



# Digital Media sector update

Qualitative insights into broader Digital Media trends and public and private valuations across the transaction spectrum, and interviews with today's leaders transforming the sector.

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## THE VIEW

# Q2 Digital Media Perspectives from GP Bullhound

- The renaissance of video game movies and series
  - The Super Mario Brothers movie and the HBO Series The Last of Us have been well received and highly successful
  - We've also seen favourable outcomes in other video game movies and series recently
  - Given the recent success in video game films and series, Hollywood and investors are set to make significant investments in this market
  
- Content providers increasingly relying on AI to streamline creation process
  - The creative industry has seen an increase in the use of AI, allowing content providers to automate tasks, reduce their costs, increase their precision, and curate better user experiences
  - All AI tools used have as a main goal the optimisation of practices, where AI and NLP algorithms allow for scalable content creation and efficient content methods
  - Future trends in the industry include hyper-personalisation, prototype acceleration and predictive analysis
  
- Growing pipeline of high-quality AR and VR games
  - Consumers are growing increasingly interested in the more realistic and unique gaming experiences AR and VR offer
  - Major AR and VR game and headset releases this year indicate the face of the gaming world is rapidly changing
  - High prices, data security, and user safety remain near-term challenges for widespread adoption
  
- Digital delivery of news is evolving
  - Meta's launch of Threads through Instagram as a competitor to Twitter is creating a sea change in the delivery of news and information
  - Publishers face intense competition from digital giants like Google, Facebook and TikTok for ad revenue and attention, though deals to pay for content provide some relief
  - Social media has surpassed direct access as the main gateway to digital content

## GP BULLHOUND'S SECTOR TAKEAWAYS

# The renaissance of video game movies and series

## Overview

- The video game industry has experienced remarkable growth, generating an annual revenue of close to \$100bn in the US alone. Comic books have a long history of transitioning well to movies and TV series as Marvel Studios has become one of the most reliable and successful franchises
- However, the adaptation of video games into successful films and television series has historically been met with mixed results. Sonic the Hedgehog 2 and Uncharted, two videogames that were released as movies in 2022, were exceptions with worldwide box offices that exceeded \$400m

## Success of The Super Mario Bros. Movie and The Last of Us

- This is changing with the recent success of The Super Mario Bros. Movie released in April to a worldwide box office that exceeds \$1.3bn, and the HBO series, The Last of Us, which has garnered strong critical acclaim and a loyal following among subscribers to HBO Max
- The Last of Us, adapted from Naughty Dog (a Sony owned development studio), is a renowned video game and unique property owed in part to its addressing complex issues that video games rarely convey. Its narrative approach lends itself to more sophisticated story lines
- The series also has expanded upon the video game by including expanded story lines around smaller characters. Overall, the series has an 8.8 rating on IMDb from 432,473 votes, a 96% score on Rotten Tomatoes, and an average score of 91% rated by Google search users

## Outlook

- Given the recent success in video game films and series, Hollywood and investors are poised to make substantial investments in the market for video game movies and series. This presents a promising prospect for creativity, as a previously inaccessible landscape of well-established fictional worlds now becomes available for exploration and commercial endeavours
- Furthermore, the success of The Last of Us sheds light on the potential to foster closer ties between two previously distinct sectors of the entertainment industry. Video games are increasingly adopting the characteristics of films and series, featuring more sophisticated narratives, character development, and even computer-generated performances. This convergence signifies a blurring of boundaries as video games incorporate elements traditionally associated with the cinematic realm

## Video game movies and series: Recent successful launches



## GP BULLHOUND'S SECTOR TAKEAWAYS

# Content providers relying on AI to streamline creation processes

## Overview

- The use of AI has been increasingly frequent in the creative industry as content providers can automate tasks and improve the speed and precision of content creation, all while enhancing the user experience by providing curated content for every need
- Some examples that highlight how content providers, such as social media companies, online platforms and streaming services leverage AI to optimise their content processes include:
  - Image and video generation: Using AI algorithms, one can create visuals and videos based on input data and instructions given by the content provider. This enables the generation of faster graphics, illustrations or videos with no manual work, which opens more possibilities for content creation at scale
  - Automated writing: AI systems can generate any type and format of written content based on simple instructions and predefined templates. Content providers save more time especially for repetitive or data-driven content using AI
  - Data analytics: AI-backed analytics tools enable content creators to analyse large volumes of data that provide valuable insights about their users and audience, including content performance, trends, audience preferences and user engagement
  - Editing and proofreading: Content providers can leverage on natural language processing (NLP) algorithms that can edit, proofread and check the consistency and quality of any written content

## Emerging Trends and Future Directions

- **Hyper-personalisation:** AI will enable users to generate highly-targeted content curated to everyone
- **Prototype acceleration:** Generate AI can create digital prototypes, reducing costs and iterations
- **Predictive analysis:** Using the right data quality, content providers will use AI to predict user behaviour and curate specific marketing techniques

## Outlook

- Industry participants expect increased reliance on AI including efficiencies where AI tools may take a larger role in initial drafts. Total elimination of human oversight in the creative process is not expected in the near-term

## Examples of AI tools for content creation



### CoSchedule Headline Studio

Crafts attention-grabbing headlines that have a higher likelihood of generating clicks and shares



### Lumen5

Reads blog posts, analyses the text and selects relevant images and videos to turn text into engaging videos



### SURFER

#### SurferSEO

Optimises the content for specific keywords, analyses competitor content and provides propositions for boosting content structure



### WordSmith

Generates written content automatically just by reading data inputs shared by the content provider

## GP BULLHOUND'S SECTOR TAKEAWAYS

# Growing pipeline of high-quality AR and VR games

## Overview

- AR and VR scored gains during the pandemic as pursuit of high-quality entertainment fueled interest in VR accessories such as headsets, controllers, and bodysuits
- In 2023, AR and VR continue to gain traction in the gaming industry as players increasingly seek realistic and compelling experiences. AR and VR games are creating new levels of engagement and immersion, enabling user interaction with virtual elements in the real world and with each other in virtual spaces
- Competition between providers of AR/VR accessories is intensifying as tech giants including Meta, Sony, HTC, and Apple announced new headsets this year

## Outlook

- 2023 has an impressive lineup of AR and VR games including Assassin's Creed Nexus, The 7<sup>th</sup> Guest, Asgard's Wrath 2, Peridot, and NBA All-World. The market is poised to see an upsurge in demand given the growing pipeline of high-quality releases
- This June, Meta announced their Quest 3 VR headset which is slated for a Fall 2023 release. 40 percent slimmer than its predecessor with boosted graphical performance and new mixed-reality capabilities, the headset affirms Meta's continued push into virtual worlds and games
- Apple likewise unveiled their mixed-reality headset, Vision Pro, in June. Controlled entirely by tracking the user's eyes, hands, and voice with a 4k display for each eye, the headset could spell a future Apple-funded roster of new high-quality AR and VR titles
- While the exciting lineup of AR and VR games this year showcases growing interest in the segment, challenges remain:
  - Sony launched their PlayStation VR2 in February, and sales have surpassed those of the original PSVR headset. There was little news, however, of major PSVR2 game releases during their PlayStation showcase in May
  - Despite their relative affordability, Quest headsets struggle with retention. Recent company layoffs are also expected to impact Meta's VR game studios. The Meta Quest 3 will boast an impressive library of 500+ VR games and apps and starts at \$499.99. The Quest 2 is currently one of the top selling VR headsets
- Major players HTC, Meta, and PlayStation VR have unveiled various improved gameplay mechanics this year, including slimmer designs, high-resolution displays, wide fields of vision, and eye tracking

### GP Bullhound Perspective:

- AR and VR has the potential to revolutionise the gaming industry, but the transition to making AR and VR games mainstream will still take some years. Several key barriers, such as the accessibility and cost of AR and VR devices, data security, and player safety must be addressed prior to mainstream adoption

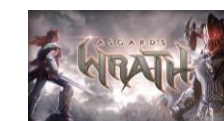
## Select 2023 AR/VR game releases



Assassin's Creed  
Nexus VR



The 7<sup>th</sup> Guest VR



Asgard's Wrath 2



Peridot

## GP BULLHOUND'S SECTOR TAKEAWAYS

# Digital delivery of news is evolving

## Overview

- Meta's launch of Threads through Instagram as a competitor to Twitter is creating a sea change in the delivery of news and information
- For all the criticism of algorithms, content based on previous reading/watching history is still preferred, on average, when compared with selection by journalists across all ages and segments (perhaps because traditional sources are seen as overly biased)
- With household budgets under pressure and a significant part of the public satisfied with the news they can access for free, there are signs that the growth in online news payment may be leveling off at 17% of people paying for online news
- Shocks including the war in Ukraine and the Coronavirus pandemic have accelerated the shift towards mobile and platform-dominated media environments

## Traditional media

- The rise of Google, Facebook, and TikTok as digital-advertising behemoths has left publishers grasping for ad revenue and attention
- Google to launch their news showcase product, paying over 150 US publications to feature their content to "support" media outlets
  - Product debut comes as they've faced scrutiny for aggregating news without compensation
  - In 2021, The New York Times agreed to a three-year deal worth about \$300m

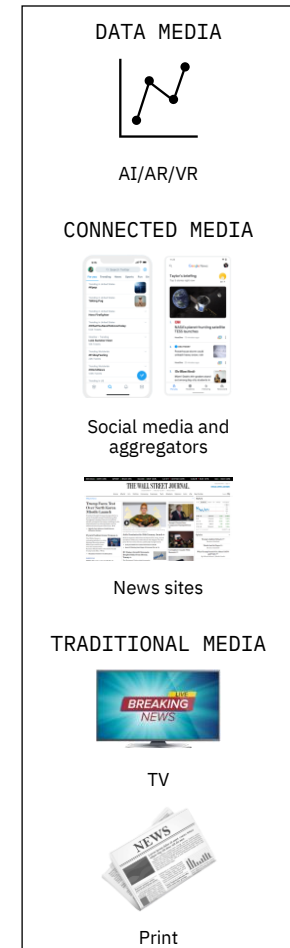
## Connected media

- Social media has surpassed direct access as the main gateway to digital content (30%)
  - 22% of people now prefer to start their news journeys via website or app, down 10% since 2018, highlighting an increasingly weaker connection with news brands among younger demographics
- Audiences pay more attention to celebrities, influencers, and social media personalities on TikTok, Instagram, and Snapchat than they do to journalists

## Data media

- Algorithms are nowhere near perfection
  - Given lower satisfaction with some algorithmic selection, around 65% of younger users (under-35) and 55% of older ones (35+) have tried to influence story selection by following or unfollowing, muting or blocking, or changing other settings
- AR/VR are examples of new ways to consume content with AI serving as a tool to filter and create content

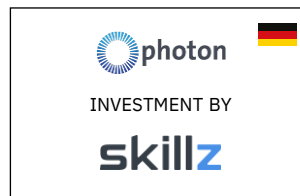
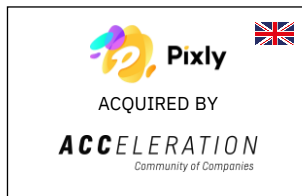
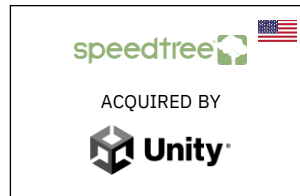
## Waves of media



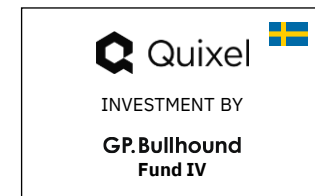
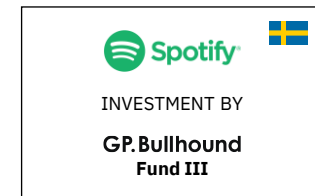
A LEADING TECHNOLOGY ADVISORY AND INVESTMENT FIRM, PROVIDING TRANSACTION ADVICE AND CAPITAL

# GP Bullhound's recent Digital Media activity

## Advisory





























## Investment Management



## NOTABLE DIGITAL MEDIA M&amp;A DEALS &amp; PRIVATE FINANCINGS

## Notable transactions from Q2 2023 (1/2)



























## Selected M&amp;A transactions

Date	Status	Target	Buyer	Target description	EV (\$m)	EV/LTM Rev
23-Jun	Completed	 <b>GIPHY</b>		Software company engaged with a GIFs search engine	53	n.a.
15-Jun	Completed	 <b>network media</b>	<b>JELLYSMACK</b>	Multi-platform, high-growth creator content company	n.a.	n.a.
14-May	Announced			Digital media and broadcasting company	225	n.a.
11-May	Announced	<b>Forbes</b>	Austin Russell	Global media company focusing on business and finance	656	n.a.
8-May	Completed			Next wave gaming studio with a focus on the metaverse	n.a.	n.a.
24-Apr	Completed			Peer-to-peer sports betting app	n.a.	n.a.
19-Apr	Completed	Railsimulator		Developer and publisher of rail simulation video games	n.a.	n.a.
19-Apr	Completed			Designer and developer of multiplayer games	n.a.	n.a.
19-Apr	Completed			French gaming studio positioned on casual games	n.a.	n.a.
19-Apr	Completed	<b>AQUIRIS</b>		Brazil-based video games developer	26	n.a.
16-Apr	Announced			Software company developing video games for smartphones	773	2x
13-Apr	Announced		<b>ONEG</b>	Cloud-based software offering digital media services	n.a.	n.a.
13-Apr	Completed			Microblogging social media platform	n.a.	n.a.
11-Apr	Completed		X Corp.	Social networking site distributing short messages	n.a.	n.a.
10-Apr	Completed			Digital media and entertainment focused on gaming and esports	13	1x
4-Apr	Announced			Software-gaming platforms company focused on mobile games	4,900	n.a.
2-Apr	Announced		ENDEAVOR	Integrated media and entertainment company	9,350	7x

## NOTABLE DIGITAL MEDIA M&amp;A DEALS &amp; PRIVATE FINANCINGS

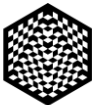

## Notable transactions from Q2 2023 (2/2)

## Selected private financings

Date	Status	Target	Lead Investor(s)	Target description	Amount (\$m)
23-Jun	Announced	 MYTHICAL™	 SCYTALE	Next-generation game-technology studio	37
13-Jun	Completed	 soundtrack your brand	 MUSIC	Music streaming service	15
13-Jun	Completed	 MILLION VICTORIES	 GRIFFIN	French mobile game development studio	7
12-Jun	Completed	 Synthesia	 Accel	AI-driven video production platform	90
7-Jun	Completed	 HyperPlay	 GRIFFIN	Platform for Web3-native games	12
1-Jun	Completed	 runway	 Google	Generative AI startup creating digital content	100
30-May	Completed	 BATTLE INFINITY	 Bitgert	Gaming platform integrated with metaverse	4
26-Apr	Completed	 FIRESIDE	 Platform	Platform for live and interactive shows	25
25-Apr	Completed	 m.a.n.c	 gem digital	Developer of mobile games	50
18-Apr	Completed	 GOALS	 Seven Seven Six	Game studio developing gameplay-first football	20
18-Apr	Completed	 LEGENDARY	 J.P.Morgan	Media company that produces and distributes content globally	800
16-Apr	Completed	 ROCK BELLS	 Paramount	US-based hip-hop culture platform	15
6-Apr	Completed	 Brut.	 CMA CGM	France-based social media company	40

## SELECT DIGITAL MEDIA IPOs

## Select digital media IPOs



WORLD CHESS

**45.2% in price since IPO**

**Description (LSE:CHSS):**  
*Online chess gaming and lifestyle platform*

**Listing date:** 6-Apr-2023

- **Offering amount:** \$3.8m
- **Offering price/Share:** \$0.08
- **Market cap:** \$80.1m
- **% Change/IPO price:** 4.0%
- **Selected metrics:** N/A

MULTIVISION PLUS

**245.65% in price since IPO**

**Description (BSE:543895):**  
*Producer and distributor of films in the APAC region*

**Listing date:** 8-May-2023

- **Offering amount:** \$14.8m
- **Offering price/Share:** \$0.02
- **Market cap:** \$268.5m
- **% Change/IPO price:** 24.79%
- **Selected metrics:** EBITDA in FY2022 was \$7m, a 32.6% EBITDA margin

## GP BULLHOUND DIGITAL MEDIA INDEX PERFORMANCE

## GP Bullhound Digital Media indices

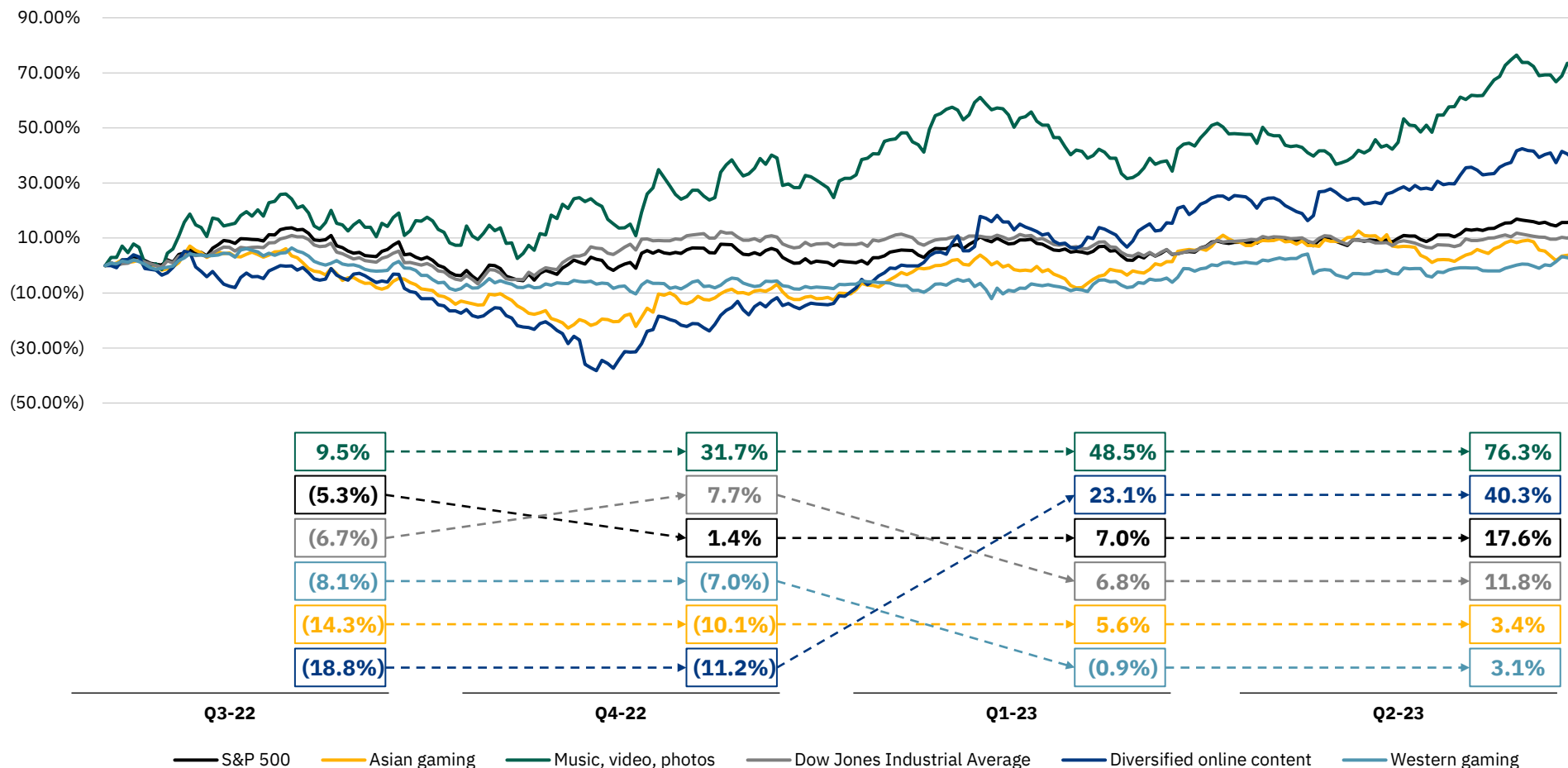
	Companies	2022/2023E avg. rev growth	2023E avg. EBITDA margin	2023E avg. EV / revenue	2023E avg. EV / EBITDA
Diversified online content and social media		(13.8%)	23.5%	3.2x	9.6x
Music, video, photos		2.5%	15.2%	2.2x	12.6x
Western gaming		8.6%	33.9%	4.1x	11.9x
Asian gaming		10.4%	21.6%	4.1x	14.8x

## GP BULLHOUND DIGITAL MEDIA INDICES - LAST 12 MONTHS

# GP Bullhound Digital Media indices

In keeping with trends from the last report, most of the digital media indices remained under pressure through Q3 with Asian gaming and diversified online content rounding out the bottom. By Q4, signs of recovery were visible across the indices with continuous upward trends through Q1 and Q2. The biggest winner was music, video, photos, which ended up 76.3% and consistently outperformed the Dow and S&P throughout the last year

## LTM share price performance (rebased to 0% as of 30 June 2022)



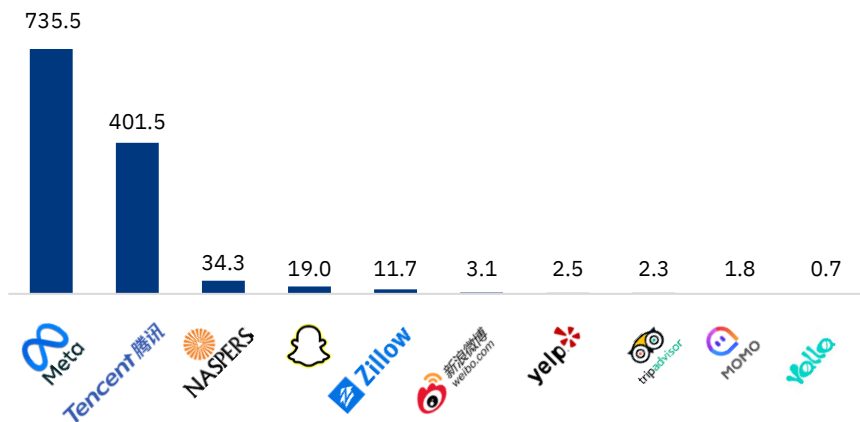
## GP BULLHOUND DIGITAL MEDIA INDICES MARKET CAPITALISATION VALUATIONS

## GP Bullhound Digital Media indices market capitalisation

The GP Bullhound diversified Digital Media indices had a great quarter, rising by ~8.8% compared to Q1 23. The best performers were Music, video, photos, rising by 14.0%. Its peers also had a good performance: Diversified online content and social media (+11.2%), Western gaming (+2.05%), while Asian gaming decreased by ~2.9%. These changes are justified due to the market conditions that remain uncertain, resulting in relatively modest gains compared to the previous quarter, alongside occasional declines as well. Percentages are QoQ comparisons to Q1 23

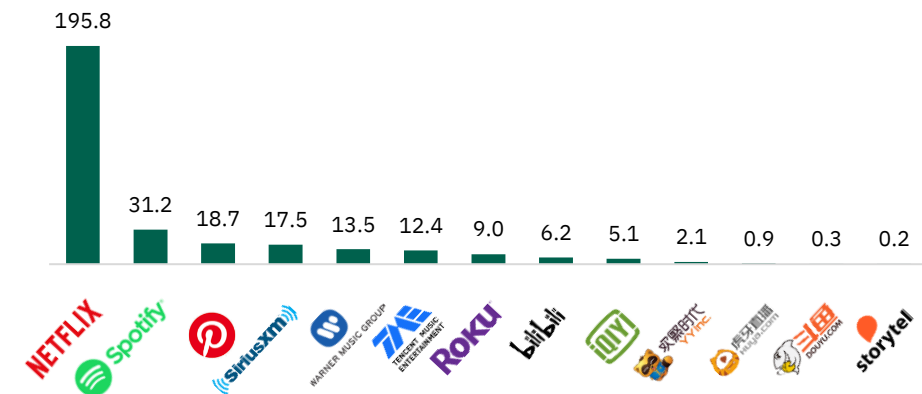
## Diversified online content and social media

(\$ in billions)



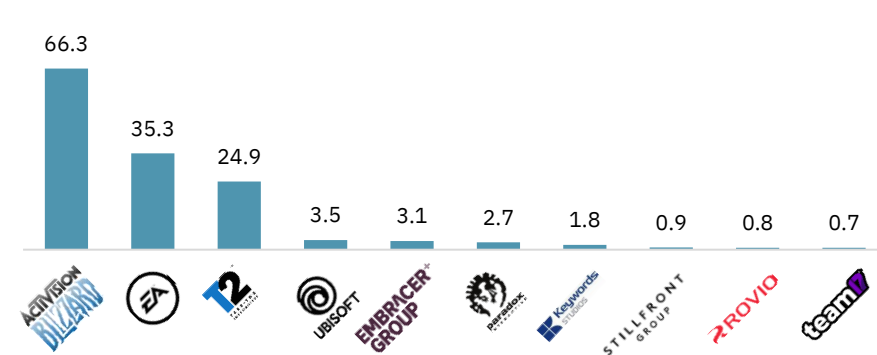
## Music, video, photos

(\$ in billions)



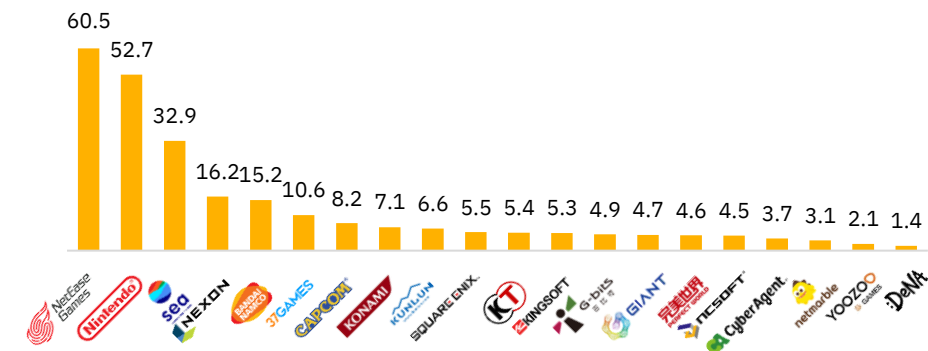
## Western gaming

(\$ in billions)



## Asian gaming

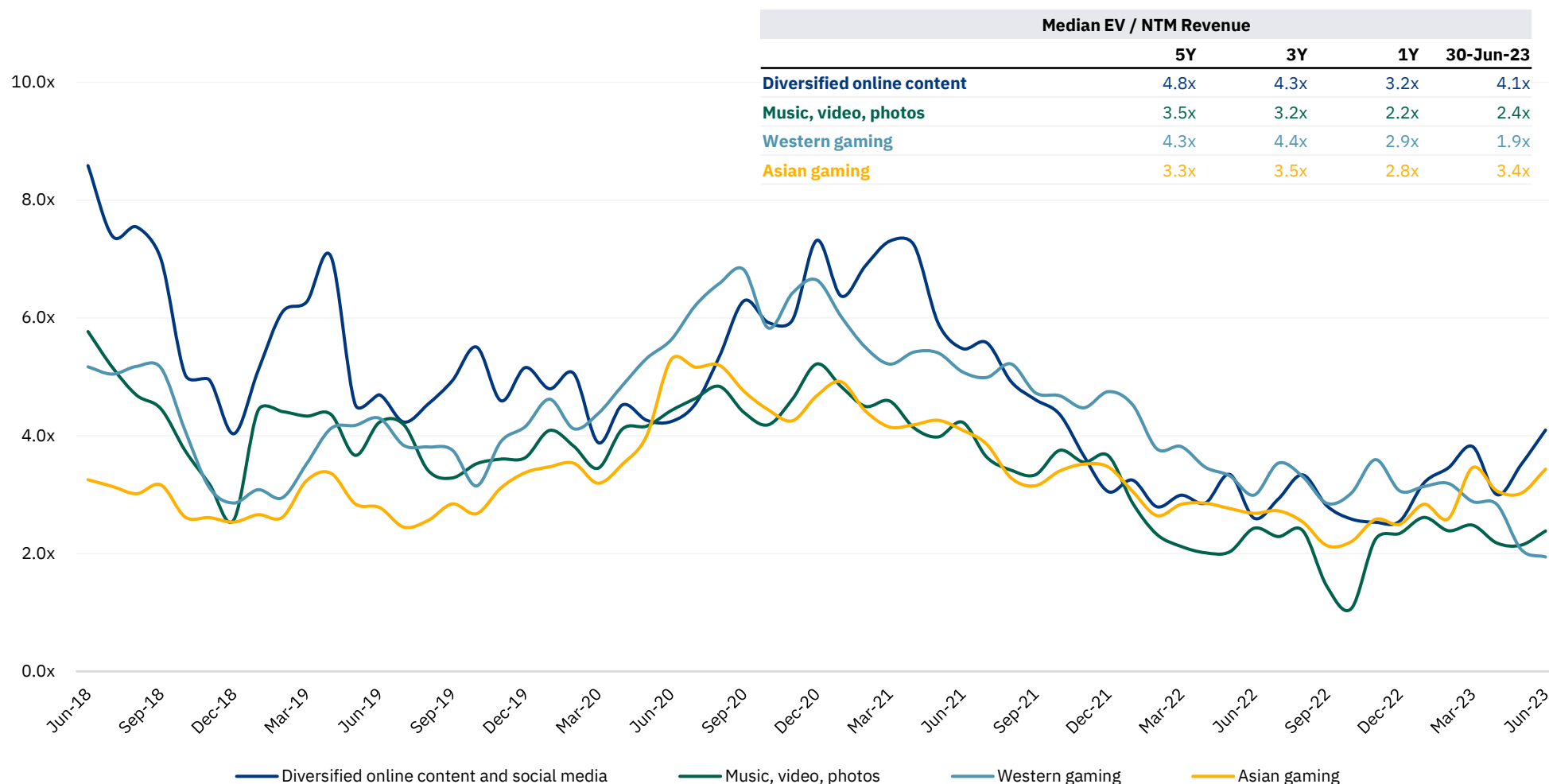
(\$ in billions)



## NTM EV/REVENUE TRENDS – LAST FIVE YEARS OVERVIEW

# Evolution of GP Bullhound Digital Media indices valuation

The flatness of NTM revenue multiples in Q2 reveal that recovery in the sector was slow, and overall sentiment regarding these indices remained largely unchanged from our last report. Diversified online content was the only gainer over the last quarter, increasing by 0.3x. Music, video, photos and Asian gaming stayed flat. Western gaming took the biggest loss, falling by 1.0x.

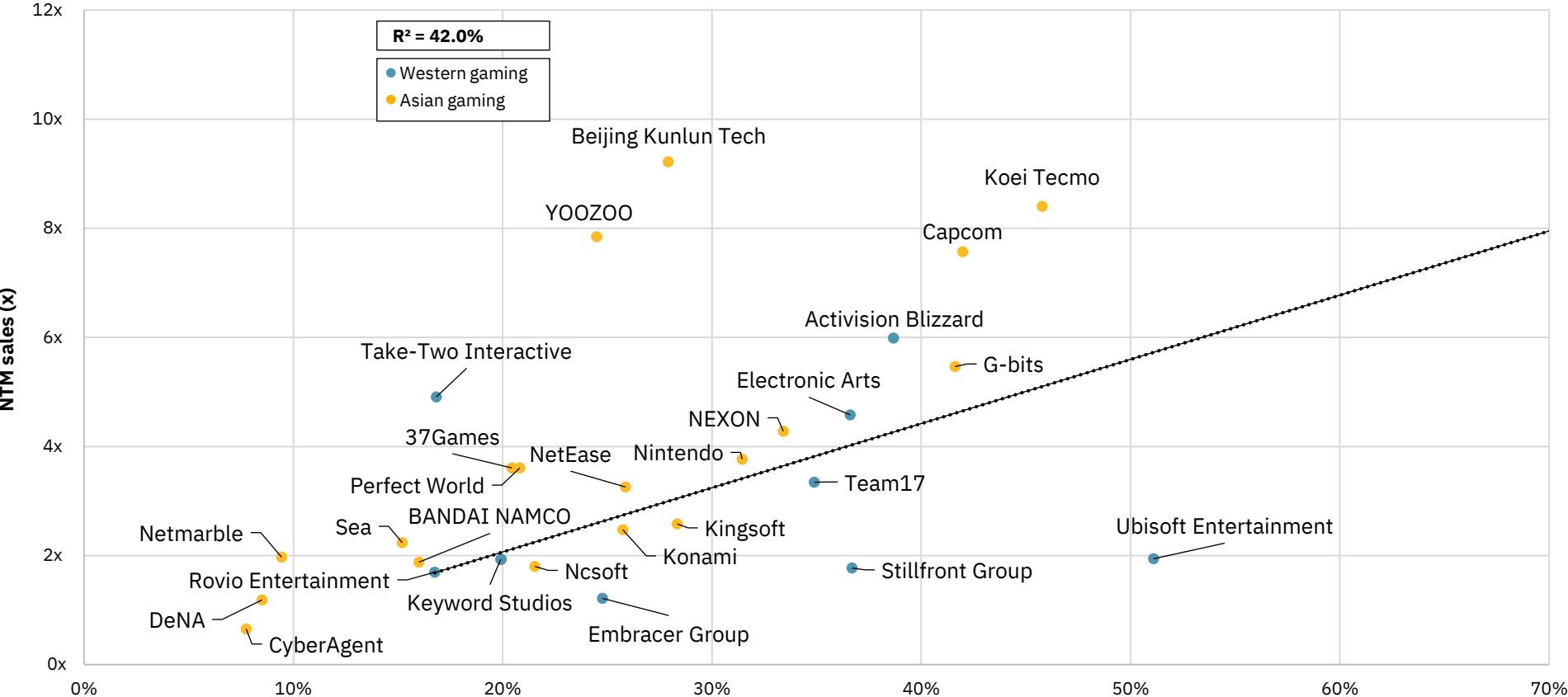


GAMING REGRESSION ANALYSIS

# Gaming: NTM valuation/growth + margin regression

Valuation is often seen as a function of a company’s growth and profitability. An exemplary regression analysis of forward-looking sales multiples and expected revenue growth, combined with profitability rates for the gaming companies in respective indices, demonstrates that there is a relatively strong dependence between these parameters

2023E revenue growth + 2023 EBITDA margin

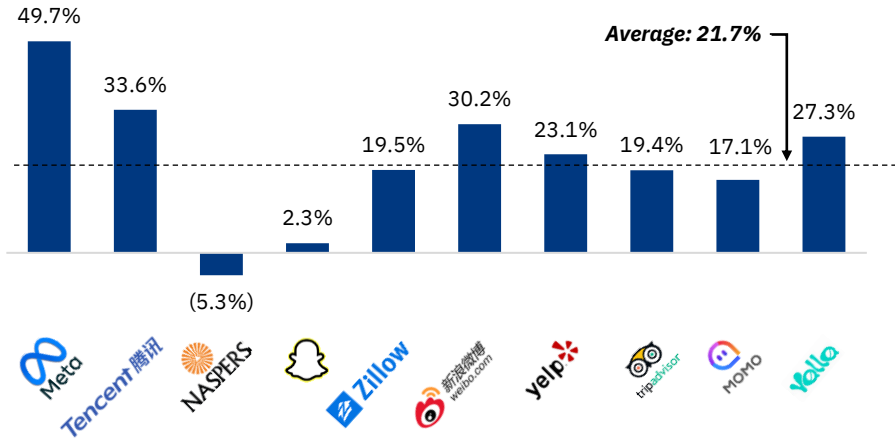


GP BULLHOUND DIGITAL MEDIA INDICES 2023E EBITDA MARGIN BENCHMARKING

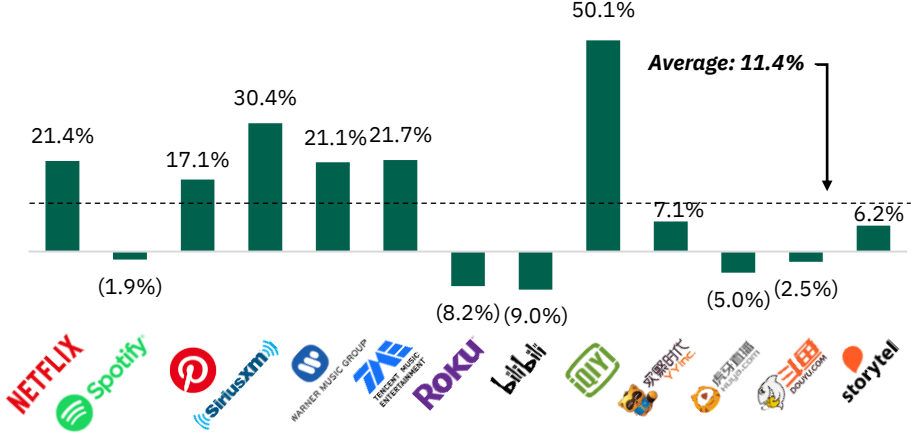
# Digital media 2023E EBITDA margin benchmarking

Average profitability indices did not vary significantly across the four industries quarter-over-quarter. Respectively, the diversified content index fell by 80bps in Q2 2023, the music, video, photos index decreased by 10bps, the western gaming index increased by 10bps, and the Asian gaming index decreased by 20bps

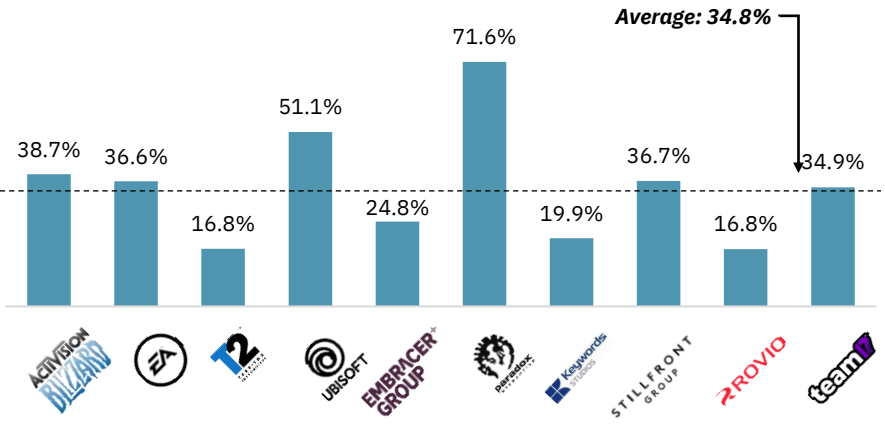
## Diversified online content and social media



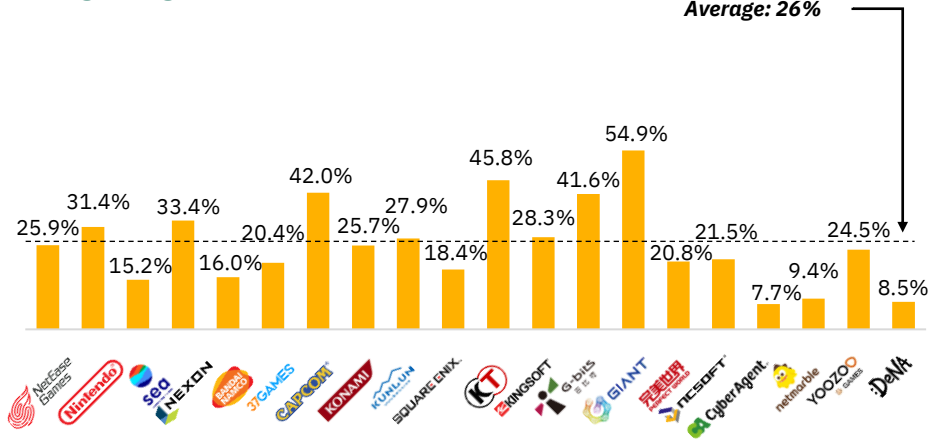
## Music, video, photos



## Western gaming



## Asian gaming



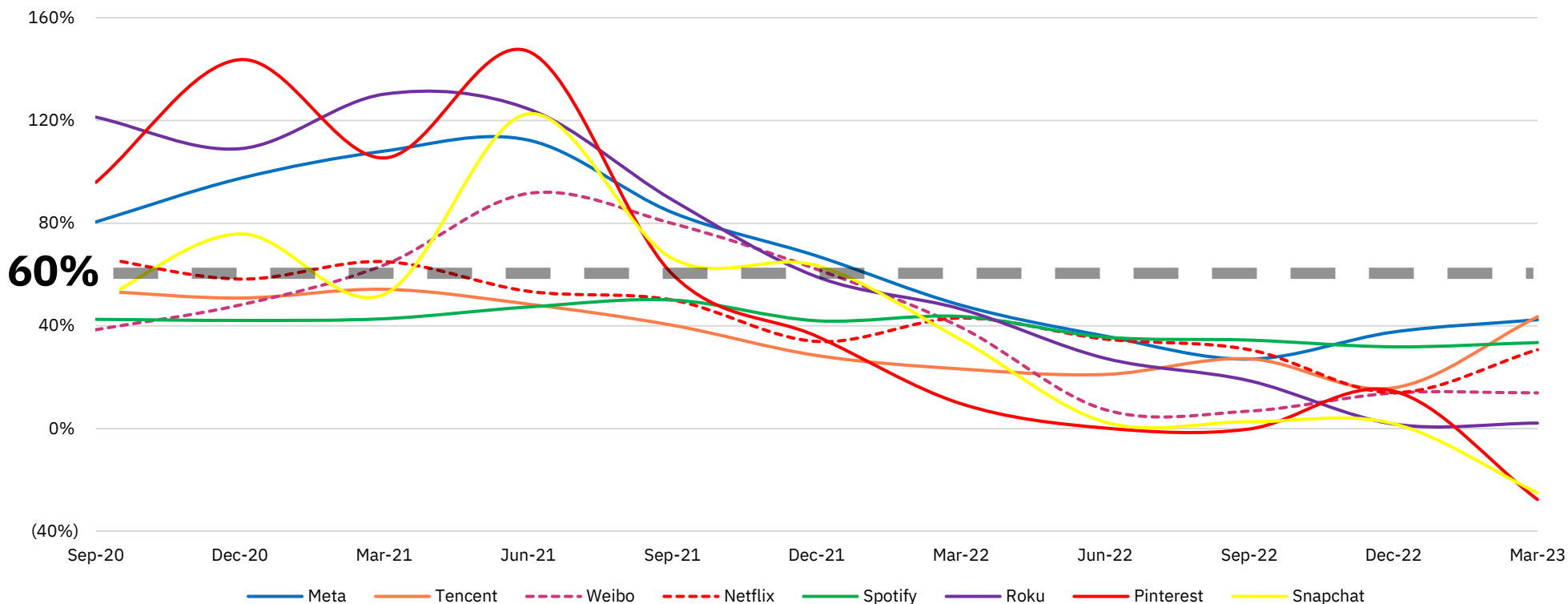
## DIGITAL MEDIA: USER GROWTH + REVENUE GROWTH + EBITDA MARGIN (%)

# Rule of 60 for non-gaming digital media

A common way to look at the “health” of a consumer internet company is by using the “Rule of 60”: a combination of user growth, revenue growth and profitability. Consumer internet companies that fall above the “Rule of 60” line demonstrate the healthiest characteristics

In this analysis, we looked at YoY growth in MAUs and quarterly revenue, as well as quarterly EBITDA margins

Although all the digital media players continued to be under the 60% bar, some presented evident upward trends, such as Netflix and Tencent. This quarter, Tencent and Meta lead the pack landing at 44% and 42%. Netflix experienced a steep rise of 17% this quarter. Pinterest lost steam, going well below 0% in the “Rule of 60” game alongside Snapchat due to negative profitability in Q1. Revenue growth improved across the board this quarter, while MAU growth remained flat and EBITDA margins declined



## LEADING COMPANIES AND CEOS TRANSFORMING THE SECTOR

# Itamar Benedy, CEO & Co-Founder



CEO &amp; CO-FOUNDER - ANZU

## Itamar Benedy

“Something that sits at the heart of Anzu and is built into our DNA is a passion for challenging the status quo, and this can be seen through our mission to make advertising in games better by creating a solution that benefits all parties involved: advertisers, developers, and, most importantly, gamers. We are shifting to a world where consumers are increasingly aware of where, when, and how they are being advertised to, and in this always-on world, ads must not only stand out, but add value to the experience, rather than disrupt it.”

### SELECT INVESTORS

NBCUniversal

Sony  
Innovation  
Fund

WPP

**Anzu is an advanced intrinsic in-game ad solution for mobile, PC, console, and the metaverse. Anzu’s in-game ads put players first and help advertisers reach audiences programmatically in a non-disruptive and highly-engaging way. Anzu also helps game developers monetise their titles with ad placements that complement the gameplay, and by monetising the entire game session, they benefit from consistent and reliable revenue streams.**

## LEADING COMPANIES AND CEOS TRANSFORMING THE SECTOR

# Greg Cross, CEO & Co-Founder



CEO & CO-FOUNDER – SOUL MACHINES

## Greg Cross

“We’ve reached a point with technology where the way we currently interface with tech does not reflect the potential of where things are going. The way large language models and conversational interfaces will transform search are just the tip of the iceberg. People want to be engaged, educated and informed in ways that are both entertaining and feel personalised. That’s the problem we face today – that we stand at the threshold of infinite digital worlds, which demand richer, more alive, more human-like generative experiences.

This is what Soul Machines does at the core – our digitally alive, autonomously animated avatars empower brands and celebrities to deliver personalisation at scale. This offers a way for consumers to interact, engage and experience personalised content while providing a way for creators and brands to embody, connect with and monetise their communities. And that will result in creating the ultimate generative AI experience.”

### SELECT INVESTORS



**Soul Machines is a deep technology company that combines advancements in generative AI with industry-defining Autonomous Animation to enable the creation of lifelike digital people and avatars. Soul Machines’s technology suite helps brands, celebrities and influencers create compelling personal experiences at scale for online audiences. Their patented technologies include “Digital Brain” and are at the forefront of AI research in Embodied Cognition and Cognitive Modelling.**

## LEADING COMPANIES AND CEOS TRANSFORMING THE SECTOR

# Anupam Dhanuka, CEO & Co-Founder



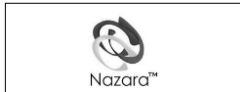
CEO &amp; CO-FOUNDER – KIDDOPIA

## Anupam Dhanuka

“At the outset of developing Kiddopia, I discovered that while there were countless apps for pre-schoolers, they either focused on education or entertainment. I saw this as an opportunity to create an app that blended both. As both a father and a technology entrepreneur, I felt there was a need for quality educational apps that provide entertainment alongside education, to keep kids engaged as they learn.

At Kiddopia, our overarching goal is to make an impact in the lives of pre-schoolers and parents alike, across the globe. We’ve given Kiddopia a unique pedagogy, one that combines early childhood experiences with learning. What makes our app a standout in its category is its child-centric approach to content and design. From ideation to execution, we’ve established a process that places children first. My team constantly interacts with pre-schoolers, observing their behaviours, testing Kiddopia with them, and improving activities based on their responses.”

### SELECT INVESTOR



**Kiddopia is a global app for pre-school children. It combines research-backed early learning with play, skill building activities, and essential pre-school curricula. Ad-free and COPPA-certified by kidSAFE, Kiddopia has over 20 million downloads, 2.5 million monthly active users, and 350,000 paying subscribers. It teaches a variety of skills to kids aged 2-7 and covers a wide range of subjects that improve improvisational thinking, motor skills, breadth of knowledge and self-expression through interactive gameplay.**

## GP BULLHOUND DIGITAL MEDIA INDEX PUBLIC COMPARABLES

# Public comparables – Diversified online content and social media

Company name	HQ	Employee	Share price 30-06-23	Share price performance			Market cap (m)	EV (m)	Cash (m)	EV/Revenue			EV/EBITDA			CY revenue growth 23/22	CY23E margins	
				LTM	L6M	L1M				LTM	CY22A	CY23E	LTM	CY22A	CY23E		Gross	EBITDA
<b>Diversified online content and social media</b>																		
<b>Meta Group</b>	US	77,114	286.98	78.0%	138.5%	9.3%	735,453	726,276	37,439	6.2x	6.2x	5.7x	17.1x	17.2x	11.6x	8.4%	79.3%	49.7%
<b>Tencent</b>	CN	106,221	42.32	(6.3%)	(1.2%)	4.8%	401,459	413,956	49,392	5.1x	5.2x	4.8x	22.6x	25.0x	14.3x	8.5%	45.0%	33.6%
<b>Naspers</b>	ZA	27,573	180.46	24.8%	8.6%	16.3%	34,347	54,141	21,159	8.0x	6.7x	7.3x	NM	NM	NM	(8.3%)	NA	(5.3%)
<b>Snapchat</b>	US	5,288	11.84	(9.8%)	32.3%	15.9%	19,048	19,108	4,103	4.2x	4.2x	4.2x	NM	NM	NM	(1.3%)	55.6%	2.3%
<b>Zillow</b>	US	5,852	49.20	54.7%	57.6%	12.1%	11,695	10,191	3,369	5.4x	5.2x	5.4x	NM	NM	27.6x	(3.0%)	80.7%	19.5%
<b>Weibo</b>	CN	5,935	13.11	(43.3%)	(31.4%)	(7.4%)	3,084	2,798	2,777	1.6x	1.5x	1.5x	5.2x	5.1x	4.9x	2.3%	78.8%	30.2%
<b>Momo</b>	CN	1,705	9.61	90.3%	7.0%	18.2%	1,815	630	1,583	0.3x	0.3x	0.4x	2.4x	2.5x	2.1x	(6.7%)	41.0%	17.1%
<b>TripAdvisor</b>	US	3,115	16.49	(7.4%)	(8.3%)	9.0%	2,343	2,136	1,132	1.3x	1.4x	1.2x	15.4x	15.6x	6.3x	16.3%	92.5%	19.4%
<b>Yelp</b>	US	4,900	36.41	31.1%	33.2%	9.1%	2,506	2,198	424	1.8x	1.8x	1.7x	25.9x	26.2x	7.3x	9.3%	91.4%	23.1%
<b>Yalla</b>	AE	629	4.36	11.8%	24.6%	(0.5%)	681	213	471	0.7x	0.7x	0.7x	2.7x	2.7x	2.5x	2.4%	63.1%	27.3%
<b>Future</b>	GB	2,985	8.58	(59.0%)	(43.8%)	(8.1%)	1,029	1,592	38	1.6x	1.6x	1.6x	4.7x	4.6x	4.5x	2.5%	NA	35.1%
<b>Techtarget</b>	US	1,000	31.13	(52.6%)	(29.3%)	(12.0%)	874	1,001	353	3.5x	3.4x	4.4x	14.9x	13.0x	14.8x	(23.6%)	70.5%	29.8%
<b>Cookpad</b>	JP	409	1.18	(20.4%)	(20.4%)	(5.0%)	111	12	115	0.2x	0.2x	NA	NM	NM	NA	(100.0%)	NA	NA
<b>Gurunavi</b>	JP	831	2.41	(15.2%)	(18.8%)	(6.8%)	135	93	62	1.0x	1.0x	NA	NM	NM	NA	(100.0%)	NA	NA
<b>Mean</b>		17,397	49.58	5.5%	10.6%	3.9%	86,756	88,168	8,744	2.9x	2.8x	3.2x	12.3x	12.4x	9.6x	(13.8%)	69.8%	23.5%
<b>Median</b>		4,008	14.80	(6.8%)	2.9%	6.9%	2,425	2,167	1,357	1.7x	1.7x	2.9x	14.9x	13.0x	6.8x	0.5%	74.7%	25.2%

## GP BULLHOUND DIGITAL MEDIA INDEX PUBLIC COMPARABLES

## Public comparables – Music, videos and photos

Company name	HQ	Employee	Share price 30-06-23	Share price performance			Market cap (m)	EV (m)	Cash (m)	EV/Revenue			EV/EBITDA			CY revenue growth 23/22	CY23E margins	
				LTM	L6M	L1M				LTM	CY22A	CY23E	LTM	CY22A	CY23E		Gross	EBITDA
Music, video, photos																		
Nefflix	US	12,800	440.49	151.9%	49.4%	12.1%	195,816	204,944	7,828	6.4x	6.5x	6.0x	35.8x	34.3x	28.1x	7.5%	40.0%	21.4%
Spotify	LU	8,359	160.55	71.1%	103.4%	8.5%	31,173	29,355	3,735	2.2x	2.3x	2.0x	NM	NM	NM	15.9%	25.8%	(1.9%)
Roku	US	3,600	63.96	(22.1%)	57.1%	10.8%	9,005	8,016	1,630	2.6x	2.6x	2.5x	NM	NM	NM	4.6%	44.6%	(8.2%)
Pinterest	US	3,835	27.34	50.6%	12.6%	12.0%	18,694	16,124	2,730	5.7x	5.8x	5.4x	NM	NM	31.5x	6.9%	76.1%	17.1%
SiriusXM	US	5,869	4.53	(26.1%)	(22.4%)	25.8%	17,524	27,342	53	3.1x	3.1x	3.0x	10.6x	10.4x	10.0x	1.6%	54.7%	30.4%
Tencent Music	CN	5,805	7.38	47.0%	(10.9%)	6.6%	12,363	10,391	2,983	2.5x	2.5x	2.5x	14.3x	16.2x	11.6x	0.6%	33.4%	21.7%
Bilibili	CN	11,092	15.10	(41.0%)	(36.3%)	(8.9%)	6,202	5,244	2,822	1.6x	1.6x	1.6x	NM	NM	NM	5.5%	24.0%	(9.0%)
Warner Music Group	US	6,200	26.09	7.1%	(25.5%)	7.5%	13,462	17,138	612	2.9x	3.0x	2.8x	16.6x	16.4x	13.4x	4.4%	NA	21.1%
iQIYI	CN	4,981	5.34	27.1%	0.8%	26.2%	5,109	7,826	757	2.0x	2.1x	1.8x	5.5x	5.6x	3.5x	20.4%	27.3%	50.1%
YY	SG	6,681	30.71	2.8%	(2.8%)	14.1%	2,123	-650	3,920	(0.3x)	(0.3x)	(0.3x)	(3.2x)	(3.0x)	(4.0x)	3.3%	34.9%	7.1%
HUYA	CN	1,521	3.58	(7.7%)	(9.4%)	16.2%	859	-559	1,422	(0.4x)	(0.4x)	(0.5x)	NM	NM	NM	(14.8%)	9.7%	(5.0%)
DouYu International	CN	2,155	1.05	(12.5%)	(25.0%)	7.7%	336	-574	915	(0.6x)	(0.6x)	(0.8x)	NM	NM	NM	(26.9%)	9.5%	(2.5%)
Shutterstock	US	1,328	48.67	(15.1%)	(7.7%)	3.1%	1,772	1,722	96	2.0x	2.1x	2.0x	10.5x	11.1x	7.4x	3.0%	64.4%	27.1%
Guangdong South	CN	349	6.32	12.0%	15.8%	5.7%	1,449	940	543	4.7x	4.6x	4.4x	9.4x	8.9x	8.5x	3.2%	53.9%	52.3%
Startel	SE	655	3.09	(35.3%)	(27.3%)	(5.7%)	238	313	52	1.0x	1.0x	1.0x	26.6x	NM	16.1x	2.6%	39.8%	6.2%
Mean		5,015	56.28	14.0%	4.8%	9.5%	21,075	21,838	2,007	2.4x	2.4x	2.2x	14.0x	12.5x	12.6x	2.5%	38.4%	15.2%
Median		4,981	15.10	2.8%	(7.7%)	8.5%	6,202	7,826	1,422	2.2x	2.3x	2.0x	10.6x	10.7x	10.8x	3.3%	37.4%	17.1%

## GP BULLHOUND DIGITAL MEDIA INDEX PUBLIC COMPARABLES

## Public comparables – Western gaming

Company name	HQ	Employee	Share price 30-06-23	Share price performance			Market cap (m)	EV (m)	Cash (m)	EV/Revenue			EV/EBITDA			CY revenue growth 23/22	CY23E margins	
				LTM	L6M	L1M				LTM	CY22A	CY23E	LTM	CY22A	CY23E		Gross	EBITDA
<b>Leading Western gaming</b>																		
<b>Activision Blizzard</b>	US	13,000	84.30	8.3%	10.1%	5.3%	66,273	57,321	12,563	7.0x	7.6x	6.0x	27.4x	32.3x	15.6x	26.3%	71.1%	38.7%
<b>Electronic Arts</b>	US	13,400	129.70	6.6%	6.2%	2.5%	35,294	34,750	2,767	4.7x	4.7x	4.5x	18.2x	17.0x	12.3x	4.6%	NA	36.6%
<b>Take-Two Interactive</b>	US	11,580	147.16	20.1%	41.3%	6.4%	24,919	27,392	1,014	5.1x	5.7x	4.9x	23.5x	36.2x	29.3x	15.0%	NA	16.8%
<b>Ubisoft Entertainment</b>	FR	20,729	28.25	(35.5%)	0.1%	(0.1%)	3,496	4,560	1,620	2.3x	2.1x	2.3x	NM	5.4x	4.4x	(9.0%)	NA	51.1%
Mean		14,677	97.35	(0.1%)	14.4%	3.5%	32,495	31,006	4,491	4.8x	5.0x	4.4x	23.0x	22.7x	15.4x	9.3%	71.1%	35.8%
Median		13,200	107.00	7.4%	8.1%	3.9%	30,106	31,071	2,193	4.9x	5.2x	4.7x	23.5x	24.7x	13.9x	9.8%	71.1%	37.6%
<b>Emerging Western gaming</b>																		
<b>Embracer Group</b>	SE	16,600	2.50	(67.2%)	(44.9%)	12.8%	3,147	4,735	450	1.3x	1.3x	1.3x	8.1x	6.1x	5.1x	4.3%	NA	24.8%
<b>CD Projekt</b>	PL	544	38.10	78.9%	28.7%	30.6%	3,806	3,587	214	17.0x	17.3x	14.0x	37.6x	33.6x	24.5x	23.5%	72.5%	57.2%
<b>Kahoot!</b>	NO	468	2.73	50.5%	38.5%	17.4%	1,346	1,268	89	8.4x	8.7x	7.4x	NM	NM	28.2x	17.5%	95.2%	26.3%
<b>Stillfront Group</b>	SE	1,551	1.67	(24.1%)	(0.6%)	(6.8%)	866	1,221	75	1.6x	1.7x	1.8x	7.0x	6.9x	4.9x	(7.3%)	79.6%	36.7%
<b>Paradox Interactive</b>	SE	674	25.23	44.9%	23.9%	8.0%	2,665	2,602	78	13.6x	13.7x	11.1x	29.3x	28.4x	15.5x	23.9%	51.9%	71.6%
<b>Keywords Studios</b>	IE	11,969	23.00	(13.7%)	(29.9%)	(4.5%)	1,817	1,772	88	2.4x	2.4x	1.9x	14.5x	14.5x	9.7x	24.3%	39.0%	19.9%
<b>Frontier Developments</b>	GB	792	7.50	(55.3%)	(35.2%)	8.5%	289	261	51	1.8x	1.8x	1.9x	10.4x	10.4x	5.9x	(5.1%)	NA	31.7%
<b>Team17</b>	GB	392	4.57	(2.2%)	(13.7%)	(2.7%)	658	598	61	3.6x	3.6x	3.3x	12.0x	12.0x	9.6x	8.0%	50.3%	34.9%
<b>Ten Square Games</b>	PL	281	19.38	(23.0%)	(33.0%)	(0.2%)	141	108	33	0.9x	0.9x	0.9x	4.3x	3.8x	6.0x	(5.8%)	85.5%	15.5%
<b>Rovio Entertainment</b>	FI	558	9.97	44.6%	53.5%	1.2%	759	592	173	1.8x	1.7x	1.7x	14.2x	14.2x	10.3x	1.3%	NA	16.8%
<b>G5 Entertainment</b>	SE	961	18.49	(0.6%)	(8.4%)	0.5%	150	129	22	0.9x	1.0x	1.0x	9.0x	8.5x	4.3x	(4.5%)	68.0%	23.6%
<b>Digital Bros</b>	IT	430	19.96	(24.5%)	(16.7%)	5.2%	285	335	9	2.2x	2.3x	1.9x	5.8x	5.9x	4.6x	21.1%	NA	41.0%
Mean		2,935	14.42	0.7%	(3.2%)	5.8%	1,327	1,434	112	4.6x	4.7x	4.0x	13.9x	13.1x	10.7x	8.4%	67.7%	33.3%
Median		616	14.23	(8.0%)	(11.0%)	3.2%	812	909	77	2.0x	2.0x	1.9x	10.4x	10.4x	7.8x	6.1%	70.3%	29.0%
Mean		5,871	35.16	0.5%	1.2%	5.3%	9,119	8,827	1,207	4.7x	4.8x	4.1x	15.8x	15.7x	11.9x	8.6%	68.1%	33.9%
Median		877	19.67	(1.4%)	(0.2%)	3.9%	1,582	1,520	88	2.4x	2.3x	2.1x	13.1x	12.0x	9.6x	6.3%	71.1%	33.3%

## GP BULLHOUND DIGITAL MEDIA INDEX PUBLIC COMPARABLES

## Public comparables – Asian gaming (1/2)

Company name	HQ	Employee	Share price 30-06-23	Share price performance			Market cap (m)	EV (m)	Cash (m)	EV/Revenue			EV/EBITDA			CY revenue growth 23/22	CY23E margins	
				LTM	L6M	L1M				LTM	CY22A	CY23E	LTM	CY22A	CY23E		Gross	EBITDA
<b>Asian gaming</b>																		
Sea	SG	63,800	58.04	(13.2%)	11.6%	(0.9%)	32,895	30,922	6,589	2.5x	2.5x	2.3x	NM	NM	15.1x	8.0%	46.8%	15.2%
Nintendo	JP	7,317	45.25	4.8%	7.9%	5.6%	52,678	39,681	14,138	3.3x	3.1x	3.7x	10.2x	9.7x	11.9x	(15.9%)	NA	31.4%
NetEase	CN	31,119	96.69	3.6%	33.1%	13.8%	60,472	48,056	17,534	3.4x	3.4x	3.3x	13.5x	14.7x	12.8x	3.5%	57.3%	25.9%
NEXON	JP	7,467	19.00	(7.1%)	(15.4%)	(9.1%)	16,208	12,593	4,197	4.3x	4.7x	4.4x	12.5x	14.3x	13.1x	7.0%	69.6%	33.4%
BANDAI NAMCO	JP	10,563	22.97	(2.2%)	9.3%	(3.3%)	15,165	13,304	2,108	1.8x	1.7x	1.9x	12.0x	10.4x	12.0x	(9.0%)	NA	16.0%
Ncsoft	KP	4,742	223.98	(17.0%)	(37.1%)	(8.7%)	4,548	3,215	1,827	1.9x	1.6x	2.0x	8.2x	6.1x	9.1x	(19.8%)	100.0%	21.5%
Netmarble	KP	417	37.28	(29.9%)	(22.4%)	(13.2%)	3,054	4,475	505	2.2x	2.1x	2.1x	64.0x	51.4x	22.5x	(0.9%)	60.0%	9.4%
37Games	CN	3,552	4.81	51.8%	83.3%	8.5%	10,643	9,559	1,457	4.1x	4.1x	3.7x	20.6x	19.9x	18.2x	10.4%	81.9%	20.4%
Zhejiang Century Huatong	CN	5,915	1.05	45.5%	89.5%	20.9%	7,697	8,050	364	5.2x	4.4x	5.1x	51.5x	23.6x	26.6x	(12.5%)	55.1%	19.1%
Perfect World	CN	6,061	2.33	8.6%	26.3%	(11.3%)	4,608	4,524	498	4.2x	4.0x	3.7x	33.1x	18.4x	18.0x	7.5%	67.0%	20.8%
CyberAgent	JP	6,337	7.25	(27.1%)	(18.2%)	3.9%	3,668	3,444	1,379	0.6x	0.6x	0.7x	9.4x	8.1x	8.6x	(3.7%)	NA	7.7%
Koei Tecmo	JP	2,381	17.19	6.7%	(5.2%)	2.5%	5,422	5,607	155	9.5x	11.1x	8.5x	18.3x	23.1x	18.7x	29.3%	NA	45.8%
Kingssoft	HK	7,116	3.94	1.0%	17.6%	8.0%	5,324	3,263	3,134	2.9x	2.9x	2.6x	13.8x	13.7x	9.3x	11.2%	81.2%	28.3%
Konami	JP	4,881	52.02	(5.9%)	14.9%	(1.9%)	7,051	5,934	1,666	7.4x	7.9x	2.5x	11.3x	10.4x	9.8x	212.5%	NA	25.7%
Capcom	JP	3,207	39.39	62.4%	23.4%	2.3%	8,237	7,612	768	8.0x	9.9x	7.5x	18.7x	22.6x	17.9x	31.2%	NA	42.0%
Square Enix	JP	4,712	46.26	4.6%	(0.5%)	2.3%	5,538	4,201	1,456	1.6x	1.6x	1.7x	10.9x	9.5x	9.1x	(4.2%)	NA	18.4%
Giant	CN	1,389	2.47	81.0%	114.2%	(13.1%)	4,724	4,526	308	15.9x	14.5x	8.6x	67.3x	28.4x	15.6x	69.2%	NA	54.9%
G-bits	CN	1,292	67.72	16.9%	49.3%	(13.3%)	4,878	4,514	506	6.1x	6.0x	5.7x	14.9x	13.9x	13.6x	6.8%	88.4%	41.6%
Beijing Kunlun Tech	CN	1,771	5.55	132.6%	165.8%	(30.7%)	6,641	6,630	372	9.6x	9.7x	9.2x	46.9x	50.5x	33.0x	4.7%	79.0%	27.9%
Pearl Abyss	KP	687	39.94	1.3%	19.7%	12.2%	2,448	2,306	396	7.9x	7.5x	8.3x	NM	69.4x	NM	(9.3%)	100.0%	7.5%

## GP BULLHOUND DIGITAL MEDIA INDEX PUBLIC COMPARABLES

## Public comparables – Asian gaming (2/2)

Company name	HQ	Employee	Share price 30-06-23	Share price performance			Market cap (m)	EV (m)	Cash (m)	EV/Revenue			EV/EBITDA			CY revenue growth 23/22	CY23E margins	
				LTM	L6M	L1M				LTM	CY22A	CY23E	LTM	CY22A	CY23E		Gross	EBITDA
<b>Asian gaming</b>																		
YOOZOO	CN	1,579	2.32	58.8%	72.5%	(12.5%)	2,090	1,987	263	7.2x	7.0x	7.8x	NM	30.7x	32.0x	(11.3%)	43.9%	24.5%
Ourpalm	CN	963	1.08	115.7%	131.1%	35.0%	2,938	2,557	404	15.6x	14.7x	18.5x	NM	53.9x	52.8x	(20.2%)	79.4%	34.9%
DeNA	JP	2,951	12.93	(7.0%)	(3.4%)	(2.2%)	1,440	1,160	737	1.1x	1.1x	1.1x	14.9x	21.6x	13.5x	0.1%	NA	8.5%
Com2uS	KP	1,363	46.01	(16.9%)	(2.9%)	(10.1%)	537	641	378	1.1x	1.1x	0.9x	NM	52.1x	11.5x	27.9%	74.7%	7.7%
Gravity	KP	400	70.19	37.8%	74.1%	22.7%	488	201	290	0.5x	NA	NA	2.0x	2.4x	NA	NA	NA	NA
IGG	SG	2,503	0.50	14.3%	33.1%	(8.3%)	573	378	204	0.6x	0.6x	0.5x	NM	NM	NM	19.4%	68.8%	0.2%
NetDragon	CN	5,135	1.88	(12.6%)	(12.5%)	2.0%	981	677	579	0.6x	0.6x	0.6x	3.0x	3.0x	3.3x	1.6%	57.5%	17.9%
Thinkingdom	CN	501	2.81	1.9%	(2.6%)	(3.5%)	445	295	167	2.2x	2.2x	2.1x	10.2x	NA	8.5x	0.9%	49.0%	25.1%
iDreamSky	CN	1,081	0.44	(40.3%)	(11.0%)	15.7%	615	842	31	2.1x	2.1x	2.2x	NM	NM	NA	(4.4%)	42.1%	0.0%
GungHo	JP	1,451	19.54	10.9%	20.9%	0.8%	1,170	418	939	0.5x	0.5x	0.5x	1.9x	1.9x	2.1x	2.4%	53.8%	24.8%
COLOPL	JP	1,348	4.50	(6.7%)	(5.6%)	(6.1%)	577	179	433	0.7x	0.7x	0.8x	5.5x	6.1x	7.5x	(9.6%)	NA	10.8%
mixi	JP	1,556	18.50	11.6%	(1.1%)	(6.7%)	1,350	591	895	0.5x	0.5x	0.6x	2.7x	2.6x	4.0x	(7.0%)	NA	14.9%
GREE	JP	1,560	4.41	(27.2%)	(16.4%)	(8.5%)	752	540	350	0.9x	1.0x	1.1x	6.1x	6.3x	8.6x	(12.9%)	NA	12.7%
SHENZHEN ZQGAME	CN	525	2.79	(17.6%)	(4.1%)	1.2%	730	737	9	19.0x	13.9x	13.2x	NM	NM	NM	5.6%	NA	17.4%
NEOWIZ	KP	953	29.84	67.4%	1.6%	(20.4%)	608	465	154	2.1x	2.0x	1.5x	21.7x	15.2x	6.6x	33.3%	NA	22.6%
Mean		5,674	28.88	14.5%	24.0%	(0.7%)	7,920	6,688	1,863	4.5x	4.5x	4.1x	18.7x	20.5x	14.8x	10.4%	67.8%	21.6%
Median		2,381	17.19	3.6%	9.3%	(1.9%)	3,668	3,263	505	2.5x	2.7x	2.4x	12.5x	14.5x	12.4x	2.0%	67.9%	20.6%

# Methodology

This report is based on the expert insights of GP Bullhound's worldwide team alongside detailed analysis of investment trends across the global technology landscape. GP Bullhound's Digital Media sector comprises companies in the following sectors: **Diversified online content and social media** (Meta, Tencent, Naspers, Snapchat, Zillow, Weibo, Yalla, Momo, TripAdvisor, Yelp), **Music, videos and photos** (Netflix, Spotify, SiriusXM, Tencent Music, iQIYI, Bilibili, Roku, Pinterest, YY, HUYA, DouYu International, Storytel, Warner Music Group), **Western gaming** (Activision Blizzard, Electronic Arts, Keyword Studios, Take-Two Interactive, Ubisoft Entertainment, Embracer Group, Stillfront Group, Paradox Interactive, Team17, Rovio Entertainment), and **Asian gaming** (NetEase, Nintendo, Sea, NEXON, Ncsoft, 37Games, BANDAI NAMCO, Perfect World, Netmarble, Kingsoft, CyberAgent, Square Enix, G-bits, Giant, Konami, Koei Tecmo, Beijing Kunlun Tech, Capcom, YOOZOO, DeNA).

## GP Bullhound's Digital Media team

Our Digital Media practice is led by our San Francisco-based Partner, Alec Dafferner, who has over 20 years of experience in technology and media dealmaking.



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