
As the Days, Months, Years, and “Leap Years” of Our Lives’ Turn

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ABSTRACT

This analysis provides a nuanced understanding of how the calendar serves not only as a temporal reference but also as a tool that structures and influences societal and sociological dynamics. Beginning with the Roman Catholic Church’s role, I explore the integration and profound early influence of religion into the temporal structure, elucidating how its conceptualization has shaped societal norms and influenced some of humanity’s more important decision-making processes today. The interplay between religious traditions and temporal organization highlights the calendar’s dual function as a practical timekeeping tool and a cultural artifact. *The Four Tetrads* by Marshall McLuhan integrally offers a lens to analyze how changes in media and communication have influenced our perception and utilization of time as well as the effects of the calendar on contemporary societal issues. I then explore the interconnectedness of media evolution and the transformation of the calendar, emphasizing their reciprocal relationship in shaping societal values and priorities. Examining how the calendar dictates the rhythm of our lives, the theme investigates its role in determining the timing of critical events and decision-making processes. To offer a holistic perspective, I also trace the chronological changes in the calendar over the course of time, addressing key historical junctures that contributed to its evolution. From the Julian calendars to the Gregorian calendar’s introduction, the narrative encompasses the various adaptations and reforms that have shaped the calendar into its present form.

All media exist to invest our lives with artificial perceptions and arbitrary values.” - Marshall McLuhan

INTRODUCTION

Today, the calendar undoubtedly influences and dictates every aspect of our lives. The calendar has the sociological abilities to reveal to many of us when we were born, what day(s) of the week we go to work and/or school, what day of the year Easter will be observed, our college graduation date, and other information that we, ourselves, may personalize on the calendar and hold dear to us. Instances such as when my next doctor’s appointment will be, being informed of the day my parking ticket is due, my nephew’s impending court date, and the ten-year anniversary of my mentor passing away, amongst other dates and events that the calendar enables us to keep track of. It is limitless to imagine the various ways and dictation that the calendar has on our lives in society on a daily basis. The communication medium, which in this case is the calendar, is an example of what communication theorist *Marshall McLuhan* (2007:129) theorized when he studied extensively on the communications medium effect on a society’s culture; “The medium is the message”. Culture is generally a derivative of a technological change rather than any independent factor. McLuhan contends that media is an extension of self; meaning that technologies have the ability to change how humans think, feel, act, and even how a person perceives and processes information. McLuhan is famously known for saying, “We shape our tools and thereafter our tools shape us” (2007:128). This is clearly evident as we look to apply McLuhan’s tetrad to the calendar. The calendar reconfigures thought and knowledge through McLuhan’s four laws of media, leading to the enhancement of time, the obsolescence and retrieval of astronomy and the reversal to chaos. His theory is significant both culturally and religiously as practiced here in the United States today. In applying the “Laws of Media” that McLuhan has developed, we then can commence to explore the sociological relationship between the causes and effects of media, which in itself is an interdisciplinary topic of great extension. To better understand the origins of its history, this has to be researched to be best contextualized. I will then critically examine how the four

effects of enhancement, obsolescence, retrieval, and reversal are utilized in correlation with the calendar. Furthermore, the uses of the effects apply today in numerous sociological ways, including some of the manners in which the calendar can be applied to one's personal life, such the ways as a culture the calendar can specify how we go about our days by celebrating holidays or mourning the death of beloved artists and such. Throughout the phases of the year, we are societally informed by the calendar.

HISTORY OF CALENDARS

The Gregorian calendar, also known popularly as the western or Christian calendar was first introduced in 1582. However, it took more than 300 years for most countries to switch to the Gregorian calendar. This calendar was introduced by Pope Gregory XIII – and was subsequently named after him. Prior to this becoming the most commonly used calendar, the Julian calendar, named after Julius Caesar, was the calendar of use dating back as far as 45 B.C. Among the causes of concern for adopting a new calendar was, for one, the Julian calendar system miscalculated the length of the solar year by 11 minutes. As a result, this calendar fell out of sync with the seasons. Another reason, and the most important cause for concern with the Julian calendar, was the Roman Catholic Church's issue with the observance of Easter. It was traditionally observed on March 21, but was falling further away from the spring equinox with each passing year (Cohen 2018). In addition, the Julian calendar didn't properly reflect the actual time it takes the earth to orbit once around the sun, known as tropical year. The Julian calendar also produced a leap year every four years, which is by all accounts too many. According to The History Channel,

The Julian calendar included an extra day in February every four years. But Aloysius Lilius, the Italian scientist who developed the system Pope Gregory would unveil in 1582, realized that the addition of so many days made the calendar slightly too long. He devised a variation that adds leap days in years divisible by four, unless the year is also divisible by 100. If the year is also divisible by 400, a leap day is added regardless.

While this formula may sound confusing, it did resolve the lag created by Caesar's earlier scheme—almost. (Cohen 2018)

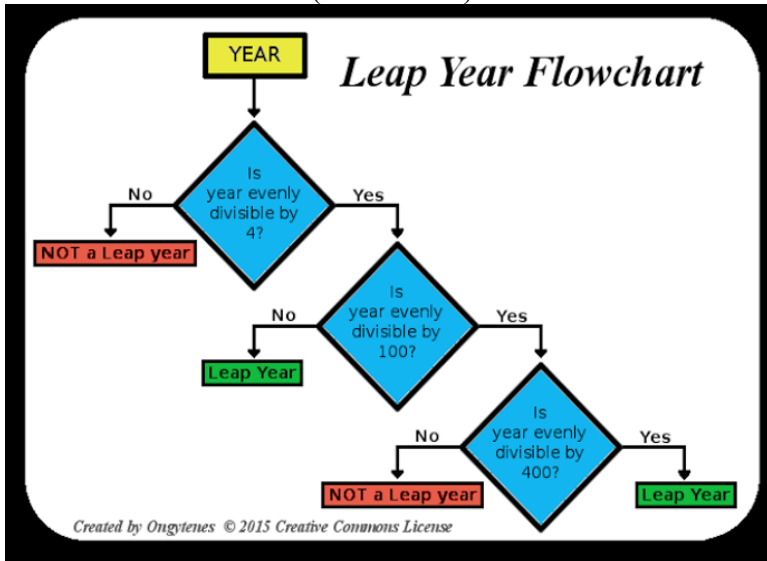


Figure 1 "Leap Year Flowchart" (Ongytenes 2015).

The Gregorian calendar was found to use a much more accurate rule for calculating leap years. In the correction of these inadequacies and in order to get the calendar system back in sync with the astronomical events like that of the vernal equinox or the winter solstice, eleven days would have to be dropped from the calendar. Imagine that – days the people had become accustomed to were instantly eradicated. Meanwhile here in the American colonies in the eighteenth century, Benjamin Franklin would write to his delight in the welcoming of this change when he expresses, "It is pleasant for an old man to be able to go to bed on September 2, and not have to get up until September 14" (Cohen 2018). The papal bull *inter-gravissimas*, issued by Pope Gregory XIII in 1582, decreed that ten days would be dropped when shifting to the Gregorian calendar. It was believed that the later the interchange occurred, the more days that would have to be omitted. At the time of the transition, a shorter month of 18 days, and odd dates like February 30 would occur (Webexhibits.org 2008). Prominent

Catholic countries, including Spain, Portugal, and Italy swiftly adopted the new calendar for their civil affairs.

Conversion from Julian to Gregorian dates.		
Gregorian range	Julian range	Difference
From 15 October 1582 to 28 February 1700	From 5 October 1582 to 18 February 1700	10 days
From 1 March 1700 to 28 February 1800	From 19 February 1700 to 17 February 1800	11 days
From 1 March 1800 to 28 February 1900	From 18 February 1800 to 16 February 1900	12 days
From 1 March 1900 to 28 February 2100	From 17 February 1900 to 15 February 2100	13 days
From 1 March 2100 to 28 February 2200	From 16 February 2100 to 14 February 2200	14 days

Figure 2 “Conversion from Julian to Gregorian dates.” (Clavius 2018).

Other countries and nations originally rejected the calendar in opposition to the Roman Catholic church. The European Protestants, for example, largely rejected the change seeing this as an attempt to silence their movement. The Protestants also accused Pope Gregory XIII of being the “Roman Anti-Christ,” and lamenting that the real purpose of the new calendar was a Catholic plot to keep true Christians from worshipping on correct days (Cohen 2018). It is also important to note that both calendars were based on the connection to the birth and life of Jesus Christ, which would also draw opposition from non-Christians and those who followed other faiths of religion. Essentially, the focal point of time is centered on the birth of Christ and is arguably the dividing point in time in world history (Wellman 2014). The terms, Before Christ (B.C.) and Anno Domini (A.D) meaning “in the year of the Lord,” are used to label or number the years in the Julian and Gregorian Calendars, which are religiously based. These varying religions such as Christianity, Islam, Catholicism, and Hinduism, to name just a few, are all examples that continue to divide families, friends, and in recent cases nations of people (Thirty Years’ War 2018). Historically, Protestants and Catholics were at war with each other; individuals on both sides killing each other in the name and in defense of their respective faith (Kane 1951) It would be plausible to believe because of instances such as this, and other multifarious factors, that many countries now use C.E.,

an acronym for “common era” and B.C.E., which means “before common era;” This is used as an alternative to track years of time in a non-Christian manner.

MCLUHAN’S LAW OF MEDIA

By having an extensive background of the history, and significant knowledge of the calendar, it can be discerned as a transformative medium of technology. McLuhan (2007:128) asserts that tetrads are, “A means of focusing awareness on hidden or unobserved qualities in our culture and technology.” In this way, McLuhan reasons that in reference to the calendar the effects of this media can be viewed in four ways. The tetrad offers us an “exegesis on four levels, showing the logos – structure of each artefact, and giving its four parts as a metaphor or word.” With this model, the calendar can be examined in association to this tetrad. Based on the aforementioned information the calendar amplifies time. The calendar is an extension of time, people’s culture, and religious practices. The calendar also manifests days and events in time that are relevant to us. For instance, the Gregorian calendar is widely used today and was originally enacted to protect Easter from falling further away from the spring equinox with each passing year. In this example, this historic observance is known as the day that Jesus Christ rose from the dead, according to Christian faith. This faith-based connection that exists with this observance is amplified here in the United States in addition to other parts of the world. Presently in the United States, Easter in many households have become the day that everyone goes to church or mass, get dressed nicely in new suits, dresses and shoes, perform recitals and readings in front of the congregation, and later indulge in an elaborate Easter dinner, accompanied with baskets and marshmallow peeps for the children. At least, this was the case in my household.

Enhancement

Due to the calendar and other historical and other sociological concepts, a multitude of other events in time would soon be emphasized. In contradistinction to an Eastern country like China, where for example, January 1 is recognized as the beginning of a new year of life for all citizens, and Western

countries like the United States and Canada recognize Christmas as a major holiday and celebration based on the birth of Jesus Christ. China, on the other hand, does not celebrate Christmas as a major holiday as the day is observed casually, with no time off granted for such an affair. For many nations, specifically those that considered a Christian or Catholic majority, celebrating Christmas encompasses activities such as buying gifts or purchasing a Christmas tree, with folks full of Christmas spirit, kindness, gift-giving, and other gestures that have been made customary. Western countries tend to take a significant amount of time aside from work or school to spend time with family, known as a “Christmas vacation.” In consonance with this, in the United States, there are historical events that are held dearly in this country to different groups of people. One of the days in American culture that has been amplified over time is Dr. Martin Luther King Jr.’s birthday, which signifies the honorable and heroic work of his civil rights activism in this country. Another day is “Mother’s Day,” a day reserved as a celebration of all the mothers and an opportunity to acknowledge them. “Memorial Day” is our nation’s day of paying homage and respects to all those that have lost their lives for this country, like that of the 9/11 attacks, or those in the duty of service to the United States, presumably defending our freedoms from attacks of the likes of Isis, the Taliban, or rival nations like North Korea or Russia. There’s also the “Fourth of July,” which marks the celebration of the day in time that the United States declared its independence from Great Britain in 1776. It is also important to contemplate that the calendar enhances how our society traditionally observes it, which in other countries may be an ordinary day. For example, “Mother’s Day” dictates to many that we must buy lavish flowers and cards for our mother or loved ones who may have children of their own. Dr. King Jr. Day is an observance that warrants all state and government buildings be closed and is usually celebrated with a “Kingdom Day” parade in most major U.S. cities. The “Fourth of July” is conventionally an exciting day of food, fun, family activities, and an extraordinary firework show that can be seen throughout the day, but mostly over the night sky and across the country simultaneously. Even on a more personal level, there are examples of amplifications that I can point to in my life. These

exemplifications include my birthday, which I generally celebrate with family and close friends by going out to dinner and dressing nicely. My parents' wedding anniversary, which gratifies their years of a loving marriage together. Another day of importance was when my son was born on September 19, 2016. This is a day that I'll never forget, as it marked the beginning of a new life and a better version of me. Most recent would be my brother's release from state prison, which will forever mark the beginning of the newest chapter in the book of our lives.

Obsolesce

The calendar has become the recognized norm in which we track time, days, seasons, and years. Earlier practices that were used to do these same things would now become, "*the erosion of formerly significant artifact*" (2007:129). Some of the things that would be pushed to the background would be the use of astronomy for the purposes of studying seasons and intervals of the year. Before the calendar, there was a reliance on studying the patterns of the sun and moon to have knowledge of seasons and the time of day it was (Hobden). The cycle of the moon's phases, for example, provided a convenient means of counting days. This methodology would no longer be needed with the calendar now in place. In earlier civilizations, the community also relied on shamans and priests as calendar-keepers to provide accurate predictions for the purposes of initiating economic activities. Farming and hunting needed efficient rituals based on an accuracy of the calendar to ensure success. Just as the evolution of print would eliminate the use of scribes for hand copying, the calendar would allow for shamans and priest to focus on other duties besides calendar keeping.

Retrieval

Another concept that recently has been moved to the periphery is the theory of measuring time according to the birth and life of Christ. Many countries and people have pushed aside B.C. and A.D. in favor of using B.C.E., which is an acronym for "before common era," and C.E. which refers to "common era," as a non-religious or anti-Christian means of their description of measuring time, without portraying an allegiance or affinity to

Christianity or any religion for that matter. Being that the terms B.C. and A.D. are affixed to Christ, there are people who don't agree or refuse the practice of following a calendar system that is bias to this, thus, justifying why many countries originally stood in opposition to calendar standardization. An example of this would be Saudi Arabia, an Islamic state, that would adopt the Gregorian calendar as recent as the end of 2016, over 200 years since its original inception. In Saudi Arabia's use of the calendar, the terms B.C. and A.D. are non-existent, and the country's practices of the Gregorian calendar is in regard to it being confirmed as the Common Era calendar. Lastly, the Gregorian calendar would cancel out the Julian calendar as the "World's calendar," whether the transmission over to the more accurate Gregorian calendar was immediate or eventual. One of the practices that would reinvent itself and would be used as a basis of academic study would be Astronomy. The study of the sun and the moon are no longer relied on as intently for knowing the time of day or year. These studies can be concentrated on the basis of studying the patterns of the sun and moon from a scientific perspective. Throughout the calendar, specific days are noted as to inform us of different moon patterns that we can expect to see in the sky. The weather portion of Los Angeles' Channel 7 news does this as well. The meteorologist typically gives the viewer the seven day forecast for the upcoming week, yet also details the time of the sunrise and sunset for any given day, in addition to listing the different phases of the moon; e.g. This Tuesday, we may visibly be able to see a crescent moon, this Friday the sun will rise at 5:39am and set at 7:46pm, and this Sunday will mark the first day of Spring. The study of animal migration and hibernation patterns now centers around the studying of nature and the natural sciences and are no longer needed as a basis of tracking time or seasons. These are a few of the various concepts that were pushed aside that were responsible for the calculation of time, days, and seasons as humanity once knew it. These concepts would resurface with new invigorated purpose and permanence.

Reversal

With the practices and uses that analogize with the calendar, an argument can be legitimately made of the detrimental

effects that the calendar can have on a person and society. The ideology of abuse and pessimism can make this medium an enemy instead of an ally in some cases. According to McLuhan (2007:128), every innovation has within itself the seeds of its reversal. In the case of the calendar, this technology has the ability to facilitate stress, anxiety, sorrow, or even anger among several other emotions when pushed to its limits. Deadlines, court dates, or an impending prison sentence that is scheduled to be enacted can serve as scenarios in which the calendar “flips” against society. It would also be just to say that calendars and its structures and constraints can push people to the limits of not following important dates, events, and engagements that may have been scheduled on one’s calendar in an act of defiance and deviation from the norm. The calendar can serve as a painful reminder of specific days, like when family members have passed away, the day that our professor for Statistics will administer their dreaded final exam assignment, and the length of a school year in Los Angeles County, which may cause parents and students alike the inability to travel freely to vacation in Papeete, Tahiti or San Juan, Puerto Rico, causing some anger and extreme frustration. In this way, the calendar over-extends itself to a culture of due dates, long awaiting appointments at the dentist’s office, the ennui leading up to a not-so-important staff meeting at work, and the fear of flying on a plane to Detroit on a ‘red-eye’ by Wednesday morning to protest police brutality and the subsequent civil unrest in the city’s urban communities. These are all realistic scenarios of the calendars being “flipped” against a society and its people.

CONCLUSION

In the sociological examination and application of Marshall McLuhan’s laws of media to the calendar, there are extensive details and research on the calendar and its history to further understand and conceptualize the calendar and its interconnection to McLuhan’s tetrad, and how this tetrad is confirmed and applies to the calendar. The calendar has the components of all four effects: It enhances holidays and religion; it obsolesces the study of moon and sun patterns for timekeeping; it retrieves the study of Astronomy and natural sciences; and reverses into deadlines and the sickening anxiety that

accompanies it. These are some of the numerous concepts that apply in the evolvment of the calendar. In my analysis, I was able to ask the same questions in the same way with all the effects; as a social scientist, I indeed found all the answers that were needed to validate my collected datum. McLuhan (2007:128) is quoted as stating, “human artefacts are human utterances, or outerings, and such they are linguistic and rhetorical entities.” In this way, Calendars shape us, and thereafter we have come to shape our calendars.

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