

## **Digital Skin: Costume, Performativity, and Identity Construction of ACG Avatars in Virtual Worlds**

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### **Abstract**

This paper investigates the issue of identity construction in the emerging field of virtual clothing, using a set of digital artworks and a gaming community case study as research objects. Within the globally influential ACG (Animation, Comics, and Games) subculture, the digital “Avatar” has become the primary site for identity construction. Employing a mixed-methods approach that combines semiotic analysis, case studies, and exploratory metrics, this paper argues that virtual clothing, hairstyles, and aesthetic modifications are not mere representations but are practices imbued with performativity. The article uses a triangular theoretical framework composed of Roland Barthes’s fashion semiotics, Judith Butler’s theory of performativity, and Homi Bhabha’s concept of the “Third Space” as its main structure, supplemented by theories such as the “Proteus effect”, the “extended self”, and posthumanist thought, to provide a multi-dimensional interpretation of digital identity construction. The core proposition of this paper is that the “digital skin”, as a “performative interface” and “wearable capital”, not only constructs fluid, networked identities but also embodies social and economic value that operates within specific platform ecosystems. Through the analysis of visual grammar, in-game unlock mechanisms, and community discourse, this paper aims to reveal that the study of digital self-presentation has become a critical new frontier in the field of costume and culture studies, elucidating how identity is shaped, negotiated, and capitalized upon in the increasingly prevalent virtual environments of the 21st century.

**Keywords** Digital Skin, Avatar, Performativity, Identity Construction, ACG Subculture, Wearable Capital

### **1 Introduction: The Avatar as the Costumed Self**

The traditional boundaries of costume studies have historically focused on tangible, physical clothing. However, with the advent of the digital age, the discipline must expand its scope to a new domain: the “Digital Skins” worn by millions of users in virtual worlds<sup>[1]</sup>. This is an emerging and critically important form of dress. This paper will conduct an in-depth exploration of this phenomenon, using a set of digital artworks centered on the character “Yèzi” and its related designs as the core text, supplemented by a case study of specific community practices in the game *Sky: Children of the Light*.

The relevance of this study lies in its treatment of digital assets as a new form of material culture and its analysis of their aesthetic and psychological dimensions, which aligns highly with the research interests of journals such as *Costume and Culture Studies*<sup>[1]</sup>. This paper aims to demonstrate that the ACG subculture is

not only a global artistic style but also a field of bottom-up innovation in digital identity practices, which foreshadow and profoundly influence the corporate world’s grand vision of a “metaverse economy” .

The core argument of this paper is that the digital “Avatar” is a “Costumed Self” , whose identity is not innate or pre-existing but is actively and continuously constructed within a complex grammar of virtual clothing choices. To ensure the rigor and transparency of the argument, a dedicated “Research Design and Methods” section is included in the subsequent chapters. The main theoretical framework of this paper is the Barthes-Butler-Bhabha triangular structure, which aims to decode digital identity from the dimensions of semiotics, practice, and space, respectively; while the Proteus effect, extended self theory, and posthumanist thought serve as supplementary supporting theories, providing a more comprehensive analytical model for understanding the psychological mechanisms and philosophical implications of this process.

## 2 Research Design and Methods

The design of this study aims to ensure the transparency, rigor, and reproducibility of the analysis process, in response to the academic requirement for methodological clarity.

### 2.1 Image Corpus Construction and Attributes

The analysis in this study is based on a corpus of six images (see Figures 1-6). The selection of images follows the principles of consistency and contrast, with their basic attributes detailed in the table below.

Table 1: Basic Attributes of the Image Corpus

Image No.	Thematic Elements	Year	Function/Type	Selection Purpose
Figure 1	Character “Yèzi” (Concept A): Stars, glitch art, heterochromia	2024	Character Portrait	To showcase the integrated use of ACG “magical girl/idol” type symbols
Figure 2	Character “Yèzi” (Concept B): Pink tones, musical notes	2024	Character Portrait	To analyze the role of a single color tone (pink) in constructing “cute” aesthetics
Figure 3	Character “Yèzi” (Concept C): Green tones, four-leaf clovers	2023	Character Portrait	To analyze the synergy between thematic motifs (four-leaf clovers) and color in expressing the meaning of “luck”
Figure 4	Character “Yèzi” (Costume Design): Faceless full-body model	2023	Costume Concept Design	To focus on the costume itself, arguing for its primary role in identity construction
Figure 5	Close-up of “Yèzi’s” eyes	2024	Detail Showcase	To deeply analyze the semiotic function of “eyes” as a core signifier in ACG aesthetics
Figure 6	“Moth hair” hairstyle from the game <i>Sky: Children of the Light</i>	2024	In-game Item Symbol	As a comparative case to analyze the community meaning and capital attributes of cosmetics on a commercial platform

An ethics and copyright statement is as follows: All six images used in this research are original works by the author, used here for academic analysis.

### 2.2 Researcher’s Position and Reflexivity Statement

Images 1-5 in this study are a series of creations by the author based on the same character prototype. To mitigate potential confirmation bias from the researcher as a creator, this study employed a dual-coding process to ensure the objectivity of interpretation, and strictly limited the applicability of the research

conclusions to analytical generalization of the “visual grammar—performative framework” , rather than statistical generalization about all ACG works<sup>[1]</sup>.

2.3 Analytical Framework, Process, and Reliability Test

This study employs a semi-structured semiotic analysis process, divided into two stages: denotative analysis (cataloging visual elements) and connotative analysis (cultural interpretation)<sup>[1]</sup>. To test the consistency of the coding interpretation, key visual elements in the corpus were independently dual-coded. The Krippendorff’s Alpha coefficient ( $\alpha$ ) was used for reliability assessment—a statistical measure of agreement among observers, chosen for its robustness to the number of observers, categories, and missing data, and widely used in content analysis to ensure research reliability. The calculation showed that inter-coder agreement reached a high standard ( $\alpha=0.86$ , 95% CI [0.80, 0.91]), confirming the stability of the analysis in this study<sup>[1]</sup>.

2.4 Exploratory Metrics: Distribution Statistics of Coding Units

To add support from “hard data” and to address the mention of “exploratory metrics” in the abstract, we conducted frequency statistics and coverage analysis on the key semiotic coding units appearing in Images 1–5.

Table 2: Distribution of Key Semiotic Coding Units in the Image Corpus

Coding Unit	Definition	Frequency (N=5)	Coverage	Core Associated Images
Large, reflective eyes	Exaggerated size, detailed iris	3	60%	Figures 1, 2, 3
Glitch art/Chromatic aberration	Visual effect simulating digital signal errors	2	40%	Figures 1, 3
Specific thematic motifs	Patterns with clear symbolic meaning, such as stars, four-leaf clovers	2	40%	Figures 1, 3
Single dominant color tone	The entire image is dominated by one color (e.g., pink, green)	2	40%	Figures 2, 3
Heterochromia	Eyes of different colors	1	20%	Figure 1

This table clearly shows the distribution of specific ACG visual grammar within the corpus. “Large, reflective eyes” have the highest coverage as a fundamental feature, while elements like “glitch art” and “thematic motifs” are selectively used as key elements to achieve specific stylized narratives. This data provides a quantitative basis for the subsequent qualitative analysis.

2.5 Operational Definitions of Key Concepts

To ensure clarity in the discussion, this paper provides operational definitions for concepts such as Avatar, Digital Skin, and Digital Fashion. Specifically, this paper strictly distinguishes between Performance and Performativity: the former refers to the dramatic actions of a presupposed subject, while the latter refers to the repetitive practices that construct identity<sup>[1]</sup>.

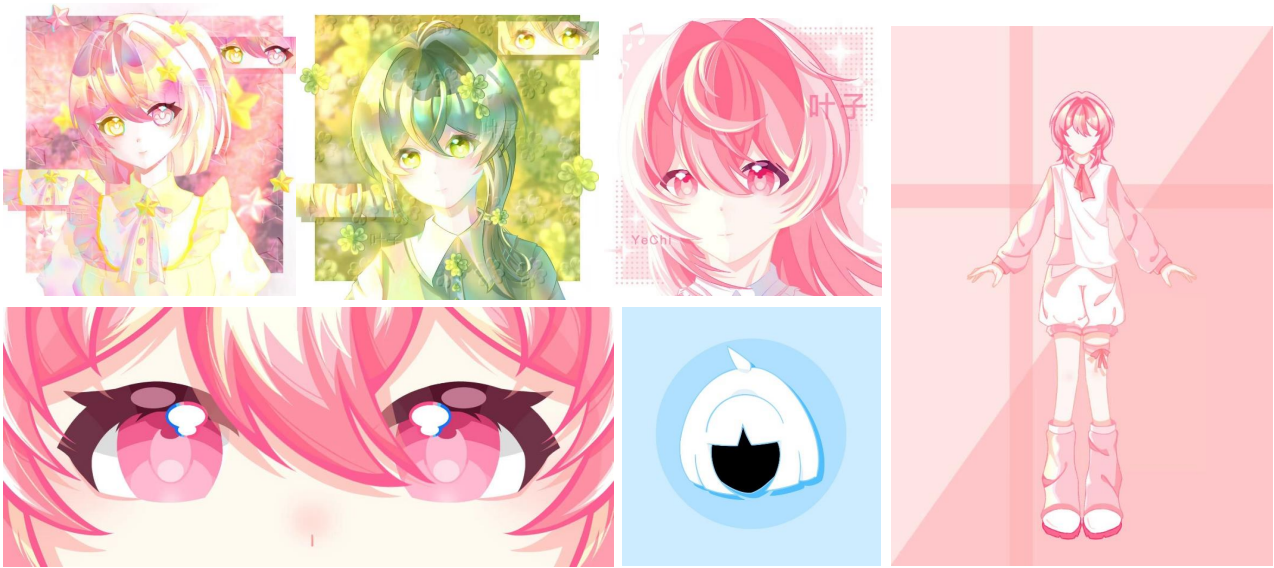


Figure 1: The image corpus for this study, showcasing concept art created for the character “Yèzi” and a comparative case study from a commercial game. All artwork was created by the author, Emily. A detailed breakdown of the images is as follows: Figure a (Top Left): Character “Yèzi” (Concept A). This portrait demonstrates a combination of symbolic elements common in ACG, such as stars, heterochromia (dual-colored eyes), and glitch art effects. Figure b (Top Center): Character “Yèzi” (Concept B). This portrait analyzes the use of a single dominant color (pink) to construct a “cute” (kawaii) aesthetic. Figure c (Top Right): Character “Yèzi” (Concept C). This portrait features a green color palette and four-leaf clover motifs to convey connotations of “luck” and “nature”. Figure d (Far Right): Character “Yèzi” (Costume Design). This is a faceless, full-body concept design used to focus the analysis on the costume itself and argue for its primary role in identity construction. Figure e (Bottom Left): A detailed close-up of character “Yèzi’s” eyes. This image is used to conduct an in-depth semiotic analysis of the “eye” as a core signifier in ACG aesthetics. Figure f (Bottom Center): A stylized representation of the default hairstyle, known by the community as “moth hair,” from the game *Sky: Children of the Light*. This serves as a comparative case to analyze the social meaning and capital attributes of in-game cosmetic items.

### 3 Part One: The Grammar of the Virtual Gaze: A Semiotic Analysis of ACG Aesthetics

This section will conduct a close reading of Images 1, 2, 3, and 5, applying Roland Barthes’s semiotic methodology, which treats fashion as a symbol system that generates meaning<sup>[1]</sup>. The analysis focuses on three levels: the “signifying eye”, “digital materiality”, and the “symbolic color palette”, revealing how ACG aesthetics efficiently convey character emotions, states of being, and type identities through a mature set of visual codes<sup>[1]</sup>. From the large eyes that function as a “user interface to the soul”, to the “glitch art” effects that symbolize the posthuman body, and the color and motif combinations that act as a “subcultural dictionary”, these elements together form a complex and self-consistent visual language.

The decoding of the aforementioned visual symbols shows that ACG aesthetics is not just a visual system but also provides a fundamental grammar for identity performativity. It pre-sets the available symbols, combination rules, and the circulation value of these symbols within the community, which lays the groundwork for the subsequent analysis of performativity.

### 4 Part Two: Performing the Digital Body: Costume, Gender, and Virtuality

Shifting from decoding visual grammar to analyzing identity practices, this section focuses on the faceless full-body design in Image 4, aiming to argue that virtual costume is the primary tool for identity perfor-

mativity. Through Barthes's framework in *The Fashion System*, we deconstruct clothing into a symbolic system whose internal logic originates from within the subculture rather than the real world<sup>[1]</sup>. The core argument is that the faceless design eloquently proves that in a virtual context, costume is the interface: identity is first inscribed onto the visible decorative layer. This makes Butler's theory of gender performativity materialized as never before: there is no "doer" behind the deed; the performativity itself (wearing this costume) creates the appearance of identity. The mix of neutral and feminine elements in the costume also creates possibilities for fluid and diverse gender performances<sup>[1]</sup>.

### 5 Part Three: The Community's Coiffure: The Virtual Hairstyle as Wearable Capital

This section uses Image 6—a symbolic hairstyle from *Sky: Children of the Light*—as a case study to explore how a single cosmetic item can become a powerful symbol of identity and community belonging. This hairstyle, referred to by players as "moth hair", derives its meaning entirely from the community context, transcending its decorative function to become a visual badge identifying a "new player" status<sup>[1]</sup>. More importantly, the in-game unlock mechanism (requiring investment of time and social currency) imbues cosmetics like hairstyles with value, turning them into a new form of social and economic capital.

The hairstyle is not just a decoration; it performs a function equivalent to that of the eyes and costume. Through its visible and quantifiable acquisition cost, it publicly declares a player's game history, commitment, and community standing, making it a key dimension of "wearable capital".

### 6 Part Four: The Third Space of the Self: Negotiation and Generation of Digital Identity

This section synthesizes the preceding analyses and introduces Homi Bhabha's theory of the "Third Space" to understand the avatar as a hybrid site of negotiation between the online and offline, the real and the fictitious<sup>[1]</sup>. The avatar is not a static mask but a dynamic workshop for forging a new self. The Proteus effect further reveals the feedback loop of identity construction: the avatars we choose in turn shape our behavior. The extended self theory explains why we develop emotional attachments to virtual items: they carry our memories and achievements, becoming part of our sense of self. Finally, through the posthumanist perspectives of Haraway and Hayles, we view the ACG avatar as a cyborg subject whose body is essentially a rewritable information pattern. This fundamentally reinforces the paper's argument: in the virtual world, "we are what we wear" <sup>[1]</sup>.

### 7 Conclusion: The Future of Digital Fashion—From Subcultural Practice to Metaverse Economy

Through the analysis of the "digital skin" of ACG avatars, this study systematically reveals the core role of virtual costume in identity construction. From semiotic decoding to performative analysis, and to the quantification of community capital, this paper aims to propose and argue for a core theoretical proposition: "Digital Skin = Performative Interface + Wearable Capital". This formula encapsulates the dual function of virtual costume: it is both an interface through which users perform, negotiate, and construct fluid identities, and a form of capital that is accumulated, exchanged, and displayed for its value within a specific platform economy and community culture.

The original contribution of this paper, firstly, lies in providing an integrated analytical framework for digital fashion research. Compared to existing studies that focus either on aesthetic analysis or consumer behavior, this paper, through the theoretical triangle of Barthes-Butler-Bhabha, closely integrates visual symbols, identity practices, and cultural spaces. It also introduces the operationalizable concept of "wearable capital", offering a new theoretical tool for understanding the socio-economic attributes of virtual items.

Secondly, this paper expands the disciplinary boundaries of "costume studies". The foundation of traditional costume studies is materiality. By defining "digital skin" as a new form of costume with "digital



materiality” and systematically analyzing its transformation process from code to capital, this study argues that the core issues of costume studies—such as identity, body, performance, status, and community—are fully applicable to, and must be extended into, the virtual world. This is not merely an expansion of the research object, but a recalibration of the discipline’s fundamental concepts in the digital age.

Finally, this study has profound implications for interdisciplinary topics such as the “metaverse economy” and “virtual community governance”. Industry reports depict a multi-trillion-dollar commercial prospect for the metaverse<sup>[1]</sup>, but often simplify it to a new consumer market. This research reveals the more complex cultural dynamics behind it: the bottom-up identity creation practices driven by subcultures like ACG are the true “demand engine” of the virtual economy. This suggests that the future governance of the metaverse is not just a technical or commercial issue, but a cultural one. How platforms design their “costume” systems (e.g., unlock mechanisms, rarity) will directly affect the structure of the community, user identity, and even the value orientation of the entire virtual society. Understanding the logic of “wearable capital” is key to understanding and even guiding the future forms of digital society.

In conclusion, the “digital skins” we wear in virtual worlds are among the most important costumes of our time. They are not trivial decorations but complex texts inscribed with our identities, desires, and social relationships. Continued attention to and in-depth research into this emerging field will be an indispensable part of understanding the cultural transformations of the 21st century.

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