

The rise of the wildlife gamer

How game experiences can influence the future of conservation interest





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Key Insights

Among internet users (16+), there are currently around **1.6B regular gamers** and **1.1B people interested in wildlife**. At the intersection of those two, we can find a group of approx. **777M “wildlife gamers”**.

More than 70% of those “wildlife gamers” are below 40 years old.

Games are the preferred pastime activity of 26% of Gen Z, surpassing music, the internet, and social platforms³.

Gen Z mainly play to **socialize** and **learn**, Millennials play to socialize and **escape**,

Gen X is most interested in **challenges** that let them escape from reality.

Interestingly for Gen Z, socializing in games is not reserved to frequent gamers, but becomes a pastime activity for even infrequent (predominantly male) gamers.

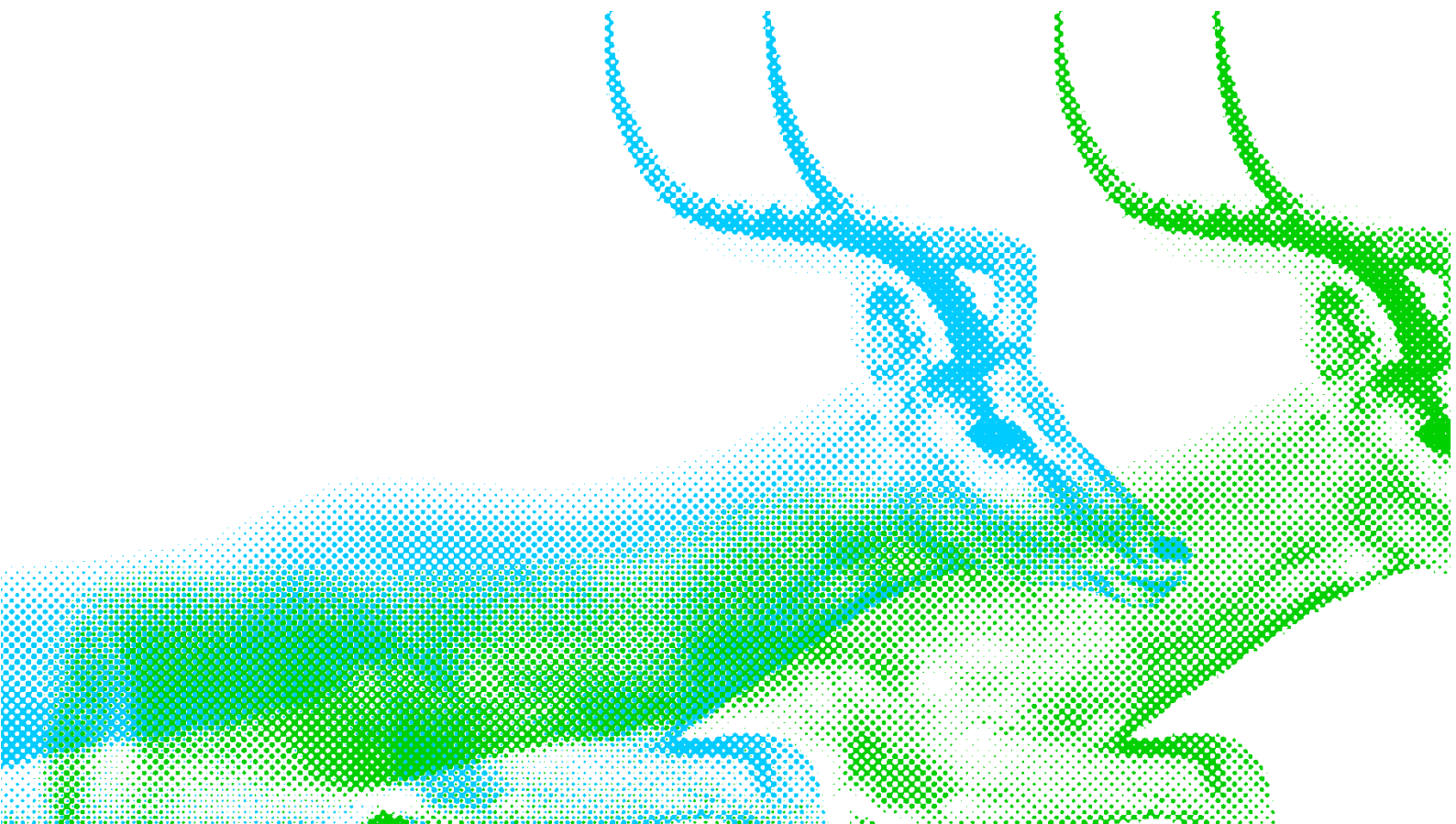
Intersecting with wildlife interest are **five other key motivators**:

- **Environmental gamers** (71.7% of wildlife gamers) focus on safeguarding the environment & mitigating climate change
- **Health & Wellbeing gamers** (76.4% of wildlife gamers) want to lead a healthy life
- **Outdoor adventure gamers** (58.4% of wildlife gamers) want to explore nature
- **Parents** (46.4% of wildlife gamers) want to leave a better world for their children
- **Pet owners** (43.4% of wildlife gamers) focus on caring for their pet, and thereby bring that empathy to wildlife in general.

There are **four key roles that wildlife content can play** in games and game-like experiences:

- **Raising awareness** through casual character integration
- **Creating empathy** through personal storytelling
- **Guiding understanding** through narratives spiked with scientific insight
- **Guiding action** through campaigns, gamification & real-world integration

In the future, gaming experiences will **increasingly blend with social media and entertainment** and will **increasingly integrate real-life and virtual experiences**. Many brands and companies are already moving into **metaverse experimentation**. This is a **powerful space** to bring wildlife content to new audiences and **ensure the engagement of future generations in conservation**.



Setting the scene

According to WWF's Living Planet Report¹, the world has already lost two thirds of its wildlife populations since 1970. Conservation and ecosystem restoration requires time and funds, and we are short on both. While financial flows into conservation of biodiversity have tripled over the last years, the Paulson Institute² estimates a funding gap of USD \$711 billion per year. While that is a huge sum, it is also about as much as the world spends yearly on cigarettes.

The Covid-19 crisis brought many natural environments much needed breathing space. At the same time, it had a devastating impact on the income and financing of national parks like Virunga, which lost 40% of revenue overnight in the most challenging of conditions. And it further removed us from nature: international travel bans brought tourism to a standstill, and people were spending more time than ever in their homes. This time spent in homes accelerated another trend: a massive global gaming uptake.

Games are now the preferred pastime activity of 26% of Gen Z, surpassing music, the internet, and social platforms³. But Gen Z is not a generation of couch potatoes. Research depicts an engaged crowd that cares about the environment, makes conscious purchasing decisions, and demands action on the issues they care about. It is also the first generation to grow up with technology, smartphones, and applications all around. How does this impact the future of conservation?

An important premise of people-centric marketing is meeting your audience where they are. This report will dive into new audiences of wildlife gamers and try to answer the question: How can conservation organizations better tap into those new audiences and emerging trends? How can

game studios and other brands infuse their experiences with wildlife content? And where will the future of gaming take us?

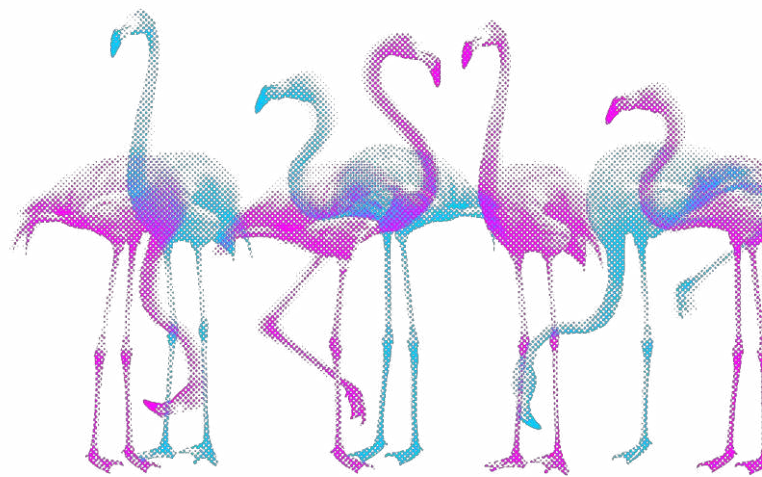
Gaming - a force not to be ignored

There are now close to 3 billion players globally⁴, which is a 5.3% percent increase from 2020, with Asia-Pacific housing half of all global players⁵. Most rapid growth has occurred in the Middle East, Africa and Latin America due to both improvements in internet infrastructure and increased smartphone access.

An increasing set of diverse new audiences have been embracing gaming over the past years. Between 2018 and 2020, more women (+14%), young children (+18%) and even grandparents (+28%) found their seat at the (virtual) table⁶. And 2020 continued to bring new audiences. Most notably, 28 million people embraced mobile gaming in the US, 9.4 million people did the same in South Korea, and the UK counted 8.6 million new mobile gamers⁷. And it seems like those audiences are not going anywhere.

Overall, the pandemic accelerated many trends that had been apparent for a while. Time spent at home during quarantine increased overall playing times. Live streaming markets grew by +10% per year⁸. And more people used games to stay connected to friends, playing into the rise of social gaming that we will dive into later. Apart from the increasing popularity of social games like Among Us or Animal Crossing, people were turning to escapist games to support their mental health, and educators explored the use of games in the (virtual) classroom.

Who is interested in wildlife?



According to Wunderman Thompson, the pandemic might have had another effect: 82% of people say they value nature more than before. There also seems to be a growing awareness of humanity's impacts on planetary ecosystems, and a growing awareness of the role nature plays in personal wellbeing and mental health⁹.

More broadly, awareness and understanding of biodiversity, the variety of life forms that sustains the wildlife most of us are familiar with, have significantly grown over the last decade. Especially in Europe and the United States, this translates into a stark increase not only of people that heard about biodiversity, but also those that correctly define it¹⁰. And as we will see later, this increased understanding is influencing consumer choices.

But who exactly are the people with a keen interest in wildlife and nature? With data from the [Global Web Index](#), we tried to better understand wildlife interest for a very relevant audience: internet users aged 16-65. While wildlife interest is spread rather evenly across generations in Asia and the Middle East, we found that the number of people interested in wildlife grows with age in Europe, North America, and Latin America. Women across generations, but particularly younger women, have higher rates of wildlife interest.

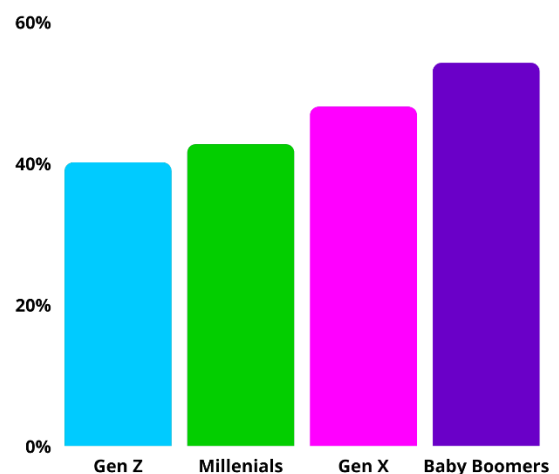


Figure 1: Wildlife interest by generation. Data: GWI Core, 2019-2021

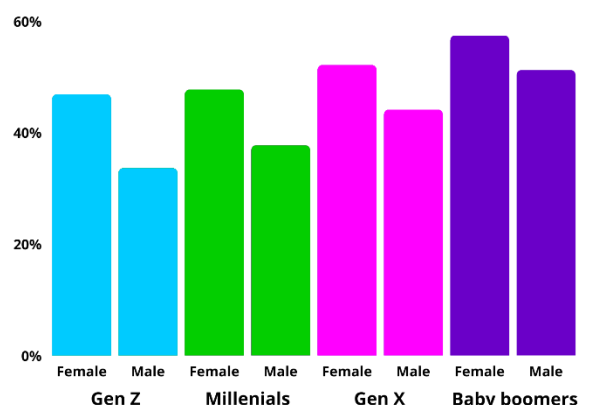


Figure 2: Wildlife interest by generation, gender split. Data: GWI Core, 2019-2021

Who are the “wildlife gamers”?

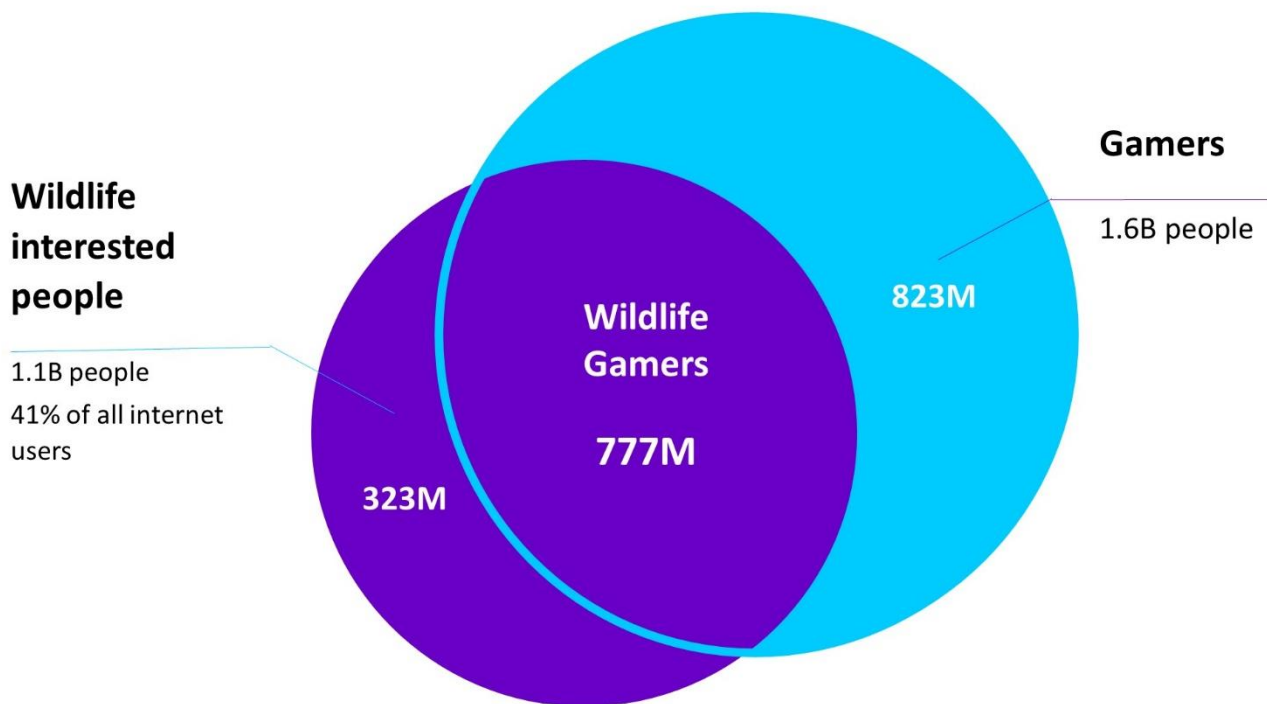


Figure 3: The intersection of wildlife interest & gaming activity. Data: GWI Core, 2019-2021

Of all those internet users with wildlife interest, an astonishing 67% are regular gamers¹¹.

That is an estimated global crowd of 777 million people.

Important to note: this number does not include gamers under 16, and therefore a large portion of the gamers under 18 which are estimated to be 20% of all gamers in the US.

The group of “wildlife gamers” we just identified consists largely of Gen Z (27.9%), Millennials (42.6%) and Gen X (25.9%). Only 3.6% are Baby Boomers¹¹. This means that more than 70% of wildlife gamers are below 40 years old. Considering that this analysis does not include gamers below 16 will further increase this percentage.

As expected, APAC holds most wildlife interested gamers with 61.3%, or an estimated 476 million people. Europe is the home of 13.9%, or an estimated 108 million of wildlife gamers, closely followed by Latin America with 12.9% (100 million), and North America with 8% (62 million). Wildlife gamers in Middle East and Africa make up 3.8% (30 million) of the total wildlife gamer population, but data insights in these regions are sparse and therefore not fully reliable and representative.

Contrary to popular belief, the wildlife gamer audience contains 45.5% women, which is 3.1 percentage points higher than the female ratio of regular gamers overall. The female ratio of wildlife gamers is particularly high in Latin America (49.8%), North America (49.3%) and Europe (48.9%), while it is worth mentioning that female gaming participation in Latin America is generally very high with 45.9%¹¹.

What motivates them to play?

 Social - Working With Others	 Expression - Role-playing & Emotions
 Social - Competing Against Others	 Expression - Customization & Decoration
 Mastery - Improving Skills	 Exploration - Discovering New Worlds
 Mastery - Completing Milestones	 Exploration - Collecting Treasure
 Management - Strategic Planning	 Escapism - Thinking & Solving
 Management - Resource Optimization	 Escapism - Excitement & Thrill

Figure 4: Player Motivational Drivers (source: GameRefinery.com)

Apart from the rather broad motivators of having fun (68.3%), relaxing (60%) and passing time (54.7%), 32.3% of wildlife gamers play for the challenge, 28.5% play to socialize with friends, 26.8% play to learn new skills, and 24.7% play to escape from reality. 20% are particularly interested in the storylines. If we link this to [Game Refinery's player motivations](#), we can clearly see that wildlife gamers mostly fall into the categories of mastery, social, escapism and exploration.

How do those motivations differ per generation? Given the overall rise in social gaming, it is not surprising that social engagement drives a large portion of both Gen Z and Millennial gamers with 36% and 34% respectively. What is most interesting is who uses games to socialize: while for Millennials it is mostly the most frequent gamers, Gen Z gamers that play to socialize are mostly male and are not the most frequent gamers - socializing is here the second highest driver (39.5%) just after having fun (44.4%). 25% play to compete, which is another form of socializing. And as GWI research does not include gamers under 16 years of age, those numbers are likely even higher for Gen Z overall.

Research from Pew Research Center shows that teenagers especially socialize with friends through games. While social media and text messaging holds higher importance for girls, 74% of teen boys talk with friends through video games, 22% of them do so daily. For girls, those numbers are lower but still significant, with 31% talking with friends through games and 3% doing so daily¹². So while socializing through games used to be an activity largely reserved for communities of highly committed gamers, it seems that for Gen Z games are becoming a much more mainstream way to stay in touch with friends.

The other aspect that really drives Gen Z to game is learning. Beyond socializing, Millennials on the other hand play to escape reality.

In terms of genres, action adventure and simulation games are consistently more popular with wildlife audiences compared to the general gamer crowd. Both also capture high cross-regional interest with female audiences. Puzzle/ Platform games are particularly popular with female audiences, and here generally raise a higher interest with wildlife interested gamers.

What motivates them to care?

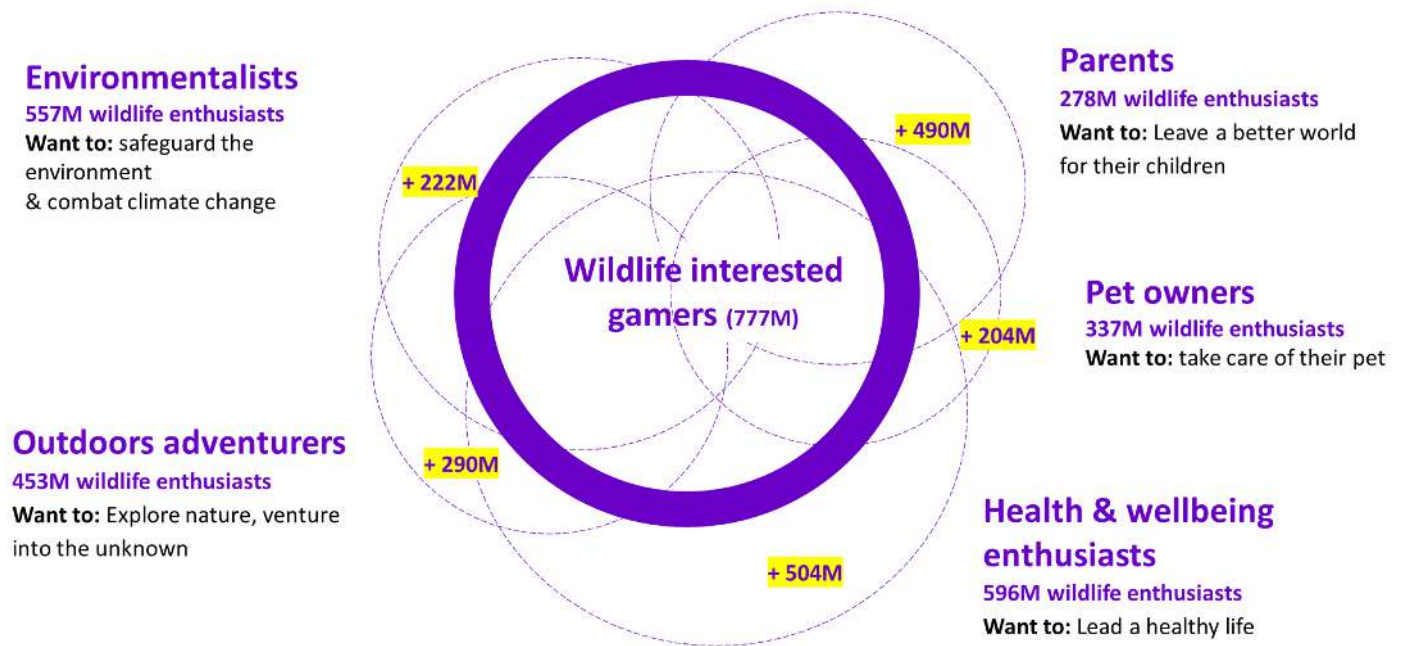


Figure 5: Adjacent interests & motivators. Data. GWI Core, 2019-2021



Out of all wildlife gamers, 71.7% care about the environment and/ or take environmental action, 76.4% care about health and wellbeing, 58.4% are outdoors adventure fans, 46.4% are parents and 43.4% are pet owners.

As those groups all have a partial overlap with wildlife interest, this also means that there is an estimated additional audience of more than 220 million environmentalists, 504 million wellbeing enthusiasts, 290 million outdoor enthusiasts, 409 million parents and 204 million pet owners that could potentially care more about wildlife. Let us look deeper into their motivators to care.

Environmentalists

Want to: safeguard the environment & combat climate change

Just on September 24th, global climate protests have brought thousands of people to the streets around the world. School strikes for climate have continued to draw larger crowds since 2018. Gen Z (54%) and Millennials (56%) are also most likely to see a clear link between human activity and climate change¹³.

Especially Gen Z very much believes in personal action: 80% believe that they can make an impact on global issues through social media, and 76%

say that they can make an impact by acting on issues that are important to them¹⁴. But Gen Z in particular feel very overwhelmed by the topic of climate: global research by Force of Nature shows that more than 70% of respondents between 15-25 feel hopeless about climate change, and only 26% have a clear idea of how they can contribute to solutions¹⁵. And while environmental changes experienced during the pandemic brought some optimism, there is fear among Gen Z and Millennials that business leaders will deprioritize climate in the aftermath of the pandemic¹⁶.

Gen Z, and particularly women, have strong expectations for brands to act eco-friendly, socially responsible - and to support charities. Interestingly, the same audiences are also more likely to be occasional, not frequent, donors themselves.

But it is not only Gen Z who hold high brand expectations: In Europe and Latin America, eco-friendliness is of particular interest to wildlife fans across generations, with more than 60% of women and more than 55% of men expecting brands to act in an eco-friendly way.

Environmental considerations are increasingly guiding consumption choices as well. 73% of global consumers say they would definitely or probably change their consumption habits to reduce their impact on the environment.

According to Porter Novelli, 77% of Gen Z research if a brand is hurting the environment. But also here, uncertainty and convenience seem to impede action: according to HBR's "The Elusive Green Consumer", 65% said they want to buy purpose-driven brands that advocate sustainability, yet only about 26% actually do so.

The extinction of wildlife species was already mentioned as a most worrying impact of climate change by 56% of respondents across 14 global markets in 2019. With the discussions around biodiversity & climate continuously merging and a lot of focus on nature-based solutions, environment and wildlife are becoming increasingly inseparable in global discussions. Wildlife content might even provide a great

vehicle to "personalize" the problem, but the insights also show a lack of concise information and pathways to act.



Outdoors adventurers

Want to: Explore nature, venture into the unknown

In a study on hiking motivations in Indonesia, researchers found learning and socializing were the most dominant motivators, along with achievement, personal development and to a lesser extent relaxation. Hikers were very willing to explore and learn, providing a great opportunity to share insights about the region and to encourage sustainable behaviour¹⁷.

Interestingly, those motivations come extremely close to the gaming motivations described earlier, making it clear that there might not be much difference in why people embark on real-world or digital adventures.



Health & Wellbeing Enthusiasts

Want to: Lead a healthy life

Wellbeing consumers often come to similar consumption choices than environmentalists but are primarily driven by increasing personal health.

This includes not eating fast food and striving to incorporate healthy food choices, regular exercise, and a focus on organic and natural healthcare products. Growth drivers in these markets are both rising consumer awareness and larger product availability.

Purpose-driven consumers make up 44% of global food/ beverage and grocery consumers and 40% of personal care consumers, showing that they care slightly more about what they put in their bodies than what they put on them¹⁸. This goes hand in hand with an increasing demand for transparency and evidence related to ethical sourcing practices. A global study shows that consumers clearly want the list of product ingredients (88%), the origins of ingredients (82%) and the impact on biodiversity (81%) highlighted on product packaging¹⁹.

Due to the pandemic, public health has been a prevalent topic on people's minds and has increased people's interest in both physical and mental wellbeing.

While health and wellbeing has been a big topic already pre-Covid, the direct and indirect effects of the pandemic, including prolonged quarantines, working from home, increased unemployment and uncertainty have led to global decrease in life satisfaction and led many people to strive for better wellbeing practices in their daily lives.



Parents

Want to: Leave a better world for their children

Parents are generally more concerned about climate change than non-parents, and a focus on future generations was the top reason for acting on climate globally across all respondents.

Research also shows that kids who feel connected with nature are happier and more likely to show kindness.

With screen time drastically increasing during the pandemic, US parents are extremely worried about their kids' use of technology, from general screen time and safety to social media use, along with concerns about unhealthy eating and lack of physical activity.

Building healthier and educational digital activities that connect kids to nature, encouraging physical activity and at the same time helping to safeguard species from extinction might be a powerful set of motivators for parents to embrace digital wildlife experiences.



Pet owners

Want to: Take care of their pet

A close connection to a loved animal could possibly form the basis for larger empathy towards wildlife. In general, pet ownership has a positive correlation with empathy²⁰, and based on GWI's data we can clearly see that people interested in pets are more likely to be interested in wildlife (55.6%) than those who are not interested in pets (29.1% wildlife interest).

Building on the empathic connection that pet owners have with their pet by integrating pets in game experiences or creating more empathy and understanding for pets through related wildlife content can both be interesting ways to tap into this connection.

Figure 6: Generation Snapshots. Data: GWI Core, 2019-2021

Generation Snapshots



⌚ Time spent

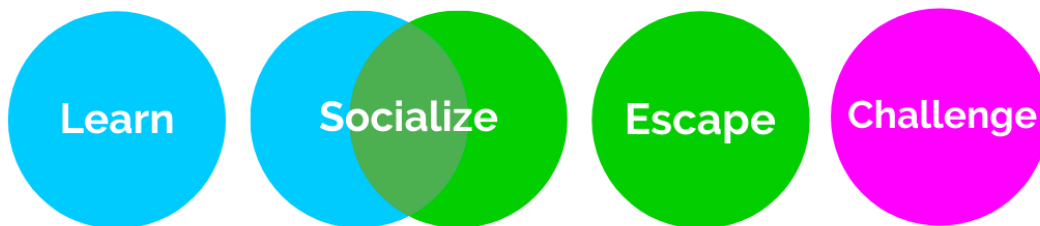
Play daily



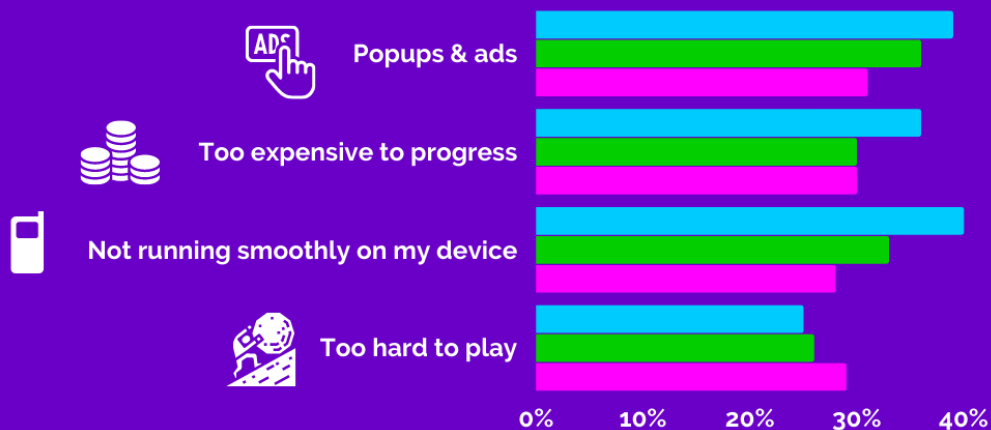
Play once per week

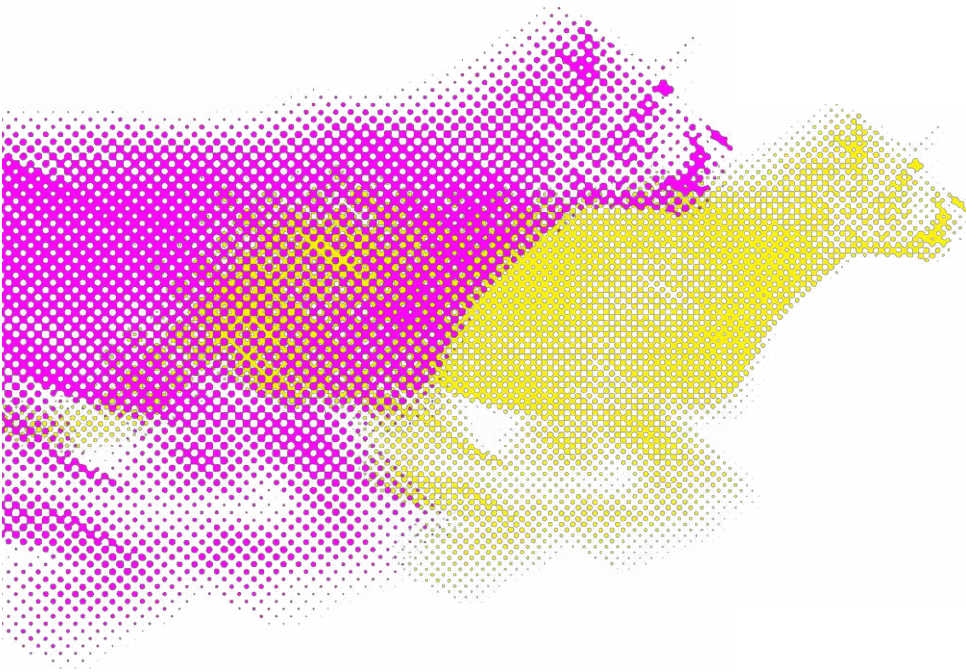


Key Motivators



Frustrations





What role does wildlife content play?

Now that we have a better understanding of game motivators and have an idea where wildlife interest generally comes from, it is important to have a look at the role of wildlife content as well. We will do that with the analogy to a traditional marketing funnel.



Wildlife stories and characters form part of positive game experiences without going too deep into their stories. The experience is fun and casual but might bring the necessary inspiration to dive deeper.

Safari Central brings six real animals living in the wild into your world through augmented reality. It allows users to learn more about the animals' daily lives and the NGOs working to protect them and get creative by snapping a photo or taking a selfie, and sharing on social media.

The story of **Firewatch** follows a fire lookout named Henry in the Shoshone National Forest, a year after the Yellowstone fires of 1988. The tone of the story struck a major chord with gamers, influencing the career path of young people.

In the **Sims 4 Eco Lifestyle Expansion**, players can run clean-water and recycling projects or build wind turbines on rooftops to decrease carbon footprint. Well-received and popular on social media for its relevance to players through fun and silly experiences, while maintaining a sense of accomplishment and challenge through environmental issues and game mechanics.



Interest & Empathy

A slightly deeper look into the stories of wildlife characters makes them relatable and creates deeper empathy. Stories might give a glimpse of the more problematic aspects of conservation and broader environmental issues. The role of wildlife characters in these stories is key to making those issues personal and relatable.

Pikmin Franchise focuses on tiny alien astronauts exploring a remote planet for sources of food and contains a subtle conservation theme as the heroes reflect on their need to voyage off-planet to feed their people. A very popular franchise pushing the player to engage with a foreign environment in a creative and sophisticated, problem-solving approach.

In **Abzu**, swimming through the water feels instinctive and fluid and the ocean teems with aquatic life, shoals of fish, underwater fauna and inviting dark crevasses. An award-winning game praised for its aesthetics and musical design-- a major driver for empathy.



Understanding

Deeper introductions to scientific insights and complex contexts create deep narratives and lead to in depth understanding of species or ecosystems.

Internet of Elephant's **Unseen Empire** brings to life a ten-year study by Professor David Macdonald. Together with his WildCRU team, he assessed the impact of deforestation on the habitat of the clouded leopard, in the process creating the largest camera trapping project to date. Players can get a rare glimpse into the work of habitat protection by reliving this study from their own perspective.

Beyond Blue is a single-player narrative adventure that takes you deep into our planet's beating blue heart. Brings together BBC Studios, E-line Media and OceanX Media, and ocean scientists. The gameplay features deep scientific contributions for the player to discover and catalogue.

BBC Earth: Life in VR is a meticulously researched and crafted experience, which takes the users to the Californian coast, and an underwater world bursting with life.



The gamer becomes the protagonist not only in game but also in life. This is a powerful space to link personal motivators with conservation outcomes, which often happens through targeted campaigns. And as we will see just a bit later, it is also a powerful space for gamification.

Internet of Elephants and Adidas Runtastic teamed up to create **Run Wild**, an annual digital running challenge marshalling users of the adidas running app to compete with individual wild animals and learn about what it takes to keep them safe. Run Wild engages users both in the app and on social media, creating a community around each campaign that pushes its reach beyond the circles of Adidas, Internet of Elephants and the conservation partners.

The game **Alba** focuses on exploring the world and conserving wildlife. Praised for taking its audience seriously, despite its younger target audience. The studio planted a tree for each sale in addition to the very environmentalist activist-focused gameplay and story.



Image credit: Internet of Elephants

Extending the wildlife experience

The possibilities of bringing wildlife content into games seem already endless. But why stop there?

Wildlife enthusiasts also include 400 million Esports fans and around 350 million people that are interested in gambling and betting. Gambling and betting interest is highest with Millennials (44%) followed by Gen X (30%), while Esports are most popular with Millennials (45%) and Gen Z (32%). Also here, Esports (and to a lesser extent gambling) are slightly more popular with wildlife audiences compared to all gamers. While those two areas already provide ample opportunities, there is another growing market that could be of interest: Almost 10% of wildlife gamers invest in cryptocurrencies, slowly rising from around 8% in early 2020, and around 6% mid 2018. Cryptocurrencies generally have a bad environmental reputation for their high energy consumption. But organizations like the Open Earth Foundation have recently set powerful examples for NFT fundraising with their “[Carbon Drop](#)”, a carbon net-negative auction including

digital artists like Beeple who rose through fame by selling an NFT artwork for US\$69 million.

The importance of gamification

Gamification is the use of elements typical of games, such as badges, levels, a narrative or a leaderboard to motivate the pursuit of desired behaviour²¹. For example, levels can create challenges for people to overcome, badges can be awarded for learning new skills, and narratives can help people escape from reality²². Although gamification builds on the same motivators as games, it has features that differentiate it from a game. Games are typically self-contained (not directly linked to an outside behaviour) and the goal of a game is to offer enjoyment for the players, whereas gamification is usually directly linked to an outside behaviour, such as planting trees or recycling rubbish, and the goal of gamification is to motivate the pursuit of that

behaviour²⁰. Games can be effective in creating awareness of wildlife conservation and environmental sustainability issues, whereas gamification can be effective in directly motivating the pursuit of behaviours that positively impact wildlife conservation or the environment in general.

Gamification can be particularly effective in motivating younger generations, such as Millennials and Gen Z, to pursue behaviours, since these generations have grown up playing games and are therefore more receptive to game-like incentives²³. Overcoming a challenge, winning a badge for completing a skill, or escaping reality through an immersive narrative can create immediate enjoyment for people. This is why gamification can be effective in motivating behaviours which are typically not enjoyable, such as saving towards a financial goal²⁴ (Hashim et al., 2021). Gamification can make the pursuit of behaviours more enjoyable and thereby increase the likelihood that people will pursue them.

Wildlife conservation does not typically provide people with immediate enjoyment, as the benefits of wildlife conservation are difficult to perceive at an individual level in the short-term. Instead, wildlife conservation and generally environmentally sustainable behaviour might require people to change convenient habits, such as using plastic bags. Therefore, people may endure short-term sacrifices when pursuing behaviours that are beneficial to wildlife conservation or that are environmentally sustainable. Gamification can be effective in mitigating the potential negative impact of these short-term sacrifices and make pursuing the desired behaviours more enjoyable.

Past examples highlight the potential for gamification to have a positive impact in motivating people to engage in wildlife conservation and generally more environmentally sustainable behaviour. For example, research has tested the potential of gamification in motivating people to be more careful with their energy consumption²⁵, and Internet of Elephants & Luc Hoffmann Institute have suggested concepts that highlight how gamification can be

used to improve the “adopt an animal” fundraising schemes. Gamification can be an useful tool in helping to improve wildlife conservation efforts but for gamification to be effective, companies, institutions, NGOs, and governments need to appreciate how gamification motivates the pursuit of behaviour and the differences between gamification and games.

Building powerful brand relationships

Integrating wildlife themed games or gamified experience into the customer journey of brands can both enhance the brand experience and activate new audiences to care about and act on wildlife and biodiversity topics.

When it comes to engagement in loyalty programs for example, both Millennials and Gen Z are most likely to engage in gameplay. In a 2017 US study, more than 30% of Millennials and more than 35% of Gen Z indicated that they would complete a game to earn rewards, making it the top-rated activity²⁶. This shows that there could be a strong mutual benefit in integrating wildlife themed gameplay into brand experiences: simultaneously increasing brand engagement and conservation awareness. At the same time, it is important for brands to ensure that conservation is not just a means for engagement, but should be reflected in values, decision making and actions overall.



A glimpse into the future... towards the metaverse

As we could see earlier, gaming and social media are already two major influences in how Gen Z connects and interacts with friends. The metaverse then is where social media, gaming and entertainment collide into one virtual bubble that blends over our physical life.

Only now, those experiences are seamlessly connected - with each other, and with the real world. Augmented, mixed and virtual reality. Digital ownership of land and other virtual possessions. Virtual art. Virtual concerts. Meeting with friends and hanging out in a virtual space. Fashion shows. New avatar dresses that can be worn on social media. Home ownership.

Entertainment blending in with games, and game experiences seamlessly connected with one another.

More and more brands are already experimenting with this emerging space, from fashion houses like Gucci and Balenciaga to artists like Ariana Grande to investments and real estate funds. Interestingly, digital objects sometimes sell for a higher price than their physical counterparts, especially if they are digitally exclusive²⁷. Early metaverse adoption is led by Gen Z, followed by Millennials. Younger generations are setting the stage for future development of the metaverse, and so are the brands and companies involved in the early buildup of a place that Wunderman Thompson eloquently describes as “replicating our routines, interests and obsessions in digital worlds”. So, what about conservation?

Image credit: Adobe Stock

For conservation organizations, and environmental organizations in general, metaverse discussions surely pose some interesting challenges. The environmental footprint of our digital life experiences, possessions and hybrid interactions could be enormous and incredibly damaging to what is left of our natural world. This just goes to underpin the importance of those organizations as influencers, sounding boards and guiding entities even in the earliest developments. A lifestyle increasingly guided by virtual and hybrid engagement might also remove large global populations even further from any links with the natural world - unless the natural world becomes a part of the digital experience.

Ecotourism experiences could extend into the digital realm, environmental and wildlife stories could form a key part of digital entertainment experiences, engagement nudges combined with educational context could encourage purpose-driven consumer behaviour. These are just some of the opportunities to engage younger audiences - audiences that are already curious and keen to act, but often lack both direction and convenient

options for “doing the right thing” when it comes to sustainability. Games and gamification have the immense power to tap into intrinsic motivations, to meet those audiences right where they are, and to inspire collaborative action.

The first FDA approved prescription video game was released in 2020 and is approved to treat ADHD in children. Whether we like it or not, our wellbeing increasingly depends on technology - and so does the wellbeing of our planet. Gaming is here to stay, and with major technology companies investing huge resources in metaverse developments, its emergence and development is only a question of time. Shaping a digital space infused with wildlife experiences could help to bring digital natives closer to our natural world, ensuring that conservation stays top of mind for generations to come.



References

- ¹ Living Planet Report 2020 - Bending the curve of biodiversity loss. Almond, R.E.A., Grooten M. and Petersen, T. (Eds). WWF, Gland, Switzerland, 2020.
- ² Financing Nature - Closing The Global Biodiversity Financing Gap, Paulson Institute, 2020.
- ³ Deloitte Digital Media Trends, 15th Edition, Deloitte, April 2021.
- ⁴ Definition of “gamers”: All people that have played games on a PC, console or mobile device in the past six months
- ⁵ Newzoo Global Games Market Report 2021.
- ⁶ The Gaming Playbook, GWI 2021.
- ⁷ Games Marketing Insights for 2021, Facebook Gaming, 2021.
- ⁸ March 2021 Global Esports and Live Streaming Market Report, Newzoo, March 2021.
- ⁹ “Regeneration Rising”, Wunderman Thompson, April, 2021.
- ¹⁰ UEBT Biodiversity Barometer 2020, Union for Ethical BioTrade, 2020.
- ¹¹ Analysis based on GWI Core data, 2019 – 2021.
- ¹² Lenhart, A., Smith, A., Anderson, M., Duggan, M., Perrin, A., “Teens, Technology and Friendships.” Pew Research Center, August, 2015.
- ¹³ Pew Research Center, “Gen Z, Millennials Stand Out for Climate Change Activism, Social Media Engagement With Issue”, May 2021.
- ¹⁴ Porter Novelli Cone, Undivided: 2019 Gen Z Purpose Study, 2019.
- ¹⁵ Force of Nature, The Rise of Eco-Anxiety, Force of Nature March 2021.
- ¹⁶ Deloitte, Global Millennial and Gen Z Survey, Deloitte 2021.
- ¹⁷ Vanessa Gaffar, Yeni Yuniawati, Oce Ridwanudin, A Study of Outdoor Recreation Motivation and Activity Preferences, Journal of Southwest Jiaotong University 2019.
- ¹⁸ Karl Haller, Jim Lee, and Jane Cheung, “Meet the 2020 consumers driving change”, IBM Research 2020.
- ¹⁹ UEBT Biodiversity Barometer 2020, Union for Ethical BioTrade, 2020.
- ²⁰ Jacobson Kristen C., Chang Laura, Associations Between Pet Ownership and Attitudes Toward Pets With Youth Socioemotional Outcomes, Frontiers in Psychology, Vol. 9, 2018.
- ²¹ Deterding, S., Khaled, R., Nacke, L., & Dixon, D. (2011). Gamification: toward a definition. *Chi* 2011, 12–15.
- ²² Huotari, K., & Hamari, J. (2017). A definition for gamification: anchoring gamification in the service marketing literature. *Electronic Markets*, 27(1), 21–31.
- ²³ Bittner, J. v., & Schipper, J. (2014). Motivational effects and age differences of gamification in product advertising. *Journal of Consumer Marketing*, 31(5), 391–400.
- ²⁴ Hashim, N., Scopelliti, I., & Steinmetz, J. (2021). Gamification Can Help Consumers Reach Their Saving Goals. Think Forward Initiative.
- ²⁵ Mulcahy, R., Russell-Bennett, R., & Iacobucci, D. (2020). Designing gamified apps for sustainable consumption: A field study. *Journal of Business Research*, 106, 377–387.
- ²⁶ Crowdtwist, Gen Z vs Millennials: The changing landscape of loyalty, Crowdtwist 2017
- ²⁷ Wunderman Thompson, Into the Metaverse, Wunderman Thompson Intelligence 2021.