

# A Review of Phenomenal Raise of Advertisement Spending with Digital Marketing

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**Abstract:** World had seen Information and Communication Technology (ICT) exploded in 2011 as the internet users crossed 2 billion in just six years from a billion users in 2005. Speed of data uploading and downloading has gone from 256 kilo bits per seconds to one mega bits per second by 2005 as networking switched to wireless as billion mobile users crossed in 2002. Humongous growth of mobile users of 2 billion users in 2005 to 5 billion users by 2010 created data usage explosion continuously through the internet as 2015 saw more than three billion using internet for e-Mail, Short Message Service (SMS), Multimedia Message Service (MMS), Searching, and newer applications from Social Media Networks with FaceBook, Twitter, Youtube, Whatsup, LinkedIn, etc. Marketing has shifted to online so called “Digital Marketing” through internet to any customer across the globe with advertisements (Ad) using internet and mobile, especially with smart phone and Tablets. Digital Ads in an email application or information search through Google seem to be like Print Media ads. Banners, Sponsorship, Rich media, etc. represent “Display ads” according Evans (2009) even videos appear as one seen in the largest Ad media, TV. But by the end of 2017, the total Ad spending through “Digital Marketing” has over taken Ad spending through TV and this parading swift would be present in this paper.

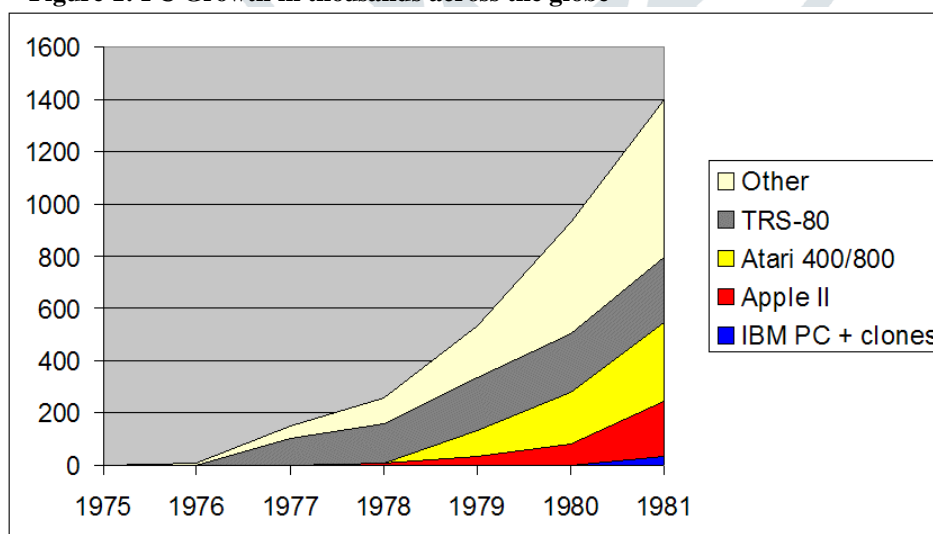
**IndexTerms** - ICT, Internet, E-Mail, SMS, MMS, Social Media, Mobile, Smart phone, Tablets, Digital Marketing, Advertisement, Display Ads.

## I. INTRODUCTION

Information and Communication Technology (ICT) has been redefining the processing of data since 1980s when Personal Computers (PC) were sold in millions from Tandy, Atari, Apple as shown in figure 1. Microcomputer or PC had become the dominant product in the USA with a sale of 0.596 million units (\$2.1 billion) in 1980 but only 95,870 mini computers (\$5.7 billion) and 9,900 mainframe computers (\$8.8 billion) were sold in 1980. Ten years later, 157,300 mini computers (\$8.9 billion) and 11,640 mainframe computers, (\$12.86 billion) were sold but whopping 6.9 million PC (\$16.6 billion) were sold (a growth of 1158%) with over 97 percent of the total Computer market in the USA.<sup>1</sup>

Television programs or Newspaper articles were edited through PCs, advertisement were made on PCs with animation coming into play sound and video created a great demand to be processed on PC, especially with the new storage media called “Compact Disk”, (CD). Radio or Movie or Cinema industry has seen greater impact with Computer with advancements in software from office tools to drawing tools to picture or video or sound editing.

**Figure 1: PC Growth in thousands across the globe**



Source: [http://www.retrocomputing.net/info/siti/total\\_share.html](http://www.retrocomputing.net/info/siti/total_share.html)

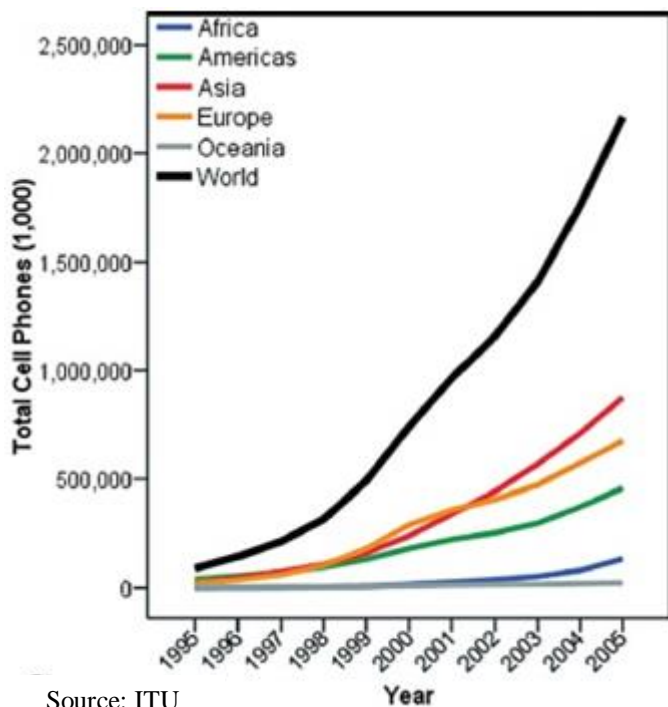
As networking evolved with backbones, gateways, local area networks and modems over standard telephone wire, rule and procedures brought “Protocols” to send and receive data. The Internet Protocol sends data or packets from source host to destination host with fragmentation and reassembly as defined by Vint Cerf and Bob Kahn in 1974. Later this was divided into Transmission Control Protocol (TCP, to keep track of address of destination, 32 bits) and Internet Protocol (IP). This fuelled the growth of Internet among defence, scientists and academia.

There was a study done Foncel and Marc Ivaldi of France in 2001 with data from World bank and through International Data Corporation of USA with USA having 11 million PC user base but the rest of the six G7 countries combined have less than

that but triggered the Internet usage. Billion PC users plateau crossed in 2005 as momentum led to diffusion of digital marketing concepts across the developed countries. More than 250 million PC were sold each year since 2011.

Mobiles were released in 1986 but the momentum picked up in 1995 when 91 million were using and 145 in 1996 according International Telecommunications Union (ITU). Half billion mobile users established in 2000 and one billion mobiles plateau reached in 2002. This is shown in figure 2 with regions across the globe as penetration in Americas reached close 50 percent as subscriptions picked up in Europe and China along with India later. Speed of data uploading and downloading has gone from 256 kilo bits per seconds to one mega bits per second by 2005 as networking switched to wireless as billion mobile users crossed in 2002, 2 billion users in 2005 to 5 billion users by 2010.

**Figure 2: Growth of Mobile users across regions 1995-2005**



Source: ITU

In summary there were 311.68 million land lines were there in the globe with only 23,500 mobile subscribers but by 2002 mobile subscription crossed the total land lines of 1.26 billion. The land line usage has been decreasing rapidly in India and China where there were over one billion mobile users.

## II. Internet growth propelled Digital Marketing

The key to digital marketing is the usage of internet with websites, hosts and internet service provider (ISP). Internet usage crossed half billion in 2001 and a billion users in 2005. With greater mobile penetration, Internet usage crossed 92 billion in 2010 as shown in table 1. This created data usage explosion continuously through the internet as 2015 saw more three billion using internet for e-Mail, Short Message Service (SMS), Multimedia Message Service (MMS), Searching, and newer applications from Social Media Networks with FaceBook, Twitter, Youtube, Whatsup, LinkedIn, etc. Any business can access these 2 billion users from 2010 or 3 billion users from 2015 through internet whether they may individuals or business or government.

**Table 1: Diffusion of Internet in the early stages, 1995 to 2005 in million**

1995	1999	2000	2001	2004	2005	2010	2015
16	248	361	513	817	1018	2,023	3,186

Source: Internet World Stats, <http://www.internetworldstats.com>

## III. Ad Spending in USA

Marketing has shifted to online so called “Digital Marketing” through internet to any customer across the globe with advertisements (Ad) using internet and mobile, especially with smart phone and Tablets. Digital Ads in an email application or information search through Google seem to be like Print Media ads. Banners, Sponsorship, Rich media, etc. represent “Display ads” according Evans (2009) even videos appear as one seen in the largest Ad media, TV.

Digital Ad spending in USA rose \$72.09 billion in 2016 from \$59.8 billion in 2015 and bigger than Ad spending on television which was \$ 71.29 billion as shown in table 2.13.4. By 2017, the Ad spending with digital has increased by 10 billion over Ad spending on television. Digital Ad spending includes display Ads, Classified Ads, search engines, social media, news or any other kind of website.

**Table 2: Digital vs TV Ad spending in USA (\$ billion)**

	2011	2012	2013	2014	2015	2016	2017	2018*
TV	60.73	64.52	66.41	68.54	68.88	71.29	72.72	74.53
Digital	31.89	36.88	42.54	49.52	59.82	72.09	82.86	93.18
Print	35.8	34.1	32.9	32.2	28.16	26.74	26.06	25.86
Newspapers	20.7	18.9	17.8	17.1	14.65	13.77	13.22	12.95
Magazine	15.2	15.2	15.1	15.1	13.51	12.97	12.84	12.90
Radio	15.2	15.4	15.6	15.9	14.27	14.12	14.15	14.19
Outdoor	6.4	6.7	7.0	7.2	7.31	7.50	7.65	7.76
Directories	8.2	7.5	6.9	6.4	5.9	4.25	4.08	3.95
Total Ad Spending	158	165	171	177	183	192	201	212

Source: eMarketer, Sep-2016/215529 & Aug 2013/161679, www. eMarketer com

Mobile now accounts for slightly more than half of all digital advertising spending (53%) for a total of \$31.6 billion, slightly outpacing the \$28 billion in desktop spending. Mobile ad spending now represents 17% of the \$183 billion in total media advertising across all platforms in 2015 from 0.8 billion in 2010.

**Table 3: Digital Ad spending with Mobile vs Desktop in USA (\$ billion)**

	2010	2011	2012	2013	2014	2015	2016	2017	2018*
On Mobile	0.8	1.1	4.6	11.2	19.2	32.5	43.6	53.8	61.2
On Desktop	26.2	30.9	32.5	32.2	31.9	28.6	25.2	24.6	25.4
Total Digital Ad Spending	26	32	37.1	43.4	50.1	61.1	68.8	78.4	86.6

Source: eMarketer, Sep-2016, www. eMarketer com

<https://blogs.wsj.com/cmo/2014/10/06/forrester-us-online-display-ad-spending-will-nearly-double-by-2019/>

Search revenues crossed \$40.6 billion in 2017, from \$34.6 billion in 2016, Banner advertising on had grown \$27.5 billion, from \$22.29 billion in 2016, Social media advertising rose to \$22.2 billion in 2017 from \$16.3 billion in 2016, Digital video hit a record \$11.9 billion in 2017, increase from \$8.9 billion in 2016, mobile devices, video revenue surged to \$6.2 billion, and Digital audio rose to \$1.6 billion in 2017 from \$1.1 billion in 2016.

**Table 4: Digital Ad spending in USA, in \$ billion**

	Ad Spend 2016	% of Total Ad Spend	Ad Spend 2017	% of Total Ad Spend
Search Mobile & Desktop	34.68	47.7	40.64	46.2
Banner Mobile & Desktop	22.29	30.7	27.49	31.2
Sponsorships	0.72	1.0	0.82	0.9
Digital Video Commercials (Mobile & Desktop)	8.93	12.3	11.86	13.5
Classified / Directories	3.02	4.2	3.35	3.8
Lead Generation	2.49	3.4	2.95	3.4
Audio	1.13	1.6	1.57	1.8
Mobile Other	0.086	0.1	0.142	0.2
Total Digital Ad Spending	72.52	100	88.01	100

Source: <https://www.iab.com/news/digital-ad-spend-reaches-all-time-high-88-billion-2017-mobile-upswing-unabated-accounting-57-revenue/>

#### IV. Ad Spending Globally

According Magna Advertising Forecasts, Global advertising revenues would increase by 4.7% from \$522 billion. In 2017 it was \$478 billion. Digital Marketing saw revenue of \$251 billion with a growth of 17% from 2017. But the combined non-digital ad with TV, Print, Radio, Out of Home, and Cinema were \$301 billion but flat growth rate. Digital ad spending has taken over ad spending of TV in 2017.

According media agency Zenith, Internet advertising by firms has exceed what firms spend on television with Alphabet, parent company of Google has the largest share over 15 percent. Advertisers spent more on digital media than traditional media led by TV for the first time in 2017 with the 205 billion dollars as shown in table 5.

**Table 5: Global Advertising of various media 2017, in \$billion**

Digital	Television	Newspapers	Outdoor	Radio	Magazines	Others
205	192	55	37	35	29	4

Source: www.zenithoptimedia.com

#### V. Ad Spending in India

Marketing has shifted to ad spending on TV some twenty years but Digital marketing is going to cross that in next five years as the total internet users are still just around 500 million or 40% percent. Ad spending on TV rose to Rs 31,596 crore with a growth rate of 13%. Subscriptions revenue of TV has grown to Rs 43,500 crore with total households watching rose to 197 million with 7.5% growth in 2018.

India has the largest print media in the globe with a continuous growth but only in single digit 3.7% in 2018 and just 1.8% in 2017. Digital marketing has seen 30% growth in 2018 with an ad spending / revenue Rs. 12,337 crore. At this growth rate it will cross print media in three years or earlier. Subscriptions revenue of Print has grown to Rs 8,830 crore with total households watching rose to 197 million with 7.5% growth in 2018.

The share of ad spending with TV has been around 45.5% in last three years but ad spending with print media went down from 31.4% in 2016 to 29% in 2017 to 26.6% in 2018.

Digital Media has been gaining share of ad spending with 17.8% in 2018 up from 15.5% in 2017 and 13.1% in 2016. According to Zenith media, watch online video will be reach 65 minutes per day in 2019 with 57 minutes in 2018 but was only 2 minutes in 2012.

**Table 6: Ad Spending in India across media in Rs. Crore**

Media	2016	2017	2018
TV	25,350	27,961	31,596
Print	17,472	17,779	18,437
<b>Digital</b>	7,300	9,490	12,337
Out of Home	2,750	2,942	3,389
Radio	2,240	2,419	2 782
Cinema	560	672	806

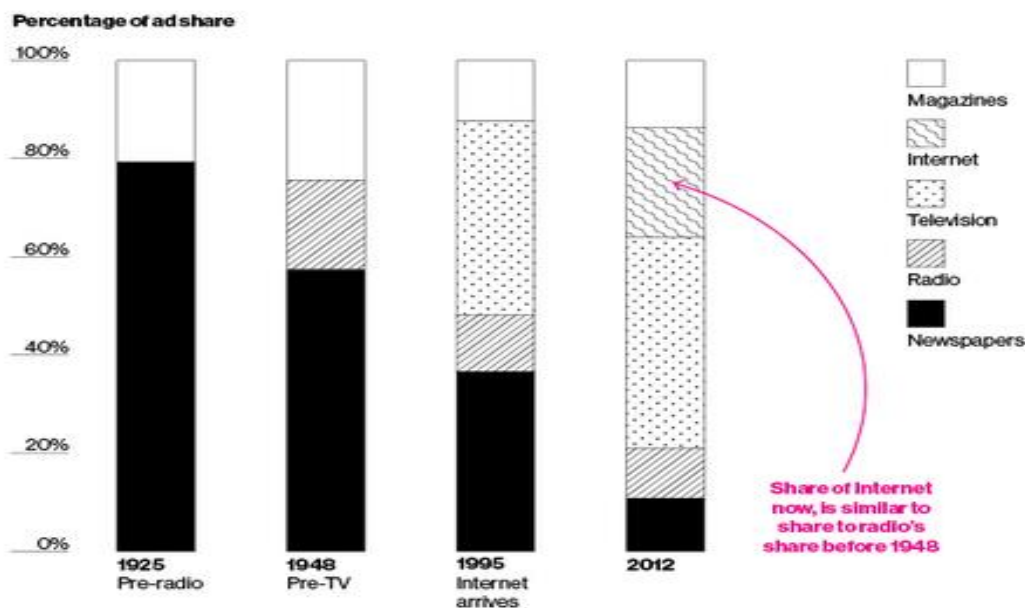
Source: Group M

## VI. Conclusion

In landscape of “News” has been changing across the develop countries especially in USA where even users getting news from television has been reducing as shown in table but readership of news from radio and newspaper has been drastically decreasing from 1991. By 2010, digital media has the second largest news readers after TV.

**Figure: 3: Market Paradigm shifting from early 1990**

### From Radio Era to Internet Age



GRAPHIC BY BLOOMBERG BUSINESSWEEK; DATA: DBS RESEARCH

Source: <http://www.3rd-solution.com/2016/10/advertisings-century-of-flat-line-growth.html>

TV continues to be the largest media for people to view but the growth of Internet and Mobile has been gradually increased with over 7 billion subscriptions. The world has been shifted from Radio to Digital as shown in figure 3.

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