

Games That Let Go: Thriving in a Decentralized Future

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In the early years of video games – arcade and home console – a given player could reasonably play every video game of note released in year and still have time for other hobbies. In 2022,10,963 games were released on the Steam platform alone. The scale of video games that enter the market in a given year now radically outstrip the ability of organized, monolithic gaming media to keep up with them. This "viewpoint" essay addresses how content creators can approach the decentralization of gaming culture through the lens of identity and authenticity, while reviewing incoming technologies that support this transition. Communication protocols for trustworthy digital certification, AI-assisted content creation tools, cloud technologies, and a transition from content moderation to user-centered governance – all will play a part in the coming transition to collective sense-making of these now highly complex game markets. Finally, the essay considers new audiences that will support a greater diversity of perspectives in independent game companies who can directly reach and engage players who share their specific experiences and interests.

CCS Concepts: • Software and its engineering \rightarrow Interactive games; • Applied computing \rightarrow Computer games;

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1 INTRODUCTION

Thirty years ago, it was possible to play every video game that was published with time to spare. Today, the sum of gameplay hours contained *only in the top 20 grossing console games for 2021* would require you to play 6 hours a day for an entire year. Meanwhile, 3 billion people now play games on mobile devices. This is an escape velocity state shift: now every player must choose what they will, and will not, play.

So how should they choose?

The answer to this question defines how creative developers navigate the decentralized future hurtling toward us at increasing speed. Two paths diverge: one, a world of infinite nihilistic distraction; the other, a world that facilitates the creation of identity.

Traditional methods of discovery—magazines, metacritic reviews, retail placement—do not guide a player to uncover who they are. These are relics from a single-dimensional *centralized*

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16:2 E. Drake Kajioka

past: a world that labored under the illusion that "single best" (e.g., "game of the year") without context is a thing that exists. This dissolving reality demands that we should all like—and play—the same things.

Navigators in the new world can embrace identity: letting go of the race to some context-free "top" and understanding who they are as developers (and humans) to find players who are deeply fulfilled by what they make.

Creator-leaders can imagine a digital space guided by authenticity, participation, and expression. In this world, players express themselves through their game experiences, participate actively in values-driven creative choices that they make, and, through play, create an aggregate personal identity that encompasses and supersedes individual game avatars. This is game-playing and game-creating turned toward the deep value of self-knowledge and self-creation.

2 AUTHENTICITY

The first wave of the internet, characterized by BBS forums and email, was small enough, and disconnected enough, that its users engaged as individuals. Complex emergent societal effects were only beginning to appear by the late 1990s, with Dibbell's *A Rape in Cyberspace* [3] rippling like a foreshock through a largely quiet, small-network community. In the second wave of the 2000s, broadband internet brought millions of PC users onto the scene who began to organize by personal interest: foodies, poets, gamers, parrot fanciers.

When smartphones arrived, everything changed: suddenly everyone was on the internet all the time. Most people are not defined by a single identity and never were, but internet denizens took on these single-identity roles to organize in the context of the scale of the second wave internet. The third wave, powered by smartphones, blew all of this up, with increasingly frictionless technologies facilitating content creation on a scale never before seen, and radically expanding access to games.

This is clearer than ever in the internet's youngest adults—GenZ. These smartphone natives have no patience for single-interest identity and demand something deeper: authenticity. In the way of each new generation, GenZ articulates something new that is simultaneously something every generation desires.

Beyond interests and locales, navigation of today's internet requires developers, in a way, to return to that earliest internet: to think of themselves as people driven by values and personal truth. This can be done individually or collectively; game studios can also be driven by distinct values. "Most badass shooter" is not good enough for today's audiences, who want to know what a developer believes to be true, and how that truth distinguishes them from every other creator out there.

2.1 Cultural Identity

Developers aiming at the middle—the fictional singular "gamer"—did not dare consider a player's cultural history and identity, or their own. The community imagined it was unified by the phenomenon of video games, and that was enough. It is not anymore, and to ignore the cultural background behind individual human perspectives is to live inauthentically. For some, this represents the loss of that sense of singular culture—but to thrive in a decentralized future means finding ways of creating a sense of emergent whole that nonetheless recognizes, and liberates us to celebrate, individual differences.

In today's decentralized world of overwhelming choices, being distinct and clear about the cultural identities of the studio, game, and developer community can help everyone navigate the environment. Games such as E-Line Media's *Never Alone* [11] show the power of taking a unique stand and perspective with regard to cultural identity in games: the game was made in partnership with the Cook Inlet Tribal Council, based upon a traditional Iñupiaq story. The influence of games lifting up such specific perspectives will only increase as game markets continue to saturate. As

game-making iconoclast Dr. Jim Bower once told me: in periods of high stress, heterozygosity is adaptive. In a world of ubiquitous game creation, innovative identity is an advantage.

3 PARTICIPATION

Another important aspect of authenticity and identity is bidirectionality in the player-developer relationship. Players increasingly desire authentic interactions between themselves and game studios as the world grows ever more connected online.

3.1 Community-Centered Development

Distribution platforms like Kickstarter have demonstrated the power of community-centered development over the past decade. However, much remains to be done in expanding this from fundraising to sustainable practices of community engagement.

The endowment effect tells us that we tend to value things more once we already own them. But this is just the beginning, and that commitment dynamic can sour [7] without nurturing; committed players want deeper engagement in decisions driving the game after they have committed. In return, they can become powerful evangelists that stick with a developer through many games and even many companies. When players achieve scalable expression by connecting with each other, these bonds become even stronger.

By thinking about the game creation process as one engaged not just with fans but with organized, resilient community structures, developers can have greater confidence in the decisions they make, and in how those decisions will ultimately be received when a game is done.

3.2 Governance and Safety

One of the most significant innovation needs across games and the entire newly networked world is for reliable patterns of online community governance and safety.

Trust and Safety communities studying methods of ensuring safety on social media platforms increasingly look to history for guidance on how the internet's current climate of abuse, harassment, and conflict can be addressed [12]. Corporate structures approaching online safety for the past two decades have regarded this as a problem of "content moderation." The user is seen as a "consumer" of "content" and sometimes must be protected from the negative interactions of other users.

However, the fundamental approach of "moderation" by a corporate entity might be an unsolvable problem [8]. This has serious implications for any decentralized world. It is fair to suggest that, although they are inadequate for many people, existing intermediary entities such as magazine publications can at least attempt to enforce community standards on their own websites. By contrast, decentralization—direct engagement of the people in those communities—represents chaos.

The answer to both problems is shifting the focus from "moderation" to "governance" [12]. By forming trust structures—self-governing communities of people unified by shared values—the internet itself can advance as an organized society. This is not solvable on the scale of game development only; it is a fundamental challenge for the information age.

This being said, the core of social organization is itself the formation of values from which behavioral guidelines can be derived [1], and so we return again to the topic of defining and communicating identity. By clearly expressing its own values, a game studio communicates to audiences its own behavioral expectations and allows for players who share these values to align their identities with them. The ability to safely engage in accordance with one's own personal values is the foundation for peaceful society of any kind, and the internet is no exception. To create an environment in which people of all identities—and therefore the game creators who want to reach them—can thrive, these fundamental challenges must be solved.

16:4 E. Drake Kajioka

When the myth of a single monolithic culture is released, competition for control of that culture can end. To be able to say "I choose not to engage because our values conflict" fundamentally differs from "I choose not to engage because you are evil." The latter drives perpetual conflict—and the former requires individuals to know and communicate their values. This is an ecosystem approach to culture. Further, "you are wrong/in violation of cultural norms" tends to punish minority viewpoints asymmetrically; the removal of the cultural monolith and its attendant dominance battle also removes significant situational harassment. In this way, identity, personal values, and decentralization are inextricable—and games represent powerful behavioral laboratories in which these crucial societal problems can be engaged.

4 EXPRESSION

Facilitating the creation of identity requires facilitating expression. We can think about this in two ways: games that facilitate identity expression through affiliation and games that facilitate identity expression through player creativity.

One might be inclined to think that the notion that "everyone is a creator now" means that authored games will decline, but the opposite is true. An authored game offers the delivery of narrative and aesthetic that cannot be equaled in user-generated content oriented environments. These games evoke identity through the choice that the player makes in giving them their time, attention, and affiliation. In this way, the uniqueness of authored games—in perspective, values, theme—becomes even more important in a decentralized future. A player who prioritizes the game Stray [5] in their external identity is a very particular kind of player making a statement about aesthetic and personal values. The imprecision of this statement is part of its advantage; values are often numinous and difficult to capture in language.

This being said, it would be remiss in a conversation about decentralization and the coming content tsunami to leave out a number of technological advances that will take game-based expression to new heights very soon.

4.1 Al Content Creation

The most visible new tool contributing to the democratization of rich media content creation is the rapidly accelerating but still nascent space of generative AI. From lucid speech to rich controllable images and now video and audio—all of which can meld into existing pipelines for game object and character development—the AI content creation space is poised not just to accelerate traditional developers but create entirely new ones.

These new content creation tools present notable potential and risks with regard to inclusion and representation. Although democratization of game creation via more powerful tools will allow far more people—including demographic groups traditionally excluded and underrepresented in game development—to become game developers, the existing training base of these tools carries the bias of the works created before them. Current tools already produce problematic content [10]; as these problems become visible, they can be corrected, but in the immediate term these tools exacerbate exclusion. Fairness is one aspect of dataset evaluation; ownership of training data is another. The potential of these tools, properly trained on fair data, cannot be underestimated in lifting up underrepresented voices—but as yet it remains an unrealized potential with dangerous unresolved downsides. When we recognize culture as an ecosystem, we must also recognize that unaddressed unfairness can metastasize to poison that ecosystem.

4.2 Multi-Endpoint Deployment

Currently, the technical capability for multi-endpoint game development exists, but the design patterns to truly take advantage of its potential do not. This is another advancement that demands

truly new thinking from developers, to consider a game not just as a single experience but as a braided and orchestrated ecosystem of experiences that unify disparate audiences. Further, endpoints are not simply screens, but, with the increased availability of 3D printing and augmented reality, they can extend to living creator-centered merchandise lines and physical regional events.

Cloud gaming fits into this endpoint shift, where consolidating the workload of rendering game worlds enables a lighter footprint across a more diverse simultaneous endpoint ecosystem. Centralized cloud processing can radically increase the immersiveness of lightweight lower-power devices (mobile phones, inexpensive tablets and laptops), bringing new and underrepresented audiences into the gaming ecosystem. These audiences are genuinely new and therefore need to be built, but the potential footprint is radical; where 25 million Playstation 5s have been sold since its launch in 2020 [2], 37.3 million Chromebooks were shipped in 2021 alone. And this is just access, without beginning to broach the capabilities offered by real-time distributed computing [6].

The coordination of cross-endpoint experiences, especially those bridging diverse audiences, demands a greater level of internal team governance—one that recognizes each endpoint as its own necessary stakeholder, with game direction and executive production taking a more abstract vision-level role alongside service-oriented multidisciplinary leadership. The stakeholder representing the mobile experience is driven by different principles serving a different audience than the stakeholder representing the console experience or the VR experience. By recognizing these roles as equal keepers of an ecosystem, multi-endpoint games have the potential to bring diverse players together into singular world experiences, even interacting directly with each other in different symbiotic capacities, fulfilling a key need for digitally mediated human connection.

4.3 Decentralized Digital Certification

I did not want to bring up blockchain, but present misunderstandings of its potential significance for games are hard to ignore. The application of blockchain technology for games is extremely nascent and currently rendered turbulent due to exploitative economic speculation accompanying cryptocurrencies.

However, the drive for authenticated ownership and transferable digital property is as old as video games themselves: consider the sale of collectible game memorabilia and cartridges; the transfer of MMO characters, currency, and property (which reached notoriety in *World of Warcraft* [4] but dates back to text-based MUDs); and the established lineage of creatures in breeding games. Wherever certification is appropriate, distributed validation of that certification is a superior solution compared to brittle monolithic validation structures. This certification method can be applied to make game data collectible, giving players continuity between games that enable protocol-driven interoperability.

Currently, special edition packages of games unlock exclusive game content. Blockchain validation suggests a common protocol where such content is unlocked not through upsell purchase but through "earned" progress in prior games that embrace the protocol. Imagine "unlock this exclusive mount by completing *The Witcher* 5^1 in Death March mode" in a new game as a single feature, and one can imagine a steady progression by which games become a continuous federated surface, aware of each other and acknowledging players' prior experiences and accomplishments. In this way, a player's macro-journey across multiple experiences builds an increasingly unique identity.

A common critique of this is that blockchain is unnecessary here, and although that is technically true, appropriate use of digital certification reduces friction and increases trust when the support structures facilitating property transfer—brokerages—occupy a neutral space, and when

¹Fictional title extrapolating from CD Projekt Red's *The Witcher 3* [9].

16:6 E. Drake Kajioka

developers have a common protocol with which to exchange property. The question is whether blockchain technology is the right solution for digital property brokerage—but when you put together the necessary components of secure, neutral party, robust and resilient exchange for digital property, it starts to look like it.

Blockchain should be viewed as further decentralization, allowing players to exit a given game system with their goods (manifestations of their time and experience), and for those goods to have defined relevance in other environments. In a way, we should think about decentralized digital certification—whether it comes from blockchain validation or not—as an expression of trust between developers and players. If you love something, let it go; if you are confident in your game experience, let it be transferred. This ethic aligns with the spirit of authenticity and transparency, and the player benefits are real. The realization of this will require the formation of protocols and content standards that can enable cross-game (and cross-media, cross-experience) adaptation.

5 LETTING GO

The attention economy wants us to compete—with each other, with ourselves, with the world. This is what we must let go of to turn inward and find what is real within ourselves.

A decentralized world of federated, interconnected game experiences offers game players unprecedented choice and agency in the creation of their interactive digital experiences. Communication protocols that leverage trustworthy digital certification technologies enable game players to build on one experience after another, gradually creating a digital identity that honors their game experiences past and present. AI-assisted content creation tools will empower a new generation of game developers with visually rich content creation within the reach of even novice creators. Cloud technologies will lower the technological and financial barriers to immersive game experiences, welcoming new audiences. These lowered barriers and raised capabilities will empower independent game companies who can directly reach and engage players who share their specific values, contexts, and interests.

This tidal wave of content will also demand new practices of game development companies. Problems previously tackled only by publishing entities—such as solving for discovery, supporting developer financial sustainability, and ensuring trust and safety—will become creator (including player-creator!) problems when the relationship between developer and player is direct and decentralized. This shift fundamentally changes the role of game "development," where "creation" is a verb for players and the developers' focus grows to include community management, coherence creation between disparate experiences, and discovery of the right experience for the right player. Similarly, decentralization means solving problems for players that previously were only problems for developers—discovery of their own creations, sustainable content cadence, macro storytelling, return on investment ratio.

In a world saturated with rich interactive content produced by far more creators than before, developers will face increasing challenges to distinguish themselves from the crowd, and maintain the interest of players who can easily depart and leverage their experiences in other environments. In this problem space, forming and communicating identity—and using it to foster resilient, self-governing community formation among players—will be key.

As with all major advances, those who first solve the thorniest design challenges with an open mind to the possibilities offered by these leaps forward will enjoy space-leader advantages. Ultimately, an age of decentralization means more choice—and the challenges that come with it—for both developers and players. Games that recognize who we are—and who we are not—will carry the day. As with all transformative change, some will rise from the depths and others will fall beneath the waves.

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