The Future of Amusement

From Spectacle Back to Play

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Essay based on The History of Amusement on the Net, version 0.5.

Abstract

This essay asks what the future of amusement will be. It answers from history, not from technology forecasts. It reads 250 years of mass entertainment as one long movement: from playing to watching. Each new medium removed one more carrier from the act of play: the player from the arena, the actor from the room, the hall from the city, the body from the screen, and now the maker from the work. Artificial intelligence completes that movement. The essay argues that a second movement has already begun, from watching back to playing. Its end point is the end of the spectator. The argument uses a single structural rule, closure, taken from the Vacuum.Net theory. That theory is explained in section 2. The essay separates three kinds of claims: facts with sources, readings, and the one numerical test that was run. The test was negative. The readings stand as readings.

1. The question

Most forecasts of entertainment extend current trends. More streaming. More virtual reality. More personal content made by AI. These forecasts are probably right in the short run. They say little about the shape of amusement in a generation.

This essay takes another route. It looks at the whole history of play and spectacle, from animal play to the synthetic music of 2026. It asks which movement that history shows, and where the movement ends. The material comes from the reference book *The History of Amusement on the Net*, which catalogues about 190 dated cases of play and spectacle.[1]

The thesis is simple. Since about 1768, amusement has moved from playing to watching. That movement has reached its limit. The future of amusement is the return from watching to playing, on a scale and with tools that did not exist before. Its end point is the end of the spectator.

[1] [1] Konstapel, J. (2026). The History of Amusement on the Net: A Reference Work on Play, Games, Spectacle and the Vacuum.Net, version 0.5, 22 November 2026. Constable Research, Leiden.

2. The Vacuum.Net theory in brief

The essay reads history through one rule taken from the Vacuum.Net theory.[2] This section explains the parts that are needed.

The theory starts from a single strand of steps. Each step has a direction: to the right, straight on, or to the left. These three directions are called trits. A trit is a direction, not a value. Three steps in a row form a window. Of the 27 possible windows, 9 return to where they started. They close. The other 18 stay open and carry tension.

The basic rule follows from this: only what closes, stays. A closed window can be repeated, copied and built upon. An open window must either close later or disappear.

Closed windows come in two kinds. Three equal steps form a crystal: fixed and rigid. Three different steps form a metabolism: the form returns while its content keeps changing. The edge between closed and open is called the membrane. That is where exchange takes place.

The theory also gives a ladder of time. Each layer of the ladder lasts three times as long as the layer below it. A position on the ladder is the logarithm, base 3, of a duration in a fixed unit. On this scale a day is at 43.50, a year at 48.87 and a human generation at 51.87. Layer 53 spans about 93 to 280 years. Some depths on the ladder are special. They are the depths where steps of two and steps of three almost meet: 1, 2, 5, 12, 41 and 53. They are called closure depths.[3]

A companion work on culture derives five forms from the rule.[4] They recur throughout this essay:

- What closes, stays.
- The form lasts while its carriers are replaced.
- Residue becomes the alphabet of the next depth.
- A union opens once and is then filled many times.
- Reading keeps the relations and drops the rest.

A related work, *The Trit Tile*, studies a number system built from trits.[5] In that system some numbers close and some turn forever. The share of turning numbers never settles. It swings between about 29.6 % and 32.0 % with a period of three. The tile also gives a procedure for detecting cycles in human data. Section 8 uses it.

3. What play is

Four classic works define the field. They are needed to see what changes.

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[2] [2] Konstapel, J. (2026). Vacuum.Net Theory, Ninth Edition: Foundations 9.2 and Physics 9.0. Constable Research, Leiden.

[3] [2] Konstapel, J. (2026). Vacuum.Net Theory, Ninth Edition: Foundations 9.2 and Physics 9.0. Constable Research, Leiden.

[4] [3] Konstapel, J. (2026). The History of Culture on the Net: A Reference Work on Human Culture and the Vacuum.Net, version 1.0, 15 October 2026. Constable Research, Leiden.

[5] [4] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden.

Johan Huizinga wrote *Homo Ludens* in Leiden in 1938. He described play as free, outside ordinary life, bounded in time and place, and creating its own order.[6] The bounded place became known as the magic circle. In the terms of section 2, the magic circle is a closed window. Inside it, the rules close the action.

Roger Caillois distinguished four kinds of play in 1958: agon, the contest; alea, chance; mimicry, playing a role; and ilinx, dizziness.[7] He also set free play (paidia) against play with rules (ludus).

James Carse distinguished finite and infinite games in 1986. A finite game is played to win, and ends. An infinite game is played to keep the play going.[8] In the terms of the trit tile, a finite game closes. An infinite game turns.

Mikhail Bakhtin, writing about the medieval carnival, made the point that matters most for this essay. In his words, "carnival does not know footlights". It drew no line between actors and spectators. People did not watch carnival. They lived in it.[9]

These four views share one assumption. Play is something people do. It is not something they watch. The history of the last 250 years moved away from that assumption.

4. The first movement: from playing to watching

Before the ring

For most of history, amusement meant taking part. Animals play without an audience. Young mammals chase, wrestle and tumble, and play has been documented across many species.[10] Even bumblebees have been seen rolling balls with no reward.[11] The oldest known instruments, bone flutes from caves in southern Germany, are more than 40,000 years old.[12] Board games appear in the Neolithic. Festivals, from Greek drama to the medieval carnival, had performers, but the boundary between player and crowd was thin. The Feast of Fools let the lowest clergy take the place of the highest for a day.[13]

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[6] [5] Huizinga, J. (1938). Homo Ludens: Proeve eener bepaling van het spel-element der cultuur. Haarlem: Tjeenk Willink. English edition: Homo Ludens: A Study of the Play-Element in Culture. London: Routledge & Kegan Paul, 1949; Boston: Beacon, 1955.

[7] [6] Caillois, R. (1958). Les jeux et les hommes. Paris: Gallimard. English: Man, Play and Games, trans. M. Barash. New York: Free Press, 1961; Urbana: University of Illinois Press, 2001.

[8] [7] Carse, J. P. (1986). Finite and Infinite Games: A Vision of Life as Play and Possibility. New York: Free Press.

[9] [8] Bakhtin, M. M. (1965). Tvorchestvo Fransua Rable i narodnaya kul'tura srednevekov'ya i Renessansa. Moscow. English: Rabelais and His World, trans. H. Iswolsky. Cambridge, MA: MIT Press, 1968. New translation by S. Sandler, 2025. Quotation from the introduction, p. 7 of the 1968 translation.

[10] [9] Burghardt, G. M. (2005). The Genesis of Animal Play: Testing the Limits. Cambridge, MA: MIT Press.

[11] [10] Galpayage Dona, H. S., Solvi, C., Kowalewska, A., Makela, K., et al., with Chittka, L. (2022). Do bumble bees play? Animal Behaviour 194, 239-251. DOI 10.1016/j.anbehav.2022.08.013

[12] [11] Wikipedia. Paleolithic flute. https://en.wikipedia.org/wiki/Bone_flute (secondary)

[13] [12] Encyclopaedia Britannica. Feast of Fools.

The ring

In 1768 Philip Astley began to show trick riding in a ring in Lambeth, London. His ring was later fixed at 13 metres across, the standard size of the circus ever since.[14] The ring is the magic circle made exact. But it also did something new. It placed the performer inside the circle and the paying public outside it. From then on, the history of mass amusement is a history of watching.

Cutting the carriers

Each new medium of the next 250 years removed one more carrier from the act of play.

Step	Year	What was cut	Source
Circus ring	1768	The player from the crowd: performers inside, payers outside	
Codified sport	1863	The local game: one set of written rules for all	
Paid film screening	1895	The live actor: one performance, shown again and again	
Radio broadcast	1920	The room: sound sent into every home	
Television in the home	1950–1960	The hall and the crowd	
Limited animation for TV	1963	The body before the camera: nothing on screen ever existed	
Streaming platforms	2005–2011	The schedule and the studio	
AI-generated works	2025–2026	The maker	

Table 1. The first movement: each step removed one carrier.

Two cases show the scale. In the United States, average weekly cinema attendance reached 90 million in 1930 and again in 1946–1948.[15] Television spread from 9 % of American homes in 1950 to most homes ten years later.[16] In 2025, the Super Bowl averaged 127.7 million viewers in the United States alone.[17]

Reading. This is the second form of the culture book carried to its limit. The form lasts while its carriers are replaced. On the screen, the carriers are not even replaced. They are absent. What remains is the relation between the work and the watcher.

[14] [13] Encyclopaedia Britannica. Circus: Philip Astley and the first circuses. With Wikipedia, Philip Astley (secondary).

[15] [22] Historical Statistics of the United States, Millennial Edition, Table Dh388-391: Motion picture attendance 1922-1998. With Encyclopedia.com, The American Film Industry in the Early 1950s.

[16] [17] US Census Bureau, History: September 2023 (television). With US Census Bureau 1958 statistical abstract table and FCC data.

[17] [23] Nielsen (11 February 2025). Super Bowl LIX makes TV history with over 127 million viewers.

The last carrier

The last step is now under way. In January 2025 the French music service Deezer began to tag songs made entirely by AI. At that point they were 10 % of its daily uploads. By June 2026 they were more than half: about 90,000 tracks a day.[18] The same tools now make images, voices, video and game levels. The maker is the last carrier. When it goes, only the watcher remains.

But the Deezer figures also show the limit. AI tracks drew only 1–3 % of streams, and many of those streams were judged fraudulent.[19] In a blind test, 97 % of listeners could not tell AI music from human music. Yet they did not choose to listen to it. Making has become almost free. Closure with a listener has not.

5. The limit of the short unit

A second trend points to the same limit. The basic unit of screen amusement keeps getting shorter.

Unit	Typical length	Ladder position	Source
Animated feature (Snow White, 1937)	83 minutes	40.90	
Weekly TV anime episode (from 1963)	30 minutes	39.98	
Microdrama episode (2020s)	90–120 seconds	37.25–37.51	
First YouTube video (2005)	19 seconds	35.83	

Table 2. The shrinking unit of screen amusement.

The microdrama is the clearest case. It is a serial told in vertical episodes of one or two minutes. Each episode ends on a cliffhanger. Viewers pay to unlock the next one. In China, microdrama revenue grew from about $0.5 billion in 2021 to about $7 billion in 2024, more than the country's cinema box office.[20]

This line cannot go much further. Below a few seconds, a story cannot close. A form that keeps shrinking reaches a point where nothing closes at all. The microdrama already lives in the open window: its value lies in not closing. That earns money fast. It also leaves little that stays.

Reading. The trend toward shorter units is not a sign of shorter attention alone. It is the first movement reaching its floor. When the unit can shrink no further, the direction must change.

6. The second movement: from watching back to playing

The second movement has already begun. Four signs are visible in the data.

[18] [21] Deezer Newsroom (January 2025 - July 2026), as reported by TechCrunch and Engadget.

[19] [21] Deezer Newsroom (January 2025 - July 2026), as reported by TechCrunch and Engadget.

[20] [25] Media Partners Asia (2025-2026). The Micro-Drama Economy; ReelShort / Crazy Maple Studio report; as reported by Variety and Indian Television. With CNBC (2025).

The viewer became a maker. YouTube's first video, in April 2005, was 19 seconds of one of its founders at a zoo. In twenty years, more than 20 billion videos were uploaded.[21]

Play became the show. Twitch launched in June 2011 to stream people playing video games. Three years later Amazon bought it for about $970 million.[22] The line between player and audience became thin again.

The fan became a maker. The first Comic Market, held in Tokyo in December 1975, drew about 700 people selling self-published comics. At its fiftieth anniversary it drew about 300,000 over two days.[23] Cosplay, dressing as a character, is Caillois's mimicry in pure form.

Most of all, people play. In 2025 about 3.6 billion people played video games.[24] Games earned about $201.6 billion, more than six times recorded music.[25] [26] No other branch of amusement comes close.

Reading. These are the first signs of Bakhtin's carnival returning at a new depth. Carnival does not know footlights. Neither does a multiplayer game, a fan convention or a live stream with a chat. The audience is becoming a cast.

7. Four features of the amusement of the future

If the second movement continues, four features follow. Each is a reading, derived from the history and the rule of closure. None is a forecast with proof.

The work disappears; the play remains

When making a work is free, a fixed work loses its value. What keeps its value is what happens between players at the moment of play, and then disappears. A football match is not valued for its recording. It is valued because its outcome was open until the end, and closed in front of everyone at once. The future of amusement favours that kind of event: a closed set of rules with an open result. This is the oldest form of amusement, the form of animal play, at a higher depth.

Closures at every scale at once

The shrinking unit cannot shrink further. The answer is not one unit, but many nested ones. A future game closes in seconds, in days, in years and across generations, each layer inside the next. Carse's infinite game is the model: play that closes often but never ends. The long anime franchise is an early example. *Dragon Ball* ran in one weekly magazine for about ten years, chapter after chapter, each

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[21] [19] Netflix and YouTube corporate histories as summarised by Wikipedia (secondary); AFP (2025), YouTube turns 20.

[22] [20] Amazon.com, Inc. (25 August 2014). Amazon.com to Acquire Twitch (Form 8-K, Exhibit 99.1). With Britannica, Twitch.

[23] [26] nippon.com, Japan Data: Comiket, a small fan gathering that grew into a huge event; Anime News Network (2025), Comic Market 107. With Smithsonian, San Diego's first Comic-Con.

[24] [27] Newzoo. Global Games Market Report 2025 (September 2025) and update (2026), as reported by PocketGamer.biz and PC Gamer.

[25] [27] Newzoo. Global Games Market Report 2025 (September 2025) and update (2026), as reported by PocketGamer.biz and PC Gamer.

[26] [28] IFPI (2026). Global Music Report 2026: State of the Industry. London: IFPI, 18 March 2026.

one closing and opening the next.[27] The trit tile shows the same structure in numbers: closures at every scale, and a share of turning orbits that never settles.[28]

Machines as masks, not makers

In the first movement, machines replaced performers. In the second, they become the masks, props and partners of the carnival. They generate the material. People close it. The Deezer data show why. Machines can supply without limit. Only people decide what closes for them.[29]

The body as the edge

The cheaper the screen, the more valuable the physical meeting. One form has hardly changed in 2,500 years: the festival of a few days. The Roman Saturnalia lasted three to seven days.[30] Woodstock in 1969 lasted four days and drew about 400,000 people.[31] The first modern Olympics, in 1896, lasted ten days.[32] In the terms of section 2, the live meeting is the membrane. It is where the screen cannot go.

8. What was tested

The reference book behind this essay noted many cases whose ladder positions fall close to whole numbers or closure depths. To check whether this was more than chance, it ran the cycle detector from the trit tile on 166 unique positions. Each result was compared with 20,000 shuffles of the data.[33]

The result was negative. The positions show no preferred phase for steps of three ($p = 0.996$) or two ($p = 0.85$). There was a narrow excess of positions within 0.05 of a whole number: 30 against 16.6 expected. But it disappears at wider windows, many tests were run, and the cases were selected by an author who could see their positions. The test cannot decide the question.[34]

One observation in this essay belongs to that category. The age of the spectacle, from Astley's ring in 1768 to 2026, lasts 258 years. That is position 53.92 on the ladder. Bakhtin's cycle of about 250 years, which the author used in 2007 to predict a worldwide carnival, sits at 53.90.[35] The two are close. After the negative test, this closeness is reported only as an observation.

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[27] [29] Wikipedia. Weekly Shonen Jump (secondary). With nippon.com (2026) and Anime Corner (2026) on the Japan Magazine Publishers Association figures.

[28] [4] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden.

[29] [21] Deezer Newsroom (January 2025 - July 2026), as reported by TechCrunch and Engadget.

[30] [30] Grout, J. Encyclopaedia Romana: Saturnalia; Roman Holidays (ludi). University of Chicago (penelope.uchicago.edu).

[31] [31] Encyclopaedia Britannica. Woodstock. With National Archives (Prologue blog, 2019).

[32] [32] International Olympic Committee. Athens 1896: the revival of the Olympic Games (olympics.com).

[33] [33] Konstapel, J. (2026). The rhythm test, chapter 20 of The History of Amusement on the Net v0.5 (see the reference book above), with the script rhythm_test.py; method from The Trit Tile, section 21.

[34] [33] Konstapel, J. (2026). The rhythm test, chapter 20 of The History of Amusement on the Net v0.5 (see the reference book above), with the script rhythm_test.py; method from The Trit Tile, section 21.

[35] [34] Konstapel, J. (2007). The Wordwide Carnival: An Introduction into the World of Mikhail Bakhtin. constable.blog, 2 September 2007. https://constable.blog/2007/09/02/wordwide-carnival-introduction-world-mikhail-bakhtin/

A fair test of the thesis is possible. It needs a blind record: every new form of amusement in a fixed class, with its start and its fate, recorded before any position is computed. A ready-made case exists. The Japanese magazine *Weekly Shōnen Jump* ranks every series by reader vote and stops series that fail, sometimes after only three weeks.[36] Its public rankings would show whether the series that keep going and those that stop separate in the way the trit tile suggests.

9. What this means for makers

If the thesis holds, the role of the artist changes. In the first movement, the artist made works for others to watch. In the second, the artist makes rules for others to play.

History has a model for this. On 26 October 1863, a dozen London football clubs met in a tavern. In six meetings over 44 days they wrote a common set of laws.[37] Those few pages created a game that billions now play and watch. The rules were the work.

The amusement of the future asks makers to do the same: to design the closed set of rules inside which others find their own closures. Machines can provide the material. The festival can provide the edge. What is kept is not the work, but the trace of the play.

10. Conclusion

For 250 years, mass amusement moved from playing to watching. Each medium cut one more carrier from the act of play, until AI began to cut the maker. That movement has reached its limit. The unit of the screen can shrink no further, and the supply of works has become endless while attention has not.

The second movement has begun: from watching back to playing. Its signs are the viewer who makes, the fan who creates, the 3.6 billion who play. Its end point, if the reading holds, is the end of the spectator: a worldwide carnival with rules, masks and a feast, played by everyone and watched by no one alone.

This is a reading of history through one rule. The one numerical test that was run did not support the patterns noted along the way. A blind test is proposed. Until it is done, the thesis remains what it is: a way of seeing where amusement is going.

[36] [35] Anime News Network (2017). Former Shonen Jump editor-in-chief: readers can decide manga's cancellation in first 3 weeks (interview with Nobuhiko Horie).

[37] [14] The Football Association. The history of the FA. With FIFA, Laws of the Game first formalised in London in 1863.

Annotated references

Each entry gives the source and a short note on what it holds and how this essay uses it. The notes point to where the reader can go deeper. Entries marked secondary are reference works or reports, not original studies.

[1] Konstapel, J. (2026). The History of Amusement on the Net: A Reference Work on Play, Games, Spectacle and the Vacuum.Net, version 0.5, 22 November 2026. Constable Research, Leiden.

The reference book behind this essay: 23 chapters from animal play to synthetic forms, with a catalogue of about 190 dated cases placed on the ladder, the rhythm test and the proposal for maze-amusement.

[2] Konstapel, J. (2026). Vacuum.Net Theory, Ninth Edition: Foundations 9.2 and Physics 9.0. Constable Research, Leiden.

Primary source of the theory. The single strand, closure, the trits, the ladders x2 and x3 and the closure depths. Read first for the vocabulary of this book.

[3] Konstapel, J. (2026). The History of Culture on the Net: A Reference Work on Human Culture and the Vacuum.Net, version 1.0, 15 October 2026. Constable Research, Leiden.

The companion book. Defines the ladder of positions used here and tells culture kind by kind. It holds almost nothing on play, which is why this book exists.

[4] Konstapel, J. (2026). The Trit Tile: a reference work on a number system that never settles, version 1.1, 21 November 2026. Constable Research, Leiden.

Proves that the share of non-closing points in the plane trit system has no limit and swings with period 3. Gives the cycle detector used in Part III of this book.

[5] Huizinga, J. (1938). Homo Ludens: Proeve eener bepaling van het spel-element der cultuur. Haarlem: Tjeenk Willink. English edition: Homo Ludens: A Study of the Play-Element in Culture. London: Routledge & Kegan Paul, 1949; Boston: Beacon, 1955.

The founding book of play studies, written in Leiden. Play is free, outside ordinary life, bounded in place and time, and creates order. Source of the 'magic circle'.

[6] Caillois, R. (1958). Les jeux et les hommes. Paris: Gallimard. English: Man, Play and Games, trans. M. Barash. New York: Free Press, 1961; Urbana: University of Illinois Press, 2001.

Four kinds of play - agon, alea, mimicry, ilinx - and the axis from paidia (free play) to ludus (play with rules). The standard taxonomy.

[7] Carse, J. P. (1986). Finite and Infinite Games: A Vision of Life as Play and Possibility. New York: Free Press.

Finite games are played to win and end; infinite games are played to continue the play. The distinction maps on closing and turning orbits of the trit tile.

[8] Bakhtin, M. M. (1965). Tvorchestvo Fransua Rable i narodnaya kul'tura srednevekov'ya i Renessansa. Moscow. English: Rabelais and His World, trans. H. Iswolsky. Cambridge, MA: MIT Press, 1968. New translation by S. Sandler, 2025. Quotation from the introduction, p. 7 of the 1968 translation.

Written in 1940, published 1965. Carnival as a social institution and grotesque realism as a literary mode; carnival is life shaped by a pattern of play. Source of the line 'carnival does not know footlights': carnival makes no distinction between actors and spectators; people do not watch it, they live in it.

[9] Burghardt, G. M. (2005). The Genesis of Animal Play: Testing the Limits. Cambridge, MA: MIT Press.

Five criteria for play that work across species. Summed up by the author as repeated, incompletely functional, voluntary behaviour in a relaxed setting.

[10] Galpayage Dona, H. S., Solvi, C., Kowalewska, A., Makela, K., et al., with Chittka, L. (2022). Do bumble bees play? Animal Behaviour 194, 239-251. DOI 10.1016/j.anbehav.2022.08.013

First systematic evidence of object play in an insect: bumble bees roll wooden balls without reward. Applies Burghardt's criteria.

[11] Wikipedia. Paleolithic flute. https://en.wikipedia.org/wiki/Bone_flute (secondary)

Swabian flutes of the Aurignacian, 43,000-35,000 years old; Hohle Fels vulture-radius flute with five finger holes; found with the oldest figurative art; disputed Divje Babe find.

[12] Encyclopaedia Britannica. Feast of Fools.

Popular festival on or about 1 January, especially in France: a mock bishop or pope elected, ritual parodied, high and low officials changed places; banned by the Council of Basel but alive until the 16th century.

[13] Encyclopaedia Britannica. Circus: Philip Astley and the first circuses. With Wikipedia, Philip Astley (secondary).

Astley's first public show in Lambeth in 1768; a first ring about 19 m across, later fixed at 42 ft (13 m), the standard ever since; acts of riders, acrobats and clowns joined into one show.

[14] The Football Association. The history of the FA. With FIFA, Laws of the Game first formalised in London in 1863.

The FA formed on 26 October 1863 at the Freemasons' Tavern; six meetings in 44 days produced the laws; first game under them 19 December 1863; first FA Cup final 16 March 1872.

[15] Wikipedia. Salon Indien du Grand Cafe; Auguste and Louis Lumiere (secondary). With Guinness World Records, First cinema in operation.

First paid public screening on 28 December 1895 in Paris; ten short films of about 17 m, roughly 50 seconds each; an audience of about 35-40 paying one franc.

[16] Federal Communications Commission (2020). Celebrating 100 Years of Commercial Radio. With IEEE Milestone: Westinghouse Radio Station KDKA, 1920; CBS News Pittsburgh, KDKA Firsts.

KDKA in Pittsburgh broadcast the Harding-Cox election returns on 2 November 1920, the first scheduled broadcast of a licensed commercial station; 100 watts on 360 m. KDKA's own list of firsts (CBS Pittsburgh) includes the first broadcast of a world heavyweight boxing championship, Dempsey-Carpentier, 2 July 1921.

[17] US Census Bureau, History: September 2023 (television). With US Census Bureau 1958 statistical abstract table and FCC data.

Television ownership rose from 9 % of American households in 1950 to 65 % in 1960 by the Census history note; other series give 86-88 % by 1959-1960.

[18] British Film Institute (Sight and Sound). The seeds of anime: how Japanese animation arose; Looping around limitations: the experimental shorts of Tezuka Osamu.

Full animation for a weekly TV series would have needed ten times the labour of the whole industry; Tezuka's Astro Boy (1963) cut to eight new drawings a second, 'not animation, it is anime'.

[19] Netflix and YouTube corporate histories as summarised by Wikipedia (secondary); AFP (2025), YouTube turns 20.

Netflix began as a DVD-by-mail service in 1997 and launched streaming on 16 January 2007, passing 300 million paid memberships by 2025; the first YouTube video (19 s) went up on 23 April 2005; more than 20 billion videos uploaded in 20 years.

[20] Amazon.com, Inc. (25 August 2014). Amazon.com to Acquire Twitch (Form 8-K, Exhibit 99.1). With Britannica, Twitch.

Twitch launched in June 2011 as a gaming spin-off of Justin.tv; Amazon bought it for about $970 million in cash in 2014, when it had 55 million monthly visitors.

[21] Deezer Newsroom (January 2025 - July 2026), as reported by TechCrunch and Engadget.

Fully AI-generated tracks rose from 10 % of daily uploads (January 2025) to 44 % (April 2026) and over 50 %, about 90,000 a day (June 2026); 13.4 million tagged in 2025; only 1-3 % of streams; 97 % of listeners could not tell AI from human music in a blind test.

[22] Historical Statistics of the United States, Millennial Edition, Table Dh388-391: Motion picture attendance 1922-1998. With Encyclopedia.com, The American Film Industry in the Early 1950s.

Average weekly attendance 40 million in 1922, 90 million in 1930 and 1946-1948; 60 million in 1950 and 40 million in 1960 (Census Bureau series).

[23] Nielsen (11 February 2025). Super Bowl LIX makes TV history with over 127 million viewers.

Super Bowl LIX averaged 127.7 million US viewers, peak 137.7 million; Fox's domestic NFL rights deal is reported at $2.25 billion a year.

[24] Snow White and the Seven Dwarfs (1937): Encyclopaedia Britannica; History.com; Box Office Mojo.

Premiere 21 December 1937 at the Carthay Circle Theatre; the first full-length cel-animated feature; budget about $1.5 million; three years of work and nearly two million paintings.

[25] Media Partners Asia (2025-2026). The Micro-Drama Economy; ReelShort / Crazy Maple Studio report; as reported by Variety and Indian Television. With CNBC (2025).

Episodes of 90 seconds to two minutes; China microdrama revenue from $0.5 billion (2021) to $7 billion (2024), passing local box office; outside China $2.7 billion in 2025; ReelShort revenue $785 million in 2025.

[26] nippon.com, Japan Data: Comiket, a small fan gathering that grew into a huge event; Anime News Network (2025), Comic Market 107. With Smithsonian, San Diego's first Comic-Con.

First Comiket 21 December 1975, about 700 visitors and 32 circles; about 300,000 over two days at its 50th anniversary; San Diego's first Comic-Con 1970 with 145 attendees, now over 135,000.

[27] Newzoo. Global Games Market Report 2025 (September 2025) and update (2026), as reported by PocketGamer.biz and PC Gamer.

3.58 billion players in 2025 (3 billion mobile, 936 million PC, 645 million console); revenue first forecast at $188.8 billion, later reported at $201.6 billion, mobile $113.3 billion.

[28] IFPI (2026). Global Music Report 2026: State of the Industry. London: IFPI, 18 March 2026.

Recorded music revenue $31.7 billion in 2025, eleventh year of growth; streaming 69.6 %, paid subscriptions 52.4 %; 837 million paid subscription users; the low point was $13.1 billion in 2014.

[29] Wikipedia. Weekly Shonen Jump (secondary). With nippon.com (2026) and Anime Corner (2026) on the Japan Magazine Publishers Association figures.

First issue 1968; peak circulation 6.53 million for the New Year issue of 1995; 4.15 million by 1998 after Dragon Ball and Slam Dunk ended; 985,000 average print copies in April-June 2026.

[30] Grout, J. Encyclopaedia Romana: Saturnalia; Roman Holidays (ludi). University of Chicago (penelope.uchicago.edu).

Saturnalia from 17 December, seven days in Cicero's time, cut to three by Augustus, five under Caligula; the ludi from the Ludi Romani of 509 BCE; more than half of April given to games in the late Republic.

[31] Encyclopaedia Britannica. Woodstock. With National Archives (Prologue blog, 2019).

Woodstock, Bethel, New York, 15-18 August 1969; few tickets sold; about 400,000 people came, against an expected 100,000-200,000.

[32] International Olympic Committee. Athens 1896: the revival of the Olympic Games (olympics.com).

241 male athletes from 14 nations in 43 events, 6-15 April 1896; Pierre de Coubertin founded the IOC in 1894.

[33] Konstapel, J. (2026). The rhythm test, chapter 20 of The History of Amusement on the Net v0.5 (see the reference book above), with the script rhythm_test.py; method from The Trit Tile, section 21.

166 unique ladder positions tested against 20,000 within-layer shuffles. No preferred phase for ratio 3 (p = 0.996) or ratio 2 (p = 0.85); a narrow excess near whole numbers (30 against 16.6) that vanishes at wider windows. Reported as a negative result.

[34] Konstapel, J. (2007). The Wordwide Carnival: An Introduction into the World of Mikhail Bakhtin. constable.blog, 2 September 2007. https://constable.blog/2007/09/02/wordwide-carnival-introduction-world-mikhail-bakhtin/

The author's first reading of Bakhtin: chronotope as knot, citation, dialogue against monologue, a 250-year cycle of Western chronotopes and the prediction of a worldwide carnival.

[35] Anime News Network (2017). Former Shonen Jump editor-in-chief: readers can decide manga's cancellation in first 3 weeks (interview with Nobuhiko Horie).

Reader surveys rank the series each issue; a series can be cancelled three weeks after its debut; the usual standard for cancellation is ten weeks.