

RESEARCH PAPER

Ethical, Legal, and Societal Implications of Person Replacement in Everyday Video Editing Tools

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Abstract

Digital video has become a primary medium for everyday communication, entertainment, and informal documentation, and its production is increasingly shaped by consumer-friendly editing tools embedded into mobile applications and web platforms. A notable development within this ecosystem is person replacement, where the visible identity of an individual in a video is substituted with another person while preserving the surrounding context and motion. What was once the domain of professional visual effects and specialized deepfake workflows now appears as a selectable effect or template alongside filters and transitions. This integration into ordinary tools changes the conditions under which people appear, or seem to appear, in videos, and complicates long-standing assumptions about consent, authenticity, and responsibility. This paper examines the ethical, legal, and societal implications of person replacement when it functions as a routine, low-friction capability available to non-expert users. It treats person replacement as a socio-technical practice shaped by technical architectures, interface design, platform governance, and existing cultural norms. The discussion addresses how identity and self-presentation are negotiated when people can be inserted into or removed from scenes with minimal effort, how existing legal frameworks such as privacy and personality rights intersect with mass access to synthetic identity manipulation, and how trust, power, and inequality are affected at scale. The paper also considers design and governance strategies for everyday tools, including consent mechanisms, labeling practices, and accountability structures, with attention to trade-offs rather than prescriptions.

1. Introduction

The incorporation of advanced visual manipulation into everyday video editing tools has altered how people create, share, and interpret video content (1). For a long period, convincing identity manipulation in moving images required a combination of professional-grade software, extensive manual compositing, and significant time and expertise. The arrival of generative models and automated segmentation pipelines made it possible to automate portions of that work, but the capability still appeared, at least initially, as a specialized technique associated with deepfakes, niche enthusiast communities, and targeted misinformation. Over the past few years, however, a quieter shift has occurred. Person replacement is now exposed to ordinary users through mobile applications, browser-based editors, and social media creation suites that frame it as another creative feature, available without explicit technical framing.

This evolution changes the stakes of person replacement. When the capacity to insert a person's likeness into arbitrary video contexts is limited to a small group of technically sophisticated actors, analysis naturally centers on high-impact misuses such as political disinformation, extortion, or targeted harassment (2). When the same capability is integrated as an ordinary filter in consumer tools, a broader range of practices emerges. Users experiment with inserting themselves into music videos, replacing themselves with fictional characters, or placing public figures into humorous scenarios. These activities can be playful, expressive, or community building, yet they also blur boundaries between representation and misrepresentation, between collaborative creativity and non-consensual appropriation.

The shift from specialized pipelines to everyday tools also changes the distribution of agency and responsibility. Person replacement is no longer only a discrete act carried out by an identifiable editor or specialist, but a routine possibility embedded in interfaces, presets, and recommendations. Application developers decide which templates to offer, how easily faces can be imported, what visual cues signal synthetic manipulation, and which uses are discouraged through policy or friction (3). Platforms decide how to label, rank, or restrict person-replaced videos and how to respond to complaints from individuals whose likeness has been used without permission. End users make choices about whose images they upload, which templates they apply, and how they share and describe the resulting videos.

At the same time, audiences adjust their expectations about what video means. As person replacement becomes more common, viewers may become less certain that the visible subject in a clip actually performed the depicted actions, or they may instead adopt heuristics that distinguish between playful and serious contexts. Trust in video as a form of evidence may erode in some settings while remaining robust in others. The resulting landscape is not simply one of general skepticism, but of stratified trust shaped by context, culture, and institutionally mediated signals such as labels and provenance traces.

This paper analyzes these developments by focusing specifically on person replacement in everyday video editing tools, rather than on deepfake technology in general or on isolated high-profile abuses (4). It begins by clarifying what is meant by person replacement and how it is implemented and experienced in consumer tools. It then examines ethical implications

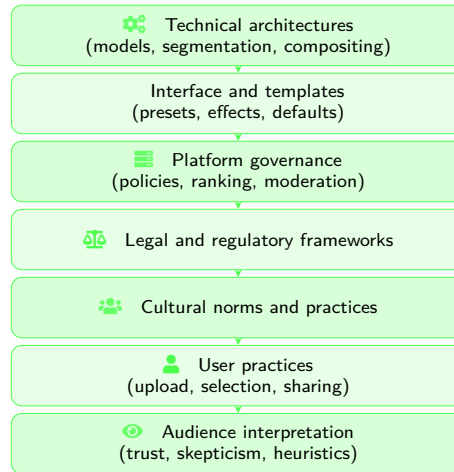


Figure 1. Layered view of person replacement as a socio-technical stack, from underlying technical architectures through interfaces, governance structures, and legal frameworks to cultural norms, user practices, and audience interpretation.

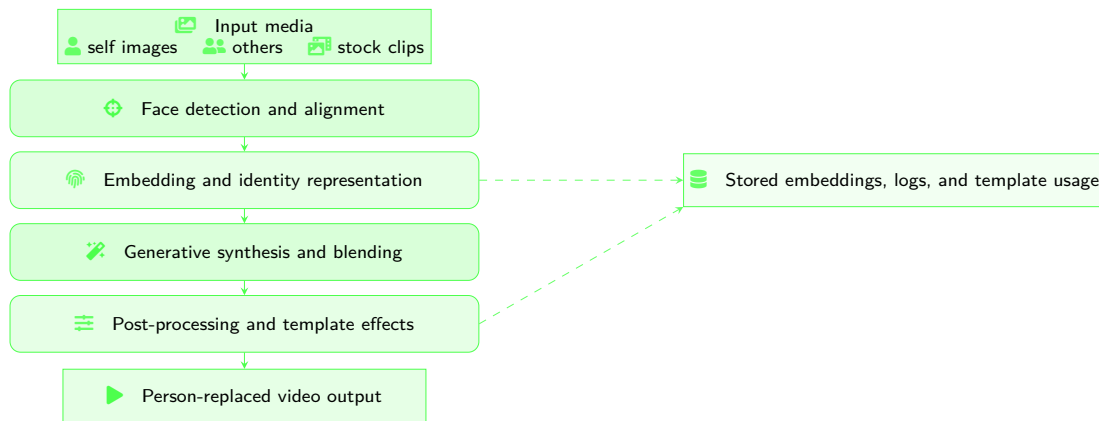


Figure 2. Simplified pipeline for person replacement in everyday tools, highlighting input media, detection and representation stages, generative synthesis, post-processing, and the side channel of stored embeddings and usage data.

related to identity, consent, autonomy, and harm, with particular attention to the ways in which low-friction access modifies both the likelihood and the meaning of particular uses. The discussion then turns to legal implications, including privacy and data protection, personality and publicity rights, defamation, and the evidentiary status of video in legal and administrative processes. Next, the paper considers broader societal implications, including media trust dynamics, cultural practices, labor and creative economies, and patterns of inequality. Finally, it explores design and governance strategies for everyday tools, considering how technical and institutional measures might mitigate harms while enabling legitimate uses.

Throughout, the analysis treats person replacement as a socio-technical phenomenon rather than as a purely technical capability or a purely normative problem (5). Technical architectures and interface choices shape what is possible and what seems natural; legal and regulatory frameworks constrain some behaviors while leaving others in ambiguous zones; cultural norms and expectations guide both usage and interpretation. The goal is not to offer definitive normative judgments on all uses of person replacement, but to map the main tensions and

trade-offs that arise when identity manipulation is woven into the fabric of everyday media creation.

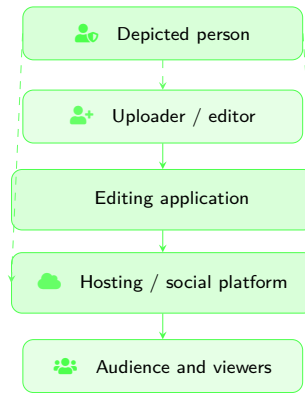
2. Conceptualizing Person Replacement in Everyday Video Editing

Person replacement in everyday video tools can be understood as a family of practices in which the visible identity of one or more individuals in a video is substituted, overlaid, or blended with another identity. The key feature, for the purposes of this analysis, is that the apparent subject of the video is altered while much of the surrounding scene, motion, and temporal structure is preserved. This distinguishes person replacement from fully synthetic video generation, where both subject and environment may be fabricated, and from traditional editing operations such as cutting, color grading, or basic masking, which do not fundamentally alter who appears to be present.

Within this broad definition, there are multiple axes of variation that matter for ethical, legal, and societal analysis. One axis concerns the source of the identities involved (6). Some tools encourage self-insertion, where users upload their own facial images or short videos and place themselves into pre-

Table 1. Key analytical axes for understanding person replacement in everyday video tools.

Axis	Typical categories	Guiding question
Identity source	Self-insertion; acquaintances; public figures; stock/fictive faces	Whose likeness is used and what consent expectations apply?
Degree of realism	Stylized; obviously composited; photorealistic	How easily will audiences treat the clip as factual evidence?
User expertise	Professional editors; hobbyists; casual mobile users	How much reflection or technical understanding is assumed?
Context of use	Private messaging; small-group sharing; public feeds	Who is likely to see the video and how far might it travel?
Governance environment	Strong platform rules; weak or absent policies	Which institutional constraints shape acceptable practices?

**Figure 3.** Key actors in person replacement workflows and flows of control: depicted persons, uploaders, editing applications, hosting platforms, and audiences, with explicit processing and more ambiguous consent relationships.

authored scenes, dance routines, or film clips. Others allow or encourage the use of images of friends, family, colleagues, or celebrities, sometimes without robust verification that the uploader has permission. Still others provide built-in libraries of stock faces, public figures, or fictional characters, blurring the line between personal and pre-packaged identity assets. The expectations around consent, harm, and acceptability differ markedly across these cases.

Another axis concerns the degree of realism sought by the tool and the user. Certain effects are overtly stylized, producing outputs that obviously bear traces of animation, caricature, or low-resolution compositing (7). In such cases, audiences may quickly infer that the content is a playful transformation rather than a literal recording. Other tools are optimized for high fidelity, aiming to make person replacement as seamless and convincing as possible. These tools may perform detailed face tracking, lighting estimation, and texture synthesis to match the target person's face to the source footage. The more convincing the result, the more it can function as a substitute for actual evidence of behavior, and the higher the stakes when outputs are misused.

A third axis concerns the level of user expertise required. Professional-grade applications expose detailed controls over tracking, blending, and layer management, but they demand skills that casual users may not possess (8). Everyday tools, by contrast, hide complexity behind templates, presets, and simplified controls. A user might simply tap on a face in a thumbnail, choose a template, and receive an output within seconds. This design pattern lowers barriers to entry and enables widespread experimentation, but it also reduces opportunities for reflection on what is being done and what it implies. If person replacement is framed as a lightweight novelty effect alongside filters that change hair color or background scenery, users may not perceive it as identity manipulation with potential moral or legal consequences.

Person replacement should also be situated in the longer history of image editing and performance substitution. Film and television have long used body doubles, stand-ins, and stunt performers to depict actions that the credited actor did not actually perform. Digital compositing has allowed faces to be added to bodies, crowds to be multiplied, and scenes to be reconstructed (9). What is new in everyday tools is less

Table 2. Identity sources commonly used in person replacement and associated consent and risk patterns.

Identity source	Typical consent assumptions	Salient risks
Self	Explicit, voluntary participation	Future regret; unexpected scale or longevity of circulation
Friends and family	Often treated as implicit or informal	Misaligned expectations; relational harm; humiliation
Co-workers / classmates	Highly context-dependent and power-sensitive	Workplace conflicts; retaliation; reputational damage
Celebrities and public figures	Assumed tolerance for fan uses and satire	Unauthorized commercial use; harassment at scale
Stock or fictional identities	Usually licensed or synthetic assets	Reinforcing stereotypes; erasure of real people from scenes
Minors	Usually unable to meaningfully consent	Long-term privacy loss; heightened legal and ethical concerns

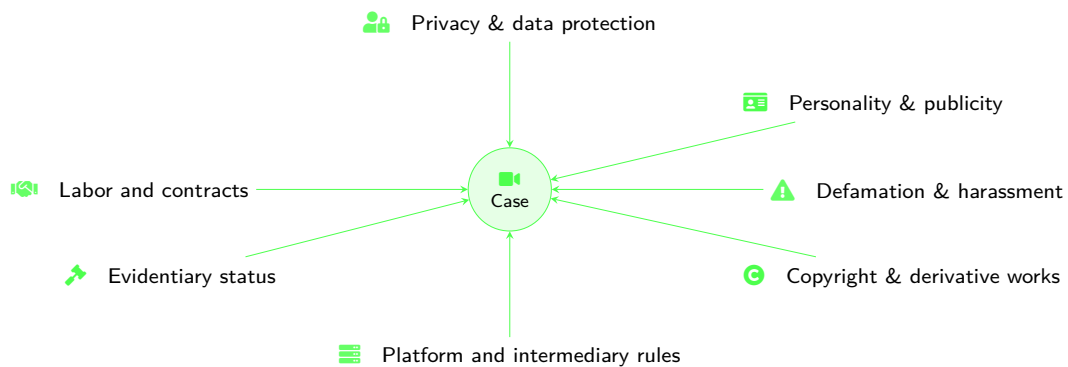


Figure 4. Legal domains intersecting with person replacement cases, including privacy and data protection, personality and publicity rights, defamation and harassment, copyright and derivative works, intermediary rules, evidentiary standards, and labor or contractual arrangements.

the idea of substitution and more its ease, speed, and opacity. The boundary between documentary and constructed imagery has always required interpretation, but person replacement in consumer tools extends that interpretive burden into ordinary social contexts, where content circulates without the cues and conventions that traditionally signaled staging or special effects.

The everydayness of person replacement is also material. The capability is not presented in isolation but embedded into multi-feature editors used for short-form video creation and social media. These editors often integrate music libraries, text overlays, stickers, and filters in a single interface, encouraging users to compose multi-layered, highly edited pieces. Person replacement becomes one more component in this composition, potentially applied alongside exaggerated visual effects that amplify humor or spectacle (10). In such mixtures, the specific fact that a face has been replaced may become less salient than the overall aesthetic. The output is experienced less as a deceptive artifact and more as a contribution to an ongoing

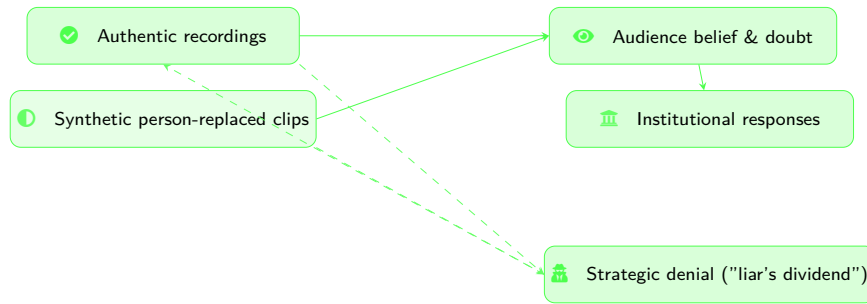
visual vernacular in which transformation is expected.

This vernacular context is important. When an audience is accustomed to seeing users insert themselves into familiar media clips, person replacement becomes a mode of participation, allowing people to align themselves with certain genres, communities, or narratives. It can function as a way to express fandom, to perform identity, or to experiment with alternative appearances. At the same time, the same technical capacity can be used to place others into contexts that they would find objectionable, to mock or harass, or to propose false narratives about their behavior. The capability is therefore neither inherently benign nor inherently malign; its effects depend on patterns of use, interpretation, and governance (11).

Finally, it is important to recognize that person replacement does not occur in a vacuum. It is entangled with recommendation systems, monetization schemes, content moderation practices, and social hierarchies. A person-replaced clip that resonates with platform algorithms may be amplified far beyond the audience originally intended by its creator. Conversely,

Table 3. Relationship between realism, audience interpretation, and risk in person-replaced video.

Realism level	Technical characteristics	Likely audience reading	Representative risks
Cartoon / stylized	Visible filters, animation artifacts, exaggerated colors	Seen as playful transformation or avatar	Underestimation of privacy impact; normalization of manipulation
Obvious composite	Misaligned lighting; jitter; low resolution edges	Recognized as edited or meme-like	Harassment; ridicule; limited evidentiary credibility
Seamless / photo-realistic	Careful tracking; lighting and texture matching	Often interpreted as plausible documentation	Defamation; intimate image abuse; political misinformation
Mixed reality overlays	Live AR-style insertions; partial occlusion	Read as hybrid of play and liveness	Ambiguity about what actually occurred in recorded settings

**Figure 5.** Trust dynamics around person replacement: authentic and synthetic videos jointly shape audience belief, institutional handling of video evidence, and opportunities for strategic denial that feed back into how even genuine recordings are received.

platform policies may suppress certain forms of person replacement while allowing others, effectively making normative judgments at scale. Any conceptualization of person replacement in everyday tools must therefore account not only for what the editing operation does to pixels and identities, but also for how that operation is embedded within broader infrastructures of visibility and control.

3. Ethical Implications: Identity, Consent, and Responsibility

Ethical analysis of person replacement in everyday tools begins with questions about identity and self-presentation (12). Visual appearance and recorded performance are central components of how individuals are recognized and understood by others. When a video depicts a person, it makes a claim, implicit or explicit, that this is what the person looked like in a particular setting and time. Person replacement complicates this claim by producing outputs in which the visible subject did not actually inhabit the depicted situation, yet appears to have done so. The ethical question is not only whether such outputs are truthful, but whether they respect the autonomy and dignity of the individuals whose likenesses are involved.

Autonomy in this context involves a person's capacity to shape how they appear in public and what associations are formed around their image. When someone voluntarily participates in a person-replacement workflow that inserts them into a fictional scene, they may be exercising creative agency and experimenting with their self-presentation. However, when a third party substitutes their face into footage without consent, particularly into contexts that conflict with their values or reputation, autonomy is undermined (13). Everyday tools blur this boundary because they often treat all source images equivalently, whether they are self-portraits, shared photos among friends, or images scraped from the public web.

Consent is therefore central but complex. Many applications require users to agree to general terms of service that authorize processing of uploaded media for editing and improvement of the service. Such blanket consent instruments rarely differentiate between processing for personal, ephemeral transformations and processing that enables downstream circulation or repurposing by others. Furthermore, the person who uploads an image may not be the person depicted. A user who uploads a friend's photograph to create a playful insertion into a meme may believe that social norms within their group constitute im-

Table 4. Ethical dimensions central to evaluating person replacement practices.

Dimension	Core question	Positive illustration	Problematic illustration
Autonomy	Who controls how a person appears in public media?	Voluntary self-insertion into a favorite film scene	Inserting someone into a scenario that conflicts with their values
Consent	What did the depicted person understand and agree to?	Friends jointly creating parody clips after discussion	Uploading a colleague's photo into a trending template without asking
Harm	What kinds of damage are reasonably foreseeable?	Light-hearted, in-group humor with shared norms	Sexualized or degrading composites that circulate widely
Equity and bias	How are different groups represented and treated?	Tools that work comparably across demographics	Systems that distort or artifact faces from marginalized groups
Intent and foreseeability	What did creators and designers aim to achieve?	Templates framed for self-expression and fandom	Engagement-optimized formats that invite targeting of individuals

plicit consent, while the friend may disagree, especially if the video escapes its original context (14).

Consent in ethical terms is more than a checkbox; it involves understanding what is being agreed to, in what context, and with what possible consequences. Everyday person replacement introduces several challenges to meaningful consent. First, the technical affordances are often opaque. Users may not understand how realistic or widely distributable the outputs can be, especially as tools improve in quality. Second, the temporal horizon of consent is unclear. A person may be comfortable with their likeness appearing in a private or semi-private video among friends at one time, but not with persistent public availability, searchability, or algorithmic remixing years later (15). Third, power imbalances can undermine voluntariness, such as when employers, educators, or content creators pressure individuals to participate in person-replacement workflows as a condition of participation or exposure.

Ethical evaluation also requires attention to the forms of harm that person replacement can produce. Reputational harm is a salient category: person-replaced videos can depict individuals engaging in illegal, abusive, or stigmatized behavior, potentially altering how others perceive them. Even when viewers suspect that a video is manipulated, the association may linger in memory and influence judgments, a phenomenon often described as the persistence of impressions. Psychological harm is another category, encompassing feelings of violation, loss of control, or humiliation when one's image is appropriated, especially in intimate or sexualized contexts. Relational harm can occur when person-replaced videos damage

trust within families, friendships, or professional circles.

At the same time, benefits from person replacement should not be ignored (16). Individuals may use such tools to imagine themselves in roles or environments they cannot access, to explore gender expression, to recover or reinterpret historical footage, or to participate in shared jokes and cultural trends. Ethically, the presence of benefits does not negate harms, but it influences how trade-offs are perceived. Certain communities may embrace person replacement as a creative resource and develop norms that govern acceptable use, while other communities may experience the same capability primarily as a source of risk and anxiety. Ethical analysis must therefore be context-sensitive rather than purely abstract.

Intent and foreseeability are further ethical dimensions. A user who applies a person replacement template to create a humorous clip for a small group of friends may not intend harm, yet the same clip may be captured, shared, and reinterpreted by others in harsher ways (17). Developers and platform operators design systems that make such re-sharing easy and rewarding. Ethical responsibility is distributed across this network of actors. One cannot reduce the evaluation to individual intent alone; designers who create aggressive templates that invite targeting of specific groups, or platforms that amplify inflammatory person-replaced content for engagement, bear moral responsibility for foreseeable consequences. Conversely, overemphasizing developer responsibility without acknowledging user agency risks treating users as passive, which is not accurate in many cases.

Different ethical frameworks illuminate different aspects of

Table 5. Legal domains engaged by person replacement and illustrative points of tension.

Legal domain	Typical focus	Example scenario	Key uncertainty
Privacy / data protection	Processing of facial images and embeddings	App stores reusable face templates from uploads	Whether consent is specific and informed enough for reuse
Personality / publicity rights	Control over commercial use of likeness	Celebrity face inserted into an advertisement via a template	Distinguishing fan creativity from exploitative commercial use
Defamation / harassment	Harmful false portrayals and targeted abuse	Fabricated clip showing a person committing a crime	How courts interpret viewer perceptions of synthetic video
Intellectual property	Rights in source footage and derivatives	User replaces faces in a copyrighted movie scene	Scope of fair or transformative use in heavily edited clips
Platform liability	Duties of hosts and tool providers	Platform offers built-in person replacement effects	Extent of safe harbor when features enable harmful outputs
Evidence law	Reliability of recordings as proof	Synthetic clip submitted in a dispute or investigation	Standards for authentication and expert verification

this landscape. A rights-based perspective emphasizes individual claims not to be represented falsely or without consent, and not to have one’s image used in ways that undermine dignity. From this standpoint, person replacement that uses a person’s likeness without their permission, especially in contexts that could reasonably be expected to cause them distress or reputational damage, is ethically problematic regardless of whether others enjoy the output (18). A consequentialist perspective focuses on overall outcomes, considering both harms and benefits. It might treat some playful uses as acceptable when harms are minimal and benefits substantial, while condemning uses with high probability of serious harm. A virtue-ethical lens asks what kinds of character traits and community norms are encouraged by widespread person replacement, such as respectfulness, empathy, or callousness.

There are also collective and structural ethical concerns. Person replacement systems are trained and optimized based on data that may overrepresent certain demographics and underrepresent others. As a result, outputs may be more flattering, accurate, or stable for some groups than for others (19). When people from marginalized communities see their faces rendered with distortions, artifacts, or stereotypical features, while those from dominant groups receive more polished outputs, the technology can reinforce patterns of disrespect and exclusion. Similarly, tools that make it particularly easy to replace faces of certain well-known figures may amplify harassment and dehumanization directed toward those individuals, especially when they belong to historically targeted groups.

In light of these considerations, everyday person replace-

ment presents an ethical field that is neither uniform nor easily reducible to simple rules. Some uses appear clearly objectionable, such as non-consensual pornography or defamatory fabrications, while others are ambiguous or context-dependent. What makes the situation distinctive is the integration of person replacement into tools that frame it as trivial and consequence-free. Ethical reflection suggests the need for design choices that draw attention to the stakes of identity manipulation without presuming that all uses are inherently wrong, and for social norms that discourage harmful or exploitative uses while leaving room for legitimate creative expression.

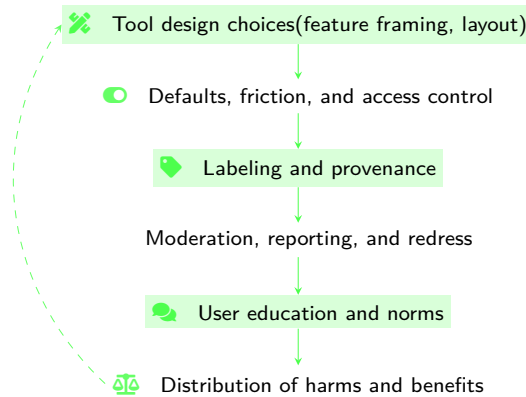
4. Legal Implications: Rights, Regulation, and Liability

Legal systems across jurisdictions have long grappled with issues related to image rights, privacy, and defamation, but person replacement in everyday video tools introduces new configurations that stress existing doctrines (20). At the core lies the question of whether and how individuals have legal control over the use of their likeness and associated performance, especially when the underlying media are synthetic or heavily manipulated. Multiple legal domains intersect here, including privacy and data protection, personality and publicity rights, defamation and harassment law, intellectual property, and platform liability regimes.

Privacy and data protection frameworks often treat facial images and derived representations as sensitive personal data. Everyday person replacement tools typically rely on automated detection and alignment of faces in video, and in some cases

Table 6. Stakeholders involved in person replacement and their respective levers of responsibility.

Actor	Primary capabilities	Responsibility levers
End users	Select images, templates, and sharing channels	Choosing respectful uses; honoring consent; contextual labeling
Depicted individuals	Signal preferences and contest misuse	Reporting harmful clips; articulating community norms
Tool developers	Architect person replacement features	Interface friction; defaults; technical safeguards; on-device limits
Platforms and hosts	Distribute, rank, and monetize content	Policy design; detection and labeling; takedown and appeals
Regulators and courts	Set legal baselines and remedies	Defining rights; mandating safeguards; clarifying liability
Civil society and researchers	Analyze impacts and represent affected groups	Independent audits; advocacy; public education materials

**Figure 6.** Design and governance levers in everyday person replacement tools, from interface and feature decisions through defaults, labeling, moderation, and user-facing education to the resulting balance of harms and benefits, with feedback into subsequent design iterations.

on extraction of persistent face embeddings or templates that can be reused across different clips and contexts. When these embeddings are stored or processed beyond the immediate editing session, they may fall under regulatory regimes that require explicit consent, purpose limitation, data minimization, and security safeguards. If an application allows a user to upload photographs of others without verifying their authority to do so, it may be processing biometric information of non-users without their consent, raising questions about compliance (21).

Personality and publicity rights, where recognized, protect individuals' interests in their name, likeness, and sometimes broader aspects of persona. These rights are often most developed for celebrities and public figures whose commercial value is tied to their identity. Person replacement that inserts a well-known actor or musician into an advertisement without authorization may be actionable as unauthorized commercial exploitation. However, when everyday tools facilitate such insertions at scale by ordinary users, the practical enforceability

of those rights is uncertain. The sheer volume of small-scale uses complicates monitoring and enforcement, and courts may distinguish between commercial exploitation and noncommercial fan practices, satire, or commentary.

Defamation law addresses false statements that harm reputation (22). When person replacement produces convincing video of a private individual or public figure engaging in wrongful or discreditable behavior, it can function as a form of defamatory publication. Legal evaluation often considers whether the content would be understood by a reasonable viewer as asserting facts rather than as parody or fiction. Labels indicating that video has been synthetically manipulated, or a general public awareness of person replacement, may influence that interpretive judgment, but the effect is unlikely to be uniform. Some viewers may take a video at face value regardless of labels, while others may dismiss even authentic footage as fake. This variability complicates the application of defamation doctrines and may influence standards of proof and damages.

Table 7. Selected societal implications of widespread person replacement in everyday media.

Area	Core dynamics	Illustrative questions
Media trust	Shifting interpretations of visual evidence	When should video be treated as documentation versus performance?
Cultural practices	New forms of participation and fandom	Who is invited into popular scenes and who is routinely replaced or removed?
Power and inequality	Asymmetric exposure and remedies	Who can afford legal action or attract platform attention when harmed?
Labor and creative economies	Changing demand for on-screen performance	How do digital doubles reshape work for actors, influencers, and extras?
Education and literacy	Skills for navigating synthetic content	What should media literacy curricula teach about synthetic identity manipulation?

Harassment, stalking, and intimate image abuse statutes are also implicated, especially for person replacement used to create sexualized or degrading content. Non-consensual synthetic pornography that uses a person's face, even if the body and scene are generated or sourced from a performer who consented to their own participation, is increasingly recognized as a serious harm (23). Some jurisdictions have begun to update laws to cover synthetic imagery, but many legal frameworks still presuppose that the harmful content must be an actual recording. Everyday tools that make it trivial to produce such synthetic content contribute to an environment where intimate image abuse can be conducted without physical access to the victim.

Intellectual property law interacts with person replacement in multiple ways. Copyright protection attaches to original works of authorship, including video recordings. When a user uploads a copyrighted clip and replaces a face, they may create a derivative work. Depending on jurisdiction, such transformations may or may not qualify as fair or lawful use (24). The rights of the original performers, directors, and producers are also implicated, especially if their work is repurposed in ways that conflict with their moral or economic interests. At the same time, outputs that significantly alter the expressive content may themselves be eligible for protection, raising complex questions about who holds rights to a person-replaced video and under what conditions.

Platform liability regimes structure how responsibility is allocated among users and intermediaries. Many legal systems provide some form of safe harbor for platforms that host user-generated content, shielding them from liability for user actions provided they follow certain procedures, such as responding to takedown notices. When person replacement is a built-in feature of a platform's own tools, however, the distinction between host and producer becomes less clear. Regulators may treat platforms that actively curate templates, provide preloaded identities, or promote particular uses as more than passive con-

duits. The legal obligations of such platforms could include proactive detection and removal of harmful person-replaced content, transparent policies about permissible uses, and mechanisms for individuals to object to unauthorized use of their likeness (25).

The evidentiary status of video in legal and administrative proceedings is also challenged by person replacement. Courts and other institutions have long relied on video as particularly persuasive evidence of events. As synthetic identity manipulation becomes common, the default assumption that video provides direct perception of reality becomes less secure. This may lead to higher expectations for authentication, such as detailed chain-of-custody documentation, cryptographic provenance systems, or expert forensic analysis. The resulting burdens may fall unevenly: well-resourced parties may be able to meet new evidentiary demands, while individuals and small organizations may struggle. Everyday tools that embed watermarks or provenance metadata by default could support authentication, but such measures must be robust to routine transformations and must avoid creating new privacy risks (26).

Labor and contract law enter the picture where performers, influencers, or employees are asked to license their likeness for synthetic reuse. Some contracts already include clauses that authorize producers to create digital doubles or to reuse past performances in new contexts. Everyday person replacement tools could extend this practice to smaller-scale productions, corporate training materials, or internal communications. Legal questions arise about the scope and duration of such consent, the conditions under which it can be revoked, and the compensation owed for synthetic reuse compared to live performance. Collective bargaining agreements in some industries are beginning to address these issues explicitly, but many workers remain unprotected.

Overall, person replacement in everyday tools interacts with legal systems that are partially prepared but also strained by the new configurations of identity and media it enables. Existing

Table 8. Design and governance strategies for shaping everyday person replacement practices.

Strategy area	Example measures	Primary goal	Limitations and trade-offs
Interface and friction	Contextual consent reminders; extra taps for non-self faces	Encourage reflection at the moment of creation	May feel burdensome; users can click through quickly
Defaults and access control	Self-insertion by default; restricted libraries of others' faces	Shift typical uses toward lower-risk configurations	Can push risky uses to less regulated tools or channels
Labeling and provenance	Visible watermarks; embedded authenticity metadata	Help audiences interpret and verify synthetic content	Label fatigue; technical removal; privacy considerations
Reporting and redress	In-app reporting; expedited review for intimate content	Provide pathways to contest harmful person replacement	Resource-intensive; potential misuse of reporting tools
Monitoring and audits	Pattern analysis of templates and targets; bias testing	Detect emergent harms and demographic disparities	Relies on data access; risks of over-surveillance
Regulation and policy	Minimum safeguards; rules for political and intimate uses	Establish baseline protections and accountability	Risk of overbreadth or under-enforcement across contexts
Education and literacy	Tutorials, examples, and prompts within tools	Build shared norms around responsible use	Effects are gradual and uneven across communities

doctrines provide some coverage but leave gaps and uncertainties, especially around small-scale, distributed uses, jurisdictional conflicts in cross-border content flows, and the responsibilities of tool providers versus platforms versus end users (27). Regulatory responses will likely evolve over time, influenced by high-profile cases, public concern, and advocacy by affected individuals and groups. In the meantime, developers and platforms operate in a zone of partial guidance, where prudent design and governance may reduce legal risk but cannot eliminate it.

5. Societal Implications: Trust, Culture, and Power

Beyond individual ethics and formal legal frameworks, person replacement in everyday video tools has broader societal implications that unfold through changes in trust, culture, and power relations. These implications are not uniform; they vary across communities, institutions, and regions, and they interact with longstanding dynamics of media production and consumption.

One central concern is the effect of widespread synthetic identity manipulation on trust in visual media. For much of the history of photography and film, public discourse treated visual recordings as relatively direct windows onto reality, even though professionals always knew that images could be staged or altered (28). The emergence of digital editing and early image manipulation tools eroded this trust somewhat, but many people still treated video as particularly strong evidence. Per-

son replacement accelerates this erosion by making it easy for non-experts to produce convincing depictions of events that never occurred and to distribute them widely. As a result, viewers may become more skeptical of what they see, especially in online contexts.

However, the relationship between person replacement and trust is complex. Skepticism can be protective when it prevents audiences from accepting false narratives, but it can also be exploited. Actors who wish to deny authentic recordings can claim that they are fabricated, appealing to public awareness of deepfakes and person replacement as a reason to doubt genuine evidence (29) (30). This phenomenon, sometimes described as a liar's dividend, enables powerful individuals to escape accountability by casting doubt on authentic documentation. The net effect on trust therefore depends on how different groups balance skepticism and credulity, which in turn is influenced by media literacy, institutional reliability, partisan narratives, and cultural norms.

Person replacement also affects cultural practices around identity and participation. In many online communities, individuals already engage in playful self-representation through avatars, filters, and role-play. Person replacement extends these practices into moving images, allowing people to embody characters, celebrities, or archetypes in dynamic scenes. This can support creative expression, collaborative storytelling, and exploration of identities that may not be safe or possible in offline

Table 9. Illustrative person replacement practices with contrasting benefit and harm profiles.

Practice type	Brief description	Potential benefits	Potential harms
Self-insertion into fiction	Placing oneself into films, music videos, or games	Identity play; fandom; accessible performance	Blurred sense of self; unwanted circulation beyond intended audiences
Friends in memes	Using acquaintances' photos in humorous templates	Bonding; inside jokes; shared cultural reference points	Embarrassment; social friction; exclusion or bullying
Satire of public figures	Recasting politicians or celebrities in absurd scenes	Political commentary; critique; comedic experimentation	Harassment; dehumanization; confusion about real conduct
Non-consensual sexualized content	Synthetic intimate imagery using another's face	None for the target; perceived anonymity for perpetrators	Severe psychological harm; reputational damage; coercion
Political or evidentiary fabrication	Clips depicting fabricated wrongdoing or speech	None for truthful discourse; possible whistleblower cover	Disinformation; erosion of democratic accountability; liar's dividend
Restorative or archival uses	Reanimating historical or damaged footage with consent	Remembrance; education; accessibility of archives	Disputes over representation; contested narratives of the past

environments. For example, individuals may experiment with gender expression or cultural identity in low-stakes, reversible ways through synthetic insertions (31). Communities may interpret such practices as empowering and inclusive.

At the same time, the same tools can enable appropriation and erasure. When users insert themselves into cultural artifacts from communities to which they do not belong, or replace members of marginalized groups with themselves or others, it can reinforce harmful narratives about who belongs at the center of stories and who is relegated to the background. Person replacement that consistently foregrounds certain faces while relegating others to generic roles or removing them altogether can subtly shape collective imagination about whose experiences matter. These dynamics resonate with older patterns in media industries where casting and narrative focus have historically privileged some groups over others.

Power imbalances are also evident in who can challenge or resist unwanted person replacement (32). Public figures with legal resources and media access may be able to respond quickly to harmful person-replaced videos, engage legal counsel, and mobilize public sympathy. Ordinary individuals, particularly those from marginalized communities, may struggle to identify where harmful videos are circulating, to get platforms to respond, or to access legal advice. The psychological cost of pursuing redress can be high, and the process can involve re-exposure and renewed public scrutiny. Everyday tools that make person replacement easy thus have asymmetric effects, amplifying the ability of some actors to target others

while leaving those targets with limited recourse.

Person replacement also intersects with labor markets and the political economy of digital content. As synthetic identity manipulation becomes more accessible, producers can generate content without continuously hiring performers for every appearance. This may reduce opportunities for work in sectors such as advertising, entertainment, or corporate communications, especially for people whose primary value is their physical presence on camera (33). Conversely, it may create new markets for licensing likenesses, particularly for individuals with distinctive or marketable appearances. The distribution of these opportunities is unlikely to be even; those who are already well-known or well-connected may find it easier to monetize their digital doubles, while others may see their likeness used without compensation.

Media literacy and education systems face new challenges in helping people navigate an environment where person-replaced videos are common. Traditional media literacy curricula often focus on identifying bias, checking sources, and understanding how framing influences perception. They may now need to incorporate skills for recognizing synthetic content, understanding the limits of detection, and evaluating claims even when authenticity is uncertain. This is not simply a technical task; it involves cultivating habits of critical reflection, recognition of context and motive, and awareness of how emotional responses can be triggered regardless of whether a video is authentic (34).

Global and cross-cultural dimensions further complicate the societal picture. Person replacement tools are developed

and deployed in a world marked by unequal access to technology, differing legal protections, and diverse cultural norms. In some societies, public visibility of faces, particularly for women or specific religious groups, is tightly regulated or sensitive. Person replacement that inserts individuals into socially disapproved contexts may have especially severe consequences there. In others, norms around satire, parody, and political speech may be more accommodating, leading to different expectations about acceptable use. The same tool, deployed globally, thus encounters a mosaic of moral and social landscapes that shape how it is used and interpreted.

Moreover, linguistic and cultural differences can affect how person replacement is labeled and discussed (35). Some languages may not have widely recognized terms that distinguish between authentic and synthetic identity representation, making it harder to develop shared norms and policies. In multilingual or diasporic communities, person-replaced videos may move between cultural contexts that interpret them differently. Platforms and developers must therefore consider localization of labels, educational materials, and policy enforcement, rather than assuming that a single set of cues will suffice everywhere.

Finally, person replacement contributes to ongoing debates about the nature of authenticity in digital life. For many people, online self-presentation already involves curation, filtering, and selective disclosure. Person replacement intensifies these practices by allowing individuals to appear in places they have never been, performing actions they never performed, and, in some cases, looking different from their everyday appearance (36). This raises questions about what counts as an authentic self, whether authenticity matters in all contexts, and how expectations of authenticity are negotiated within relationships and communities. These questions have no simple answers, but person replacement ensures that they will remain salient.

6. Design and Governance Strategies for Everyday Tools

Given the ethical, legal, and societal implications outlined above, attention turns to how everyday person replacement tools might be designed and governed to support acceptable uses while mitigating harms. There is no single solution or universal blueprint, but there are families of strategies that can be combined and adapted across contexts. These strategies involve both technical design decisions within tools and institutional measures at the platform and regulatory levels.

One important design consideration is how person replacement features are surfaced and framed within user interfaces (37). When such features are presented as trivial jokes or visually equivalent to purely cosmetic filters, users may not pause to consider consent or impact. Interfaces could instead incorporate subtle but meaningful friction. For example, when a user selects a face that appears not to belong to the logged-in user, the tool might display a clear reminder that they should have permission from the person depicted, or it might require explicit confirmation that consent has been obtained. These prompts cannot guarantee ethical behavior, but they can foreground the question of consent at the moment when decisions

are made.

Another strategy concerns default settings and the scope of possible operations. Tools can be designed to prioritize self-insertion, where users apply person replacement only to their own verified images, while making it more difficult or restricted to use images of others. Verification might rely on account-level identity checks, device-level galleries, or voluntary enrollment (38). Some applications might choose to restrict access to person replacement involving non-self images to specialized or professional tiers subject to additional conditions. By structuring the capability space in this way, designers can influence the distribution of uses, nudging toward less risky configurations without outright prohibition.

Labeling and transparency mechanisms are also central. Person-replaced videos can carry visible indicators that they have been synthetically altered, either as persistent watermarks or as overlays that platforms display when content is viewed or shared. These labels can inform audiences without requiring them to detect manipulation themselves. However, effective labeling requires careful design (39). Overly intrusive labels may provoke user backlash or be cropped out, while subtle labels may be overlooked. There is also the risk of label fatigue; if too much content is labeled in ways that audiences do not find meaningful, they may begin to ignore all labels. Design processes should therefore involve user research to understand how different labeling schemes affect interpretation and trust.

Provenance and traceability measures complement visible labels. Tools can embed metadata that signals the use of person replacement, allowing downstream platforms and forensic tools to recognize synthetic content. Such metadata must be robust to common transformations, such as re-encoding or minor edits, while preserving user privacy and security. Emerging standards for content provenance provide potential frameworks, but their adoption in consumer tools raises practical questions about performance, interoperability, and governance (40). For example, who has access to provenance information, under what conditions, and how is it protected against tampering or misuse?

Governance also requires mechanisms for reporting and redress. Individuals who discover that their likeness has been used in person-replaced videos without consent should have accessible ways to report such content and request its removal or limitation. Tool developers and platforms can support this by offering user-friendly reporting interfaces, clear policy statements, and transparent processes for evaluating complaints. Effective redress mechanisms need to balance competing values: preventing abuse of reporting systems to silence legitimate satire or criticism, minimizing the burden on people who are already harmed, and respecting due process for accused users. Transparent publication of aggregate data about reports and responses can support accountability and public understanding (41).

Design and governance strategies must be continually evaluated and updated. Person replacement tools do not operate in a static environment; user practices, technical capabilities, and legal norms evolve. Developers can incorporate monitoring and auditing processes to identify patterns of misuse, demographic biases, or emergent harms. This may involve ana-

lyzing aggregate data about which templates are used, how content spreads, and who is most frequently targeted by harmful person-replaced videos. Collaboration with external researchers, civil society organizations, and affected communities can enrich this understanding and bring diverse perspectives into design decisions.

Regulators and industry bodies may also play roles in shaping governance. Voluntary codes of practice, standards for labeling and provenance, and shared detection tools can reduce fragmentation and encourage a baseline of responsible behavior across companies (42). However, self-regulation has limits, especially when commercial incentives favor maximizing engagement. Legally binding obligations may be necessary in some domains, such as protecting minors, preventing intimate image abuse, or ensuring transparency in political advertising. The challenge is to craft regulations that are precise enough to be enforceable but flexible enough to accommodate legitimate uses and future technological developments.

Educational initiatives complement technical and regulatory strategies. Tool providers and platforms can integrate media literacy resources directly into their applications, such as short explanations of what person replacement is, why it can be problematic, and how to use it responsibly. This could include contextual tips when users first access person replacement features, sample scenarios that illustrate good and bad practices, or links to external educational materials (43). Such efforts recognize users as agents capable of ethical reflection, rather than as purely passive consumers of defaults.

Finally, governance of person replacement in everyday tools must recognize global diversity. Design choices and policies suitable for one legal system or cultural context may be inappropriate or insufficient in another. Tools deployed globally need localization not only of language but also of norms. This might involve region-specific defaults, policy variations, or collaborations with local experts and organizations. For example, in contexts where images of certain groups carry heightened risk if misused, stricter defaults or additional protections might be warranted (44). Conversely, in contexts with strong protections for satire and parody, governance might focus more on clear labeling and user education than on restrictive defaults.

In sum, design and governance strategies for everyday person replacement tools are multifaceted. They combine interface design, technical safeguards, reporting and redress mechanisms, institutional policies, regulatory frameworks, and educational initiatives. No single measure is sufficient; rather, the goal is to assemble a coherent set of practices that together reduce the likelihood and severity of harm while preserving legitimate creative and expressive uses.

7. Conclusion

Person replacement in everyday video editing tools sits at the intersection of technical innovation, personal expression, and social risk. What began as a specialized capability associated with professional compositing and targeted deepfakes has become a routine feature available to ordinary users in applications for entertainment, communication, and creative produc-

tion. This diffusion alters the landscape of ethical responsibilities, legal rights, and societal expectations around visual media and identity (45).

The analysis in this paper has emphasized that person replacement cannot be understood solely as a matter of technical capability or as a series of isolated misuse cases. Instead, it is a socio-technical practice shaped by design choices, platform governance, cultural norms, and institutional responses. Conceptually, person replacement involves substituting the visible identity of individuals in video while preserving much of the surrounding context, creating outputs that blur the line between documentation and fabrication. The everyday framing of this capability as a simple effect or filter influences how users think about consent, impact, and responsibility.

Ethically, person replacement raises questions about autonomy, dignity, and harm. The capacity to control one's public appearance is challenged by tools that allow others to appropriate and manipulate likenesses with minimal friction (46). Harms can be reputational, psychological, relational, and collective, and they interact with existing inequalities and vulnerabilities. At the same time, person replacement can support creative expression, participation, and experimentation with identity, particularly when used with consent and within communities that develop appropriate norms. Evaluating these practices requires nuanced, context-sensitive ethical reasoning rather than blanket condemnation or uncritical enthusiasm.

Legally, person replacement interacts with privacy and data protection rules, personality and publicity rights, defamation and harassment law, intellectual property, and platform liability regimes. Existing doctrines provide partial coverage but were not designed with mass synthetic identity manipulation in mind. Questions of consent, commercial exploitation, evidentiary reliability, and responsibility for moderation are being renegotiated in courts, legislatures, and regulatory bodies. Everyday tools that embed person replacement within broader content creation workflows add complexity to determinations of who is responsible for what, and they highlight the importance of clarity in contracts and policies (47).

At the societal level, person replacement contributes to shifts in trust in visual media, transformations in cultural practices of self-presentation and participation, and changes in the distribution of power. Increased awareness that videos can be fabricated can protect against some forms of deception, but it can also be exploited to cast doubt on authentic evidence. Cultural practices around identity can be enriched by new forms of participation and self-expression, but they can also reproduce patterns of appropriation and erasure. Power imbalances influence who is targeted, who can seek redress, and who benefits economically from new forms of content production.

In response, a range of design and governance strategies are available. Tools can be designed to foreground consent, limit risky operations by default, and provide clear cues about synthetic manipulation (48). Platforms can adopt labeling, provenance, reporting, and redress mechanisms, while monitoring and auditing patterns of use to identify emergent harms. Regulators can develop frameworks that recognize the specific challenges of person replacement, balancing protection of individu-

als with respect for freedom of expression and innovation. Educational initiatives can help users and audiences understand what person replacement is, how it works, and how to interpret and use it responsibly.

The evolution of person replacement in everyday video editing tools is ongoing. Future technical developments may change the balance between realism and detectability, alter the economics of content production, and introduce new modalities of identity manipulation. Social norms and legal frameworks will likely continue to adapt in response. The considerations outlined in this paper suggest that responsible development and use of person replacement requires sustained attention to how technical design, institutional governance, and cultural practices interact, and to how they jointly shape the conditions under which people appear, or seem to appear, in the digital public sphere (49).

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