Continue

Sony Corporation is a multinational conglomerate headquartered in Tokyo, Japan, with a diverse range of businesses including electronics, gaming, entertainment, and financial services. The company boasts a significant presence in the music industry, being the largest entertainment business globally, as well as a leading player in the video game console market.The history of Sony dates back to 1946, when Masaru Ibuka founded an electronics shop in Tokyo. Two years later, Akio Morita joined Ibuka to establish Tokyo Tsushin Kogyo (Tokyo Telecommunications Engineering Corporation). The company's name was later changed to Sony in 1958, with the brand name being a combination of the Latin word "sonus" and the slang term "sonny".Sony's early success was marked by the introduction of the TR-55 transistor radio in 1955. However, it wasn't until the company name change to Sony that the brand began to gain traction. In 1968, Sony introduced the Trinitron brand for its televisions and computer monitors. Although production for most markets ceased, the company continued to produce sets for select regions.The 1970s saw significant milestones for Sony, including the launch of the Betamax videocassette recording format in 1975. The company was involved in a notable format war against VHS, but ultimately lost market share. However, this did not deter Sony from innovating with the introduction of the Walkman portable music player in 1979.Sony expanded its business portfolio by entering the compact disc market in 1983 and launching the Discman series in 1984. The company continued to innovate with the introduction of the MiniDisc format in 1992 and a new proprietary motion picture digital audio format called SDDS in 1993.The PlayStation console, launched in 1994, became a huge success, gaining 61% of global console sales. The company also introduced its first Cyber-shot camera in 1996, capitalizing on the growing demand for digital cameras.Sony was the pioneer of highlighting visual-audio features in computers, a move that showcased its commitment to innovation. The company's growth and ranking on the Fortune Global 500 list is a testament to its success over the years.Initially, Sony dominated the electronics market, especially with its Memory Stick format and flash memory cards for digital cameras and music players. Although these products didn't gain much traction outside of Sony's ecosystem, they played a crucial role in establishing the company as a leader in the industry.In 2000, Sony released the PlayStation 2, which became the best-selling console of all time, with over 150 million units sold by 2011. The success of this console propelled Sony to new heights and solidified its position as a major player in the gaming market.As the years went by, Sony expanded its product lines, including portable games with the PlayStation Portable (PSP) in 2004. Although it didn't surpass Nintendo's DS in sales, PSP was still an important addition to Sony's portfolio.The company also ventured into television manufacturing under the BRAVIA brand, producing high-definition LCD TVs and other home entertainment solutions. By 2012, Sony had become one of the leading TV manufacturers globally.However, Sony faced significant challenges, including a laptop battery recall in 2006 that resulted in the largest computer-related recall at the time. The company also battled controversies surrounding its Blu-ray format, which eventually emerged as the standard for high-definition media delivery.In 2006, Sony released the PlayStation 3, a high-definition console that utilized the Blu-ray format and featured a powerful Cell processor. Although it was more expensive than competitors like Xbox 360 and Wii, PS3's success helped establish Blu-ray as the industry standard.Throughout the years, Sony has continued to innovate and adapt to changing market trends. In 2011, it launched its Android tablets under the Xperia brand for smartphones. The company also established a joint venture with Olympus to develop advanced surgical endoscopes in 2013.Most recently, Sony released the PlayStation 4 in 2013, which has sold over 73 million units globally as of 2017. The company's continued commitment to innovation and excellence has ensured its position as a major player in the technology industry.Sony announces sale of VAIO PC business, establishes joint venture for genome analysis Sony maintains minority stake in new companyIn February 2014, Sony announced it would sell its VAIO PC business due to poor sales. Japan Industrial Partners (JIP) purchased the brand by end of March 2014.###ARTICLEFounded in 1946 by Masaru Ibuka and Akio Morita, Sony started as Tokyo Tsushin Kogyo K.K. The company initially focused on electronics but gained recognition for products like the TR-55 transistor radio and CV-2000 home video tape recorder, contributing to Japan's post-war economic recovery. After Morita became chairman in 1973, he oversaw Sony's rise as a global brand known for innovation in consumer electronics. Sony released notable products such as Trinitron color television, Walkman portable audio player, and the co-development of the compact disc.The company expanded beyond electronics by acquiring Columbia Records in 1988 and Columbia Pictures in 1989, while entering the home video game console market with the PlayStation in 1994. In Japan, Sony established a financial services division. The company was renamed Sony Group Corporation in 2021 as it transitioned into a holding company structure, with its electronics business continuing under the name Sony Corporation.Today, Sony is one of the world's leading technology companies, producing various products such as automotive cameras, computer hardware, consumer electronics, films, music, robots, semiconductors, telecommunications equipment, and television shows. The company operates globally and has a significant presence in the global image sensor market, camera manufacturing, semiconductor sales, and television production.Sony was founded after World War II in Japan in the late 1940s by Masaru Ibuka who started an electronics shop in 1946 with a capital of 190,000 and eight employees. Two years later, Akio Morita joined to form Tokyo Tsushin Kogyo which built Japan's first tape recorder called Type-G. In 1958, the company changed its name to "Sony" chosen from Latin words "sonus" meaning sound and "sonny", a slang term for young boys.Sony's Evolution: A Journey from Convergence to RebirthSony Corporation's Evolution and Technological Innovationsparaphrased text hereparaphrased text hereSony is a leading electronics company that primarily conducts research and development, planning, designing, manufacturing, and marketing for its electronic products. Sony Global Manufacturing & Operations Corporation (SGMO) manages production operations both in Japan and overseas through its own factories and third-party contract manufacturers.###ARTICLESony sells stake in LCD joint venture with Samsung for $940m, exits PC market after VAIO saleSony agreed to sell its stake in the LCD joint venture with Samsung Electronics (S-LCD) for approximately $940 million. The Japanese company had previously announced plans to further amend the joint venture agreement, which was originally signed in 2009 and revised in 2011.The joint venture, Sharp Display Products Corporation ("SDP"), aimed to produce and sell large-sized LCD panels and modules. However, Sony decided to part ways with the partnership, leading to the termination of the agreement.As a result, Sony's small-sized LCD business subsidiary and medium-to-large-sized OLED display business unit were spun off into separate companies, Japan Display and JOLED, respectively. In 2017, Sony launched its first OLED TVs under the BRAVIA brand.Sony has also diversified its product offerings to include digital cameras, with its point-and-shoot models branded as Cyber-shot and DSLRs and mirrorless models branded as Alpha. The company produces action cameras and camcorders, as well as cinema-grade products sold under the CineAlta name.In 2010, Sony acquired Konica Minolta's camera business, rebranding it as its Alpha line. The company has since become a major player in the digital camera market, although its market share declined from 20% to 9% by 2005.Sony introduced its first mirrorless interchangeable-lens cameras, the NEX-3 and NEX-5, in 2010. The company later released the 3000, followed by the Full-Frame 7 and 7R in 2013.In 2014, Sony discontinued its loss-making PC business and began producing computers under the VAIO brand, which was launched in 1996. However, the company faced significant controversy over its laptop batteries exploding and catching fire in 2006, resulting in one of the largest computer-related recalls in history.Sony has since expanded into the tablet market with its Xperia brand and acquired several companies, including iCyt Mission Technology and Micronics, Inc., to focus on medical, healthcare, and biotechnology business. The company maintains a 5% stake in Japan Industrial Partners' new, independent VAIO PC business.Sony Corporation: A Historical Overview of Its Major Ventures and InnovationsSony Corporation is a leading developer and manufacturer of semiconductors and electronic components used in various digital devices such as cameras, smartphones, drones, and automobiles.Sony Entertainment Inc. has two main divisions: Sony Pictures Entertainment and Sony Music Group. The entertainment division, Sony Pictures Entertainment, was formed in 1989 when Sony purchased Columbia Pictures Entertainment for $3.4 billion. It has since produced many successful movies and TV shows, including Spider-Man, The Karate Kid, and Jeopardy!. Sony's music arm, known as Sony Music Group, is one of the largest global recorded music companies in the world. It was formed in 1991 after Sony acquired CBS Records for $2 billion. In 1968, Sony and CBS Records had established a joint venture called CBS/Sony Records in Japan, which later became the foundation for the Sony Music Entertainment group. In recent years, Sony has made several significant acquisitions to expand its music library, including the purchase of Famous Music in 2007 for $370 million. The company has also faced challenges related to intellectual property protection, such as a major security breach in 2014 and a copy protection scandal involving malware on music CDs in 2005.Sony Music Entertainment, established in 2008 after the merger of Sony BMG and Bertelsmann's shares, has undergone significant changes since its formation. The company acquired Gracenote for $260 million in 2008 and later sold it to Tribune Media Company in 2014 for $170 million. Moreover, Sony/ATV Music Publishing, formed in 1995 by merging Sony's publisher with Michael Jackson's ATV Music Publishing, owns the rights to over 4 million compositions, including The Beatles' LennonMcCartney catalogue.In addition to its record label, Sony operates other music businesses, such as Aniplex and Crunchyroll. Aniplex was established in 1995 as a subsidiary of Sony Music Entertainment Japan's division managing creative productions, while Crunchyroll is a joint venture between Aniplex and U.S.-headquartered Sony Pictures, acquired Funimation in 2017.Sony Financial Group, a holding company for the company's financial services business, proved to be the most profitable unit in FY 2005, earning $1.7 billion in profit. The group's low fees have contributed to its popularity but may threaten Sony's premium brand name. Furthermore, Sony has explored the possibility of manufacturing lithium-ion batteries for electric vehicles and partnered with Honda to launch a joint venture, Sony Honda Mobility, which aims to deliver its first electric vehicles by 2026.Sony Corporation is a major Japanese multinational conglomerate headquartered in Tokyo, Japan. It was founded in 1946 and has since become one of the largest companies in the world by market capitalization and operating profit. As of January 2024, Sony's net worth surpassed $112 billion, making it one of the most valuable companies globally.The company's revenue streams come from various segments, including game & network services, music, pictures, entertainment, technology, and services, imaging & sensing solutions, and financial services. In FY 2022, segment revenues were 9,921 billion, while in FY 2023, they reached 11,539 billion, showing a significant increase of 16.8%.Sony has faced several challenges throughout its history, including the Great Recession, increased competition in the gaming industry, and natural disasters such as the 2011 Thoku earthquake and tsunami. The company's financial performance suffered as a result, with consecutive losses leading up to 2011.However, under the leadership of CEO Kaz Hirai, Sony has made efforts to revitalize its business and reduce costs. In 2008, the company announced plans to cut 8,000 jobs and reduce global manufacturing sites by 10% to save $1.1 billion per year. In 2012, Sony reduced its workforce by 10,000 employees as part of a broader effort to get the company back on track.Despite these challenges, Sony has demonstrated significant resilience and adaptability. The company's market capitalization was valued at over $100 billion in September 2000 but declined sharply to $18 billion by December 2011. However, its net worth has steadily grown from $17.9 billion in March 2002 to $35.6 billion through December 2011.Sony's credit rating was dropped to Ba1 due to speculative elements and significant credit risk, with low profitability expected to remain volatile.The company has been downsizing, including closing TV, Hi-Fi, and camera divisions in South Africa and halving its workforce in the mobile phone division. Sony lost $480 million in the mobile phone segment during the second quarter of 2018.Sony supports various charitable initiatives, such as UNICEF's EYE SEE project, which provides digital photography workshops for children worldwide, and the South Africa Mobile Library Project. The company also has a charitable foundation supporting Make-A-Wish Canada and other causes.In recent years, Sony has faced criticism over its corporate behavior, including allegations of DRM systems and copyright enforcement on music CDs and gaming consoles. The company has been involved in several high-profile lawsuits, such as those against geohot and fail0verflow for exploiting PS3 vulnerabilities.Sony has also received low scores from Greenpeace's Guide to Greener Electronics, with a score of 3.6/10 due to comments on energy efficiency standards in California.Sony Corporation has made significant efforts to improve its environmental policies and efficiency standards, as recognized by various organizations such as Greenpeace. In 2007, the company received a score of 14 out of 10 from Greenpeace's guide, ranking it 11th among electronics manufacturers in terms of environmental performance. However, this ranking was later dropped due to concerns over Sony's waste policies.Since then, Sony has made notable improvements in its environmental practices. The company has established an Environmental Conference since 1976, which addresses issues related to global warming, resource usage, and environmental protection. Sony also employs a "green procurement" process, regulating the environmental impact of its suppliers' products.In addition, Sony has implemented various initiatives aimed at reducing greenhouse gas emissions and promoting sustainable practices. For instance, the company aims to power 75% of its Sony Building with geothermal energy. Furthermore, Sony's Take Back Recycling Program allows consumers to recycle their electronics products, while a biobattery developed by the company uses sugars and carbohydrates as an alternative energy source.However, Sony has faced criticism in the past for its environmental record. In 2000, a leaked document revealed the company's attempts to monitor and counter environmental activists who were advocating for stricter regulations on electronic waste disposal. The company was also fined 110 million by the European Commission in 2007 for colluding with other companies to fix professional videotape prices.Despite these challenges, Sony continues to prioritize its environmental responsibilities and has made efforts to increase transparency and accountability within its organization.Sony's History: From Successes and Failures to Global Supremacy###ENDARTICLESony, Once A Global Icon, Struggles to Regain Japanese Corporate Elite's Respect After Appointment of Foreign CEOSony merges its electronics divisions, hiding massive mobile losses, with a new organizational structure aimed at revitalizing the company's struggling electronics business.Sony Corporation is a multinational conglomerate headquartered in Tokyo, Japan. The company was founded in 1946 by Masaru Ibuka and Akio Morita as Tokyo Tsushin Kogyo K.K., producing electronic materials such as carbon microphones and tape recorders. Over the years, Sony has diversified its business into various fields including electronics, entertainment, and semiconductors.###ARTICLESony, once the dominant player in the electronics industry, has undergone significant changes over the years. The company's partnership with Dell on laptop batteries was just one of many collaborations it had. In 1991, Sony partnered with Apple to supply notebooks for Macintosh computers. This partnership highlights the evolution of Sony's business strategies as the company adapted to changing market trends.In recent years, Sony has focused on developing new technologies such as camera drones and image sensors. The launch of its Airpeak drone in 2021 marks a significant step in the company's efforts to expand into new areas. Meanwhile, Sony's partnership with Ericsson led to the creation of a joint venture agreement in 2001.Sony's involvement in the development of genome information platforms is another example of the company's commitment to innovation. The establishment of Sony Olympus Medical Solutions Inc. in 2013 demonstrates Sony's growing presence in the medical technology sector.Sony Semiconductor Solutions Group and its rich history of innovation in the field of semiconductors and image sensors, as well as its significant contributions to the development of several notable technologies and products.2020-04-15 Sony acquires battery tech for electric cars, plans to sell Li-ion batteries soon Sony CEO talks about possible partnerships in electric vehicle batteries, electric vehicle news Sony will make batteries for electric cars, tests new tech for self-driving cars Sony surprises with electric concept car called Vision-S, tests new tech for self-driving cars Sony highlights evolution as creative entertainment company with tech foundation at CES 2020 Honda and Sony create SHM joint venture for electric cars, plans to deliver premium EVs in 2026 Sony and Honda launch new electric car brand Afeela, aims to deliver premium EVs with subscription fees Sony group's top shareholders info, financial analysis, market cap data Sony market cap, financial statements for FY2022, key financial ratios Sony too much make-believe, financial analysis from FT.com, 2011 report ###Sony's financial struggles and strategic decisions have been a subject of interest for investors and analysts alike in recent years.The company's shopping spree in the tech sector has been met with skepticism, with some viewing it as a wrong direction in its battle against Apple.However, Sony's decision to cut 10,000 jobs worldwide in 2008 was seen as a necessary move to reduce costs and restructure its operations.In 2012, the company reported a loss of $11 billion, leaving investors feeling let down.Despite this, Sony continued to invest in its mobile unit, with plans to cut 1,000 jobs in 2012 to reduce costs.The company's strategy has been marked by significant losses in its TV division, but it aims to halve these losses in the near future.Sony's financial woes have led to a credit rating downgrade to "junk" by some analysts.However, the company remains committed to supporting social causes, with the establishment of a $100M COVID-19 global relief fund.Sony's transition from a TV-focused company to a gaming industry powerhouse has been marked by both significant strides and notable setbacks. The company's environmental record, in particular, has been the subject of intense scrutiny over the years.The Consumer Electronics Show (CES) in Las Vegas is an annual event that showcases the latest innovations in consumer technology. Sony is a frequent participant in this event, often unveiling new products that generate considerable buzz within the industry. However, amidst all the excitement, some people begin to wonder if the electronics giant's efforts are truly making a positive impact on the environment.Greenpeace International has been vocal about Sony's environmental shortcomings, highlighting areas where the company can improve its sustainability practices. The organization has published several reports over the years, detailing Sony's progress or lack thereof in reducing its ecological footprint.One of the most notable examples of Sony's commitment to greener electronics is its Guide to Greener Electronics series. This comprehensive guide provides consumers with practical tips on how to make more sustainable choices when purchasing electronic devices. While Sony has made significant strides in this area, there is still much work to be done.In 2011, Greenpeace International released a report titled "Guide to Greener Electronics." The report praised Sony for its efforts to reduce waste and improve recycling, but also identified areas where the company could improve. Since then, Sony has continued to publish new editions of the guide, each highlighting progress and offering suggestions for further improvement.Sony's commitment to sustainability is not limited to its Guide to Greener Electronics series. The company has also implemented various initiatives aimed at reducing its environmental impact. For example, it has set ambitious targets for reducing greenhouse gas emissions from its manufacturing processes.Despite these efforts, Sony still faces criticism from environmental groups. In 2023, the company was fined by the European Union for violating antitrust laws related to price fixing in the video tape market. While this incident is unrelated to Sony's environmental record, it highlights the need for greater transparency and accountability within the electronics industry.In recent years, Sony has made significant investments in developing new technologies that can help reduce its environmental impact. One such technology is the "world's most powerful sugar-based bio battery prototype." This innovative energy storage system has the potential to revolutionize the way we think about sustainable power solutions.The Digital Cinema System Specification is a key standard in the cinema industry, outlining 2K and 4K container formats for digital cinema production. The video content within these formats follows the SMPTE 428-1 standard, with 4K distributions defined at resolutions of 4096 2160, 3996 2160, or 4096 1716. In contrast, 2K distributions can have a frame rate of either 24 or 48 FPS.Interestingly, the terms "2K" and "4K" were not originally coined by DCI, but rather gained popularity in the cinema industry before the publication of the DCI standard. These terms are now commonly used to describe resolutions approximately 2000 or 4000 pixels in width, regardless of specific resolution definitions.The Society of Motion Picture and Television Engineers (SMPTE) published SMPTE ST 2036-1 in 2007, defining parameters for two UHDTV systems: UHDTV1 and UHDTV2. These systems feature resolutions of 3840 2160 or 7680 4320, respectively, with characteristics such as square pixels, progressive scan, and color encoding.The International Telecommunication Union (ITU) published Recommendation ITU-R BT.2020 in 2012, also known as the Ultra High Definition Television (UHDTV) standard. This standard adopts the same image parameters defined in SMPTE ST 20361 and has been adopted by various organizations for use in public announcements and press releases.In October 2012, the Consumer Electronics Association (CEA) announced their definition of the term Ultra High-Definition (Ultra HD) for use with marketing consumer display devices. According to CEA, an Ultra HD product must have a resolution of 3840 2160 or larger, an aspect ratio of 1.771, and support color depth of 8 bpc or higher.The term "4K" is often used to describe devices that support a resolution of 3840 2160, which is a common format for 4K Ultra High Definition Television (UHDTV). However, not all 4K resolutions are created equal, and the term can be misleading. Some companies market their products as "4K" even if they only support a lower resolution, such as 2880 2160. On the other hand, some devices with higher resolutions, like Samsung's 5120 2160 TV, are also marketed as "4K" despite having a true 5K-class resolution.In 2015, LG Display introduced a new technology called M+, which adds a white subpixel to their IPS panel technology. This technology is commonly referred to as RGBW TVs. However, the addition of this white subpixel can reduce the resolution by around 25%. Intertek conducted tests on LG's M+ TVs and found that the effective resolution was around 2.8K.Despite the controversy surrounding the term "4K," it has become a widely adopted standard in the TV market. Many devices, including Sony's CinemaWide smartphones, support this resolution. The European Union Intellectual Property Office (EUIPO) has granted the CinemaWide trademark to Sony, which covers electronic devices that meet specific criteria.The standard for 4K content is currently defined by the Digital Video Broadcasting Project as a resolution of 3840 2160 with an aspect ratio of 21:9. This standard also requires capable of playing back 4K resolution video and upscaling non-4K content. YouTube, the television industry, and other platforms have adopted this standard.In recent years, 4K content has become more widely available online, including on Apple TV, YouTube, Netflix, Hulu, and Amazon Prime Video. The cost of smaller computer and television panels has also decreased, making it more affordable for consumers to access high-resolution content. New standards, such as ATSC 3.0, have been proposed to implement UHD broadcasts at resolutions up to 3840 2160 or 7680 4320.The advent of Ultra High Definition (UHD) technology has revolutionized the way we consume media, particularly video content. Introduced in 2017 with the UHD-1 Phase 2 update, this feature set includes high dynamic range (using HLG and PQ at 10 or 12 bits), wide color gamut (BT. 2020/2100 colorimetry), and high frame rate (up to 120 Hz). As of February 2025, YouTube and Vimeo have started supporting high-resolution video uploads, with maximum resolutions of 4096 2304 pixels (approximately 9.4 megapixels) and 4096 2160 pixels (approximately 8.8 megapixels), respectively.The proliferation of 4K content across streaming platforms like Netflix, Amazon Prime Video, and YouTube has made it more accessible to consumers. Vimeo's 4K content is currently limited to mostly nature documentaries and tech coverage. The high Efficiency Video Coding (HEVC or H.265) standard facilitates streaming of 4K content at bitrates between 20 to 30 Mbit/s, offering efficient compression without significant quality loss.Notable milestones in the adoption of 4K technology include the first adult video service streaming in 4K by Naughty America in January 2014 and the broadcast of Super Bowl LIX in 4K resolution with Dolby Vision HDR and Dolby Atmos sound for the first time in February 2025. This marked a significant milestone in sports broadcasting.The availability of mobile phones capable of recording at 2160p (3840 2160) dates back to late 2013, with notable examples including the Samsung Galaxy Note 3. In 2014, the OnePlus One was released with the option to record DCI 4K (4096 2160) at 24 frames per second.The development of 4K technology involved several research groups in universities around the world, such as University of California, San Diego, CALIT2, Keio University, Naval Postgraduate School, and others that realized several demonstrations in venues such as IGrid in 2004 and CineGrid. YouTube began supporting 4K for video uploads in 2010 as a result of leading manufacturers producing 4K cameras.Theaters have been projecting movies at 4K resolution since 2011, while Sony was offering 4K projectors as early as 2004. Despite the availability of 4K technology, there are still limited finished films with 4K resolution as of 2023.The growth of HEVC support was significant in 2014, with major manufacturers announcing their backing for the technology. This led to an increase in high-quality video content, such as Amazon Studios' original series and pilots, which were shot in 4K resolution from that year onwards. These productions are now available on Amazon Video. The first Ultra HD Blu-ray players and discs, capable of displaying 4K resolution with HDR at 60 frames per second, were released in March 2016. This development marked a significant milestone in the adoption of 4K technology. Other major gaming consoles also began to support 4K streaming and gaming around this time. The PlayStation 4 Pro, for instance, was launched in November 2016, while the Xbox One X followed suit in November 2017. However, it's worth noting that not all games on these consoles are natively rendered at 4K resolution.In contrast to the rapidly decreasing prices of home cinema viewing devices from 2013 onwards, the market for digital video projectors saw limited growth due to the high cost of native 4K-capable models. These projectors remained priced above US$10,000 until 2015, making them inaccessible to many consumers. Sony was the sole major manufacturer offering a comprehensive 4K projection solution at that time. Critics have argued that the extra pixels in 4K are unnecessary for normal human vision, especially when viewing content on smaller screens. However, home cinema projectors often use larger screens without increasing the viewing distance proportionally.To provide an affordable 4K experience, manufacturers developed "e-shift" technology, which extrapolates additional pixels from 1080p sources to upscale to 4K or display 4K from native 4K sources at a lower price point. This technology reached its fourth generation in 2016 and was applied by JVC to create an 8K flight simulation system for Boeing. The first pixel-shifted 4K UHD projectors adopted by the market used a 27181528 pixel structure, which processed true 4K data but overlapped pixels to achieve the desired resolution.The distinction between true 4K and pixel-shifting technology was highlighted in the article. True 4K projectors, such as those offered by Sony, produce smaller pixels with finer resolution and no loss of detail or color from overlapping pixels. This is a significant advantage over pixel-shifting technology, which can only carry so much resolution before it becomes noticeable. The article also mentioned that Kaleidescape's media servers enable 4K UHD Blu-ray movies with a wide dynamic range in home theaters.Finally, the article noted that pay-TV providers like DirecTV began to offer access to 4K content in November 2014, although limited to selected video-on-demand films. British sports network BT Sport launched its own 4K feed in August 2015, marking another significant milestone in the adoption of 4K technology.Football Matches Get a High-Definition Makeover#### Production Units for HD and 4K BroadcastsTwo production units were used to produce the traditional broadcast in high-definition, along with a separate 4K broadcast. The network did not want to mix 4K footage with upconverted HD footage, so it skipped traditional studio segments at pre-game or half-time. Instead, match commentators hosted segments from the stadium using a 4K camera.#### BT Vision and CompressionBT envisioned viewers switching between HD and 4K broadcasts if they wanted more analysis. The production team compressed footage using H.264 encoders before transmitting it to the BT Tower, where it was then transmitted back to the studio for decompression and distribution via 4K-compatible set-top boxes.#### Canadian Providers Offer 4K CompatibilityIn late 2015 and January 2016, several Canadian providers including Vidotron, Rogers Cable, and Bell Fibe TV announced they would offer 4K compatible set-top boxes that could stream 4K content to subscribers. Rogers Communications planned to produce 101 sports telecasts in 4K in 2016.#### First 4K NBA Game BroadcastOn January 14, 2016, Sportsnet broadcast the first ever NBA game produced in 4K a Toronto Raptors/Orlando Magic game at O2 Arena in London. TSN presented its first live 4K telecast during a Raptors game on January 20.#### Dome Productions and Bell Media's 4K VentureDome Productions, a joint venture of Bell Media and Rogers Media, constructed a "side-by-side" 4K mobile production unit shared by Sportsnet and TSN. It was designed to operate alongside an HD truck and utilize cameras capable of output in both formats.#### More Broadcasts in 4KIn February 2016, Univision trialed 4K with a private broadcast of a football friendly between Mexico and Senegal. Bell Media's CTV broadcast the 2016 Juno Awards in 4K. In March 2016, DirecTV and CBS Sports announced they would produce the "Amen Corner" coverage from the Masters golf tournament in 4K.#### Telus TV to Offer 4K CompatibilityIn late 2016, Telus TV announced it would begin offering 4K compatible set-top boxes. The technology was first tested at the 2013 FIFA Confederations Cup and the 2014 FIFA World Cup before being used extensively during the 2018 FIFA World Cup.#### Technical Limitations and DistributionTechnical limitations in distributing 4K broadcasts have led some broadcasters to choose 1080p/HDR over 4K. However, the BBC and select television providers in the US made 4K broadcasts available from selected rightsholders.The format of 4K coverage has undergone significant changes since its inception. In 2024, UEFA decided to discontinue 4K coverage for both in-house broadcasts, instead opting to allocate resources towards Higher Dynamic Range (HDR) and other on-air features.###ARTICLEThe UHD+ resolution has returned in the Dell XPS Laptop series, offering a 3840 1920 display with a 2:1 aspect ratio, primarily used for 360 videos that benefit from this aspect ratio to represent both horizontal and vertical views. This resolution is also found on computer monitors, such as the LG 38UC99-W released in 2016.Additionally, there's the WQXGA+ resolution, equivalent to 3840 2160 with a reduced height of approximately 26%, and referred to by various manufacturers under names like "WQHD+", "Ultra-wide Quad HD+", or "UW4K". The Samsung C49HG70 features this resolution, offering twice the horizontal resolution of a standard 1080p display.Recording video at 4K provides better fine spatial detail, with individual frames capable of producing high-resolution still images. This is especially beneficial when reducing the final video resolution to 2K or lower, as it allows for increased fineness and contrast in output formats like DVD and Blu-ray.Cinematographers sometimes record at 4K using the Super 35 film format to minimize resolution loss during processing. Consumer electronics, including mobile phones, often store video footage in a YCBCR format with 4:2:0 chroma subsampling, resulting in color information being recorded at only one quarter the resolution as brightness information.The availability of higher bit rates for 4K recordings reduces compression artifacts, even on lower-resolution monitors. The UHD+ resolution is part of a broader list of digital video formats, including 1080p Full HD, 1440p (WQHD), and various aspect ratios.Ultra High Definition: A New Standard in Display Technology4K photo and Ultra High Definition (UHD) are two terms that have been thrown around the tech industry for a while, but what exactly do they mean? The answer lies in the world of display technology.According to CEA Market Research ReportUltra High-Definition, UHD is defined as a resolution of at least 3840 x 2160 pixels. This means that any display with this level of resolution can be considered UHD. But what does it really offer? For starters, UHD offers four times the resolution of Full HD, which makes for sharper and more detailed images.But UHD is not just about resolution. It's also about color accuracy and brightness. According to SMPTE 428-1-2006: D-Cinema Distribution Master - Image Characteristics, UHD displays can produce up to 10 times the color volume of Full HD displays, making for a more immersive viewing experience.So what's the difference between 4K and UHD? Well, 4K refers specifically to the resolution of 3840 x 2160 pixels. However, not all 4K displays are created equal. According to ITU-R Recommendation BT.2020-2: Parameter values for ultra-high definition television systems for production and international programme exchange, UHD displays can also offer wider color gamuts and higher peak brightness levels than traditional 4K displays.In recent years, we've seen the emergence of new display technologies like HDR (High Dynamic Range) and OLED (Organic Light-Emitting Diode). According to New ITU reports help shape next TV revolution: High Dynamic Range (HDR), HDR offers improved contrast ratios and wider color gamuts than traditional UHD displays.But what does this mean for consumers? Simply put, it means that they can expect better image quality and a more immersive viewing experience. Whether you're watching movies or playing games, UHD displays offer a level of detail and realism that's hard to match.So there you have it - Ultra High Definition is not just about resolution, but also about color accuracy, brightness, and display technology. Whether you're a tech enthusiast or just someone who wants the best viewing experience possible, UHD displays are definitely worth considering.What is the truth behind the term RGBW TV? The term RGBW TV has become increasingly popular in recent years, but what does it actually mean? In this article, we'll delve into the world of modern TVs and explore the intricacies of RGBW technology.The video can be streamed without any issues, although neither YouTube nor Vimeo has specified the minimum data speed needed for 4K streaming. Several companies such as Asus, Dell, Sharp, and others offer 4K computer monitors ^ Anderson, Jim. "4K Ultra HD Test, High Quality BLUE". YouTube. Retrieved 1 April 2015. ^ Lawler, Ryan (25 January 2013). "Next-Gen Video Format H.265 Is Approved, Paving The Way For High-Quality Video On Low-Bandwidth Networks". TechCrunch. AOL. Retrieved 30 May 2014. ^ "Naughty America: 4K porn is coming, trailer released", Pocket lint, 2014-01-13 ^ "Payserve Launches 4k Ultra-HD Site, Sindrive". Adult Video News. Retrieved 23 January 2016. ^ Archer, John. "Super Bowl LIX To Be Shown With Dolby Vision HDR And Dolby Atmos Sound For The First Time Ever". Forbes. Retrieved 2025-03-04. ^ "How to watch Super Bowl 2025 in 4K: What to know about Chiefs vs. Eagles HDR live stream broadcast | Sporting News". www.sportingnews.com. 2025-02-09. Retrieved 2025-03-04. ^ "4K Video Recording at 60fps on phones is here but it comes with a catch". 2 June 2018. Retrieved June 2, 2018. ^ "iMac (Retina 5K, 27-inch, Late 2014) - Technical Specifications Apple Support (UK)". Apple Support. Retrieved 2025-01-16. ^ a b Peddie, Jon (2018-10-07). "GPU History: Hitachi ARTC HD63484". IEEE Computer Society. ^ Frost, Jacqueline B (2009). Cinematography for Directors: A Guide for Creative Collaboration. Michael Wiese Productions. p. 199. ISBN 978-1-932907-55-1. OCLC 263978424. ^ "What is 4K resolution for Cameras and Video Cameras". epfilms. Retrieved 19 June 2016. Dalsa Origin was the very first commercially obtainable 4K Resolution ^ Ramsey, Doug (Aug 24, 2009). "Film Premiere in Cyberspace Links Brazil, U.S. and Japan". Retrieved May 24, 2018. ^ a b Teoh, Vincent (25 December 2013). "YouTube Adds "2160p 4K" Option To Video Quality Settings". HDTVTest. Retrieved 24 May 2014. ^ "Youtube puts in new 2160p 4K option for video-settings". Neo win. Retrieved 24 July 2014. ^ Truong, Alice (August 6, 2013). "4K is already playing at a theater near you, but you probably didn't even notice". Digital Trends. Designtechnica. Retrieved 24 May 2014. ^ "Sony Unveils New "4k" Digital Cinema Projector" (press release). Projector Central. June 3, 2004. Retrieved 24 May 2014. ^ Quick, Darren (May 31, 2012). "Sony releases world's first 4K home theater projector". Gizmag. Retrieved 24 May 2014. ^ Schodt, C. (June 19, 2019). "Why your Avengers UHD Blu-rays aren't actually 4K". Engadget. Retrieved May 10, 2021. ^ Denison, Caleb (September 4, 2013). "Sony feeds starving 4K early adopters with over 70 titles of 4K movies and TV shows". Digital Trends. Retrieved 31 May 2014. ^ "Breaking Bad is now streaming in 4K on Netflix", Gizmodo, 17 June 2014 ^ Katzmaier, David (8 April 2014). "Netflix begins 4K streams". CNET. Retrieved 30 May 2014. ^ Kerr, Dara (17 December 2013). "Amazon Studios to begin shooting original series in 4K". CNET. Retrieved 30 May 2014. ^ "List of 4k UHD Movies & TV Shows on Amazon Video HD Report". hd-report.com. Retrieved 2017-11-25. ^ "The first ever Ultra HD 4K Blu-ray player has gone on sale a little bit early". The Verge. Retrieved 2017-11-25. ^ Machkovech, Sam (August 2, 2016). "Microsoft hid performance boosts for old games in Xbox One S, told no one". Ars Technica. Cond Nast. Retrieved June 17, 2019. ^ Layden, Shawn (2016-11-10). "PlayStation 4 Pro Launches Today". blog.us.playstation.com. Retrieved November 10, 2016. ^ "The PS4 Pro, as explained by the man who designed it". Engadget. 20 October 2016. Retrieved June 17, 2019. ^ "Xbox One X review". The Verge. Retrieved 2017-11-25. ^ "Xbox One X Enhanced Games List | HDR, Ultra HD, & 4K Gaming". Xbox.com. Retrieved June 17, 2019. ^ Katzmaier, David (March 30, 2015). "Sony VPL-VW350ES review". CNET. Retrieved December 7, 2015. ^ Pendlebury, Ty (September 26, 2013). "JVC debuts cheaper pseudo-4K projectors". CNET. Retrieved December 7, 2015. ^ "DLA-X550R Overview". JVC. Retrieved December 7, 2015. ^ Silva, Robert (October 16, 2015). "JVC Intros 4th Generation e-Shift 4K Projectors at CEDIA 2015". About.com. Archived from the original on December 11, 2015. Retrieved December 7, 2015. ^ Cohen, Steven (October 19, 2015). "JVC Readies New eShift 4K D-ILA Projectors with HDR". High-Def Digest. RetrievedIn 2015, the push for 4K content and broadcasts gained momentum in Canada, with several notable events and announcements marking this shift towards higher-definition entertainment.The first live 4K broadcast of a sports event took place on January 13, 2016, when TSN aired the Raptors-Celtics game. This was followed by Rogers' announcement of its Ignite Gigabit internet service, which would enable faster data transmission and support for 4K content. The same month, Sportsnet announced it would produce its first NHL game in 4K.Dome Productions, a leading provider of live sports broadcasting services, began preparing for the arrival of live 4K sports in Canada. They developed a single production solution for UHD/HD broadcasts with Rogers Sportsnet.The 2016 Juno Awards saw a significant presence of 4K content, with The Weeknd and Justin Bieber among the winners. Univision also made headlines by announcing its plan to produce the Copa Amrica Centenario final in 4K.The year 2023 marked a turning point for sports broadcasting, with several major events being broadcast in 4K resolution. However, there were still challenges to overcome, including bandwidth limitations and cost considerations.Fast forward to 2024, when NBCUniversal announced it would present over 400 hours of 4K HDR/Dolby Atmos coverage of the Paris 2024 Olympics on the USA Network. This move solidified the push for high-definition entertainment in sports broadcasting.Despite these advancements, there are still challenges to be addressed, including the need for increased bandwidth and the cost associated with producing and distributing 4K content.The development of 4K technology has been a gradual process, with its first introduction dating back to 2013. The resolution table, which outlines various display resolutions, highlights the growth in resolution over the years.However, with the shift towards higher-definition entertainment, concerns about bandwidth and cost have emerged. As reported by Variety in 2013, ultra-HD TV faces a significant challenge in getting into homes due to bandwidth limitations.Overall, the push for 4K content and broadcasts has been a gradual process, marked by several notable events and announcements. While there are still challenges to overcome, the trend towards higher-definition entertainment continues to gain momentum.The history of digital intermediates for film and video production has been a crucial aspect in the evolution of visual storytelling. These tools have played a significant role in enhancing the quality and aesthetics of films, allowing directors to create more immersive experiences for audiences.In the early days of film production, digital intermediates were used to correct errors and improve image quality during post-production. However, as technology advanced, these tools became more sophisticated, enabling filmmakers to achieve greater creative control over their work.One notable example is the use of digital intermediate in the production of 4K-resolution films. This format offers a higher pixel density than traditional HD resolutions, resulting in a more detailed and crisp image on screen. The increased resolution has also enabled filmmakers to create more realistic visual effects, such as CGI characters and environments, which were previously difficult to achieve.The development of new digital intermediates continues to shape the film industry, with advancements in areas like HDR (High Dynamic Range) and WCG (Wide Color Gamut). These technologies allow for greater color accuracy and a wider range of tonal values, resulting in a more engaging and immersive viewing experience.Moreover, the use of digital intermediates has also influenced the development of other technologies,