44%) |
| 2001 | 506.78 | 49.37 | 4,375 | 10,542 | 38.53 | 71,694 |
| | (-20.51%) | (+12.25%) | (-1.53%) | (-23.52%) | (+28.47%) | (-0.28%) |
| 2002 | 322.73 | 61.29 | 4,311 | 8,578 | 46.59 | 70,815 |
| | (-36.31%) | (+24.14%) | (-1.46%) | (-18.63%) | (+20.91%) | (-1.22%) |
| 2003 | 337.65 | 64.35 | 4,204 | 10,676 | 48.44 | 70,339 |
| | (+4.62%) | (+4.99%) | (-2.48%) | (+24.45%) | (+3.97%) | (-0.67%) |
| 2004 | 348.08 | 68.52 | 4,061 | 11,448 | 62.39 | 70,364 |
| | (+3.08%) | (+6.48%) | (-3.40%) | (+7.23%) | (+28.79%) | (+0.03%) |
| 2005 | 436.78 | 79.10 | 3,912 | 16,111 | 66.92 | 69,680 |
| | (+25.48%) | (+15.44%) | (-3.67%) | (+40.73%) | (+7.26%) | (-0.97%) |
| 2006 | 495.34 | 80.99 | 3,831 | 17,225 | 68.69 | 69,100 |
| | (+13.40%) | (+2.38%) | (-2.07%) | (+6.91%) | (+2.64%) | (-0.83%) |
| 2007 | 515.77 | 84.38 | 3,719 | 15,307 | 74.30 | 68,437 |
| | (+4.12%) | (+4.18%) | (-2.92%) | (-11.13%) | (+8.16%) | (-0.95%) |
| 2008 | 245.94 | 86.55 | 3,638 | 8,859 | 75.40 | 67,206 |
| | (-52.31%) | (+2.57) | (-2.17%) | (-42.12%) | (+1.48%) | (-1.79%) |
| 2009 | 335.33 (+36.34%) | 85.60* (-1.09%) | N/A | 10,546 (+19.04%) | 75.50* (+1.32%) | N/A |

Table 3
Statistical analysis of economic and media indicators in Brazil and India

| | Brazil | | | India | | |
|------|---------------------------|-----------------------------|-------------------------|---------------------------|-----------------------------|-------------------------|
| | Local financial indicator | Internet penetration | Paid daily newspaper | Local financial indicator | Internet penetration | Paid daily newspaper |
| | (IBOVESPA Index) | (users per 100 inhabitants) | circulation (thousands) | (BSE/Sensex Index) | (users per 100 inhabitants) | circulation (thousands) |
| 2000 | 15,259 (-10.72%) | 2.87 (+40.68%) | 7,883 (+10.05%) | 3,972 (-20.63%) | 0.53 (+96.29%) | N/A |
| 2001 | 13,578 (-11.01%) | 4.53 (+57.83%) | 7,670 (-2.70%) | 3,262 (-17.87%) | 0.66 (+24.52%) | 59,129 |
| 2002 | 11,268 | 9.15 | 6,972 | 3,377 | 1.54 | 57,844 |
| | (-17.01%) | (+101.98%) | (-9.10%) | (+3.52%) | (+133.13%) | (-2.17%) |
| 2003 | 22,236 | 13.21 | 6,470 | 5,838 | 1.69 | 72,939 |
| | (+97.33%) | (+44.37%) | (-7.20%) | (+72.87%) | (+9.74%) | (+26.09%) |
| 2004 | 26,196 | 19.07 | 6,522 | 6,602 | 1.98 | 73,537 |
| | (+17.80%) | (+44.36%) | (+0.80%) | (+13.08%) | (+17.15%) | (+0.81%) |
| 2005 | 33,456 | 21.02 | 6,789 | 9,397 | 2.39 | 78,689 |
| | (+27.71%) | (+10.22%) | (+4.09%) | (+42.33%) | (+20.70%) | (+7.00%) |
| 2006 | 44,474 | 28.18 | 7,230 | 13,786 | 2.81 | 88,863 |
| | (+32.93%) | (+34.06%) | (+6.49%) | (+46.70%) | (+17.57%) | (+12.92%) |
| 2007 | 63,868 | 30.88 | 8,083 | 20,286 | 3.95 | 98,837 |
| | (+43.60%) | (+9.58%) | (+11.79%) | (+47.14%) | (+40.56%) | (+11.22%) |
| 2008 | 37,550 | 37.52 | 8,487 | 9,647 | 4.38 | 107,000 |
| | (-41.20%) | (+21.50%) | (+4.99%) | (-52.44%) | (+10.88%) | (+8.25%) |
| 2009 | 68,588 (+82.65%) | 36.20* (-3.72%) | N/A | 17,464 (+81.03%) | 7.00* (+59.8%) | N/A |

Table 4
Statistical analysis of demographic and media indicators in Canada and the United States

| | Canada | | | United States | | |
|------|------------------------|---|---|------------------------|--|--|
| | Population (thousands) | Paid daily newspaper circulation (thousands) | Paid daily newspaper circulation (per 100 inhabitants) | Population (thousands) | Paid daily newspaper circulation (thousands) | Paid daily newspaper circulation (per 100 inhabitants) |
| 2000 | 30,689 | 5,167 | 16.83 | 282,171 | 55,945 | 19.82 |
| 2001 | 31,021 | 5,185 | 16.71 | 285,081 | 55,578 | 19.49 |
| 2002 | 31,373 | 5,005 | 15.95 | 287,803 | 55,186 | 19.17 |
| 2003 | 31,676 | 4,930 | 15.56 | 290,326 | 55,185 | 19.00 |
| 2004 | 32,359 | 4,911 | 15.17 | 293,045 | 54,626 | 18.64 |
| 2005 | 32,723 | 4,799 | 14.66 | 295,753 | 53,345 | 18.03 |
| 2006 | 33,115 | 4,573 | 13.79 | 298,593 | 52,329 | 17.52 |
| 2007 | 33,506 | 4,675 | 13.95 | 301,579 | 50,742 | 16.82 |
| 2008 | 33,894 | 4,295 | 12.67 | 304,374 | 48,598 | 15.96 |