

Technology and Media Use through Generations

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Introduction

The ICT and Media Survey, conducted by the Central Bureau of Statistics in 2017, has the objective of understanding the extent to which the population of Curaçao has access to Information and Communication Technology (ICT) and media and how it is used. More specifically this means that questions were asked regarding access to ICT devices and services, frequency, location, purpose and device of media and ICT used.

As time passes, world developments influence and mold generations through evolutions. How are babies able to use computers and touch screen devices while it takes older generations longer to learn this skill? The general belief that the younger generations are so involved with mobile phones and the information highway thus becoming less socially inclined, does that translate into their behavior?

According to research, we can distinguish five different generations starting from the 1900s. This article will not discuss the definition of each generation. We have chosen to use the definitions as defined by 'The Center of Generational Kinetics' as that reflects better the influences on the local population.

The five different generations that will be considered in this article are:

- 1. Generation Z, iGen, or Centennials: Born 1996 and later*
- 2. Millennials or Generation Y: Born 1977 to 1995*
- 3. Generation X: Born 1965 to 1976*
- 4. Baby Boomers: Born 1946 to 1964*
- 5. Traditionalists or Silent Generation: Born 1945 and before*

According to The Center of Generational Kinetics generations differ from each other on three levels: parenting, technology, and economics (<http://genhq.com/faq-info-about-generations/>).

In this article, we will look at the use of technology across the generation; more specifically, whether there is indeed a difference in the use of the traditional and modern media. As media

evolves and technology becomes more prevalent nowadays, technology and media become more and more intertwined.

In this article, we separate the media and technology highlighted in the survey into traditional and modern media. Traditional media is defined as radio, newspaper and television. Modern media is defined as internet and social media. Social media is designed to be used as a medium with which people stay in contact with others. The internet can be used to access online television, newspapers, watching movies and listening to music.

Methodology

A sample of 3,000 households were approached and questions were asked to all inhabitants six years and older. Children from 0-5 years old only answered demographic and educational questions. Children from 6 to 14 years old were only asked about the use of media and technology and not details of how these were used. This was done, not only for time constraints, but also because their use of media and technology would mostly depend on parents' allowance.

After the fieldwork period, 1,227 households responded. Non-response was 49.34 percent with refusal as the major reason for not participating. The response gives us an error margin of 2.77 percent.

The questions gathered demographic background information as well as specific questions on radio, television, newspaper, social media, computer, internet and internet security.

Definition

Generation

A generation is defined as “the entire body of individuals born and living at about the same time. A group of individuals, most of whom are the same approximate age, having similar ideas, problems, attitudes, etc.”

Medium

Medium is a channel or system of communication, information, or entertainment (Merriam Webster dictionary)

Radio

A radio is defined as a device capable of receiving broadcast radio signals, using common frequencies, such as FM, AM, LW and SW. A radio may be a stand-alone device, or it may be integrated with another device, such as an alarm clock, an audio player, a mobile telephone or a computer.

Television

A television (TV) is a device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. A television set is typically a stand-alone device, but it may also be integrated with another device, such as a computer or a mobile telephone.

Newspaper

Newspaper is a paper that is printed and distributed usually daily or weekly and that contains news, articles of opinion, features, and advertising

Social Media

Social media are forms of electronic communication (such as websites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (such as videos)

Internet

The Internet is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network.

Generations: Description

The Traditionalists or Silent generation are those born 1945 and before. The characteristics of the Traditionalist generation is their need not to disturb social order. They have been labeled as the Silent Generation because they do not want to change the system, but instead they would rather work within the norms of society by not disturbing the existing balance.

The *Baby Boomers* are born between 1946 and 1964. The start of this generation coincides with the end of the Second World War. The start of the generation signifies a boom in childbirth from after the war which in turn coincided with a boom in the economy. Baby boomers thus grew up in an environment that believed the world to be a prosperous and safe place. Technology has an impact on this generation as they use it to keep in touch and working from home.

Generation X members are born between 1965 and 1976. They are what is called an in-between generation, sandwiched between the Baby Boomers and the Millennials. They have gone through a dot com crash and are more reliant on technology.

The Millennials, born between 1977 and 1995, grew up in an electronics-filled and increasingly online and socially-networked world. Parented by Baby Boomers and early Generation X parents they are very positive and highly educated yet this over-optimism caused most to be employed in different fields from their study. With a wider world available to them, they tend to be more tolerant.

The latest generation, Generation Z or Centennials are still largely kids and adolescents. As a generation they are hard-pressed to know any other communication methods besides social media. As a result, they tend to live much more of their entire lives—from interacting with friends and family to making major purchases—online and via their smartphones. To make it a more even field, for this article, we see those aged 6 – 15 as a separate group as they include children who do not have the ability to freely choose the media and content they would like to see.

On Curaçao we show the distribution of the generations as follows:

Distribution of generations (6 years and older)

<i>Generations (6 years and older)</i>	<i>Percentage of Curaçao population</i>
<i>Traditionalists or Silent Generation</i>	9.73
<i>Baby Boomers</i>	28.22
<i>Generation X</i>	17.25
<i>Millennials or Generation Y</i>	22.67
<i>Generation Z, iGen, or Centennials</i>	21.10

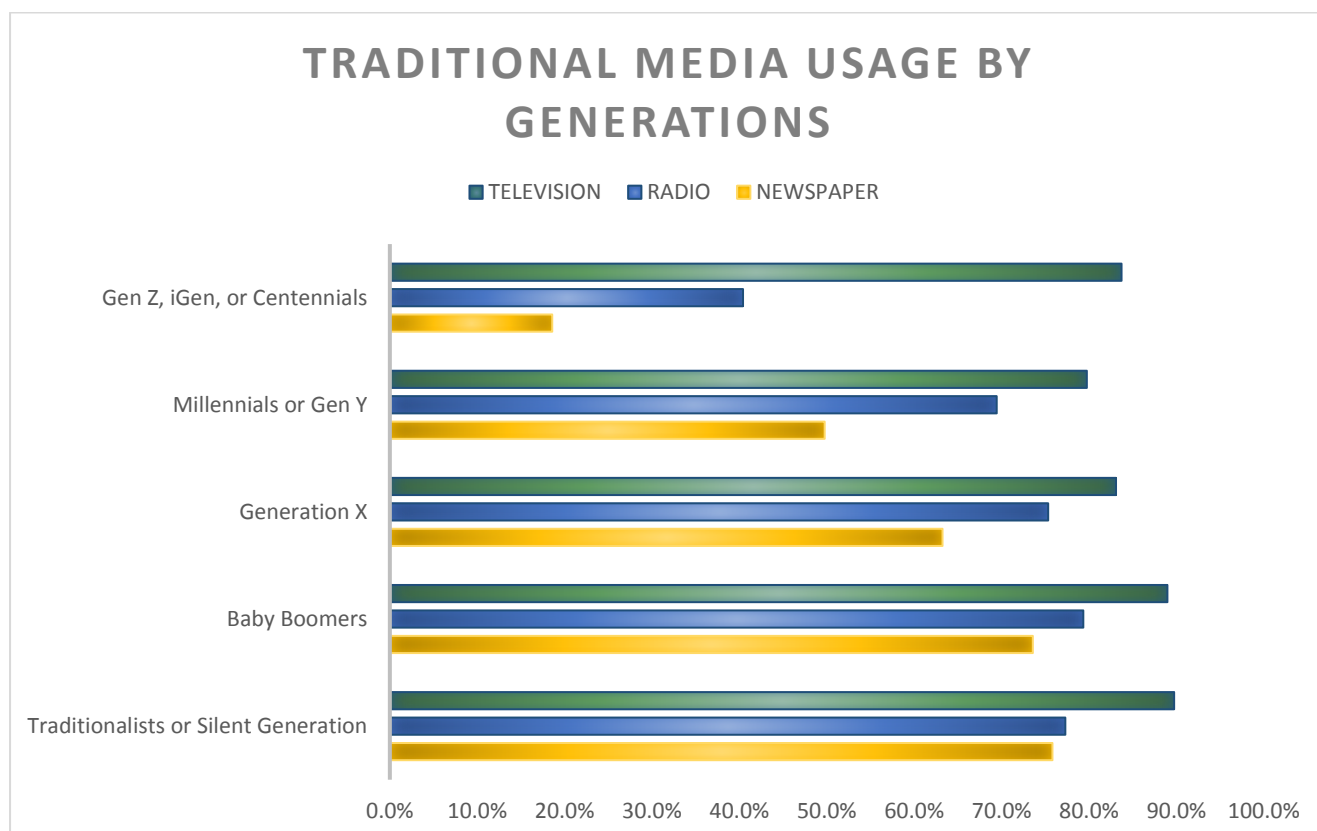
Table 1. Distribution of Generations (6 years and older)

The distribution shown in table 1 show the same trend as described above namely baby Boomers are big in size and Generation X is indeed sandwiched in size between the Baby Boomers and the Millennials.

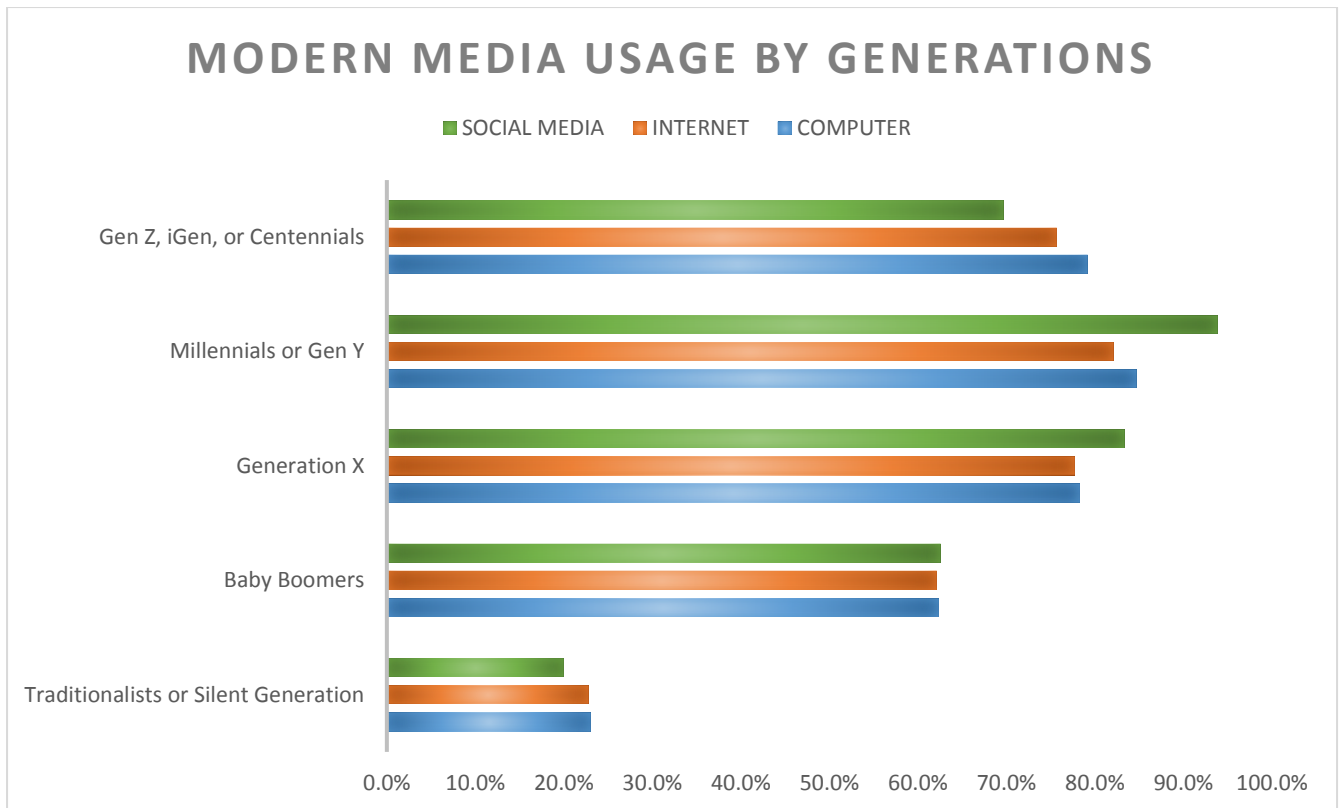
Table 2 shows the use of the different media between these generations. The older generation, the Traditionalist or the Silent generation, tend to use traditional media more than the modern media. However, the other generations show less visible variance in their usage.

Type of Media	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
Computer	23.1%	62.4%	78.3%	84.7%	79.2%
Internet	22.8%	62.1%	77.8%	82.1%	75.7%
Social Media	20.0%	62.6%	83.4%	93.9%	69.6%
Newspaper	75.8%	73.6%	63.3%	49.8%	18.6%
Radio	77.3%	79.4%	75.3%	69.5%	40.4%
Television	89.8%	89.0%	83.1%	79.8%	83.7%

Table 2. Media usage by generations (6 years and older)



Graph 1. Traditional Media Usage by Generations (6 years and older)



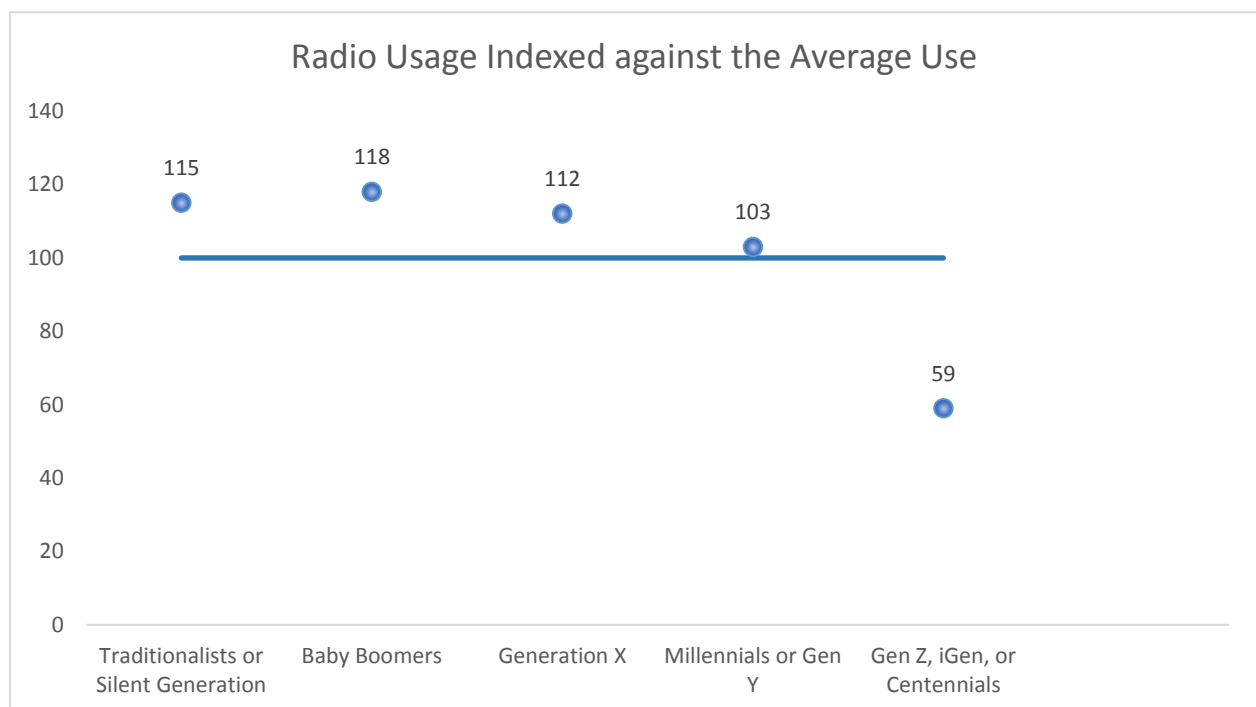
Graph 2. Modern Media Usage by Generations (6 years and older)

Generations: Radio use

Radio usage of each generation is indexed against the overall average usage of the population aged 6 years and older. This means that the Traditionalist or Silent Generation use radio 15% more often than the average person. As expected, the Generation Z uses radio 41% less than the average person as they are more used to modern media and tend to listen to music through internet instead of radio (Graph 3).

In general, we see that radio is used more by the older generations. In fact, there is a decline in the use of radio through the generations. Generation Z or the Centennials use the radio significantly less than the other generations (Graph 3). Graph 3 shows the use of radio for the different generations indexed against the average use of radio. Indexing the findings allows for a more proportional view of the depth of the differences.

Listening to music on the internet or the computer allows for a better control on the choice of music listened to. It offers the user the ability to tailor the music to their specific taste and preferences. This could be the reason that younger generations are less likely to use radio than the older generation.



Graph 3. Radio usage Indexed against Average Use (6 years and older)

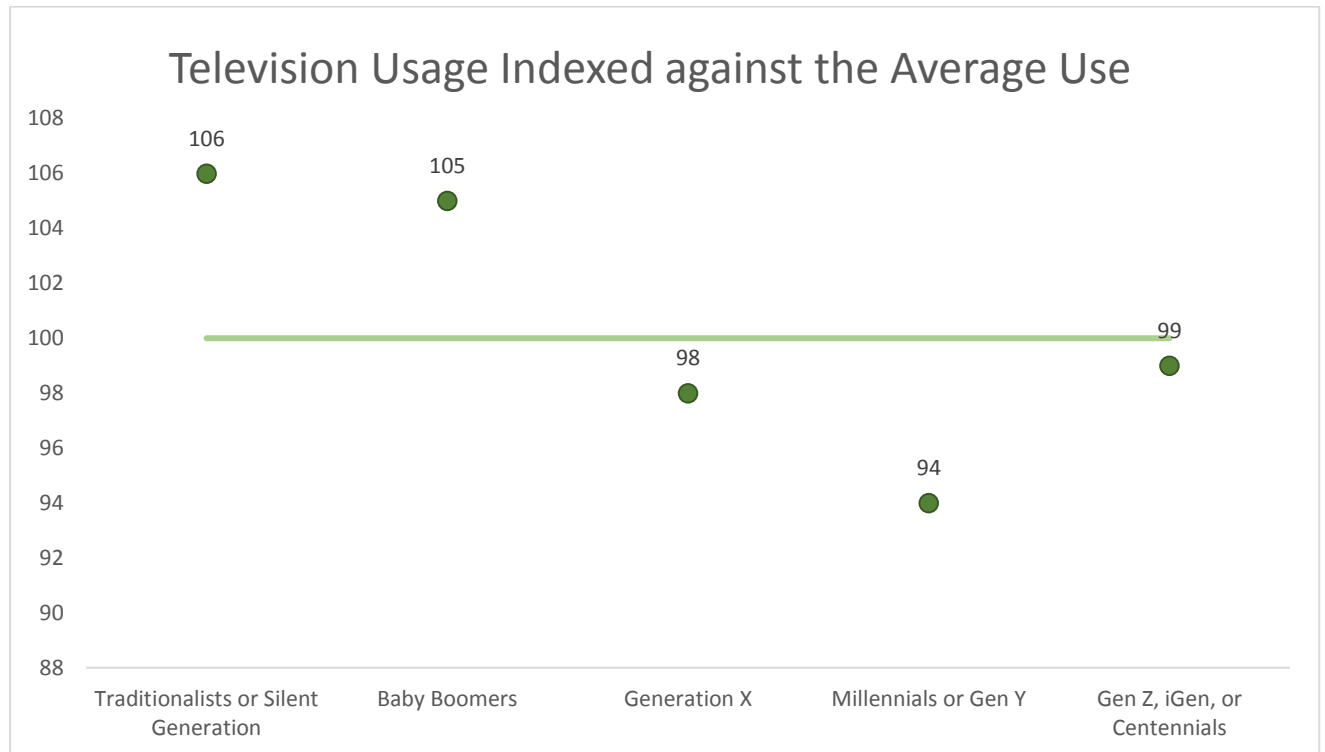
Radio Programs by Generations (6 years and older)					
Radio Programs	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
Aruba News	107	96	80	60	10
BES News	104	98	79	59	11
Business	81	96	85	65	13
Children Programs	80	81	95	74	13
Culture	102	89	83	63	16
Health	109	100	74	56	13
International News	102	92	81	65	11
Local	95	93	76	66	16
Lottery	138	98	80	46	7
Music	78	83	80	75	25
Obituary	143	103	67	44	11
Parliament	111	98	87	47	12
Police News	97	90	82	66	15
Regional News	102	97	82	58	10
Science	86	100	79	60	15
Spirituality	95	96	86	57	14
Sports	88	91	74	68	21
Weather	105	94	81	58	15

Table 3. Radio Programs by Generations (6 years and older)

Comparing the programs listened to, Table 3 shows that Centennials are more inclined to listen to music or sports whereas the Traditionalists listen to the obituaries and the winning lottery numbers and they are less likely to listen to music and sports. Generation Z tend to listen to music but at 25% of what the average person does.

Generations: Television use

The use of television does not show much variance statistically between the different generations (Graph 4). Each generation watches television on average as often as the next with the older generation with a very slight higher inclination to do so.



Graph 4. Television usage by Generation (6 years and older)

Looking at the programs watched (Table 4), we can see that the generations behave differently according to the type of program. Older generations are more interested in news programs as the interest declines as the generations get younger. Each generation has one program that they watch more than all others. Table 4 shows that Traditionalists watch the BES news, Baby Boomers watch Spirituality programs, Generation X watches business programs, Millennials watch Cultural programs and Centennials watch sports.

Television Programs by Generations (6 years and older)					
TV programs	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
Local	145	129	81	71	17
Aruba	144	125	98	67	14
BES News	146	124	98	68	14
Police News	133	115	101	75	19
Regional News	138	125	100	66	16
International News	126	120	101	74	19
Business	104	118	104	84	19
Sports	110	113	91	79	39
Culture	114	107	94	88	32
Science	114	120	104	72	25
Movies	86	99	99	96	43
Health	130	122	101	70	18
Lottery	156	125	101	62	12
Obituary	179	133	94	47	12
Weather	122	120	102	73	21
Spirituality	130	127	106	65	15
Children Programs	70	84	105	109	50

Table 4. Television Programs by Generations (6 years and older)

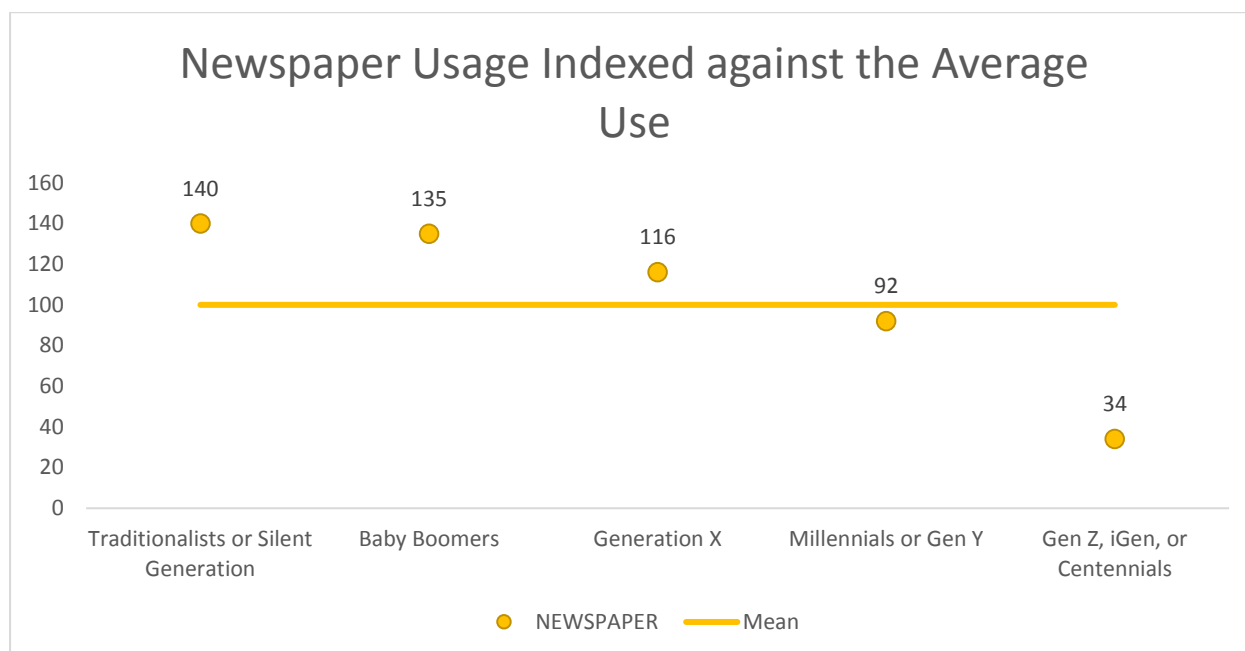
Top 3 Television Programs by Generations (6 years and older)					
Top 3 programs	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
1	Obituary	Obituary	Spirituality	Children programming	Children programming
2	Lottery	Local news	Children programs	Movies	Movies
3	BES news	Spirituality	Business	Culture	Sports

Table 5. Top 3 Television Programs by Generation (6 years and older)

According to table 4 and 5, we can thus conclude that even though the level of engagement with the medium of television does not change significantly over generations, the type of programs watched does change accordingly.

Generations: Newspaper use

As with radio, Centennials are not as involved with newspapers as the Traditionalists (Graph 5). This is in large part due to the age of the Centennials as this generation is relatively young and thus in terms of age would be too young to read the newspaper or would rather get their news online.



Graph 5. Newspaper Usage Indexed by Generation (6 years and older)

Table 6 shows the relative small numbers of newspaper readers in the Centennial generation compared to the other generations. It also shows that Traditionalists and Baby Boomers are quite similar in the articles that they read.

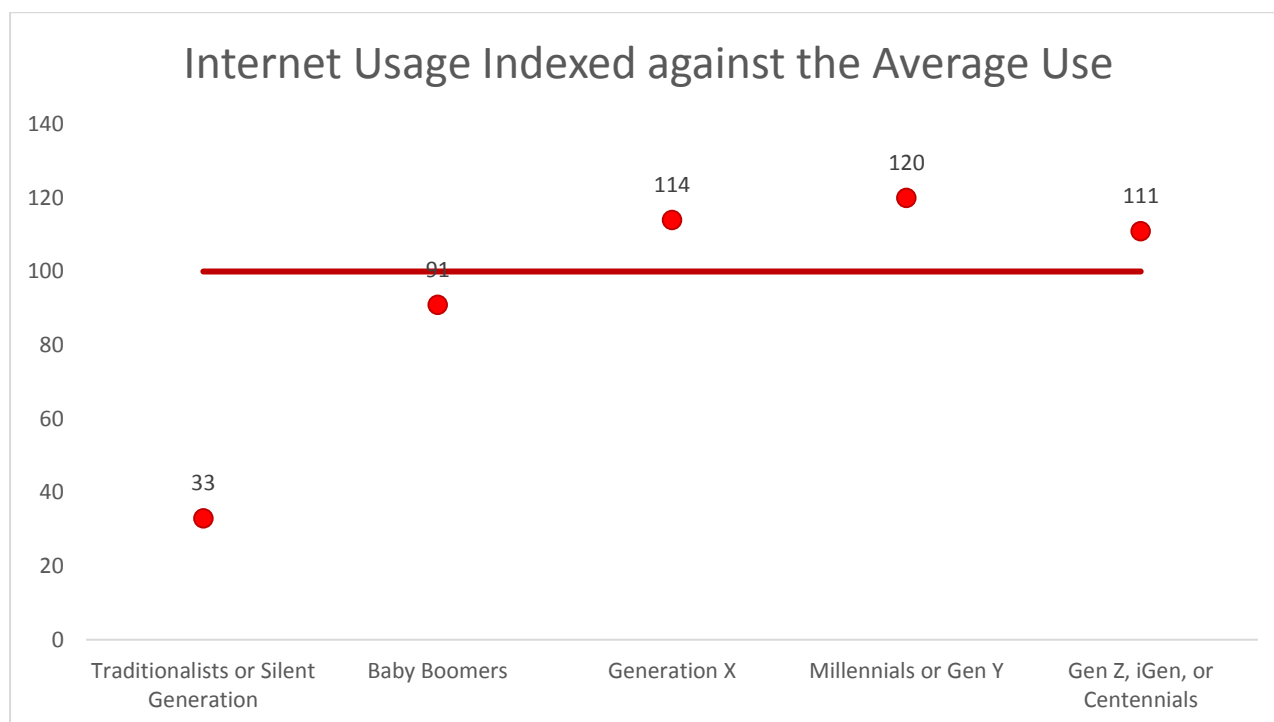
Newspaper Articles by Generations (6 years and older)					
Newspaper article	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
Aruba News	91	83	58	42	11
Bes News	90	83	57	43	11
Business	74	78	68	46	12
Columns	93	83	63	41	8
Culture	84	79	61	46	13
Editorial	88	83	64	42	9
Health	91	83	62	40	10
International News	83	80	59	48	11
Letters	94	82	64	41	7
Local	83	78	62	48	12
Lottery	91	83	62	40	10
Obituary	92	85	64	38	8

Police	84	79	63	48	11
Puzzles	92	71	68	41	19
Regional News	85	81	62	46	10
Science	84	82	62	41	14
Spirituality	90	83	65	37	11
Sports	85	75	60	50	14
Weather	88	82	64	40	11

Table 6. Newspaper Articles by Generation (6 years and older)

Generations: Internet use

The generation who uses the internet more than the average person is the Millennials (Graph 6). Their usage is 20% higher than the average. Surprisingly the Centennials are the third highest (index = 111). The internet usage of the Traditionalists is extremely low compared to the average.



Graph 6. Internet Usage by Generation (6 years and older)

Internet can be used for different purposes. For this survey, we divided internet actions into seeking information, interactive, personal actions and online transactions.

Internet Actions by Generation (6 years and older)					
OBTAINING INFORMATION	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
Find information on products and services	19	63	97	105	36
Find health-related information	20	72	108	104	16
Find information on a government organization	22	75	93	96	32
Consulting wikis (Wikipedia etc.), online encyclopedias or other webpages for purposes related to formal education	17	61	94	111	36
Reading or downloading electronic newspapers, magazines or books online	16	54	82	104	64
INTERACTIONS WITH ORGANIZATIONS					
While interacting with a government organization	4	26	57	153	72
Using travel or travel-lodging related services	19	79	90	112	15

Make an appointment with a doctor (GP) through a website	14	73	115	98	16
Taking a formal course online	9	38	75	122	74
Listening to web radio	5	41	71	161	31
Watching web TV	16	50	96	116	42
Streaming or downloading pictures, movies, videos or music	11	43	129	109	36
Maintaining or adding content to a blog	18	73	105	100	23
Voicing your opinion on a social or political issue on a website	8	48	95	125	42
Taking part in online consultations or voting online to decide on social or political issues.	7	49	84	121	55
PERSONAL INTERACTIONS					
Sending or receiving e-mail	9	49	73	117	66
Making calls over the internet (VoIP)	9	44	80	135	49
Participating in social networks	18	65	86	99	49
Participating in professional networks	20	66	90	96	47
Administering your own home page	2	15	76	187	38
Uploading content created by yourself onto a website	10	39	85	126	62
Finding work or sending out job applications	11	41	72	126	67
Using space on the internet to store documents, pictures, music, videos or other files	9	53	99	141	13
Talking to friends and/or families	11	54	89	113	51
Using software on the internet to process text, documents, spreadsheets or presentations	16	63	88	100	51
ONLINE SHOPPING					
Purchasing or ordering products or services	21	66	111	111	14
Selling products or services	9	51	93	124	40
For internet banking	8	48	88	147	26

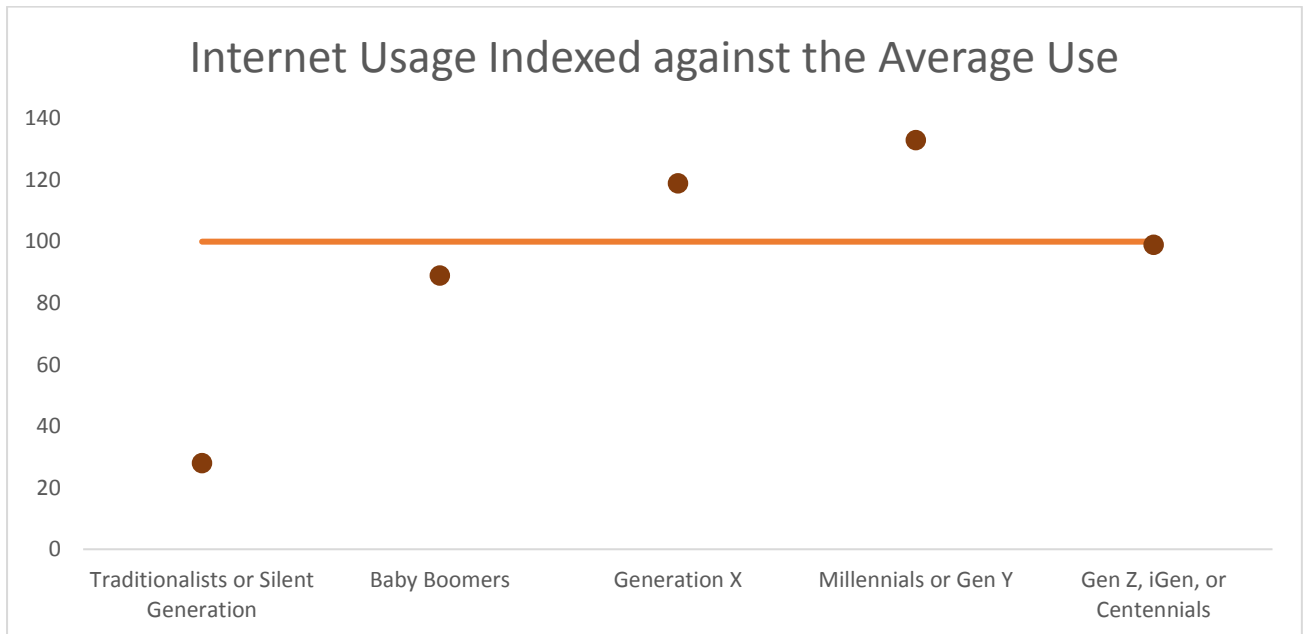
Table 7. Internet Actions by Generation (6 years and older)

When looking at the degree of involvement with the internet, Traditionalist are more comfortable with looking for information instead of engaging in personal interactions such as owning and administering their own page (Table 7).

Generation X and Millennials are more involved in online shopping than Centennials and the older generations. Overall, one can see that the Millennials are more active on the internet than the other generations.

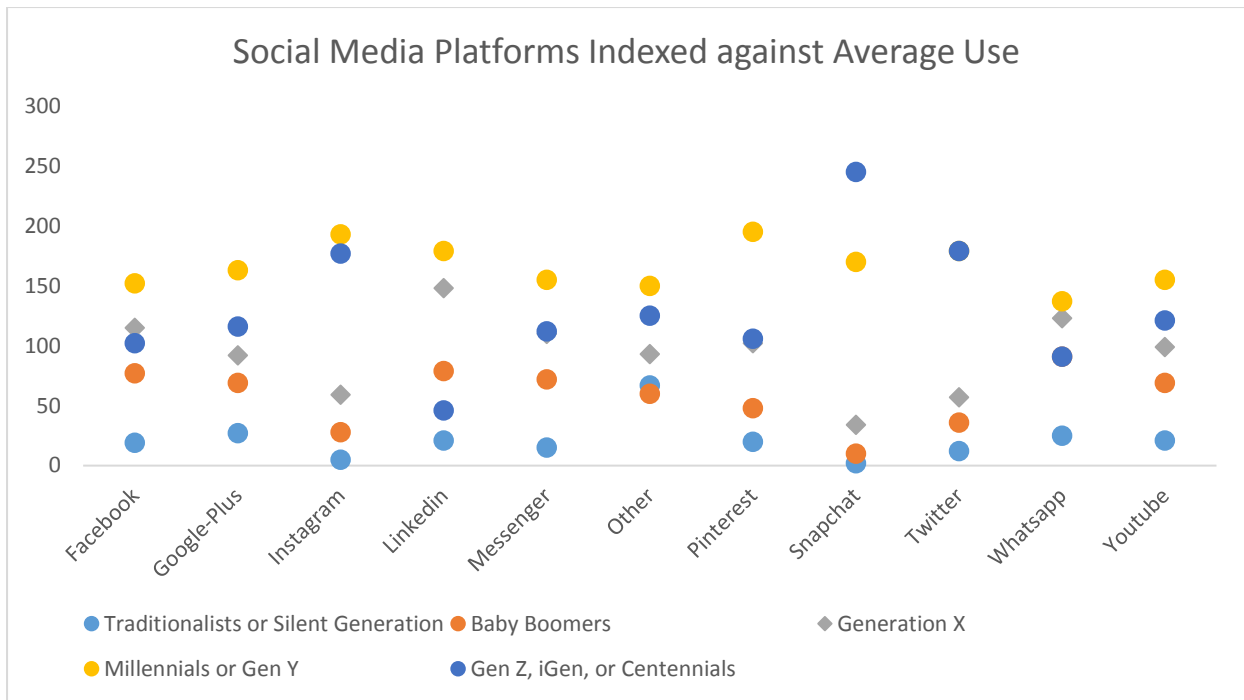
Generations: Social media use

Even though Centennials use the internet more than average, they are not high level social media users. Social media usage measures whether a person has used any of the social media platforms in the last three months.



Graph 7. Internet Usage Indexed against Average Use (6 years and older)

There is an obvious gap between the Centennials and Millennials as they are more involved with Snapchat and Instagram than the other generations. Older generations are more into networking social media platforms than the faster paced social media. From all the different social sites, Twitter and Snapchat are faster-paced where they focus on what is happening in the moment instead of sites such as Facebook and Instagram which are more focused on social relationships. This can explain why Millennials are not as involved in these faster based applications.



Graph 8. Social media Platforms Indexed against Average Use

Summary

Generations are groups of people who grew up in the same time period with the same world and social influences. Their upbringing shapes thoughts and behavior. Through time, generations need to adjust to their changing environment. In the last century, technology plays a bigger role every year. Younger generations are born into the age of technology whereas older generations need to adapt to this modern and faster world. One can already see that babies and children are born with an instinct on how to use technology.

The ICT & Media Survey highlights the differences in the integration of technology and media between the different generations. Younger generations such as Generation Z and Generation Y are more likely to use modern media than the older generation.

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Extra tables

MEDIA	Share of usage					
	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials	Mean
COMPUTER	23.1%	62.4%	78.3%	84.7%	79.2%	69.8%
INTERNET	22.8%	62.1%	77.8%	82.1%	75.7%	68.2%
MOBILE DEVICE	64.9%	93.2%	97.3%	96.6%	73.9%	87.3%
NEWSPAPER	75.8%	73.6%	63.3%	49.8%	18.6%	54.4%
RADIO	77.3%	79.4%	75.3%	69.5%	40.4%	67.3%
SOCIAL MEDIA	20.0%	62.6%	83.4%	93.9%	69.6%	70.3%
TELEVISION	89.8%	89.0%	83.1%	79.8%	83.7%	84.7%

	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
RADIO_PROGRAM					
ARUBA NEWS	30.2%	27.1%	22.5%	17.0%	2.7%
BES NEWS	29.2%	27.3%	22.1%	16.5%	3.1%
BUSINESS	18.2%	21.6%	19.1%	14.6%	2.9%
CHILDREN PROGRAMS	7.1%	7.2%	8.4%	6.6%	1.2%
CULTURE	41.3%	36.1%	33.8%	25.7%	6.3%
HEALTH	41.7%	38.2%	28.5%	21.3%	5.0%
INTERNATIONAL NEWS	49.7%	45.1%	39.5%	31.6%	5.4%
LOCAL	59.4%	58.2%	47.5%	41.1%	9.7%
LOTTERY	25.8%	18.3%	14.8%	8.7%	1.3%
MUSIC	54.0%	57.5%	56.0%	52.4%	17.3%
OBITUARY	36.5%	26.3%	17.1%	11.3%	2.7%
OTHER PROGRAM	0.5%	2.9%	1.6%	1.3%	0.4%
PARLIAMENT	19.3%	17.1%	15.2%	8.2%	2.1%
POLICE NEWS	50.2%	46.6%	42.4%	34.1%	7.8%
REGIONAL NEWS	40.1%	38.3%	32.3%	22.7%	4.0%
SCIENCE	17.4%	20.2%	16.0%	12.3%	3.1%
SPIRITUALITY	35.8%	36.2%	32.1%	21.5%	5.2%
SPORTS	31.3%	32.6%	26.6%	24.3%	7.4%
WEATHER	33.0%	29.7%	25.5%	18.2%	4.6%

TV_PROGRAM	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
ARUBA	42.6%	37.1%	29.0%	19.7%	4.0%
BES NEWS	42.5%	36.0%	28.4%	19.7%	4.2%
BUSINESS	24.0%	27.4%	24.1%	19.3%	4.4%
CHILDREN PROGRAMS	12.2%	14.8%	18.3%	19.0%	8.8%
CULTURE	53.8%	50.4%	44.2%	41.2%	15.0%
HEALTH	52.5%	49.3%	40.9%	28.3%	7.1%
INTERNATIONAL NEWS	66.3%	63.2%	53.2%	38.7%	10.1%
LOCAL	66.5%	59.4%	37.1%	32.7%	7.6%
LOTTERY	42.0%	33.6%	27.1%	16.7%	3.2%
MOVIES	51.5%	59.4%	59.4%	57.5%	25.5%
OBITUARY	49.9%	37.2%	26.2%	13.1%	3.4%
OTHER	1.5%	3.7%	4.8%	3.0%	1.5%
POLICE NEWS	60.8%	52.6%	46.0%	34.4%	8.7%
REGIONAL NEWS	56.8%	51.4%	41.3%	27.3%	6.7%
SCIENCE	28.1%	29.4%	25.6%	17.7%	6.1%
SPIRITUALITY	40.3%	39.2%	32.9%	20.0%	4.8%
SPORTS	45.5%	46.7%	37.7%	32.8%	16.0%
WEATHER	40.9%	40.2%	34.3%	24.6%	7.0%

PAPER_ARTICLE	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
ARUBA NEWS	49.1%	44.8%	31.0%	22.8%	5.7%
BES NEWS	47.6%	44.1%	30.3%	22.8%	5.7%
BUSINESS	31.2%	33.0%	28.5%	19.4%	5.2%
COLUMNS	33.5%	30.0%	22.9%	14.8%	2.9%
CULTURE	48.2%	45.4%	34.9%	26.5%	7.4%
EDITORIAL	34.7%	32.7%	25.2%	16.4%	3.7%
HEALTH	51.2%	47.1%	34.9%	22.7%	5.5%
INTERNATIONAL NEWS	56.9%	55.1%	40.4%	32.9%	7.8%
LETTERS	34.5%	30.4%	23.7%	15.1%	2.7%
LOCAL	63.0%	59.1%	47.2%	36.6%	8.7%
LOTTERY	51.2%	47.1%	34.9%	22.7%	5.5%
OBITUARY	56.3%	51.8%	39.3%	23.5%	4.8%
OTHER	2.5%	3.0%	1.8%	1.7%	0.2%
POLICE	55.7%	52.6%	42.1%	31.8%	7.1%
PUZZLES	15.2%	11.7%	11.3%	6.8%	3.1%
REGIONAL NEWS	51.9%	49.2%	37.4%	27.7%	6.1%
SCIENCE	32.7%	31.7%	24.1%	16.0%	5.4%
SPIRITUALITY	36.2%	33.5%	26.1%	15.0%	4.4%
SPORTS	47.6%	42.3%	33.8%	28.1%	7.6%
WEATHER	38.5%	35.8%	27.9%	17.5%	4.8%

Top 3 articles	Traditionalists or Silent Generation	Baby Boomers	Generation X	Millennials or Gen Y	Gen Z, iGen, or Centennials
1	Letters to editor	Obituary	Business	Sports	Puzzles
2	Columns Puzzles and Winning lottery	Spirituality / Lottery numbers / Health / Editorial / Columns	Puzzles	International news	Science
3	numbers	Aruba news / BES news	Spirituality	Local news	Sports