

# Research on the Development from Print Media to Digital Media -- Taking the American Market as An Example

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## ABSTRACT

Nowadays, the development of digital media accounts soars so quickly that the ratio of this sort of new media accounts for a large market of this society. The frequency of using paper media declines while more people choose to use digital media. The topic of this research will focus on the development of the American market from paper media to digital media. The purpose is to find out the transmission from paper media to digital media, and the situations of these two kinds of media. The subjects will be the users in the U.S, and this research will use a quantity of data analysis and archive research based on experiments before getting the results. Finally, it will summarize the conclusion about the benefits and limitations of paper and digital media and the rise of digital media and the fall of paper media. In conclusion, digital media has a popular trend nowadays while print media is also an irreplaceable part.

**Keywords:** American Market, Paper media, Digital media, Data analysis, Development

## 1. INTRODUCTION

Based on the previous research, most of the researchers studied the topic of combining paper and digital media together, because this can help people to maximize the use of these two media. However, this research will focus more on the development of these two media so that people can recognize these two media more clearly. In this way, it will pave the way for other researchers and companies to judge which kind of media they should pay more attention to. This paper will use data analysis and some results which have been discovered by prior researchers, and the paper will find out correlations for related variables, especially the correlations between the number of users and different types of media. In the future, more and more people will use digital media rather than paper media, but paper media is irreplaceable because sometimes they are portable and convenient. At the same time, new media is immature because it was only invented a few years, and it needs to be developed. This paper can help some researchers to have clear thinking when they are doing related experiments.

## 2. THE INTRODUCTION OF PRINT MEDIA AND DIGITAL MEDIA

### 2.1 The Introduction of Print Media

#### 2.1.1 Print Media

Paper media, which can be named print media as well. It is the format of any medium that uses paper and ink.[1]For instance, newspapers, periodical magazines, journals, posters and flyers can be print media. Before the invention of digital media, people used paper and ink to record.

#### 2.1.2 Advantages and Disadvantages of Print Media

Print media offers very real practical advantages over other media, and it is easier to collect than audiovisual data and more permanent than most Web materials[1]. This is because some documents online will expire that viewers cannot read if they did not save them. For example, when students find a book which they are interested in the library, they can buy and keep it instead of finding it online, so that this can not only protect children's eyes from staring at the screen for a long time

but also they can access it easily. At the same time, print media like “newspapers and magazines are still the easiest media to access on the train or bus”[2].

Nonetheless, there are some disadvantages to paper media as well. In this fast-paced society, fewer people will choose to read the material word by word because it will take a long time to understand and get the main point. Instead, people prefer to watch vivid videos so that they can catch the information immediately and clearly. Print media like newspapers and magazines can only express the content by amount of words with fewer pictures, sometimes these pictures are black and white, which will lead people to lose the interest to read. In addition, the production of print media is time-consuming. The process of producing print media is complicated, for instance, when producing a magazine, “the process starts from planning through leaving the print and distributing”[3]. This means customers need to wait for days, then they can get this magazine or newspaper, and this might be one of the reasons that magazines and newspapers are always periodical.

## ***2.2 The Introduction of Digital Media***

### ***2.2.1 Digital Media***

Digital media are part of the convergence between interactive media (most notably gaming), online networks, and existing media forms. It can be divided into two parts, one is traditional digital media, and another is the new form of digital media. Traditional digital media can be television and computer, while the new form of digital media can be social media websites, smartphone, tablets and video games.

### ***2.2.2 Advantages and Disadvantages of Digital Media***

As the spread of digital media, the people who use digital media increased as well. Digital media does bring many advantages to people. This really increases the efficiency of people finding the resources. For instance, students can find out resources much easier online only by searching the keywords rather than going to the library. Secondly, it helps people to contact each other easier. In the past, if people want to send a message to others, they should wait for the postman to ride a bike or drive a truck to send it, but now people can only use the iMessage on smartphone or emails, which is quicker than before.

Although digital media brings many benefits, the limitations still outweigh the advantages, especially for youth. Firstly, as the data shows, in 2011, 52% of children 0 to 8 years of age had access to a mobile device (although only 38% had ever used one), three years later, this access had a large rise to 75% for the same target children[4], people who use the media may be addicted on that so their physical health will be affected. For example, some people will choose to stay up late at night because additive to phones, which will lead to a lack of sleep, and demanding sleep will also lead to some other health problems like obesity, and their attention will also be impacted that they cannot focus on their jobs or studies. Next, besides physical health, the rate of getting mental health like depression will also increase. Researchers found that twice as many heavy users of social media (versus non-users) had clinically relevant symptoms of depression[5]. When people use the digital media more, they will have negative attitudes towards school, time spent with parents, parent distress, closeness to parents[5], not only parents but also the people around them. This is because they can be free and relaxed when they are surfing online, none of the other know them, and they can even find some other who have similarities with them. In this way, they can escape away from the real world for a short time. However, after a long period, it will bring some irreversible effects on their mental health because they lack communication with people around them.

## **3. THE ANALYSIS OF THE DEVELOPMENT OF PRINT MEDIA AND DIGITAL MEDIA IN THE AMERICAN MARKET**

### ***3.1 Audience Groups of Paper and Digital Media in the United States***

In commonplace, most of the audience towards print media are elder people because they are more familiar with this type of information, and they have used it for a long term, while the target audiences of digital media are youngsters because they have a curiosity and creativity that they have the energy to discover the new things. However, in the US, the readers for print media are not just divided into elders and young adults or children. For example, the audience of offline newspapers is much more than online. On average, the print edition reaches 28.8 percent of local adults, which is 18.8 percent more than the online edition.[6]

State / newspaper	Weekday circulation <sup>a</sup>	Print readership <sup>b</sup>	Print reach <sup>b</sup> (%)	Online readership <sup>b</sup>	Online reach <sup>b</sup> (%)
California / <i>The Orange County Register</i>	793,582	1,096,503	8	415,414	3
California / <i>Los Angeles Times</i>	717,432	3,328,388	24	1,502,302	11
Florida / <i>The News-Press</i>	601,697	274,641	27	57,713	6
California / <i>San Jose Mercury News</i>	581,546	1,828,706	32	633,977	11
New York / <i>Newsday</i>	460,149	1,727,648	10	583,108	4
New York / <i>New York Daily News</i>	456,360	3,293,146	20	853,669	5
Illinois / <i>Chicago Tribune</i>	438,935	2,411,373	33	883,485	12
Washington, DC / <i>The Washington Post</i>	436,601	2,131,608	41	1,075,807	21
Texas / <i>The Dallas Morning News</i>	413,481	1,361,341	25	416,763	8
Colorado / <i>The Denver Post</i>	391,096	1,016,547	31	322,225	10
Pennsylvania / <i>The Philadelphia Inquirer</i>	373,479	1,394,400	22	458,441	7
Texas / <i>Houston Chronicle</i>	370,961	1,587,093	32	500,424	10
Illinois / <i>Chicago Sun-Times</i>	370,449	1,693,644	23	451,538	6
Nevada / <i>Las Vegas Review-Journal</i>	322,556	571,947	36	169,738	11
Florida / <i>Tampa Bay Times</i>	317,270	1,097,400	30	175,152	5
Minnesota / <i>Star Tribune</i>	301,494	1,481,656	42	466,800	13
New Jersey / <i>The Star-Ledger</i>	296,466	1,203,064	7	940,220	6
Ohio / <i>The Plain Dealer</i>	284,850	931,483	31	334,573	11
Massachusetts / <i>The Boston Globe</i>	274,538	1,292,997	25	842,798	16
Hawaii / <i>Honolulu Star-Advertiser</i>	272,856	556,996	50	122,294	11
Oregon / <i>The Oregonian</i>	263,726	807,434	32	440,753	18

**Figure 1** In-market print and online readership [6]

In the aspect of dividing the audiences into elder and younger, elders audiences really account for a huge quantity of print media and traditional digital media like television. the television viewing audience aged as well so that by 1979- 80, about one-third of the prime-time audience was 50 or over.[6]

**3.2 Analysis of the Development Trend of Paper Media and Digital Media**

According to the young adults, the percentage of 12th graders who read a book or a magazine every day declined from 60% in the late 1970s to 16% by 2016[7], while the percentage using digital media increased considerably. At the same time, the time of using digital media like phones, the internet, gaming rise from 6hr to almost every day among the adolescents' group.[7] As

the technique develops, more and more media types appear around these young adults, such as radio, video players, MP3, PSP, cell phones, tablets and so on. This means teenagers will be impacted by the appearance of these devices that they prefer more digital media, for example, in the typical U.S. Eight-to eighteen-year-old live in a household equipped with three TV sets, three video players. three radios, three PDMPS, other two video game consoles, and a personal computer[8]. Not only does each household has these devices, but also many adolescents have their own media devices, 31 percent of them have their own computer, 50 percent have a video player in their room, and about 49 percent have a video game console.[8] The more opportunities children can access these digital media, the trend of using them will increase.

Research sample	Television	Videos and movies	Audio	Video games	Computer	Total media exposure	Total media use
<b>Children 0–6 years (2005)</b>							
<b>Total sample</b>	0:59	0:24	0:48	0:06	0:07	2:24	n.a.
0–1 year	0:34	0:13	0:57	0:00	0:01	1:45	n.a.
2–3 years	1:11	0:32	0:50	0:03	0:05	2:41	n.a.
4–6 years	1:02	0:25	0:41	0:10	0:10	2:28	n.a.
<b>Children 2–7 years (1999)</b>							
<b>Total sample</b>	1:59	0:31	0:45	0:08	0:07	3:30	2:56
<b>Children 8–18 years (2004)</b>							
<b>Total sample</b>	3:04	1:11	1:44	0:49	1:02	7:50	5:48
8–10 years	3:17	1:24	0:59	1:05	0:37	7:21	5:22
11–14 years	3:16	1:09	1:42	0:52	1:02	8:00	6:00
15–18 years	2:36	1:05	2:24	0:33	1:22	7:59	5:59
<b>Children 8–18 years (1999)</b>							
<b>Total sample</b>	3:05	0:59	1:48	0:26	0:27	6:45	5:40

Source: Data on sample of children 0–6 years (2005) from Rideout and Hamel (see table 1); on sample 2–7 years (1999) from Donald F. Roberts and others, *Kids and Media at the New Millennium* (Menlo Park, Calif.: Kaiser Family Foundation, 1999); on sample 8–18 years (2004) from Roberts, Foehr, and Rideout, *Generation M* (see table 1); on sample 8–18 years (1999) from Roberts and others, *Kids and Media* (see above). Because time-use diaries were not obtained for the 2005 sample of young children, total media use estimates are not available for them.

**Figure 2** Children’s Average Daily Exposure to Five Electronic Media, Total Media Exposure, and Total Media Use, by Age[8]

According to the elder audiences, a study mentioned that older Internet users are significantly more inclined to use traditional mass media than new social media and prefer synchronous to asynchronous mass media.[9] In daily life, young adults attempt to teach the elders about new media usage, but most of them have a bad memory so they might forget when the next day they wake up. Even though elders are familiar with those print media, as their age increase, they might have poor eyesight, so for some paper media like books, magazines, a declining usage was found with advancing age[10], and the use of traditional digital media like television is more seven hours than young people.[10] Overall, research cannot say that the print media dying, because most of the (90 percent) online readers are also using traditional media along with digital media for the news[11]. Although the print media does not replace by digital media completely, it truly lose a large number of audiences in this society.

### 3.3 Reasons for the Decline of Print Media And the Rise of Digital Media

One of the reasons for the decline of paper media is that most print media cannot renew the information or news immediately. This is because print media need lots of time which will spend on processes, like typesetting, editing, correction and then printing, and the final step is publishing. For example, if big news happens, people who work in magazine or newspaper office need to do the process mentioned before, and the fastest time that

newspaper publish might be one week later, and people cannot wait until that time because there must be some other strike news happens during this week.

For digital media, one of the reasons cause its rise is convenience. People can finish most things by only using the computer or tablets or smart phones rather than bringing a lot of books or print resources to find out sources they need, and they can also take notes on any digital media instead of using pens and notebooks. Digital media devices are light and intelligent so they are convenient. Not only this but also information can be shared easily by using these applications or devices, for example, people can send pictures or files or something else directly by using airdrop. However, print media cannot do that, if people only have magazines, they can only give the original version or copy version to share with others.

Secondly, digital media can help people to keep the old version of paper resources longer because the online version will not face the problems like the words and paper fading as the time you keep increases. For example, online newspapers can transfer content from print to Web involves substantial recontextualization (essentially, new intertextual relationships with surrounding material), dynamization (through clickable hypertext links) and upgraded interactivity, for instance through email links and discussion fora[1]

#### 4. CONCLUSION

In conclusion, this research study discovers the difference between digital media and paper media, and the trend of both media use today. At the same time, this paper also finds out the pros and cons of digital and print media. For print media, it is easier to collect than audiovisual data and more permanent than most Web materials but the productivity of it is too low and time-consuming. For digital media, this increases the efficiency of people find the resources and shorter the time of sending messages, but it might cause some health problems if used for a long time. In the future, researchers can find out more ways of both media usage, and also do some surveys online to get a more clear trend of people who are the target of these media.

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