

## Chapter 1 : Downtown Chicago's Historic Movie Theatres – McFarland

*Acknowledgments vi Introduction 1. PART I: HISTORICAL OVERVIEW 5 1 "Early Amusements 7 2 "Moving Pictures and the Nickel Theatres 12 3 "The Movie Palaces and the Films that Talked*

Amusement Park Precursors Arcade like games are first seen in the early amusement parks of the s. At these places examples of popular games consisted of a pellet gun that you could aim at targets moving along a mechanical track, simple ball-toss games, or very basic coin operated machines that spit out fortune cards or played a track of music. While these machines and games were different in simplicity and physical makeup from the arcade games we know today, in concept, they were quiet similar. The Electromechanical Games The first arcade precursors were electromechanical games. These were games that had moving parts and mechanical processes to carry out electrical operations. These operations in turn created an interactive system in which the player could play the game. The player would look through a view hole designed like a submarine periscope. Cardboard cut outs of ships moved on chains across a ocean backdrop. A row of lights in front of the ship represented torpedoes firing at the ships. The player had to release a torpedo in time to hit one of the ships moving across the cabinet. It sounds simple to us today but at the time the game was revolutionary. Operators complained about the price and elected to start charging money for the game to offset the investment. The game is credited with being a pivotal point for the industry. Missile Missile, a combination shooter and vehicle game, showed a moving film strip of targets on a projected screen. It had dual controls including two red buttons to move the players tank left and right and a joy stick with a trigger button to shoot and steer a missile into projected planes. Upon contact with a projected plane the projected screen lights up with a red animated explosion. This was really the first arcade game to feature the joy stick. Another first-person-view racing game, Grand Prix had a racing wheel and accelerator pedal and forward scrolling projector screen. Other electro-mechanical games continued to be released in the early s including Jaws, Wild Gunman, and F-1 but advancing technology quickly replaced these games with electronic games. Earliest Video Games Spacewar! It took the team building it about hours to program the first version of the game. Each player could maneuver his or her spaceship and gain points by firing at the other all the while avoiding the pull of gravity. The game featured a rocket controlled by a player engaged in a missile battle against a pair of flying saucers. Additional Reading Interested in reading more about early arcade and video games? Checkout these books below for a deep dive into the early video game world.

## Chapter 2 : Canada History and Timeline Overview

*Historical Overview. historical, industrial, and other values of the famous Shenandoah Valley.{3} Whether the timing of this event was serendipitous or based on a.*

Lawrence and the St. He claims the region for France. Mounted Police - The British expel the Acadians from their lands. The British gain control of all the French lands in Canada as a result. American forces attempt to invade Canada. They will become the Canadian Mounted Police. The Klondike Gold Rush occurs as thousands of prospectors move to Canada to find gold. Canada fights on the side of the Allies. It is developed by Canadian scientists Dr. Frederick Banting and J. Over 1 million Canadians serve the armed forces during the war. Montreal at Night - The opening of the St. A new constitution is adopted. Brief Overview of the History of Canada Canada was originally settled by the First Nation people and the Inuit many thousands of years ago. Later explorers from other countries would arrive including Jacques Cartier from France who explored the St. Lawrence River and surrounding areas. The first permanent settlements were French. Canada continued to expand and in was officially proclaimed the Canadian Confederation. In , through the Statute of Westminster, Canada became a fully independent nation. Canada is a large geographic country that is rich in natural resources. Canadians hope to develop their natural resources and energy sources while still protecting the environment. More Timelines for World Countries:

**Chapter 3 : The National Parks: America's Best Idea: History Overview | PBS**

*Wonderland Park, Revere Beach's Mystic City by the Sea, was America's foremost self-contained amusement park. Conceived in , it opened in . Some people believe it to be the inspiration behind the Disney theme parks of today.*

Origins[ edit ] The amusement park evolved from three earlier traditions: The oldest influence was the periodic fair of the Middle Ages - one of the earliest was the Bartholomew Fair in England from . By the 18th and 19th centuries, they had evolved into places of entertainment for the masses, where the public could view freak shows , acrobatics , conjuring and juggling , take part in competitions and walk through menageries. It is located north of Copenhagen in Klampenborg, Denmark. By the late 18th century, the site had an admission fee for its many attractions. It regularly drew enormous crowds, with its paths often noted for romantic assignations; tightrope walkers, hot air balloon ascents, concerts and fireworks providing amusement. Although the gardens were originally designed for the elites, they soon became places of great social diversity. Public firework displays were put on at Marylebone Gardens , and Cremorne Gardens offered music, dancing and animal acrobatics displays. The first World fair began in with the construction of the landmark Crystal Palace in London, England. The purpose of the exposition was to celebrate the industrial achievement of the nations of the world and it was designed to educate and entertain the visitors. The fair was an enclosed site, that merged entertainment, engineering and education to entertain the masses. It set out to bedazzle the visitors, and successfully did so with a blaze of lights from the "White City. Also, the experience of the enclosed ideal city with wonder, rides, culture and progress electricity , was based on the creation of an illusory place. The midway contained not only the rides, but other concessions and entertainments such as shooting galleries , penny arcades , games of chance and shows. Trolley park Many modern amusement parks evolved from earlier pleasure resorts that had become popular with the public for day-trips or weekend holidays, for example, seaside areas such as Blackpool , United Kingdom and Coney Island , United States. For Coney Island in Brooklyn , New York, on the Atlantic Ocean, a horse-drawn streetcar line brought pleasure seekers to the beach beginning in . In , a million passengers rode the Coney Island Railroad , and in two million visited Coney Island. Hotels and amusements were built to accommodate both the upper classes and the working class at the beach. The first carousel was installed in the s, the first roller coaster , the " Switchback Railway ", in . Blackpool Beach in In England, Blackpool was a popular beachside location beginning in the s. It rose to prominence as a seaside resort with the completion in of a branch line to Blackpool from Poulton on the main Preston and Wyre Joint Railway line. A sudden influx of visitors, arriving by rail, provided the motivation for entrepreneurs to build accommodation and create new attractions, leading to more visitors and a rapid cycle of growth throughout the s and s. Photochrom of the Promenade c. It was the forerunner of the present-day Blackpool Illuminations. By the s, the town had a population of 35,, and could accommodate , holidaymakers. The number of annual visitors, many staying for a week, was estimated at three million. In the final decade of the 19th century, electric trolley lines were developed in many large American cities. Companies that established the trolley lines also developed trolley parks as destinations of these lines. Steel Pier circa the s Some of these parks were developed in resort locations, such as bathing resorts at the seaside in New Jersey and New York. A premiere example in New Jersey was Atlantic City , a famous vacation resort. Entrepreneurs erected amusement parks on piers that extended from the boardwalk out over the ocean. The first of several was the Ocean Pier in , followed later by the Steel Pier in , both of which boasted rides and attractions typical of that time, such as Midway-style games and electric trolley rides. The boardwalk also had the first Roundabout installed in by William Somers, a wooden predecessor to the Ferris Wheel. It consisted of 25 acres. This park was one of the first to charge admission to get into the park in addition to sell tickets for rides within the park. George Tilyou designed the park to provide thrills and entertainment. The combination of the nearby population center of New York City and the ease of access to the area made Coney Island the embodiment of the American amusement park. Coney Island was a huge success and by year attendance on days could reach a million people. In , Dreamland was the first Coney Island amusement park to completely burn down; in , Luna Park also burned to the ground. With new-found

money and time to spend on leisure activities, Americans sought new venues for entertainment. Amusement parks, set up outside major cities and in rural areas, emerged to meet this new economic opportunity. These parks served as source of fantasy and escape from real life. Trolley parks stood outside many cities. The Golden Age of amusement parks also included the advent of the kiddie park. Founded in 1886, the original Kiddie Park is located in San Antonio, Texas and is still in operation today. By the end of the First World War, people seemed to want an even more exciting entertainment, a need met by roller coasters. In the Scenic Railway rollercoaster opened to the public with great success, carrying half a million passengers in its first year. A ballroom was constructed on the site of the Skating Rink in 1906 and in 1907 a Variety Cinema was built on the site. In the 1910s the "Casino Building" was built, which remains to this day. In 1912, land was reclaimed from the sea front. It was at this period that the park moved to its 200,000 m<sup>2</sup> current location above what became Watson Road, which was built under the Pleasure Beach in 1914. War caused the affluent urban population to move to the suburbs, television became a source of entertainment, and families went to amusement parks less often. Many of the older, traditional amusement parks closed or burned to the ground. Many would be taken out by the wrecking ball to make way for suburban housing and development. In 1954, Steeplechase Park, once the king of all amusement parks, closed down for good. The traditional amusement parks which survived, for example, Kennywood, in West Mifflin, Pennsylvania, and Cedar Point, in Sandusky, Ohio, did so in spite of the odds. Countless smaller ventures exist across the United States and around the world. Simpler theme parks directly aimed at smaller children have also emerged, such as Legoland. Family fun parks starting as miniature golf courses have begun to grow to include batting cages, go-karts, bumper cars, bumper boats and water slides. Some of these parks have grown to include even roller coasters, and traditional amusement parks now also have these competition areas in addition to their thrill rides. Disney was the first to successfully open a large-scale theme park built around education. Dinosaur World entertains families with dinosaurs in natural settings, while the SeaWorld and Busch Gardens parks also offer educational experiences, with each of the parks housing several thousand animals, fish and other sea life in dozens of attractions and exhibits focusing on animal education. It is centered around European, French and local history. It received several international prizes. In the 1950s, Walter Knott and his family sold berries from a roadside stand, which grew to include a restaurant serving fried chicken dinners. Within a few years, lines outside the restaurant were often several hours long. To entertain the waiting crowds, Walter Knott built a Ghost Town in 1951, using buildings relocated from real old west towns such as the Calico, California ghost town and Prescott, Arizona. Lake Compounce in Bristol, Connecticut may be the true oldest continuously operating amusement park in the United States, open since 1846. Over the next decade they modernized the cave, which led to large numbers of people waiting to take the tour. The Herschend family opened a recreation of the old mining town that once existed atop Marvel Cave. The small village eventually became the theme park, Silver Dollar City. The park is still owned and operated by the Herschends and the family has several other parks including Dollywood, Celebration City and Wild Adventures. Regional parks[ edit ] The first regional amusement park, as well as the first Six Flags park, Six Flags over Texas was officially opened in 1971 in Arlington, Texas. In the late 1970s, Wynne visited Disneyland and was inspired to create an affordable, closer, and larger amusement park that would be filled with fantasy. He followed in the steps of Disney and had subdivisions within the park that reflected different lands. Louis opened near St. Admission prices and admission policies[ edit ] Oaks Amusement Park in Portland, Oregon Amusement parks collect much of their revenue from admission fees paid by guests attending the park. Other revenue sources include parking fees, food and beverage sales and souvenirs. Practically all amusement parks operate using one of two admission principles: Pay-as-you-go[ edit ] In amusement parks using the pay-as-you-go scheme, a guest enters the park at little or no charge. The cost of the attraction is often based on its complexity or popularity. For example, a guest might pay one ticket to ride a carousel but four tickets to ride a roller coaster. The park may allow guests to purchase a pass providing unlimited admissions to all attractions within the park for a specified duration of time. A wristband or pass is then shown at the attraction entrance to gain admission. Melbourne Luna Park Disneyland opened in 1979 using the pay-as-you-go format. Within a short time, the problems of handling such large amounts of coins led to the development of a ticket system that, while now out of use, is still part of the amusement-park lexicon. Later, the "D-ticket" was added,

then finally the " E-ticket ", which was used on the biggest and most elaborate rides, like Space Mountain. Smaller tickets could be traded up for use on larger rides, so that for example two or three A-tickets would equal a single B-ticket. Pay-one-price[ edit ] An amusement park using the pay-one-price scheme will charge guests a single admission fee. The guest is then entitled to use most of the attractions usually including flagship roller coasters in the park as often as they wish during their visit. A daily admission pass daypass is the most basic fare on sale, also sold are season tickets which offer holders admission for the entire operating year [34] plus special privileges for the newest attractions , and express passes which gives holders priority in bypassing lineup queues for popular attractions. Pay-one-price format parks also have attractions that are not included in the admission charge; these are called "up-charge attractions" and can include Skycoasters or go-kart tracks , or games of skill where prizes are won. Early rides include the carousel , which originally developed from cavalry training methods first used in the Middle Ages. By the 19th century, carousels were common in parks around the world. Another such ride which shaped the future of the amusement park was the roller coaster. The origins of roller coasters can be traced back to 17th-century Russia, where gravity-driven attractions, which at first only consisted of individual sleds or carts riding freely down chutes on top of specially constructed snow slopes with piles of sand at the bottom for braking, were used as winter leisure activities. These crude and temporarily built curiosities, known as Russian Mountains , were the beginning of the search for even more thrilling amusement park rides. In the present day, many rides of various types are set around a specific theme. Parks contains a mixture of attractions which can be divided into several categories.

**Chapter 4 : History | Asbury Park**

*History Overview This historical resumé covers the development of skills to diagnose heart attack during life, to recognize its epidemic proportions, and to study its causes, trends, care, and prevention in whole populations over time.*

This resulted in the fall of Gojoseon and led to succeeding warring states, the Proto-Three Kingdoms period that spanned the later Iron Age. Meanwhile, Balhae fell after invasions by the Khitan Liao dynasty and the refugees including the last crown prince emigrated to Goryeo, where the crown prince was warmly welcomed and included into the ruling family by Wang Geon, thus unifying the two successor states of Goguryeo. However, Mongol invasions in the 13th century brought Goryeo under its influence until the mid-century. King Sejong the Great implemented numerous administrative, social, scientific, and economic reforms, established royal authority in the early years of the dynasty, and created Hangul, the Korean alphabet. After enjoying a period of peace for nearly two centuries, the Joseon dynasty faced foreign invasions and internal fractional strifes, from to Most notable of these invasions is the Japanese invasions of Korea Combined force of Ming Dynasty and Joseon dynasty manage to repel Japanese invasion, which marks the end of the early period of the Joseon dynasty. Henceforth, Joseon gradually became more and more isolationist and stagnant. By the mid 19th century, with the country unwilling to modernize, and encroachment of European powers, Joseon Korea was forced to sign unequal treaties with foreign powers. After the assassination of Empress Myeongseong in , the Donghak Rebellions of , and the Gabo Reforms of to , the Korean Empire came into existence and a brief but rapid period of social reform and modernization occurred. However, in , the Korean Empire signed a protectorate treaty and in , Japan annexed the Korean Empire. Korean resistance was manifested in the widespread nonviolent March 1st Movement of After the end of WWII in , the Allies divided the country into a northern area protected by the Soviets and a southern area protected primarily by the United States. In , when the powers failed to agree on the formation of a single government, this partition became the modern states of North and South Korea. The peninsula was divided at the 38th Parallel: The new premier of North Korea, Kim il-Sung, launched the Korean War in in an attempt to reunify the country under Communist rule. After immense material and human destruction, the conflict ended with a cease-fire in The two nations officially remain at war because a peace treaty was never signed. In , both states were accepted into the United Nations. While both countries were essentially under military rule after the war, South Korea eventually liberalized. Since it has had a competitive electoral system. The South Korean economy has prospered, and the country is now considered to be fully developed, with a similar capital economic standing to Western Europe, Japan, and the United States. North Korea has maintained a militarized dictatorship rule, with a cult of personality constructed around the Kim family. Economically, North Korea has remained heavily dependent on foreign aid. Following the collapse of the Soviet Union, that aid fell precipitously.

## Chapter 5 : Amusement park - Wikipedia

*HISTORY Overview of Calabash History Present Calabash s identity started as early as when the Lord Proprietors granted Landgraves nobleman Thomas Smith by patent 48, acres. In William Waties and Jonathan Calkins were large landowners in the area and by the prominent Allston family were raising indigo and other crops.*

Many of these toys, dating especially from 18th. Click to see a portrait of Plateau. The device was mentioned to be a scientific experiment in ophthalmologic research to explain the working of the eye, and how we are able to see the illusion of movement. For this reason, Plateau and Stampfer are the Grandfathers of Cinema. Most cited with this honour is Joseph Antoine Ferdinand Plateau. This principle is one of the major techniques wich enabled us to produce "moving pictures" from the end of the 19th. While mentioned as a scientific device, the Phenakistiscope became well know and popular as a toy for children. In the image, we see a Peepshow , a Camera obscura , a Zootrope, a Stereoscope , a Kaleidoscope, a Magic lantern and a filmstrip. Collecting these marvels is a real challenge because most of these devices are rare, but bargains still do exist as proved by this book, found only two hours before starting in compiling this optical toy introduction page. Indeed, ephemera items are a most important source for information. Commercial leaflet by Emiel Reynaud announcing his popular optical toys Collection Veerle Van Goethem Pre-Cinema, is a name often used to describe this "group" of items. Unfortunately, the name is in the first place misleading since not all pre-cinema items have their place in film pre-history unless you start to limit this group strongly. A more problematic effect of this name is a vast teleological point of view, suggesting that these inventions where made with the ultimate result, cinema, allready in mind. The truth is that all these inventions where mostly "stand alone" experiments that where, partly, later used by the pioneers of cinema. The story is far more complex as read in most film history books. These mostly "table top" toys demonstrate the principles of 18th. These toys have a scientific value indeed, since they help us to understand new ideas, theories and inventions in optics, physics, electricity, mechanics, music, They are able in helping us to understand the nature of reality and truth, many of them however are able to mislead by creating virtual illusions. The image on the right comes from an old unknown source. Unfortunately, many antique dealers and even collectors still destroy important books to get maximum financial results by selling these engravings as single prints. The important text information is mostly lost! The aim is not to give a complete and chronolgical overview of optical toys but rather a personal selection of intriguing devices, at random, following a personal choice. Where possible and within my knowledge, explanation will also be provided. The printed text information in "Physique Amusante" sources can be extremely interesting and important since these are contemporary sources who often explains the working principles of our devices and are open to interpretation by a variety of researchers. Sometimes these sources have extra handwritten information relating to specific subjects since many of these books where really used. The latter book is a very important historical source for different reasons! The fourth page, second paragraph unfortunately unfinished , explains the coloring of magic lantern slides:

**Chapter 6 : ixTHUBCE - Home Page**

*Vikings History: The Viking Age*—An Overview Viking is a Verb, Not a Noun. When the quiet monks on the Holy Island of Lindisfarne saw the dragon ships approaching, they didn't know what was coming.

Historical Overview - T. In fact, as early as Dr. Eaton had alerted the Long Run association to the potential for church-planting in the Crescent Hill community. The decision of the 43 charter members was promoted in part by controversy within the Clifton church est. The first service was held in the home of Mr. The first sermon was delivered by the Rev. Sampson on the text, I Cor. Among the earliest actions taken by the church was application for membership into Long Run Baptist Association, and the calling of a pastor. In August, , John F. From its earliest years the church was concerned with missions. Regular offerings for both Foreign and Home Mission ministries were collected. Although the church grew under the ministry of the Rev. Griffith and his tenure was marked by the erection of the first building on the present site, it was also rent by internal strife. He resigned in and was succeeded by the Rev. Huey who served from to Graham was pastor of Crescent Hill longer than anyone else, for 22 years to be exact. During these years between the Great Wars, Crescent Hill experienced some of its most glorious and its most trying days. Having liquidated the outstanding debt, the church soon undertook plans for a new sanctuary. The completion of the new building was timed to coincide with the opening of the adjacent new campus of The Southern Baptist Theological Seminary. The corner stone-laying exercises were held on Sunday afternoon, August 22, The sermon for this occasion was delivered by Dr. Weatherspoon, then pastor of Highland Baptist Church. The first service in the completed sanctuary was held on May 1, , the Sunday School attendance on that day was Across the years Crescent Hill Baptist Church and Southern Seminary developed close but informal ties of mutual support and friendship. Seminary faculty members often supplied the pulpit; likewise, seminary students were an integral part of the life of the church. For many years commencement exercises and other special convocations such as the Mullins lectures were held in the Crescent Hill sanctuary. In the course of these events many of the finest preachers in the world spoke from our pulpit. In the late twenties and early thirties Crescent Hill was the center of a bustling growing community. Sometimes worship services were interrupted by noises outside: This was also a period of inter-church cooperation. Crescent Hill joined with other congregations to sponsor the Anti-Saloon League, the Billy Sunday revival, and flood relief for victims of the great Louisville flood of Crescent Hill has always been a generous congregation. In the twenties, the church contributed significantly to the 75 Million Campaign, the forerunner of our current Cooperative Program. Special mission offerings and local benevolence funds were also given high priority. With the onset of the Depression, however, the church faced its toughest financial crisis. Only by extraordinary commitment from dedicated members, including salary reductions for the ministers and for some even the mortgaging of their homes, was threatened foreclosure on the church property averted. Graham resigned in , the church along with the nation was passing out of one era into another. Having never married, Dr. Graham held rooms in Mullins Hall where he continued to serve as mentor to a generation of theological students, not the least of whom was Carlyle Marney. He retained membership in Crescent Hill until his death in A persistent emphasis during these years was on debt retirement, as can be gauged by the slogans: During this period the church was pastured by Dr. Boone, fifth generation Kentucky Baptist preacher and descendant of the famous Daniel Boone. He led the church in strongly supporting the war effort. In all some members of Crescent Hill served in the Armed Forces, three of whom lost their lives. In September, , the church took the unusual action of authorizing war chaplains who were church members to Baptist converts and commend them to membership in any Baptist church of their choice. The post-war years at Crescent Hill witnessed sustained growth and consolidation of earlier gains. Burhans served as pastor from to While the Korean War and the McCarthy hearings held the attention of the nation, Crescent Hill developed dynamic church organizations and outreach ministries. During these years under the leadership of W. Wigginton, the Sunday School program was strengthened and expanded. The success of this effort resulted in the building of a new educational facility. Evangelistic outreach through revival services brought new people into the church. On February 21, Sunday School attendance reached 1,

During these years Crescent Hill also provided leadership for associational and state Baptist mission activities. The decade of the sixties was marked by the outstanding pulpit ministry of Dr. Claypool who was pastor from 1960 to 1969. In a period of violence and social upheaval, Dr. Claypool addressed the deepest concerns of the world outside as well as the integrity of faith for the individual Christian. In particular, the racial crisis was a focus of concern both within the congregation and in the community. Also during these years the church staff was expanded to include new emphases on social ministry and counseling. Howell served as pastor from 1970 to 1975. These were years of introspection and re-evaluation as the church sought to define its role in a changing community. The by-laws were rewritten in an effort to move closer to the New Testament ideal of the church. Howell was much beloved for his deep compassion of the people and his gifts for pastoral care. Following an extended interim period, Crescent Hill welcomed Dr. Stephen Shoemaker as pastor in May, 1976. We, O God, unite our voices, Raised in thankful praise to Thee. Thou, unchanging, safe hath brought us Through the ever-changing sea. Days of calm and days of conflict, Nights of darkness prove Thy grace. Hands beneath us, arms around us, And, above, Thy shining face. Through many struggles, hurts, and difficulties God has sustained the fellowship of believers known as the Crescent Hill Baptist Church. A sense of divine providence pervades our history. May we ever be faithful to our Lord whose name we bear and in whose steps we are determined to follow. Much of this sketch is based on Dr. Timothy George who wrote the above history in 1975 for a brochure celebrating the 75th Anniversary of the church.

**Chapter 7 : Historical Overview - calendrierdelascience.com – Crescent Hill Baptist Church**

*Amusement Park Precursors. Arcade like games are first seen in the early amusement parks of the s. At these places examples of popular games consisted of a pellet gun that you could aim at targets moving along a mechanical track, simple ball-toss games, or very basic coin operated machines that spit out fortune cards or played a track of music.*

Version for printing Mathematics starts with counting. It is not reasonable, however, to suggest that early counting was mathematics. Only when some record of the counting was kept and, therefore, some representation of numbers occurred can mathematics be said to have started. In Babylonia mathematics developed from BC. Earlier a place value notation number system had evolved over a lengthy period with a number base of 60. It allowed arbitrarily large numbers and fractions to be represented and so proved to be the foundation of more high powered mathematical development. Systems of linear equations were studied in the context of solving number problems. Quadratic equations were also studied and these examples led to a type of numerical algebra. The Babylonian basis of mathematics was inherited by the Greeks and independent development by the Greeks began from around 600 BC. A more precise formulation of concepts led to the realisation that the rational numbers did not suffice to measure all lengths. A geometric formulation of irrational numbers arose. Studies of area led to a form of integration. The theory of conic sections shows a high point in pure mathematical study by Apollonius. Further mathematical discoveries were driven by the astronomy, for example the study of trigonometry. After this time progress continued in Islamic countries. Mathematics flourished in particular in Iran, Syria and India. This work did not match the progress made by the Greeks but in addition to the Islamic progress, it did preserve Greek mathematics. From about the 11th Century Adelard of Bath, then later Fibonacci, brought this Islamic mathematics and its knowledge of Greek mathematics back into Europe. Major progress in mathematics in Europe began again at the beginning of the 16th Century with Pacioli, then Cardan, Tartaglia and Ferrari with the algebraic solution of cubic and quartic equations. Copernicus and Galileo revolutionised the applications of mathematics to the study of the universe. The 17th Century saw Napier, Briggs and others greatly extend the power of mathematics as a calculatory science with his discovery of logarithms. Cavalieri made progress towards the calculus with his infinitesimal methods and Descartes added the power of algebraic methods to geometry. Progress towards the calculus continued with Fermat, who, together with Pascal, began the mathematical study of probability. However the calculus was to be the topic of most significance to evolve in the 17th Century. Newton, building on the work of many earlier mathematicians such as his teacher Barrow, developed the calculus into a tool to push forward the study of nature. His work contained a wealth of new discoveries showing the interaction between mathematics, physics and astronomy. However we must also mention Leibniz, whose much more rigorous approach to the calculus although still unsatisfactory was to set the scene for the mathematical work of the 18th Century rather than that of Newton. The most important mathematician of the 18th Century was Euler who, in addition to work in a wide range of mathematical areas, was to invent two new branches, namely the calculus of variations and differential geometry. Euler was also important in pushing forward with research in number theory begun so effectively by Fermat. Toward the end of the 18th Century, Lagrange was to begin a rigorous theory of functions and of mechanics. The 19th Century saw rapid progress. Non-euclidean geometry developed by Lobachevsky and Bolyai led to characterisation of geometry by Riemann. Gauss, thought by some to be the greatest mathematician of all time, studied quadratic reciprocity and integer congruences. His work in differential geometry was to revolutionise the topic. He also contributed in a major way to astronomy and magnetism. The 19th Century saw the work of Galois on equations and his insight into the path that mathematics would follow in studying fundamental operations. Cauchy, building on the work of Lagrange on functions, began rigorous analysis and began the study of the theory of functions of a complex variable. This work would continue through Weierstrass and Riemann. Algebraic geometry was carried forward by Cayley whose work on matrices and linear algebra complemented that by Hamilton and Grassmann. The end of the 19th Century saw Cantor invent set theory almost single handedly while his analysis of the concept of number added to the major work of Dedekind and Weierstrass on irrational numbers Analysis was driven by the

requirements of mathematical physics and astronomy. Maxwell was to revolutionise the application of analysis to mathematical physics. Statistical mechanics was developed by Maxwell, Boltzmann and Gibbs. It led to ergodic theory. The study of integral equations was driven by the study of electrostatics and potential theory. Notation and communication There are many major mathematical discoveries but only those which can be understood by others lead to progress. However, the easy use and understanding of mathematical concepts depends on their notation. For example, work with numbers is clearly hindered by poor notation. Try multiplying two numbers together in Roman numerals. Addition of course is a different matter and in this case Roman numerals come into their own, merchants who did most of their arithmetic adding figures were reluctant to give up using Roman numerals. What are other examples of notational problems. The best known is probably the notation for the calculus used by Leibniz and Newton. Let us think for a moment how dependent we all are on mathematical notation and convention. We are, often without realising it, using a convention that letters near the end of the alphabet represent unknowns while those near the beginning represent known quantities. It was not always like this: Harriot used  $a$  as his unknown as did others at this time. The convention we use letters near the end of the alphabet representing unknowns was introduced by Descartes in  $ax$  is used to denote the product of  $a$  and  $x$ , the most efficient notation of all since nothing has to be written! It is quite hard to understand the brilliance of major mathematical discoveries. On the one hand they often appear as isolated flashes of brilliance although in fact they are the culmination of work by many, often less able, mathematicians over a long period. For example the controversy over whether Newton or Leibniz discovered the calculus first can easily be answered. Neither did since Newton certainly learnt the calculus from his teacher Barrow. Now we are in danger of reducing major mathematical discoveries as no more than the luck of who was working on a topic at "the right time". This too would be completely unfair although it does go some way to explain why two or more people often discovered something independently around the same time. There is still the flash of genius in the discoveries, often coming from a deeper understanding or seeing the importance of certain ideas more clearly. How we view history We view the history of mathematics from our own position of understanding and sophistication. There can be no other way but nevertheless we have to try to appreciate the difference between our viewpoint and that of mathematicians centuries ago. Often the way mathematics is taught today makes it harder to understand the difficulties of the past. In fact there is no real reason why negative numbers should be introduced at all. Nobody owned  $-2$  books. We can think of  $2$  as being some abstract property which every set of  $2$  objects possesses. This in itself is a deep idea. Adding  $2$  apples to  $3$  apples is one matter. Negative numbers do not have this type of concrete representation on which to build the abstraction. It is not surprising that their introduction came only after a long struggle. An understanding of these difficulties would benefit any teacher trying to teach primary school children. Even the integers, which we take as the most basic concept, have a sophistication which can only be properly understood by examining the historical setting. A challenge If you think that mathematical discovery is easy then here is a challenge to make you think. Napier, Briggs and others introduced the world to logarithms nearly years ago. These were used for years as the main tool in arithmetical calculations. An amazing amount of effort was saved using logarithms, how could the heavy calculations necessary in the sciences ever have taken place without logs. Then the world changed. The pocket calculator appeared. The logarithm remains an important mathematical function but its use in calculating has gone for ever. Here is the challenge. What will replace the calculator? You might say that this is an unfair question. However let me remind you that Napier invented the basic concepts of a mechanical computer at the same time as logs. The basic ideas that will lead to the replacement of the pocket calculator are almost certainly around us. I have an answer to my own question but it would spoil the point of my challenge to say what it is. Think about it and realise how difficult it was to invent non-euclidean geometries, groups, general relativity, set theory, General bibliography of about items Article by:

**Chapter 8 : History overview**

*Modern amusements are echoes of colonial ones. Follow in the footsteps of early patriots to dine, see a show, or browse shops. Explore these modern places and find timeless pleasures in a historic setting.*

Introduction With the popularity and interactivity offered by the Internet and World Wide Web, media organizations see the Web as a medium they must conquer if they are going to survive Villano, They have good reason to be concerned. From an historical perspective, whenever a new medium reaches critical mass it threatens to, and does, displace existing media to some degree. For example, the upstart television industry took consumers and advertisers away from the radio industry back in the s and s. The revolution of special-interest niche magazines began back in the early s; the magazine industry reacted to the loss of national advertising and eventual failure of mass circulation, general interest magazines due to the increasing use of television by both consumers and advertisers Gage, ; van Zuilen, Today, magazines face competition from Internet-only e-zines, which have virtually no traditional paper, printing, or distribution costs, and are better versed in new media interactivity. Meanwhile, magazine publishers are trying to find ways to best capitalize on the Internet without cannibalizing their own readers and advertisers Marlatt, ; Woodard, According to a survey in Folio, a leading trade publication, Purpose The purpose of this is paper is to provide an historical overview of the positive and negative effects of new mass media introductions on magazine publishing in the United States over the last century. The goal is to provide context and perspective on the increasing penetration of the World Wide Web and its effect on magazine reading habits. Within the framework of this paper, new media are considered as new forms of mass communication or entertainment media that threaten to take readers or advertisers away from traditional magazines. The major media types or groups that have been introduced since the beginning of the twentieth century include film, sound recordings, radio, television, personal computers, video cassettes, video games, and the Internet. Conversely, the births of other new media have had positive effects on the magazine industry. For example, the growing penetration and popularity of the personal computer during the s motivated millions of information-hungry readers and special-interest advertisers. Each introduction of a new brand of personal computer or even model number was followed immediately or concurrently by the launch of several competitive magazine titles in the s Maryles, ; New York Times, Each time a new medium is introduced it threatens to displace existing media to some degree or another Dimmick and Rothenbuhler, b. An historical perspective on both the perceived threats at their introduction, and the general effects of new media on magazines throughout this century will provide a better understanding of the current media landscape. Magazines in America Magazines have been a part of American culture since American Magazine was first published in colonial America Paneth, By there were an estimated magazines being published. This figure grew to more than in , with another four or five thousand titles having come and gone during that 25-year span Schmidt, But even with such popularity, magazines were a considered a medium of leisure. By major advertisers were pouring money into all of the popular magazines Douglas, With the turn of the century came increases in technological advances providing in part more leisure time for Americans. Both technology and leisure time increased the popularity of magazines. Widespread use of this process followed, with the increased opportunity for magazines to become designed objects, not merely collections of type with occasional woodcuts or steel engravings. National Geographic was publishing four-color editorial as early as Edkins, At this time, newspapers and books were the main competitors of magazines Peterson, But a new mass medium was on the horizon one that did not require reading. Motion pictures The three mass media competitors at this stage of development were all text-based: The first new mass media to affect magazines was film, which entered the realm of mass media in as The Great Train Robbery drew in moviegoers. The proliferation of movie magazines began around and continued into the s Peterson, Throughout the twenties, thirties and forties, new titles were forever appearing on newsstands. This continued to grow until weekly attendance peaked out at 90 million in with an average weekly household attendance of 2. But because the film industry relied solely on consumer ticket purchases for revenues, and not on advertising income, the economic impact on magazines was not necessarily a

negative one. In this effort to examine environmental factors affecting readership, a study Lazarsfeld and Wyant, compared the circulation of 25 leading magazines in 1900 U. Between and alone, 60 consumer magazines and nearly 90 trade and in-house publications were founded that addressed the subject of films, cinema, movie stars, and production Lomazow, Some of the more memorable startups of the first half of the twentieth century included Photoplay , Picture Play , Screen Play , Screen Romances , Movie Life , and Movieland Peterson, Thus, a whole new category was created and numerous magazines were launched to satisfy the appetite of the millions of fans of this new sensation called Hollywood and the business and industry that accompanied it. Today there are not nearly as many specific movie star magazines being published; average weekly movie attendance is approximately a third of what it was at its peak in the s Salvaggio and Bryant, Today, the leading general circulation magazine devoted solely to the movies is Premiere with a circulation just more than , Audit Bureau of Circulations, However, there are still many other smaller circulation titles covering different facets of the movies and its trades. Radio After the entrance of the motion picture as a competitive threat to magazines, the next new medium to enter the marketplace was radio. Unlike motion pictures, this new mass medium relied on consumer time and advertising sponsor revenues. Radio grew rapidly in popularity, with NBC forming the first formal network in Salvaggio and Bryant, The organization of network radio brought a greater competitive threat to magazines: Magazines recognized the threat; the Saturday Evening Post ran many articles about stage and screen but paid the scantiest of editorial attention to radio. Not surprisingly, the answer they got then was to improve their editorial focus and quality. By there were more than 28 million households with radios, a penetration of just more than 80 percent Salvaggio and Bryant, But while radio was reaching high penetration levels, publishers began capitalizing on new print technologies that would enhance what they could offer both readers and advertisers. Magazines would grow to rely on and would differentiate themselves from competing media for the next several decades: From this time on Vogue enhanced its page with color, including during the Depression. There was also the Great Depression to deal with. Perhaps because of these threats, and the fact that radio was not a visual medium, it was not embraced with numerous magazine launches in the same way film and Hollywood was adapted. While the further development of printing technology certainly played its part Edkins, , it is interesting to note the relatively parallel timeline of the peaking popularity of radio and the emergence of the picture magazine. Picture magazines and general interest titles would drive the industry well into the s. Radio was not a visual medium and could never become such. However, magazines were and could tell stories through pictures - large and small. Thus, as a medium, magazines altered their content, forming a new category - the picture magazine. Anticipating the visual world of television, it surpassed even the condensations of the news weeklies and digest by summarizing in photographs instead of in text. Life in , which was selling more than one million copies in just a few weeks, and Look in , which was selling 1. There were a host of others, too. Click, which emphasized sex and shock reached a circulation of 1. Focus, Pic, Photo-history, Peek, Foto, and Picture were just some of the other short-lived and long-lived titles that began or re-conceptualized in the s. They have also found success in partnering with radio stations and networks to produce short audio segments highlighting the general or specific content of a magazine. High Fidelity, which launched in , was the first U. It was an entertainment medium that relied solely on consumer purchases, and did not rely on advertising. It was not as threatening as radio, but sound recordings were threatening to radio. As the number of phonographs being shipped each year reached the million mark in the early s, the interest in music stars and instruments spawned new titles and eventually a new category of magazines. In , the American Newspaper Directory listed only eight magazines in the music category, including Song Hits with a circulation nearly , American Newspaper Directory, By , the number of music magazine titles had grown to 32, including Hit Parader with a circulation of , Ayer Directory of Publications, Rolling Stone, which was launched in , quickly became a social, political, and cultural voice of a generation. By the magazine had a bi-weekly circulation of , Nourie and Nourie, Today, with a circulation of 1. According to one source, there are nearly 60 magazines being published in the music category today, not including trade magazines SRDS, But there are even more music titles according to the National Directory of Magazines. Over a ten-year span from to , the music and music trades category was rated the third-fastest

growing category in magazine publishing. There were titles in By that number had risen to Magazine Publishers of America, a. And another source shows new music magazine launches in the Top 20 in Husni, [ 20 ]. In addition to a healthy number of music titles today, roles have even reversed with publishers and record companies partnering to produce CDs targeted at readers of their magazines. A growing number of magazines â€” including major titles such as Good Housekeeping and Esquire â€” have licensed their names to record labels, producing CDs filled with songs that relate to their magazines. Beam, National magazines, with circulations in the millions, were an important part of national advertising strategies of virtually all major brand name products. In magazines held It was earlier that decade when television began its diffusion into U. By , television penetration reached As outlined by Dimmick and Rothenbuhler a , the growth in television advertising market share caused a serious drop in national radio advertising sales. Radio adjusted to this threat by focusing on local and regional advertising sales. Meanwhile, magazine publishers perhaps did not feel immediately threatened because in its first incarnation television did not offer fourâ€”color advertising. General interest consumer magazines continued to flourish throughout the s and into the early s. The immediacy and emotional depth of color television displaced the fourâ€”color general interest and picture magazines. By as early as television had When magazine profits declined in the late s and early s, many observers were quick to blame the trouble on television. The general mass market magazines like Life, Look, and others eventually failed due to a loss of two crucial resources: Reacting to the loss of these resources, the magazine industry rebounded by developing an increasing number of specialâ€”interest magazines. So, the magazine industry became more specialized leading to a proliferation of special interest magazines beginning in the s on through to today Abrahamson, This was the beginning of the trend known as niche publishing. With increased specialization, when videocassettes and cable television began to reach critical mass in the s and s, one might have predicted the death of reading because there was now a channel or videocassettes for just about every interest imaginable. However, just the opposite occurred. The magazine industry used television advertising and videocassettes as promotional giveaways providing added value for subscribers and attracting new ones Dougherty,

## Chapter 9 : History | The Canada Guide

*Historical Overview "This is the story of the first transcontinental railroad; the greatest, most daring engineering effort the country had yet seen. The time was the s.*