### THE TELECOMMUNICATIONS INDUSTRY AND CORD CUTTING

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#### ABSTRACT

The telecommunications industry started in the 1830s and has gone through many changes over time. This research study focuses on the current state of the industry, specifically how the cord cutting phenomenon has shaped the industry. Cord cutting is normally applied to the Cable and Pay TV industry. The concept of cord cutting can also be applied to consumers replacing their landline telephones with mobile phones over the past three decades, which will lead to the death of landline telephones eventually! A more recent type of cord cutting is the reduction of the use of mobile phone lines, replacement strategies, and the future of mobile phone lines and numbers.

### INTRODUCTION

The telecommunications industry, which includes telephone, television, and internet industries, has gone through several innovations, updates, and significant. Cord cutting is one change that has influenced the television industry for two decades now and longer if the pre-cord cutting era that impacted the wired or landline telephone industry is included in the count. This research study explores the history of this phenomenon and provides the current state of cord cutting and predicts changes in the future.

## CUTTING THE CABLE AND SATELLITE TV CORD

From 2007, when cord cutting of cable and satellite TV services started, until the early 2010s, cord cutters were a small minority (Bouma, 2023). However, the number of cord cutters more than double from 24.9 million in 2017 to 55.1 million in 2022. At the same time, the number of Cable TV subscribers decreased by 20 million. Another way to measure growth in TV cord cutting is to use the number of households instead of the number of subscribers. In 2018, Pay TV households were 90.3 million households and Non-Pay TV households, which consist of cord cutters and never Pay TV households, were 37.3 million. In 2022 and beyond, the Non-Pay TV households surpassed Pay TV households and will continue to increase (Benes, 2022). Millennials are the largest group of streaming users and Boomers are the least number of users but more of them use streaming services as opposed to Cable TV. Streaming only is used more than Cable TV across all generations. In 2022, there were 214.8 million streamers and in 2023 there are 240.2 million streamers. Streaming TV will continue to outpace cable and satellite subscribers in the future.

## CUTTING THE LANDLINE PHONE CORD

Cord cutting may also apply to copper phone lines or landlines. In 2000 the number of landlines in the US peaked at 186 million customers (Snyman & Gilliard, 2018). Since then, customers have systematically replaced their landline telephones with the newly invented wireless mobile phone (Cutolo, 2023). The decline was so severe that the Federal Communications Commission (FCC) announced in August 2022 that US Telecom companies are no longer required to provide service to their copper landlines (Wasser, 2022). However, this does not mean that copper landlines were abruptly shut down in 2022. As of 2023, 40.35 million US households still have landlines. Most of these households are individuals over 65 years old and businesses (The US landline insights report, 2023). Landlines will therefore continue to exist but will also continue to decline as telephone companies switch landlines to Voice Over Internet Protocol (Burgy, 2022).

## **CUTTING THE MOBILE PHONE CORD**

Mobile and smartphones have built-in antennas which are used to send packets of digital information between phones and a cell tower nearby. When phones receive these packets of information, they are split into two channels, voice, and internet protocol or data channels. The reason for the split is to maximize efficiency (Bhatt, n.d.). Mobile network providers have provided both channels in a package deal (i.e., a mobile account) to customers since the mid-2000s when 3G wireless networks made accessing the internet faster and easier than the previous 2G wireless network. The obvious question is whether both channels must be included to have a mobile account? The answer is no. However, network providers like AT&T did not allow customers to have data only plans in the past and still do not in 2023. They use the package deal as a marketing tool to make customers think they get more features for the monthly subscription price they pay for a smartphone mobile account. However, with the development of 4G and 5G wireless networks, technological innovations such as artificial intelligence, the internet of things, cloud networks and gadgets like tablets have made data only plans necessary. AT&T today allows devices such as tablets and laptops to have data only plans (Snyman, 2019). Since no phone line is needed, is mobile phone voice cord cutting happening today?

## Mobile phone subscribership and voice calls

The number of USA mobile phone subscribers, provided by The International Telecommunications Union (USA: Mobile phone subscribers, 2023), and the number of smartphone subscribers, provided in Statista by Degenhard (2023), has been increasing at a declining rate from 2014 to 2021. The number of mobile phone subscribers has been increasing at a rate of 7.8% for 2015 and 2016 each, 5% for 2017 and 2018, 7.6% for 2019, a negative rate of 3.3% in 2020, and an increasing rate of 9.1% for 2021. The number of smartphone subscribers has been increasing from 2014 to 2021 at a rate of 12% for 2015 and 2016 each, 6% for 2017 and 2018 each, 5% for 2019, 3% for 2020, and 1.8% for 2021. However, the number of mobile voice calls, provided by Knight (2023), grew from 2014 to 2019 at a rate of 9.6% and then declined during 2020 and 2021 by 12.3%. Subscribers are making fewer mobile voice calls while accessing their mobile internet frequently. In fact, according to Howarth (2023), 92.3% of internet users access the internet via their mobile internet service.

## Who are the phone cord cutters?

"Please leave a brief message at the beep" is a response that one will get if you call the mobile phone of a millennial or a Gen Z. In fact, 75% of Millennials avoid phone calls and 81% have apprehension anxiety before making a call according to a study done by Turner (2023). Gen Zs grew up when the internet became widely available and are called "digital natives", like Millennials who are called the "digital generation" (McClure, 2022).

Both generations have also been referred to as the "Mute Generation." They believe that phone calls intrude on their lives, may lead to unpleasant conversations, and allow callers to be repetitive (Loss, 2022). Millennials or Generation Yers were born between 1981 and 1996 and Generation Zs were born between 1997 and 2012 (Debczak, 2023).

The rapid growth of technology combined with the pandemic of Covid-19 have caused many changes in services provided over the internet. Millennials, Gen Zers, and others have changing needs that require outstanding cameras, noise-cancelling earphones, and switching seamlessly between devices during video calls. These gadgets are more important than network providers such as Verizon, AT&T, and TMobile. The mobile phone number is becoming irrelevant (Vishwanath, 2021)!

#### MESSAGING AND MESSAGING APPS

Messaging over the internet is very popular today and preferred to voice calls. It has many advantages for the users. They believe that one can be professional, informal, and expressive in text messages. Bubble, full-screen, and camera effects are available to change from a normal to a creative message. Tapbacks like thumbs and hearts can be used to respond to messages. An animated personalized handwritten message can be added. Emoticons, emojis, memojis, smileys, stickers, and more are used to express one's personality, feelings, moods, etc. Messages are shorter, direct, and unintrusive as opposed to voice calls. They work well in a business, family, and friends' environment (Vishwanath, 2021).

Text messages can be SMS (Short Message Service) messages which have a limit of 160 characters and MMS (Multimedia Messaging Service) messages which can include pictures, emojis, videos, GIFs, and others. Steven Knight (2023) reported statistics on the number of text messages sent per day in the US from 2005 to 2021.

## THE FUTURE

# Wireless Telecommunications Industry in 2023 and beyond

Between 2018 and 2023 the wireless telecommunications industry had 0% revenue growth and expects to earn \$324.8 billion total revenue in 2023. A 0.4% annual revenue growth rate is expected between 2023 and 2028. Some of the major trends that have been noted in the industry include: decreasing use of landlines, businesses needing to differentiate themselves on price and data quality, industry consolidation reaching its limit, and the market becoming increasingly saturated making it difficult for companies to rely on new subscribers for growth (Irigoyen, 2023).

Currently Verizon Wireless is the largest company with a 21.9% market share and \$67.7 billion total revenue. Verizon has expanded calling, texting, and data to customers in Ukraine and has

**Commented [d1]:** Who are the others? Could this be changed to "the newest generations"?

waived international calling/texting charges for customers in many eastern European countries. Deutsche Telekom AG holds a 19.2% market share with \$59.4 billion in revenues. In 2022, the company announced its efforts to realign its social media to communicate with customers more efficiently. It offers business customers an option of renting devices for employees through their Device-as-a-Service program in efforts to help customers integrate sustainability into their businesses. AT&T holds a 17.9% market share with \$55.3 billion in revenues. The company announced the spinoff of WarnerMedia in 2022 to existing shareholders. AT&T also announced a strategic alliance with Frontier Communications to expand its fiber-optic connectivity (Irigoyen, 2023).

## The future of Cable TV cord cutting

In 2022, Benes stated that Pay TV households in 2026 will be 54.3 million and Non-Pay TV households will be 80.7 million, a difference of 26.4 million households. Does this mean that Cable TV will die soon? Probably not! Cable TV companies can create cheaper bundles, cooperate with streaming TV companies, or go streaming themselves. Will cord cutting continue as predicted? Yes, but the future of streaming TV companies is uncertain. Cord cutters are already cutting some streaming TV company subscriptions and will continue to do so (Bouma, 2023b).

### The future of mobile telephone lines and the phone number

Network providers such as Verizon, AT&T, and T-Mobile might want to change their business model and separate the mobile telephone line and internet access from each other. They can create an internet access only model for mobile phones and not just for gadgets such as tablets and laptops. The mobile phone line and internet access package deal does not make it more valuable than an internet access only model (Sayman, 2019).

Mobile telephone lines will eventually go silent! Calls can be made over the internet with Wi-Fi calling, FaceTime audio, WhatsApp audio, Snapchat, and many others. Only an IP address is needed to make such a call. A phone number is not needed to make a connection between two or more devices. Mobile telephones will die or become an ID for a mobile account since it is easier to remember a phone number than an IP address (Snyman, 2019).

# REFERENCES

(Available Upon Request)