

animoca
BRANDS

NFTs, Digital Property Rights,
Gaming and the Metaverse



What Is the Metaverse? The Future Vision for the Internet

Tech leaders describe the online world as an extensive place where people and their avatars can work, shop, attend classes and even walk on the moon.

Meghan Bobrowsky and Sarah E. Needleman

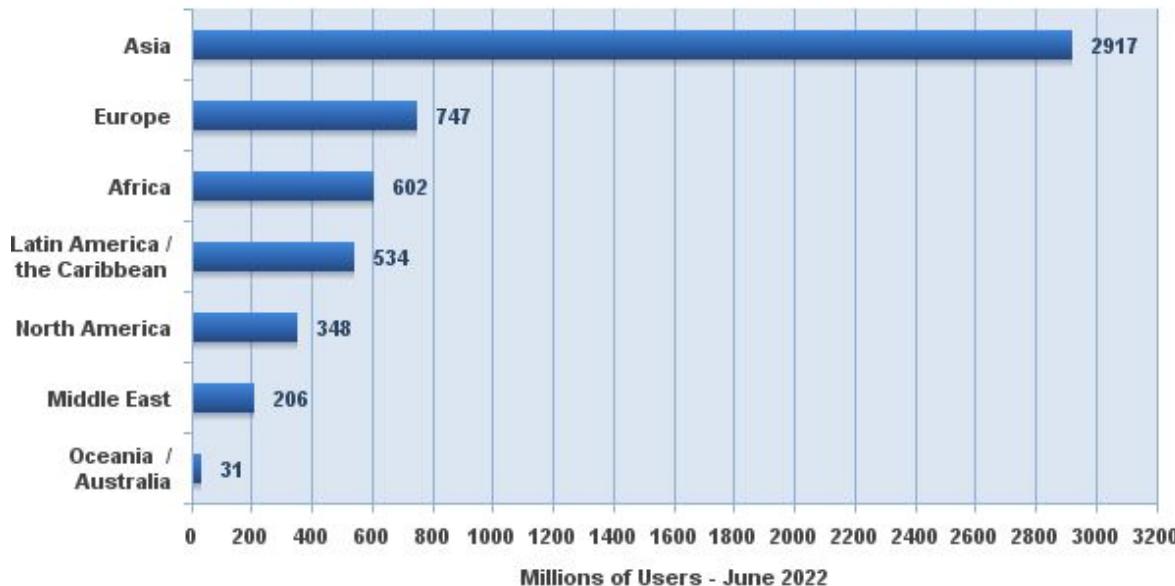
UPDATED NOV. 6, 2021

[TAP STORY >](#)



5.3 BILLION INTERNET USERS

**Internet Users in the World
by Geographic Regions - 2022**



Source: Internet World Stats - www.internetworkstats.com/stats.htm

Basis: 5,385,798,406 Internet users estimated in June 30, 2022

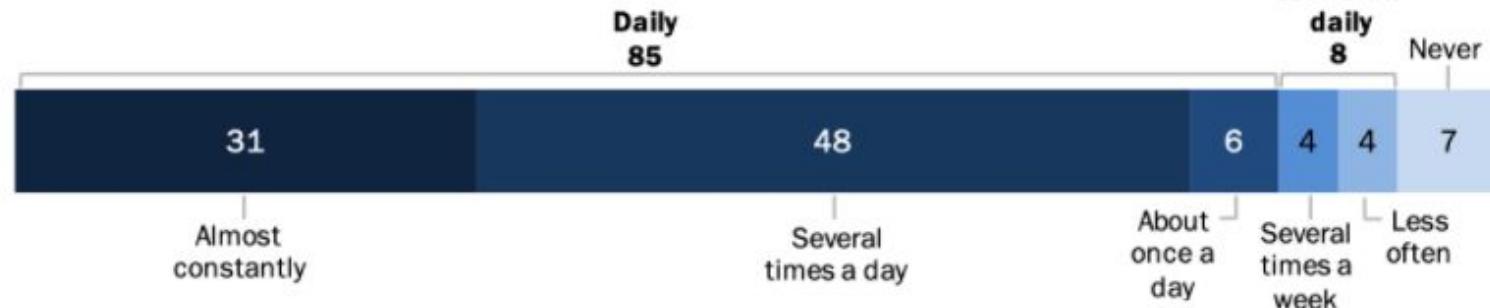
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ABOUT THREE-IN-TEN U.S. ADULTS SAY THEY ARE ‘ALMOST CONSTANTLY’ ONLINE

More than eight-in-ten U.S. adults go online at least daily

More than eight-in-ten U.S. adults go online at least daily

% of U.S. adults who say they go online ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted Jan. 25-Feb. 8, 2021.

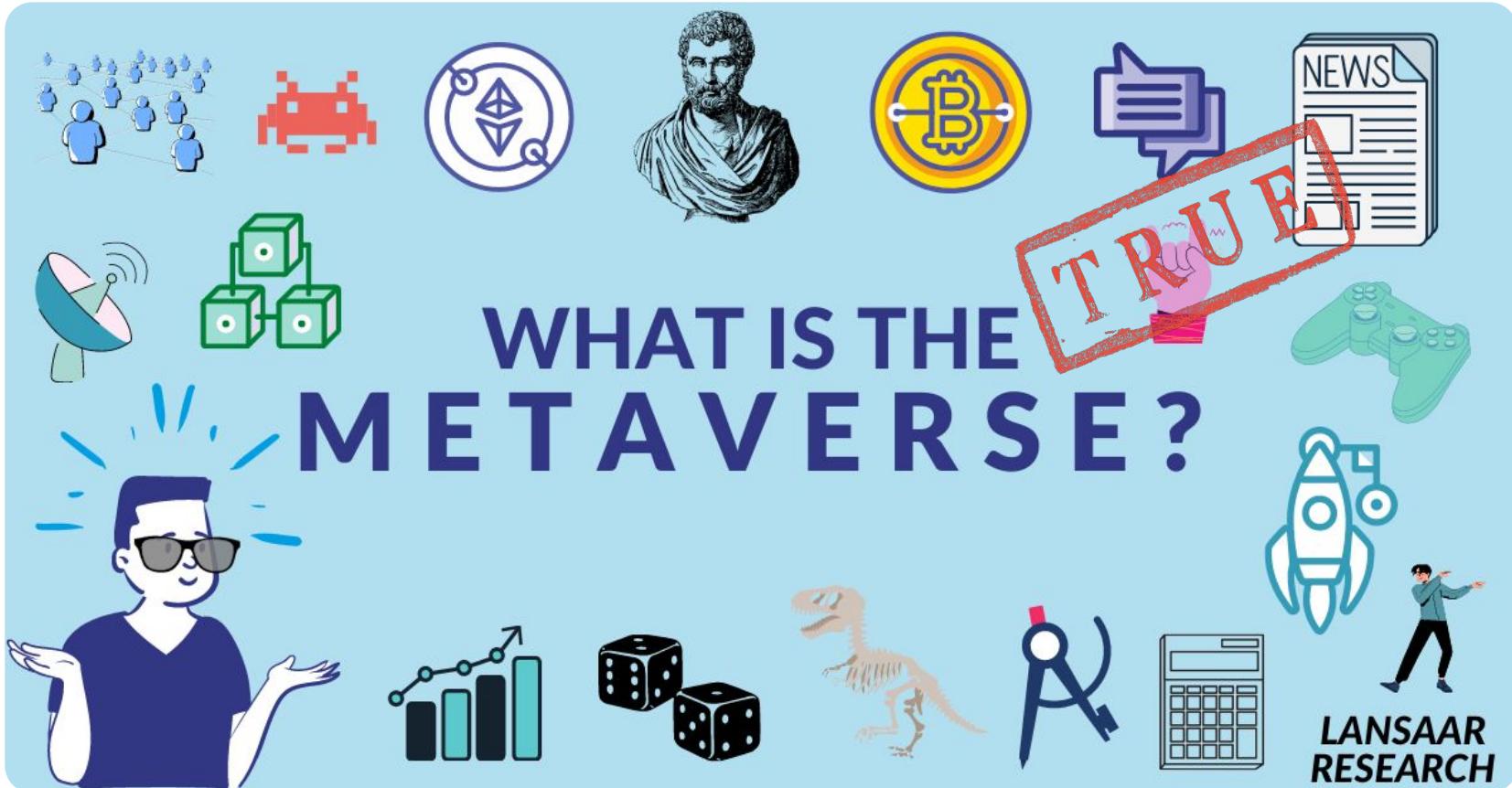


2022

DAILY TIME SPENT USING THE INTERNET

Average amount of time (in hours and minutes) that internet users aged 16 to 64 spend using the internet each day

#	LOCATION	TIME SPENT	#	LOCATION	TIME SPENT
01	SOUTH KOREA	10:46	11	TAIWAN	08:07
02	PHILIPPINES	10:27	12	SAUDI ARABIA	08:05
03	BRAZIL	10:19	13	EGYPT	08:02
04	COLOMBIA	10:03	14	TURKEY	08:00
05	ARGENTINA	09:38	15	PORTUGAL	07:56
06	MALAYSIA	09:10	16	RUSSIA	07:50
07	THAILAND	09:06	17	ISRAEL	07:35
08	MEXICO	08:55	18	SINGAPORE	07:29
09	INDONESIA	08:36	19	INDIA	07:19
10	U.A.E.	08:36	20	ROMANIA	07:09



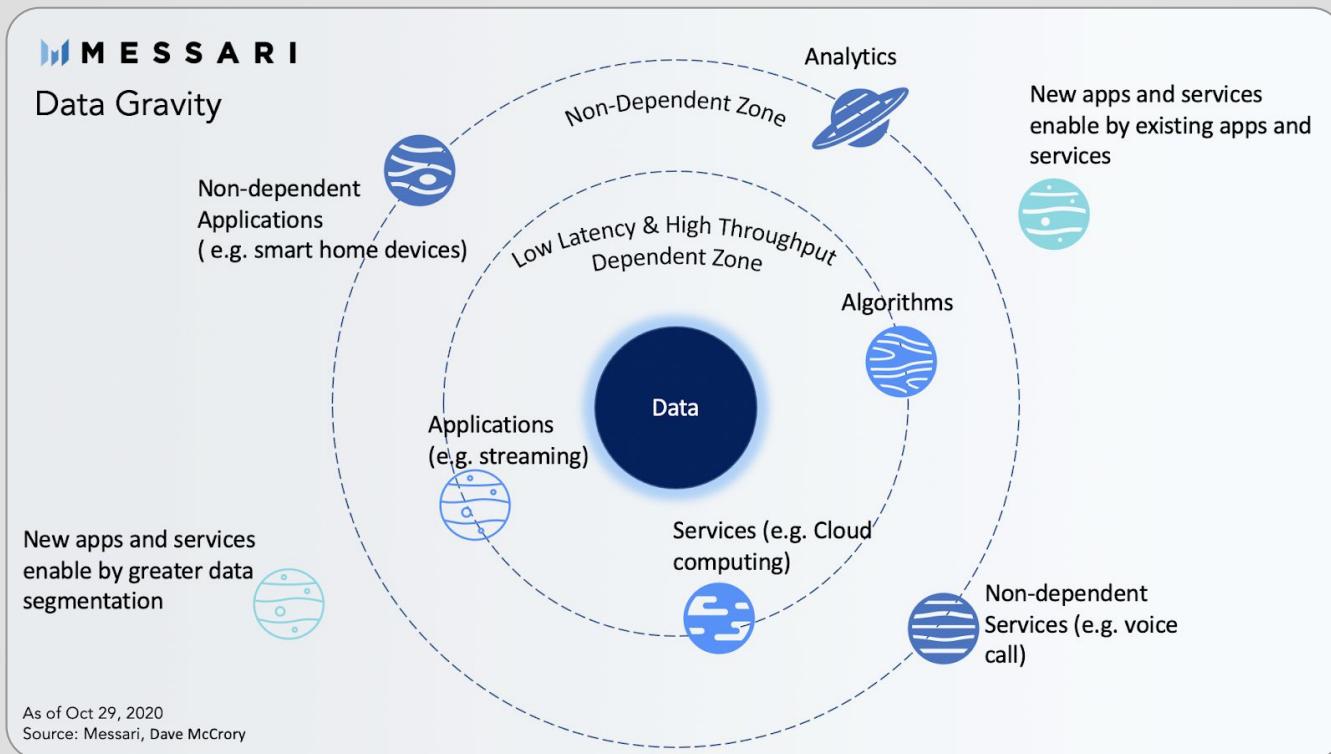
LANSAAR
RESEARCH



DATA AND THE NEW RULES OF COMPETITION

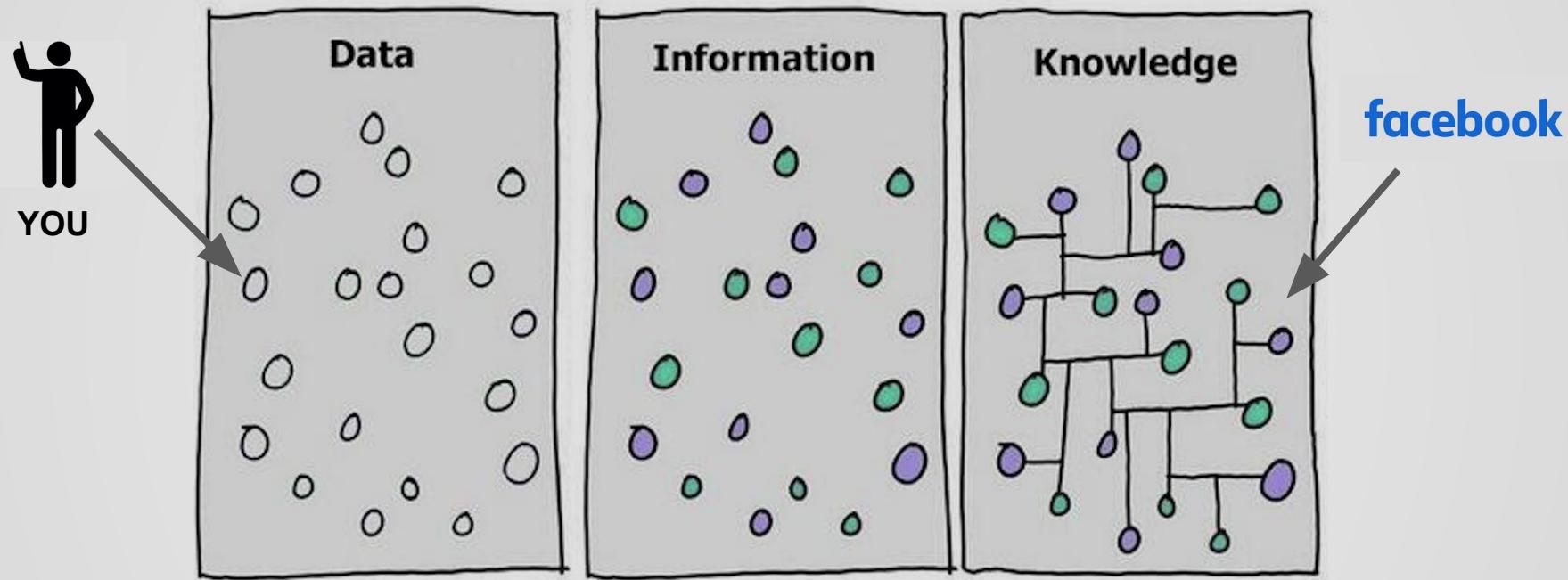


DATA GRAVITY





DATA AND THE NETWORK EFFECT (AND YOU DON'T OWN)



Tencent 腾讯

THE DATA WARS

TECH INDUSTRY

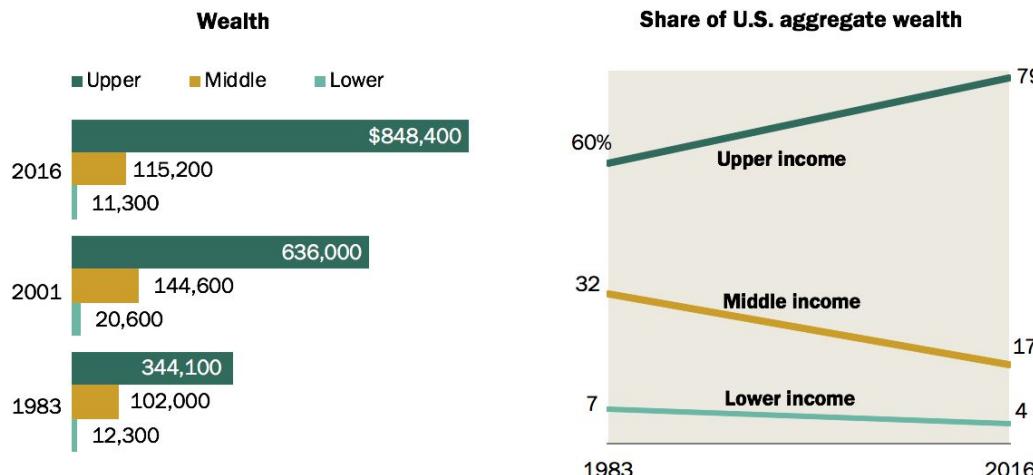


*T'was the year 2017, and across
the land of Busy-ness the four
mighty powerhouses did constantly
wage war upon each other...*

Rising Wealth Inequality

The gaps in wealth between upper-income and middle- and lower-income families are rising, and the share held by middle-income families is falling

Median family wealth, in 2018 dollars, and share of U.S. aggregate family wealth, by income tier



Note: Families are assigned to income tiers based on their size-adjusted income.

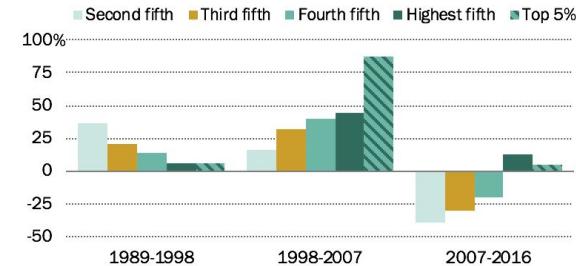
Source: Pew Research Center analysis of the Survey of Consumer Finances.

"Most Americans Say There Is Too Much Economic Inequality in the U.S., but Fewer Than Half Call It a Top Priority"

PEW RESEARCH CENTER

The richest families are the only group to have gained wealth since the Great Recession

% change in median family wealth, by wealth quintile and for the top 5%



Note: Data for families in the first quintile (bottom 20%) are not shown. Their median wealth was as follows: 1989 – \$0; 1998 – \$0; 2007 – \$36, and 2016 – negative \$1,099 (figures in 2018 dollars).

Source: Pew Research Center analysis of the Survey of Consumer Finances.

"Most Americans Say There Is Too Much Economic Inequality in the U.S., but Fewer Than Half Call It a Top Priority"

PEW RESEARCH CENTER

NON-FUNGIBLE TOKENS (NFTs)

Emerging segment in global game market: virtual tokens for digital scarcity, security and authenticity

Fungible	Non-fungible
E.g., One US Dollar	E.g., Limited-edition postal stamp
Interchangeable	Not interchangeable
Uniform (all are the same)	Distinct or unique
Divisible	Indivisible



NFTs are not cryptocurrencies!

The cats you see on this page are from *CryptoKitties*, an app by Dapper Labs that is built on blockchain, similarly to Bitcoin and Ethereum - but *CryptoKitties* uses NFTs and is not a cryptocurrency.

NFTs allow *CryptoKitties* to be traded as unique items. Ownership is tracked securely thanks to blockchain.

Token Interfaces

ERC-20: *fungible tokens*. For ownership of assets like currencies. Such tokens are uniform and interchangeable.

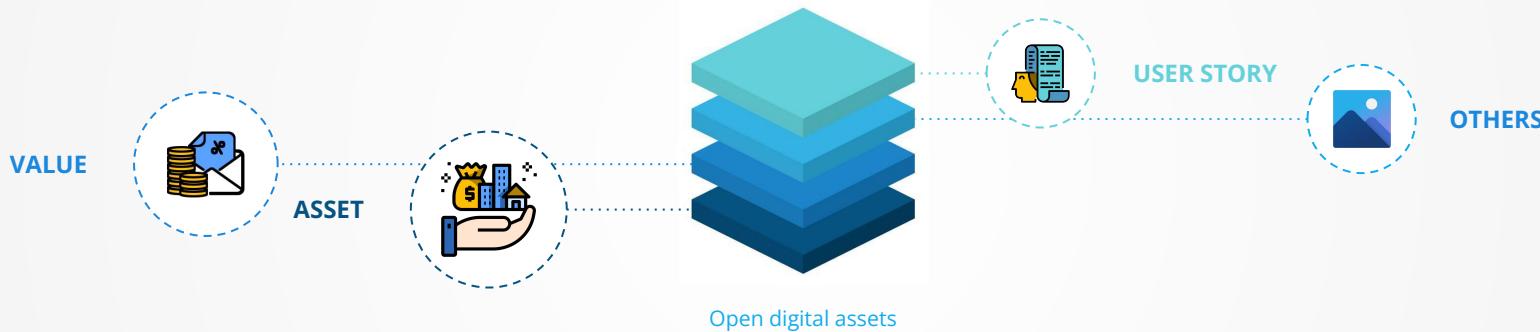
ERC-721: *non-fungible tokens*. For ownership of things. Such tokens are completely unique and not interchangeable.



♦ ERC 721 ♦



OPEN DIGITAL ASSETS = YOUR DIGITAL PROPERTY =NFTs



WHAT IS OPEN DIGITAL ASSETS

Open digital assets is a kind of open source of assets that users can add layers on top, e.g their own story, value, asset to it.

UNIQUE FEATURES

NFTs have been growing significantly in popularity in recent years as it

- provides a certificate of authenticity.
- registered it's transaction on the blockchain and provides a permanent and transparent record of each purchase and proof of ownership.

PLATFORMS



Several emerging platforms including **OpenSea** and **WAX** have been providing marketplaces on which digital goods can be offered and sold. Anyone can go online and verify who owns a specific NFT, that can a specific piece of digital art from e.g Beeple

OPEN ASSETS VIEWED IN PHYSICAL TERMS



Open digital assets can be central to the experience. For example, different services can be added to a car regardless of its manufacturer. In this manner, the content becomes the platform.

WHAT ARE OPEN DIGITAL ASSETS

Open digital assets are a type of open source assets to which users can add their own layers, e.g. their personal story or customization.

UNIQUE FEATURES

NFTs have been growing significantly in popularity in recent years:

- They serve as a certificate of authenticity
- They require registered transactions on blockchain providing permanent and transparent records of each purchase and proof of ownership

PLATFORMS



Several emerging platforms including **Opensea** and **Wax** have started providing marketplaces for digital goods. Due to their open nature, anyone is able to verify who owns a specific NFT.



DiDi

Unbundling The Automobile



MICHELIN



GOOD **YEAR**



Vehicle Cybersecurity

ARGUS
CYBER SECURITY

Karamba Security



Engine Efficiency



Sensor Hardware



Battery Storage



Connected Car



V2V/V2X Communication

VENIAM Savari

TI Tech RoboCV

KYMETA CobdaWireless

Autotalks

ADAS/
Car Automation

nutonomy NAUTO

drive.ai AdasWorks

Robot of Everything

OXBOTICA (Comma.ai)

Auto Repair

carZ Your Safety Our Passion

ClickMechanic HONK

openbay URGENTLY

autobutler.dk PITSTOP

REPAIR PAL

Tires

LDL Aperia

TECHNOLOGY

DMACK

Navigation/Mapping

INRIX BirdsEye

swift NAVIGATION

PathSense

MapmyIndia

navmii MAPKIN

Pioneer

KENWOOD



lyft



INTEROPERABILITY = P2P OWNERSHIP ECONOMICS

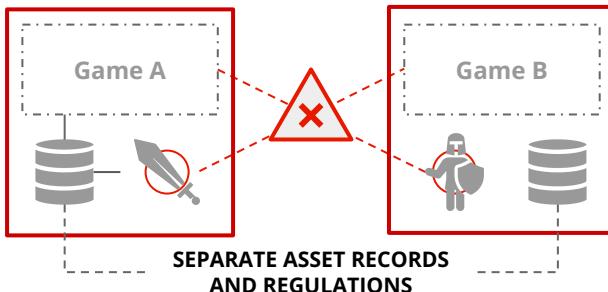


Cross-application interoperability refers to the capacity of games to utilize a shared asset

TRADITIONAL CLOSED LOOP MODEL

PROBLEM: As long as assets are bound to one server, their value hinges on a single use case - the original game. The traditional centralized game model traps players by forcing them to sink costs in the platform.

SILOED DATABASES CONFINE ASSETS TO THEIR NATIVE ECOSYSTEM

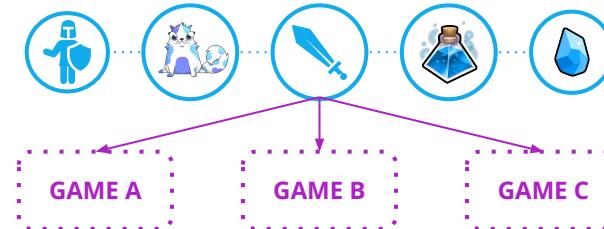


User transactions are merely license agreements: a right to use items within, (and only within) the context of the original game. This forms a closed loop between player and developer.

DECENTRALIZED NETWORKS ENABLE INTEROPERABILITY

SOLUTION: players are able to leverage assets that are stored on blockchain in multiple games. Decentralized networks foster an open economy in which assets are able to have uses cases from one game to another.

A DECENTRALIZED MODEL FACILITATES XCH. BETWEEN GAME ECOSYSTEMS



NFTs PROMISE TO SET THIS BOLD NEW STANDARD FOR CROSS-APPLICATION SUPPORT

Assets are no longer constrained to a single ecosystem.

If a blockchain game shuts down, player assets are *not* lost. Players can still use assets in other games and can continue to trade them on decentralized marketplaces.

EXAMPLE OF NFTS

Beeple Brings Crypto to Christie's

The artist's brash riffs on the news have whipped up a frenzy of interest within the cryptocurrency scene.

What is NBA Top Shot and why is a LeBron highlight worth \$208K? 'This is a real market,' Mark Cuban says

Chris Bumback USA TODAY
Published 10:31 a.m. ET Feb. 26, 2021 | Updated 8:49 p.m. ET Feb. 26, 2021

NBA All-Star 2021: Who got snubbed?

USA TODAY Sports' Jeff Zillgitt breaks down the 2021 NBA All-Star rosters. USA TODAY

"Everyday is 'The First 1000 Days,'" a composite work by Beeple will be for sale at Christie's. He started working on "Everyday" and paper, but now mostly uses computer software. via Christie's

LAND Presale SOLD OUT

Available Booked Purchased Premium Unavailable

NFT representing 5% of Monaco F1 Delta Time track auctioned for \$220K

NFT-powered racing game F1 Delta Time has auctioned off a segment of an in-game track for \$222,000.



A segment of a race track in F1 Delta Time, a non-fungible token-powered motorsports game from Animoca Brands, has been auctioned off for more than \$1 million of the company's REVV tokens, worth approximately \$222,000. Animoca says it's a record price for an in-game NFT.

The token, "Formula 1 Grand Prix de Monaco 2020 A" was auctioned on NFT marketplace Open Sea, with bidding taking place from Nov. 29 until Dec. 2. The token offers its owner an "Apex" share in the game's Circuit de Monaco track.



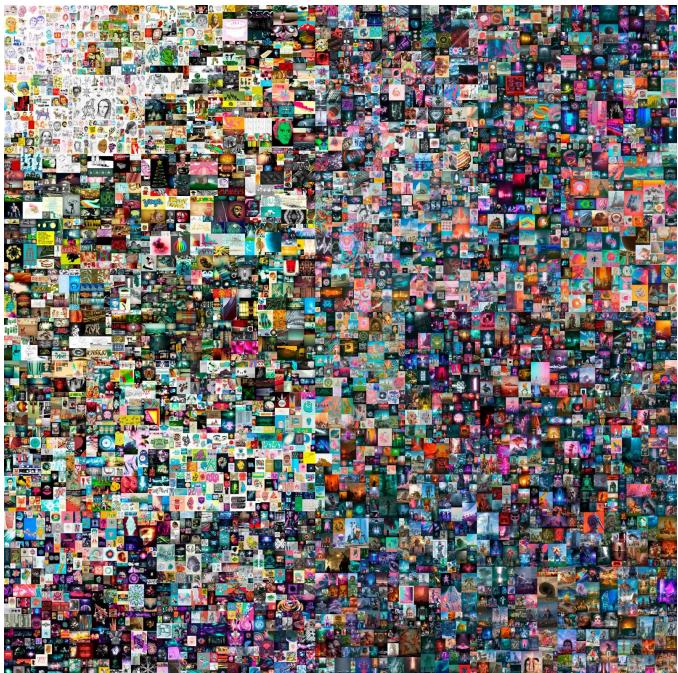
3LAU Just Sold His Ultraviolet Album NFTs For \$11.7 Million

INDUSTRY TECH
By OLIVER TROY
FEBRUARY 26, 2021

3LAU's auction for the unique NFTs of his album have sold for a total of \$11,684,101.

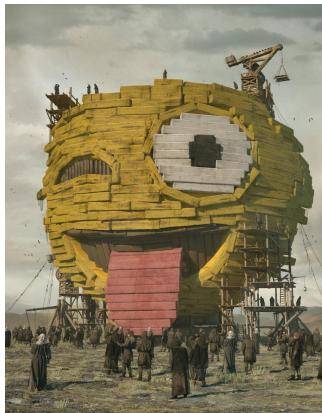
A non-fungible tokens (NFT) is a digital asset that, being linked to the blockchain, allows for ownership of the asset. Recently, with the latest developments in the crypto space, NFTs have become very popular and are very popular at the moment. NFTs can be a range of different files but the focus is largely on art at the moment. NFT is the future and many are bullish on its widespread adoption, to the point that they'll bet thousands or even millions of dollars on an artwork.

NFTs ARE A STORE OF CULTURE



BITCOIN IS A STORE OF VALUE, NFTS IS A STORE OF CULTURE

NFTs capture the imagination, ideas and creativity that shape a digital collective born through human achievement which has recently been best expressed with art nfts.



Beeple, The First Emoji. Part of the \$69.3 million Everydays.
Beeple/Christie's



BLACKSNEAKERS, Holding Up The Sun. Sold for: \$7,088
BLACKSNEAKERS



Shaylin Wallace, Stellar Goddess.
Current bid: \$2,647
Shaylin Wallace

There are so many people from different backgrounds and genres coming in to share their art, connect with people and potentially build a career.

The street art and counter cultural styles are being used in NFTs. Some finance-crypto people are may be considered as 'punks'.

Young artists of color are not left out, even though they may long been marginalized in the "traditional" art world

SERVICES FOR MERCHANTS (NFT's)



The NFT Game That Makes Cents for Filipinos During COVID

Aug 26, 2020 at 13:36 UTC
Updated Aug 26, 2020 at 14:08 UTC

[Twitter](#) [Facebook](#) [LinkedIn](#)

A collage of many small video frames showing various people, mostly children and young adults, smiling and holding up smartphones to play the game Axie Infinity. The images are set against a yellow background.

OPINION

A collage of people in Nueva Ecija playing Axie (Emfarsis)

Introducing Rocket NFT Loans

By Cooper Turley January 20, 2020

Rocket Loans

The logo for Rocket Loans, featuring a stylized blue rocket ship icon inside a purple circle, with the word "Rocket" in white and "Loans" in black below it.

Yieldl Announces Marketplace for NFT Rentals and Mortgages

Predicting the increasing tokenization of real-world assets, Tokyo-based startup Yieldl plans to launch the first P2P marketplace for NFT mortgages and rentals.

7579 Total views 77 Total shares Listen to article

DeFi Rate

The logo for DeFi Rate, featuring the words "DeFi Rate" in a dark blue, sans-serif font.

SAMUEL HAIG AUG 20, 2020

Yield Racing: F1 Delta Time Players Can Now Stake Their NFTs

Players of the crypto-powered F1 Delta Time game can now stake their NFTs to generate rewards in the form's Animoca Brands' REVV token.

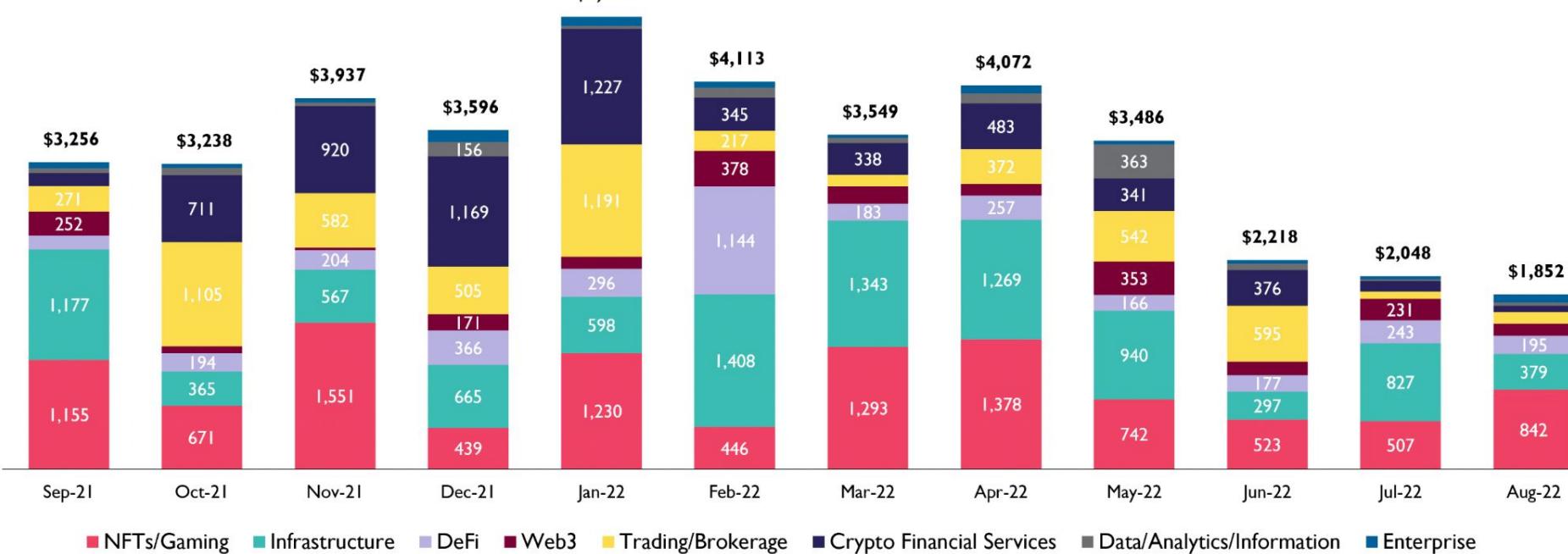
11183 Total views 32 Total shares Listen to article

A hand holding a black game controller (Xbox One) is positioned over a digital interface. The interface shows a network of glowing blue lines connecting nodes, with a large green circular button in the center containing a white double-headed arrow symbol. The background features a blurred image of a Formula 1 race track.

NFTs/GAMING MOST FUNDED IN 2022

THE BLOCK | Research

Blockchain/Crypto Venture Funding

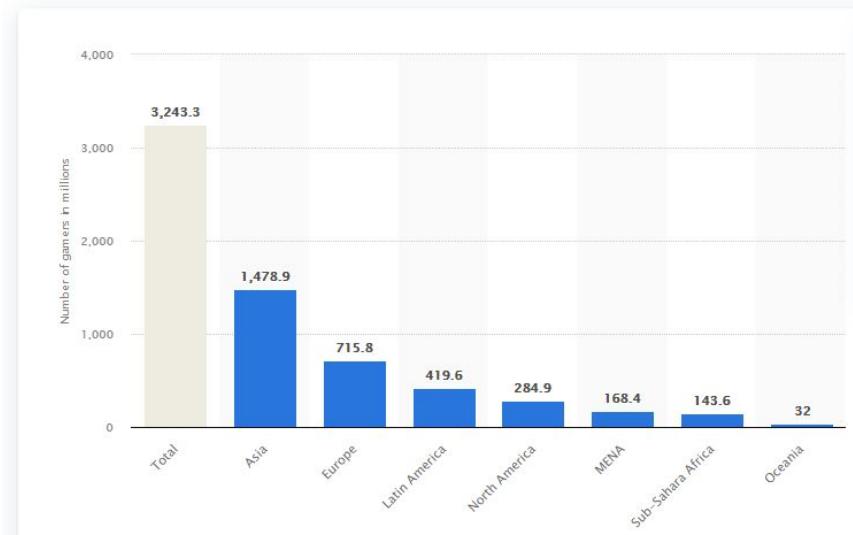


Source: The Block Research

Note: U.S. dollars in millions; Missing numerical values indicate investment value <\$150 million for visual clarity

OVER 3.2+ BILLION GAMERS TODAY

Number of video gamers worldwide in 2021, by region
(in millions)



The video gaming industry is huge and shows no signs of slowing down. While there were about 2.3 billion video gamers across the world in 2019, this figure has now exceed 3.2 billion gamers.

Source: Statista.com 2019

Asia Pacific

1.48 b
gamers

\$71.4B
revenue

X2
North America

This represent more than **double** the revenue generated in the second largest region, North America (2018)

The world

3.24 b
gamers

There were about 3.24 billion video gamers across the world in 2021

United States

66%
of population

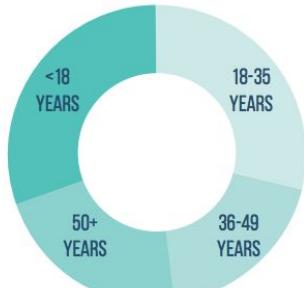
Gamers accounted for 66% of the general U.S. population, up from **58% just 5 years earlier**

45%
are females

female gamers made up 45% of the U.S. gaming population in 2018, **up from 38% in 2007**

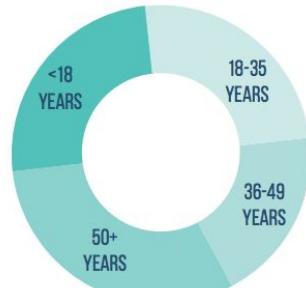
The average gamer is 34 years old.

AVERAGE GAMERS BY AGE GROUP



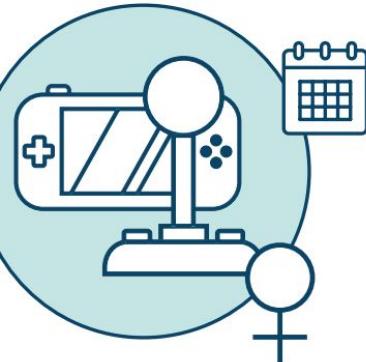
MALE

UNDER 18 YEARS OLD: 17%
18-35: 16%
36-49: 12%
AGE 50+: 11%



FEMALE

UNDER 18 YEARS OLD: 11%
18-35: 13%
36-49: 8%
AGE 50+: 12%



The average female video game player is **36**, and the average male video game player is **32**.

45% of US gamers are women.

WHY WE PLAY

Games are uniquely able to connect us, to entertain while inspiring teamwork, cooperation, and sometimes a little competition. It's not about who you are, but how you play—and anyone can play.



65%

of video game players play with others

17%

team/guild/
clanmates/
“online only”
friends of
all types

7%

parents

42%

friends

24%

other family
members

27%

spouse/
partner

Friends/Family That They Play With:

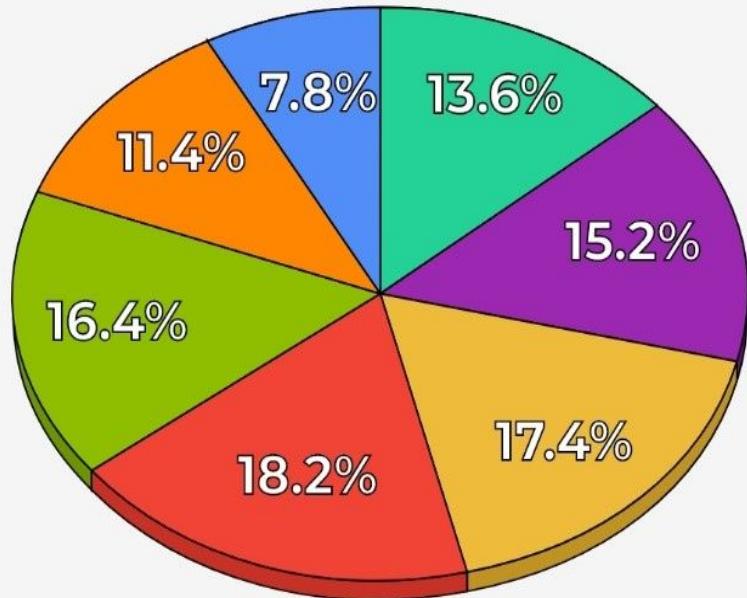


Adult video game players spend...

6.6 HOURS
a week playing
with others online

4.3 HOURS
a week playing with
others in person

Time Gamers in the United States Spend Playing Games



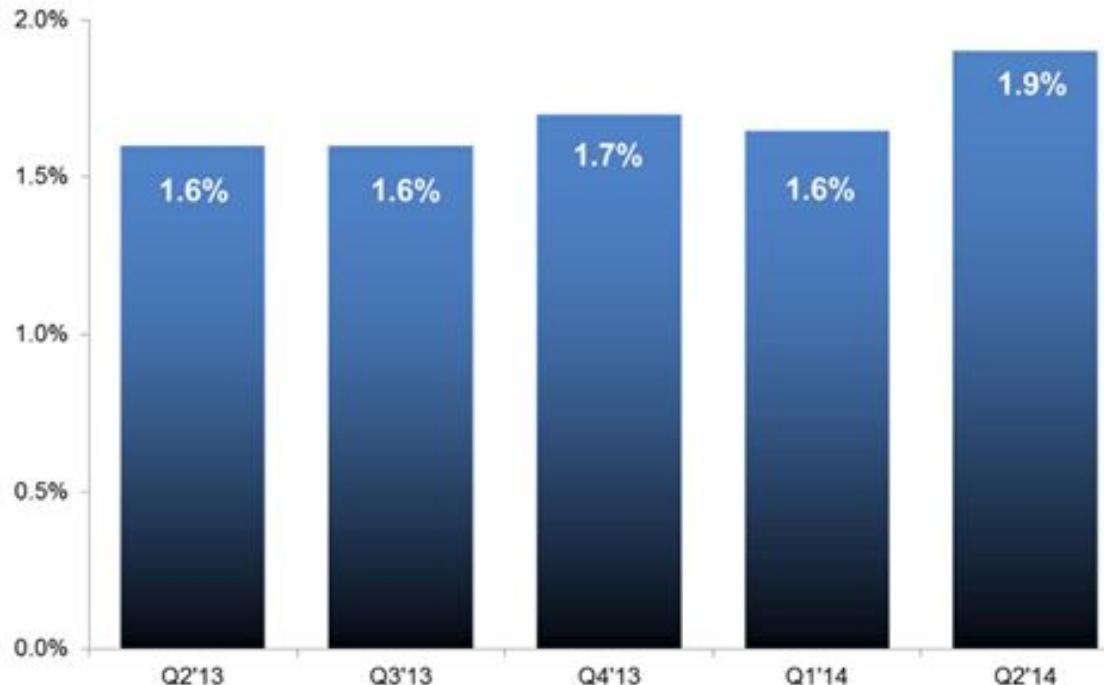
- 13.6% █ Less than 1 hour a week
- 15.2% █ 1-2 hours a week
- 17.4% █ 2-4 hours a week
- 18.2% █ 4-7 hours a week
- 16.4% █ 7-12 hours a week
- 11.4% █ 12-20 hours a week
- 7.8% █ More than 20 hours a week

13m+ are full time, 50m+ are part time

Monetization



Payer Conversion



MUUs and MUPs exclude NaturalMotion as the necessary data is not yet available

BILLION DOLLAR RENTAL MARKET

\$50B+
2019

The global virtual goods market size was valued over USD 50 billion in 2019. The rising popularity of free-to-play games have encouraged the purchase of virtual goods, thereby, resulting in a rapid forward momentum of the market.



Value: \$170



Value: \$ 6m

Planet Calypso from Entropia

value: \$ 6 million



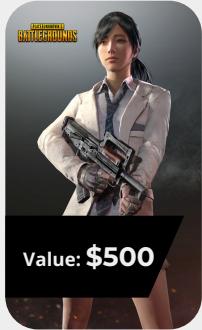
Value: \$ 38k

Ethereal Flames Pink War Dog-Dota 2

value \$ 38,000

\$100B+
2022

The market size was forecasted to reach a value over USD 100 billion by 2022. The emerging popularity of MMOG facilitated by social networking websites has led to gamers spending a considerable amount of their time in the game worlds.



Value: \$500



Value: \$ 9k

Eve Online Revenant Supercarrier



Value: \$ 50k

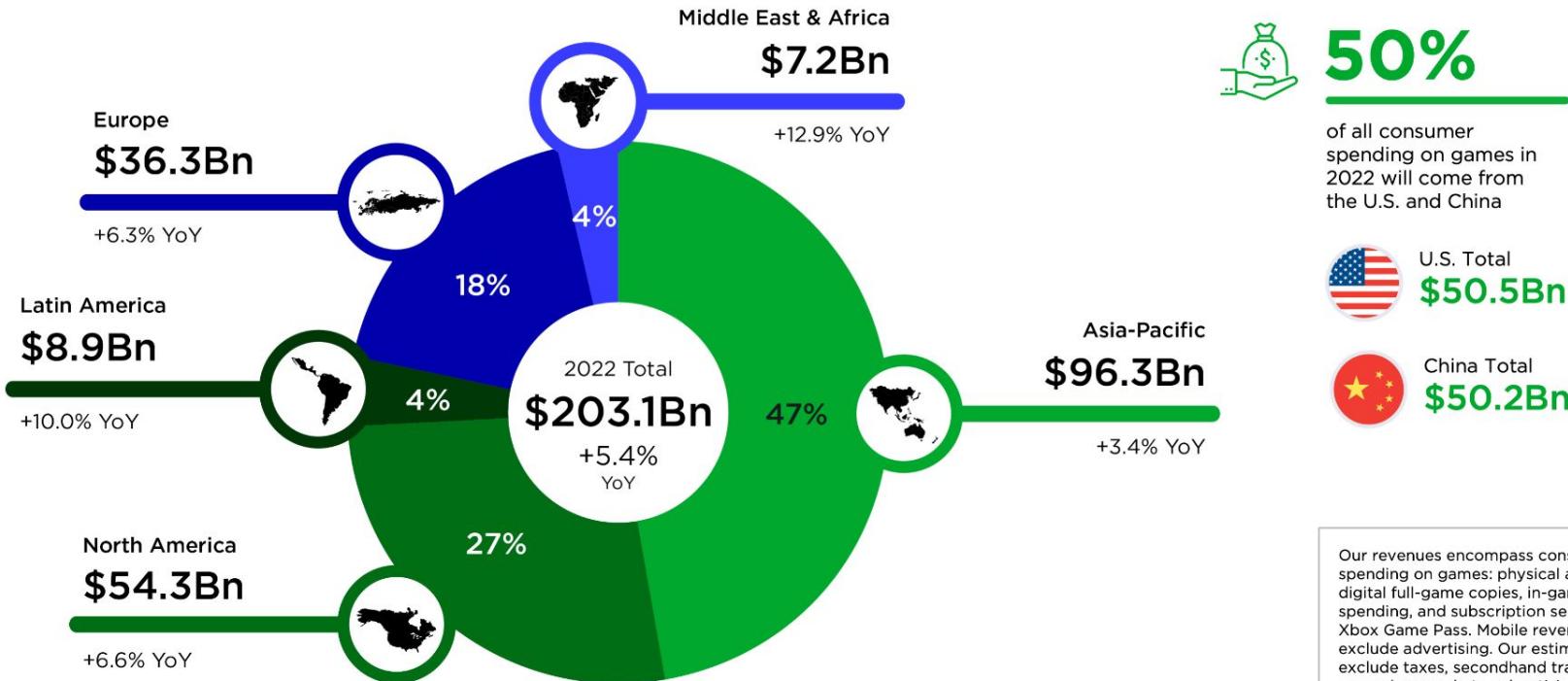
Amsterdam-Second Life

value \$ 50,000



2022 Global Games Market

Per Region With Year-on-Year Growth Rates



Source: ©Newzoo | Global Games Market Report | April 2022

newzoo.com/globalgamesreport



50%

of all consumer spending on games in 2022 will come from the U.S. and China



U.S. Total
\$50.5Bn



China Total
\$50.2Bn

Our revenues encompass consumer spending on games: physical and digital full-game copies, in-game spending, and subscription services like Xbox Game Pass. Mobile revenues exclude advertising. Our estimates exclude taxes, secondhand trade or secondary markets, advertising revenues earned in and around games, console and peripheral hardware, B2B services, and the online gambling and betting industry.

CONTENT = ASSETS = SOCIAL IDENTIFIERS

Entertaining & Social
Single player → Multiplayer

Blockchain

Digital Property (NFTs)

Bartle's taxonomy of player types provides a handy way to look at the different motivations that drive engagement on gamified systems. In the 1990s, Dr Richard Bartle outlined 4 basic types of game players. These are the Achievers, the Socializers, the Explorers and the Killers.

KILLERS	ACHIEVERS
harass, hack, cheat, heckle, troll They see only one goal –victory at all costs. They seek to utilize power-up items to cause distress and assert their dominance over other players.	win, challenge, show off, compare They want to share their successes with everyone. They want other people to be awe at their vast collection of trophies .
SOCIALIZERS	EXPLORERS
help, share, comment, gift, greet They seek a social experience. Socializers are happy give various social treasures that extend their friends lives, help to complete a puzzle or beat a tricky boss.	explore, rate, review, vote, curate They are obsessed with Easter eggs (special items) and exposing hidden areas. Explorers love to play as different characters with different gear.

As players advance in power and prestige in these environments, they accumulate virtual items that are valuable to other players, particularly new or lower level players. This is why gamers need blockchain:



OUR ASSETS ARE SOCIAL IDENTIFIERS



=



No Alpha
Rewards

EN

MAINNET NET
0 ETH

Clear



Tap ?

For Sale

Premium

On OpenSea

LAND on OpenSea

My Lands

THE
NEWS
WITH
SHEPARD
SMITH

INVESTORS BUYING UP VIRTUAL REAL ESTATE IN METAVERSE



Snoop Dogg

Booked By: Sandbox

Visit site

Snoop Dogg Enter



[Sign up](#) | [Login](#)

Language ▾



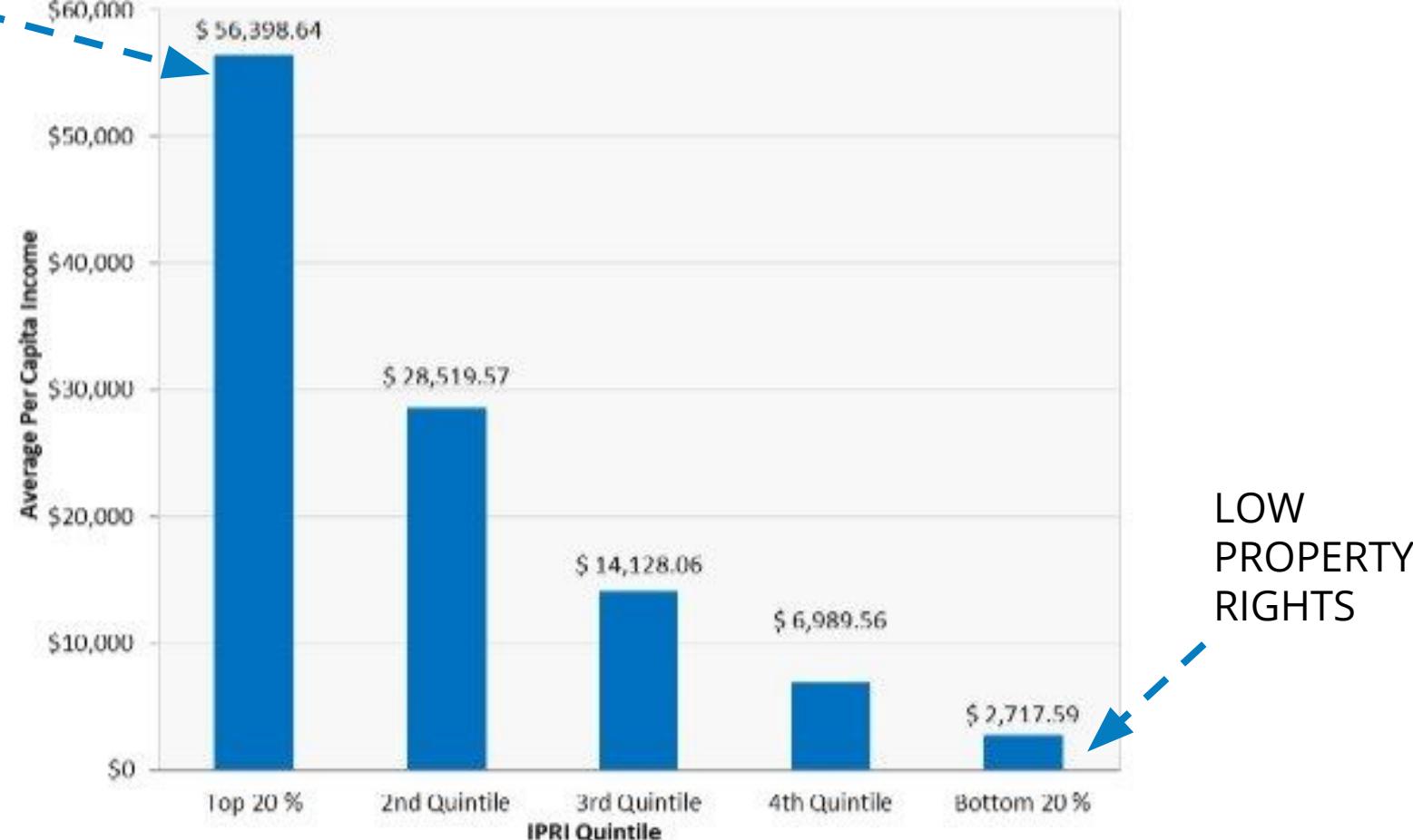
Connect with a
Global Community

Meet and chat with real people
from around the world!

[Get Started](#)

STRONG
PROPERTY
RIGHTS

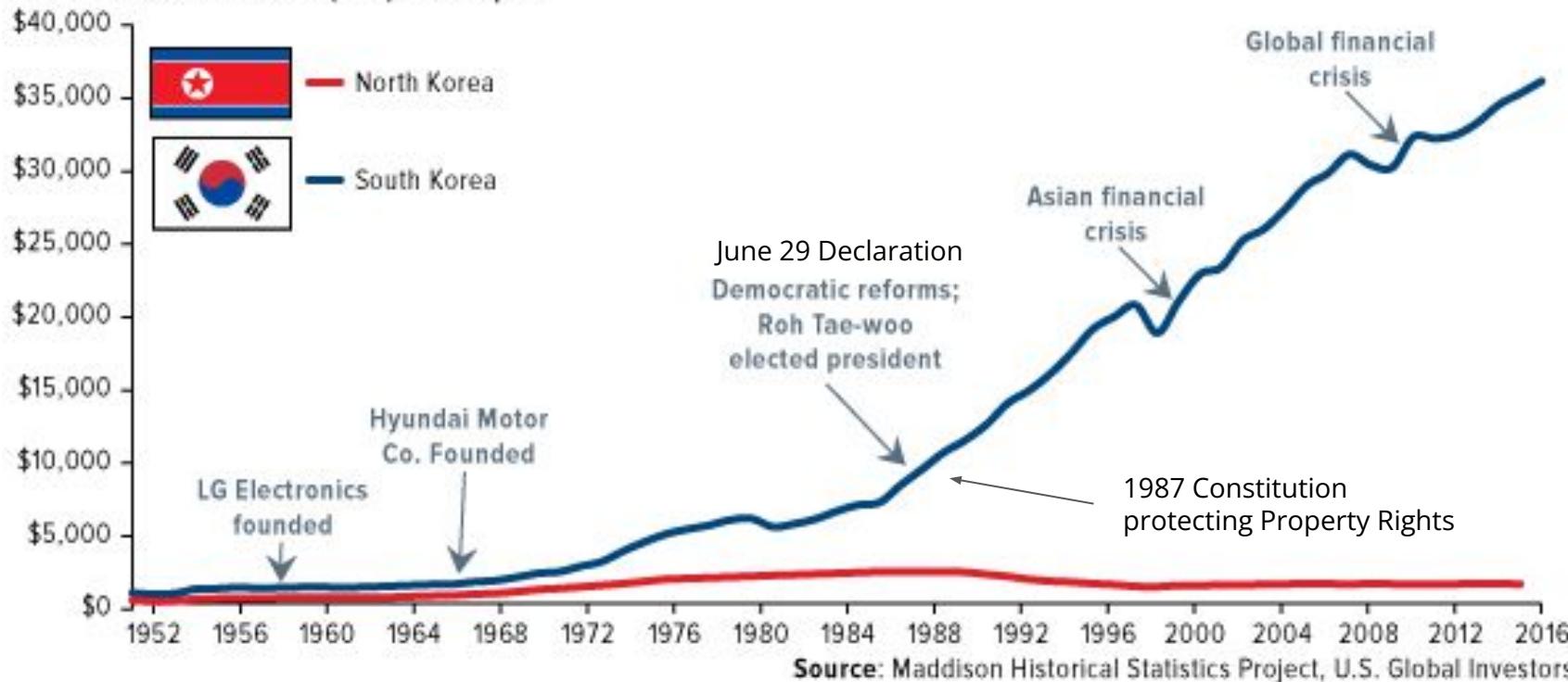
Figure 19: Average *per capita* Income by IPRI Quintiles



MIRACLE ON THE HAN RIVER

Miracle on the Han River, 70 Years Later

Gross National Income (GNI) Per Capita



A portrait painting of George Washington, the first President of the United States. He is shown from the chest up, wearing a white cravat, a white waistcoat, and a brown jacket over a white shirt. His powdered hair is styled in a powdered wig. He has a serious expression and is looking slightly to his left.

Freedom and Property Rights
are inseparable. You can't have
one without the other.

~ George Washington



UNREAL
ENGINE

**MEET THE
METAHUMANS**





NW N NE



Sylvia

1000 / 1000

Shotgun Mk I

J 8 / 10

&

Shield

Taunt

Sprint



"IT'S FOOD ON THE TABLE, IT'S MONEY FOR THEIR FAMILIES AND IT'S SAVING THEM WHEN THEY CANNOT EVEN LEAVE THE HOUSE."

PLAY-TO-EARN

NFT GAMING IN THE PHILIPPINES

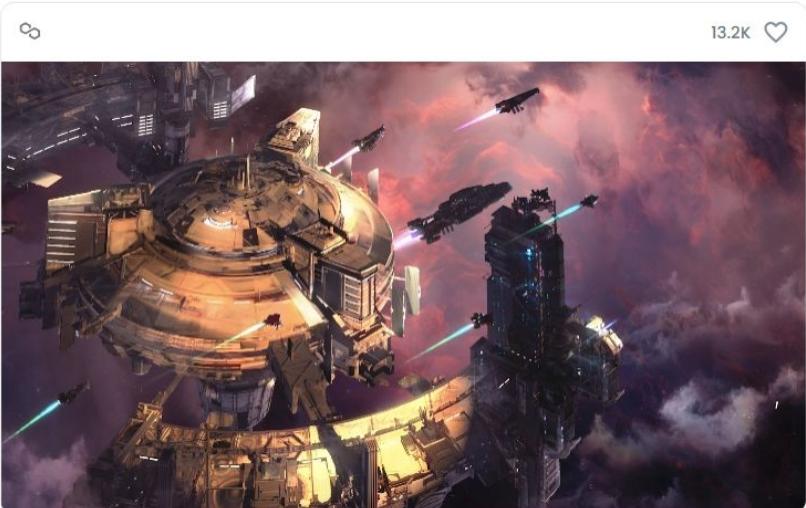




FREE NFT CLAIM



Halberd-001



13.2K ❤️

514.9K owners 562.8K total 459.2K views 13.2K favorites

⌚ Sale ends October 19, 2022 at 11:02pm GMT-7

Current price

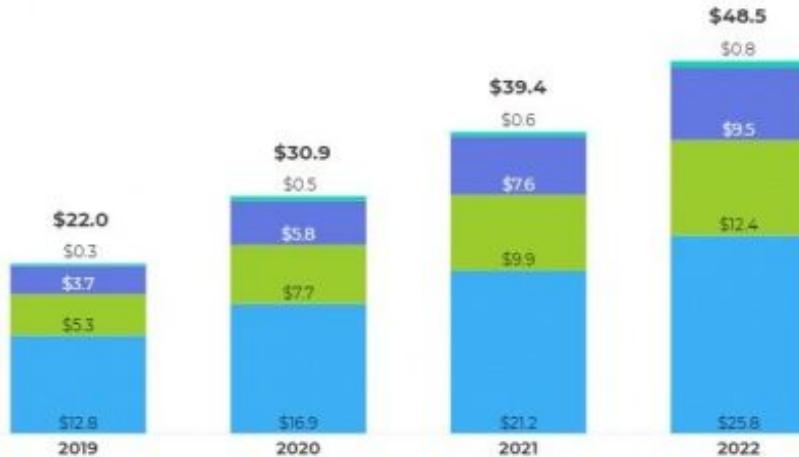
♦ 0.0035 \$4.73

PLAY TO OWN

USER ACQUISITION AS AIRDROP

90% FIRST TIME NFT HOLDERS

Gaming App Install Ad Spend, 2019-2022 (Billions)



● APAC ● North America ● EMEA ● LATAM



Korea's gaming industry turns to blockchain, unwavered by Seoul's policy

Play-to-earn and NFT games expected to dominate the market in 2022



KRAFTON, Inc. headquarter in Bundang-gu near capital Seoul

Come next year, Korea's online game developers are poised to release a number of games on blockchain platforms.

The companies have lined up the so-called Play-To-Earn (P2E) games or those using NFTs, despite the Korean government's hesitance towards recognizing these games as legitimate products. Seoul is concerned about the speculative nature of some of the P2E games.

GAMING GIANTS BULLISH ON BLOCKCHAIN



Microsoft's Minecraft to Ban NFTs on Game Servers, Derivative NFT Projects

Minecraft will change its usage guidelines to prohibit NFT use on its servers, as well as prohibit NFTs that use the game's assets.



By [Andrew Hayward](#)

Jul 21, 2022

5 min read



TASCHA CHE

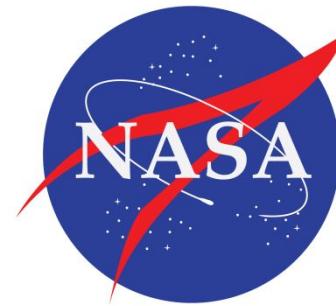
IDEAS FEB 9, 2022 8:00 AM

Public Blockchains Are the New National Economies of the Metaverse

The “fiscal” and “monetary” policy tools of smart contract blockchain platforms may work even better than the economic policy tools of governments.



George Land and Beth Jarman, Breaking Point and Beyond. Results from 1968



IMAGINATIVE THINKING TEST

98%



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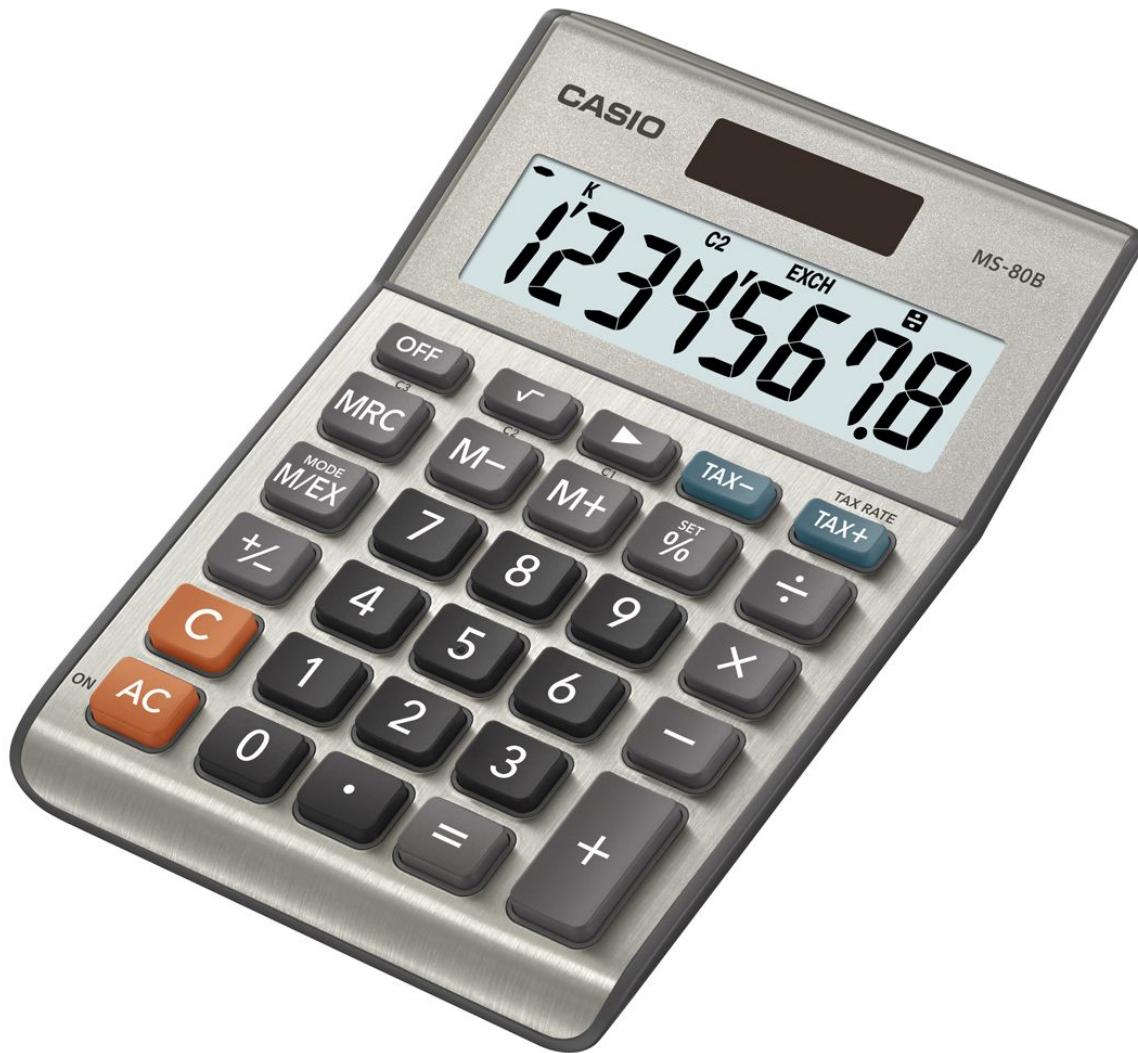


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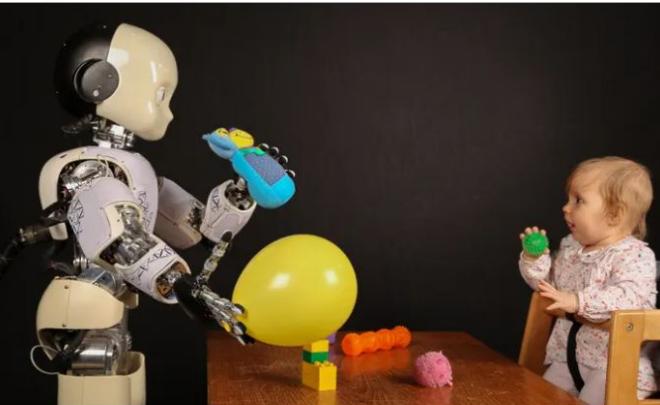
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AI will create 'useless class' of human, predicts bestselling historian

Smarter artificial intelligence is one of 21st century's most dire threats, writes Yuval Noah Harari in follow-up to *Sapiens*



An iCub robot learns how to play from a child. Photograph: Dr Patricia Shaw/EPSRC/PA

Ian Sample *Science editor*

@iansample

Fri 20 May 2016 13.20 BST

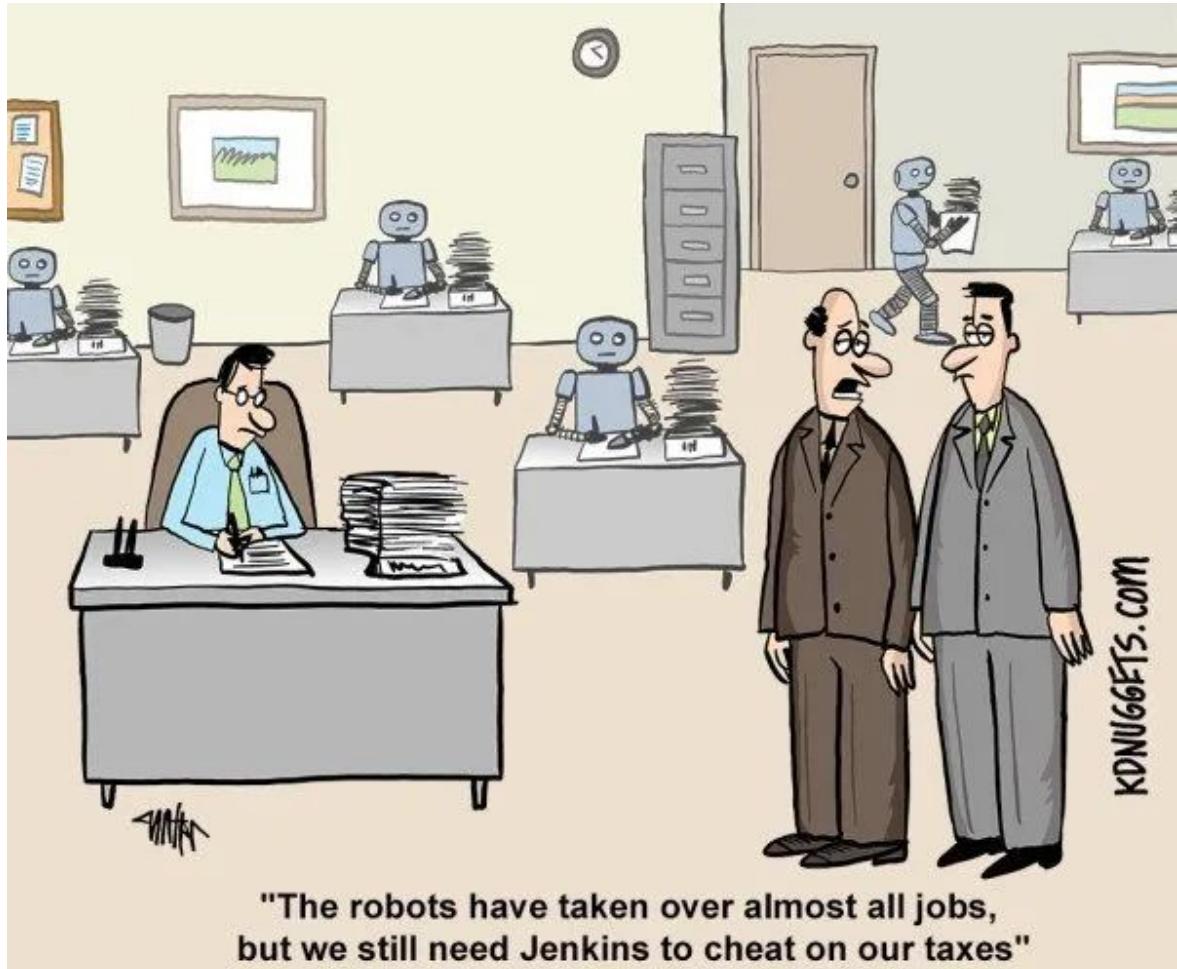


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It is hard to miss the warnings. In the race to make computers more intelligent than us, humanity will summon a demon, bring forth the end of days, and code itself into oblivion. Instead of silicon assistants we'll build silicon assassins.

The doomsday story of an evil AI has been told a thousand times. But our fate at the hand of clever cloggs robots may in fact be worse - to summon a class of eternally useless human beings.

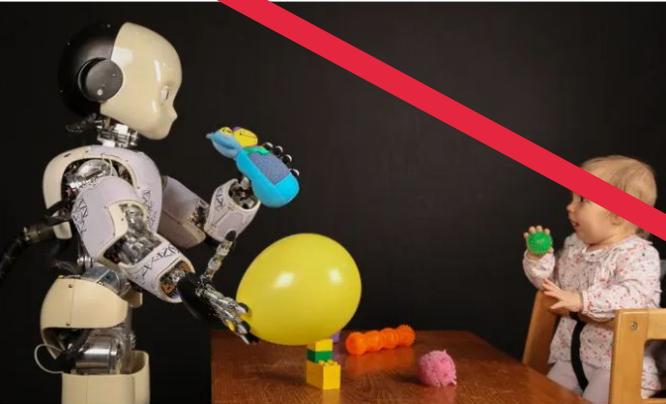
At least that is the future predicted by [Yuval Noah Harari](#), a lecturer at the Hebrew University in Jerusalem, whose new book says more of us will be pushed out of employment by intelligent robots and on to the economic scrap heap.



"The robots have taken over almost all jobs, but we still need Jenkins to cheat on our taxes"

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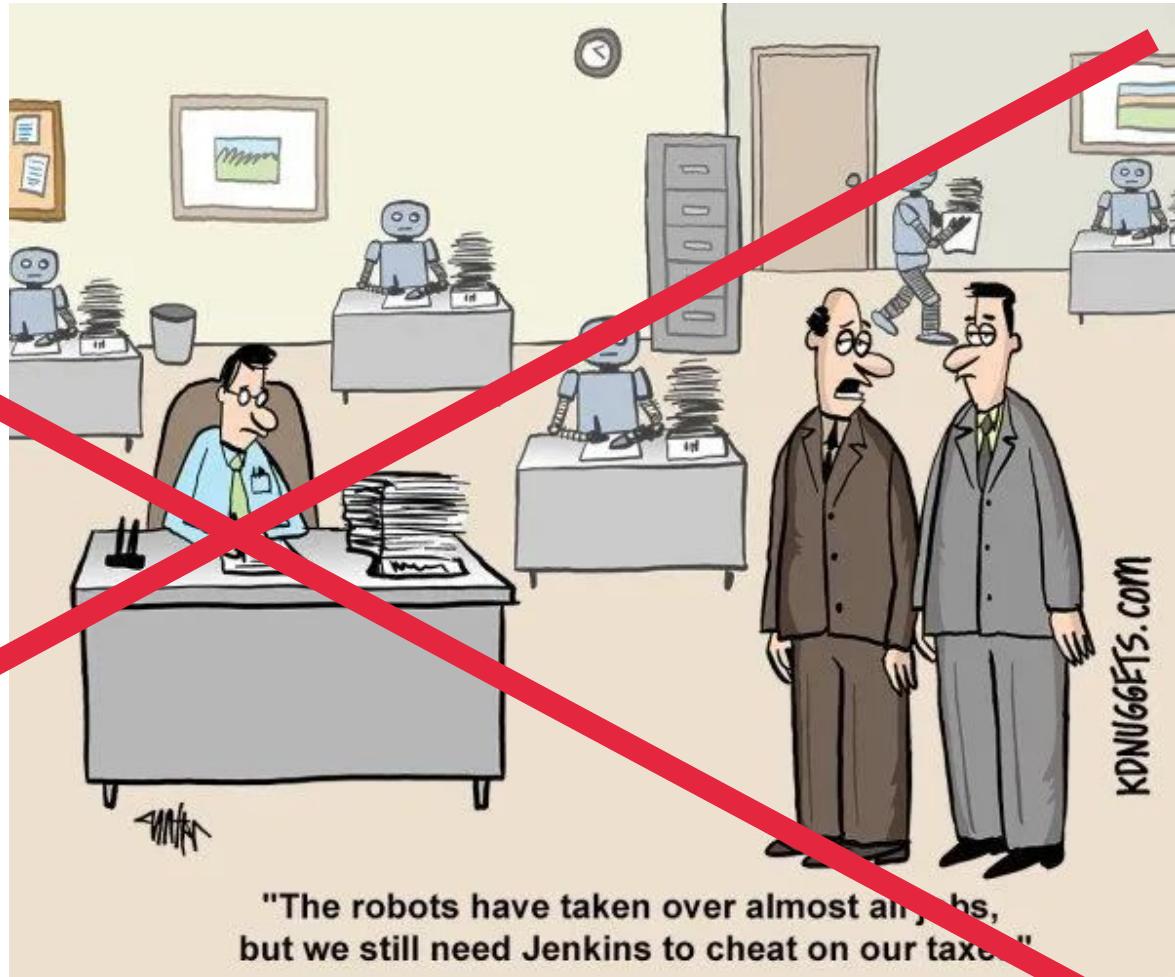


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A black and white portrait of Elbert Hubbard, an American writer, philosopher, and arts and crafts advocate. He is shown from the chest up, wearing a dark suit jacket over a light-colored shirt. He has dark hair and is looking slightly to his left with a thoughtful expression. A wide-brimmed fedora hat rests on his head, which is tilted back.

One machine can do the work of
fifty ordinary men. No machine can
do the work of one extraordinary
man.

— *Elbert Hubbard* —



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