

## ETHICAL, CULTURAL AND TECHNOLOGICAL ASPECTS OF INTELLECTUAL PROPERTY PROTECTION IN THE DIGITAL ENVIRONMENT

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**Abstract:** This article examines how ethical norms, cultural attitudes, and technological developments intersect in the modern system of intellectual property protection. The rapid shift toward digital modes of producing and sharing content has altered long-standing assumptions about how copyright should function, often weakening approaches that rely only on formal legal restrictions. As the media sphere adapts to these changes, questions of professional responsibility — such as the accuracy of attribution, transparency of sources, and respect for creative work — become increasingly important. Public perceptions of intellectual labor and the level of media literacy also shape how copyright rules are followed in practice. Particular attention is given to the impact of artificial intelligence, which complicates notions of authorship and accountability when machine-generated material enters circulation. The analysis suggests that current protection strategies are gradually moving away from punitive measures and towards systems designed to prevent misuse through technological and organizational means. In this context, effective copyright protection depends on the coordinated interaction of ethical commitments, cultural practices, and technological capacity

**Key words:** Intellectual property protection, Internet publications, Copyright, Artificial intelligence, User agreement, Uzbekistan media

### 1. Introduction

The rise of digital technologies has noticeably altered how intellectual work is produced, circulated, and interpreted, reshaping both creative practices and the ways audiences engage with content. Modern forms of communication, publication, and information distribution have established entirely new conditions for the functioning of copyright institutions. While in the past intellectual property protection relied primarily on legal and administrative mechanisms, today its effectiveness is largely determined by the ethical behavior of media participants, their level of legal culture, and their willingness to exercise self-restraint in a condition of informational abundance. The rapid evolution of technology, particularly digital platforms and artificial intelligence, has intensified challenges for copyright enforcement, necessitating a reevaluation of traditional legal frameworks.

The increasing speed of data circulation, the ease of copying and modifying works, as well as the involvement of algorithms and artificial intelligence, have led to a situation in which the classical copyright model — based on formal rights registration and sanctions for violations — no longer holds absolute power. At the same time, the almost unrestricted availability of digital content has gradually eroded the older distinctions between those

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who create material and those who distribute or consume it. In practice, the same person can now switch between these roles, or even combine them, often without noticing it. Such changes cannot be addressed by legal reforms alone; they also demand the development of a professional environment in which media workers understand the ethical implications of their actions and approach their responsibilities with greater awareness. In addition, global connectivity amplifies cross-border copyright challenges, demanding harmonized approaches to legal interpretation and enforcement. All this has a powerful impact on the development and reshaping of established forms of communication; the very culture of information consumption and delivery is changing, as is the legal framework. These processes have influenced the law, as new social relations demanded legal regulation (Makashova, 2022).

For this reason, any modern approach to protecting intellectual property has to bring together several types of competence: an ability to make sound ethical decisions, a practical understanding of relevant technologies, and sensitivity to the different cultural contexts in which media content circulates. Without such a combination, protective measures quickly lose their relevance. In this situation, it becomes increasingly clear that safeguarding intellectual work requires a reconsideration of the traditional tools used for this purpose. Rather than relying mainly on sanctions, the emphasis should shift toward preventive measures; instead of treating copyright strictly as a legal matter, ethical considerations and shared professional responsibility need to play a stronger role. Technological solutions, too, should be viewed not as external add-ons but as part of a broader system of collective practices. Therefore, an effective system of intellectual property management today depends on recognizing how legal mechanisms, ethical standards, and technological tools interact and influence one another. Only by accounting for this interplay can institutions adapt to the realities of the digital age.

## 2. Methods

In this study, I turned mainly to qualitative research methods. My work involved a close reading of key academic texts alongside the analysis of several case examples that helped illustrate recurring issues. The sources I examined covered a wide spectrum: from publications on media ethics and classical copyright theory to WIPO documents and recent legal discussions focused on challenges posed by AI-generated content. When reviewing this material, I tried to identify shared patterns in how different scholars understand ethical norms, cultural expectations, legal regulation, and the place of technology in the protection of

intellectual property. This mixed approach allowed me to look at these elements not as isolated themes, but as parts of a broader, interconnected system.

The foundation of this research lies in an extensive review of established academic literature and influential monographs on media law and intellectual property. Among the works that informed the analysis were studies by Pankeev and Richter, whose contributions shed light on how legal concepts have evolved, what ethical obligations media practitioners face, and how ideas about authorship are shaped culturally. To complement these foundational texts, more recent publications were also considered — including Al-Sharieh's work on the legal implications of generative AI — which highlight problems emerging at the intersection of artificial intelligence and copyright (2025). Bringing together both classical and contemporary perspectives helped create a more nuanced and up-to-date picture of the field.

### 3. Results

The ethical side of intellectual property protection acquires special relevance in the media field, where information functions not only as a legal asset but also as a public resource. In everyday editorial practice, journalists, editors, producers, and designers regularly encounter situations in which moral considerations outweigh formal legal rules, especially given how quickly content can now be replicated or modified. As scholars who study the ethics of information handling point out, responsible use of creative works rests on respecting authorship and refusing practices like plagiarism or unacknowledged borrowing (Bernnard, 2022).

Recognizing intellectual property as the result of creative activity that deserves respect becomes an indicator of professional maturity. Violations of copyright, even when they do not cause material harm, damage the reputation of the source and undermine public trust. Therefore, ethical standards in journalism and media practice are not merely an addition to legislation but a living continuation of it. Ethical responsibility includes not only refraining from plagiarism but also proper citation, acknowledgment of authorship, respect for others' creative labor, transparency of sources, and careful handling of information as a public resource.

An ethical approach shapes internal behavioral standards within the professional community. This is particularly important for the media sphere, where — unlike formal sanctions — moral principles operate at the level of newsroom self-organization and professional associations. A journalist's ethical culture is reflected not in avoiding violations out of fear of punishment, but in understanding creative work as part of a societal contract. When such awareness becomes part of everyday professional

behavior, it strengthens mutual trust between creators, publishers, and the public that consumes their work. In environments where ethical self-regulation becomes the norm, the need for strict legal control decreases, and the media sphere becomes more stable. This direction is especially important in countries where the enforcement of intellectual property rights remains weak: internal professional culture may temporarily compensate for gaps in the legal system.

The cultural aspect of intellectual property protection is linked to the formation of public perceptions of authorship itself. In different countries, attitudes toward intellectual labor, citation, and borrowing have developed under the influence of historical and sociocultural factors. In cultures where collective creativity and information as shared heritage dominated, the notion of ownership over ideas was long perceived as an unnatural constraint. As research notes, legislation in the field of intellectual property plays a key role in protecting innovation and creativity by providing a legal framework that grants creators, inventors, and businesses rights to their intellectual works (Dr. Shammi Kesh Roy, 2018). Meanwhile, the modern information society is shaping a new type of legal consciousness based on respect for individual contributions and responsibility for content dissemination. The media sphere has become a mirror of these changes: content consumption culture is gradually transitioning from unrestricted copying to conscious use, where users recognize that every piece of material is the result of someone's labor.

As A. G. Richter notes, mass media themselves are objects, not subjects of law (2016). The subjects of law include the editorial office, journalists, editors-in-chief, media founders, and other responsible entities. This distinction remains relevant regardless of emerging technological forms of content distribution. Richter emphasizes that the unifying characteristic of all media implies that the emergence of new technologies for periodic information dissemination does not require detailed redefinition of the concept.

At the same time, Richter observes that the development of digital technologies naturally influences the evolution of legal categories (2016). For example, as early as 2011, Russian legislation introduced the concept of an online edition—a website within the information and telecommunication network of the Internet registered as a mass media outlet according to media law. This demonstrates that even while preserving fundamental legal principles, the media environment remains a dynamic system where legal norms adapt to new technological realities. The evolution of legislation thus becomes an integral part of media progress.

It should also be noted that intellectual property forms the foundation of all media production. Every mass media outlet

— newspapers, online publications, television channels, radio stations — deals with multiple objects of intellectual property. Everything created in an editorial environment, from text to corporate identity, is the result of creative activity and is subject to protection. The main categories of media content that fall under copyright protection can be outlined as follows:

- Text-based materials, such as news items, feature stories, interviews, analytical pieces, reports, and various forms of blog writing;
- Graphic content, including illustrations, photographs, diagrams, infographics, and visual charts;
- Audio formats, which cover radio broadcasts, podcasts, musical fragments, and specialized sound design for media programs;
- Video productions, ranging from news reports and documentary films to advertising clips and live-streamed events;
- Interactive media, such as web applications, multimedia platforms, online surveys, chat-based formats, and digital games.

Each of these groups of materials is governed by its own legal rules and corresponding protection mechanisms. With the transition to digital formats, creative works are no longer static: they can be altered, supplemented, or reissued with almost no limitations. As a result, copyright regulation must now address not only the content itself but also the entire digital form in which it exists — from its structural design and metadata to the interface and even the logic behind how the material is published or displayed.

The formation of legal culture is not a momentary process but part of broader cultural development. It encompasses the education system, professional training for journalists and editors, public awareness initiatives, and the development of media ethics. Universities and journalism schools increasingly introduce courses on intellectual property and digital ethics, thereby raising the legal awareness of future specialists. Such educational work is crucial: it is impossible to build an effective copyright protection system without understanding its value. In countries where media industries are developing rapidly but legislation and judicial practice lag, culture and education become the primary tools for protecting intellectual labor.

An important element of the cultural context is the perception of intellectual property not only as a legal but also as an economic resource. WIPO emphasizes that intellectual property protection is a significant component of economic policy (2025). Copyright, patents, trademarks, and brands shape an organization's intellectual capital and thus affect its reputation, competitiveness, and resilience. Recognizing this fact stimulates the development

of corporate culture, in which rights to content are viewed not as a formality but as part of strategic management. In the media sphere, this is reflected in the introduction of internal policies, the monitoring of material usage, the establishment of licensing agreements, and the creation of databases that record authorship. Thus, the cultural dimension of intellectual property protection is inseparable from economic and managerial thinking.

A particularly complex layer of modern challenges arises within the technological dimension of intellectual property protection, where artificial intelligence increasingly plays a decisive role. The rapid progress of artificial intelligence has noticeably shifted how we understand creativity, authorship, and the very notion of owning intellectual results. Today's algorithms can do far more than simply analyze information — they are able to generate texts, images, music, and even journalistic materials that at times resemble human-created work. This expansion of technical capabilities inevitably leads to complex legal questions. When an AI system produces a work, who should be regarded as its author — the programmer, the user, the company that owns the model, or perhaps no identifiable person at all? The issue of originality is also unclear, given that these systems are trained on vast datasets built from millions of existing works. As one researcher accurately observes, “In the realm of copyright law particularly, generative AI presents many questions relating to the copyrightability of AI-generated works, the ownership of the rights in AI-generated works if found copyrightable, the possible liability associated with training generative AI on copyright-protected works, and the infringement of copyright by AI outputs” (Saleh Al-Sharieh, 2025). Because so many of these points remain unresolved, the entire intellectual property system is now undergoing deep structural changes.

Although uncertainty in the legal sphere is significant, it is not the only difficulty posed by the integration of artificial intelligence into media practices. Its use inevitably touches on core ethical principles and raises questions about the accuracy of automatically generated content, responsibility for mistakes, the transparency of sources, and the limits of what can be considered acceptable machine-assisted creativity (Roy, 2018). In traditional journalism, the author clearly bears responsibility for the information they publish; however, when algorithms are involved in producing or shaping material, identifying who should answer for possible inaccuracies becomes far more complicated. These challenges show the need for updated ethical norms, where the emphasis is placed not on the form in which the material is created, but rather on the intentions guiding the process and the openness with which automation is employed. Professional communities have already

begun to articulate principles for the ethical use of AI — among them the requirement to disclose when automated tools take part in content creation, the inadmissibility of replacing human editorial judgment with algorithmic decisions, and the protection of the rights of creators whose works contributed to training datasets. Collectively, these developments point to the gradual emergence of a new technological framework for professional responsibility.

#### 4. Discussion

Technological change is also reshaping the ways in which intellectual rights are protected. Whereas earlier approaches concentrated mainly on responding to violations — through lawsuits, financial penalties, or blocking access — current trends point toward preventive and increasingly automated forms of regulation. A range of new tools is emerging that allow real-time monitoring of how content is used, comparison of texts and images with extensive copyright databases, and the recording of authorship via distributed ledger technologies. These developments make the protection of intellectual property more adaptable and less expensive, while at the same time reducing reliance on slow and often cumbersome bureaucratic procedures. As a result, the digital environment is gradually laying the groundwork for a shift from a punitive model of regulation to one focused on preventing violations before they occur.

It is becoming increasingly evident that copyright as an institution needs not just additional sanctions but a reconsideration of its very foundations. The law can no longer function solely as a rigid protective mechanism; rather, it is gradually turning into an instrument for balancing and coordinating the interests of different actors. In the digital age, copyright must be understood as a flexible system that evolves alongside cultural attitudes and technological developments. Ethical and cultural norms form essential elements of this system, while technological tools give these norms practical expression. Through this interplay, the emphasis shifts from merely formal compliance toward a more deliberate and conscious acceptance of the rules.

#### 5. Conclusion

Contemporary challenges in the field of intellectual property shape a new understanding of the very nature of protection. Legal norms remain an important foundation, but without ethical support and technological renewal they lose effectiveness. Intellectual property protection in the digital environment is increasingly evolving from a punitive instrument into a system of prevention, education, and technological transparency. The future of copyright will be defined not by the number of restrictions but by the degree

of trust it is able to foster among all participants in the media ecosystem. Thus, ethics, culture, and technology emerge as three interdependent pillars of the modern mechanism for protecting intellectual property. The balance between these elements ultimately shapes the future direction of media law. In such a framework, safeguarding intellectual labor ceases to be merely a formal obligation imposed from outside and instead becomes an internal standard — one that reflects the professional and cultural maturity of those working in the media sphere.

Drawing on the findings of this study, several practical steps can be proposed to strengthen intellectual property protection in the digital environment. Media organizations, for example, could benefit from adopting detailed ethical guidelines and internal standards that extend beyond basic legal requirements. Such guidelines would emphasize respect for authorship, the use of accurate citations, and transparency at every stage of content production and distribution. Likewise, universities and professional training centers should consider introducing dedicated courses on intellectual property, digital ethics, and the responsible use of AI. These measures would help cultivate a deeper sense of responsibility and ethical awareness among future media practitioners.

Equally important is the use of technological tools that can reinforce copyright protection. Systems for automated content monitoring, blockchain-based authorship tracking, digital watermarking, and platforms capable of verifying materials in real time can significantly reduce unauthorized use and enhance accountability (Al-Sharieh, 2025). At the same time, policymakers should aim to harmonize international copyright rules in order to address cross-border challenges, especially as the volume of AI-generated and platform-distributed content continues to grow. Collaborative networks bringing together creators, media platforms, legal institutions, and professional organizations can also support this process by facilitating the exchange of expertise, joint problem-solving, and quicker adaptation to technological change. Creating collaborative networks among creators, media platforms, legal authorities, and professional associations can further facilitate knowledge sharing, coordinated problem-solving, and rapid adaptation to technological advancements.

Organizations are likewise encouraged to develop internal mechanisms for monitoring compliance and to carry out regular audits that assess how content is used, identify potential risks, and ensure that practices remain consistent with both legal and ethical standards. Public awareness efforts can reinforce these measures in a more practical way, for example by helping audiences better appreciate the significance of intellectual labor and the real

consequences that follow when it is misused. At the same time, research in rapidly developing areas — from new technology to AI ethics and changes in everyday media practices — should not remain abstract. Its findings ought to feed back into professional standards and legislation so that the system of intellectual property protection does not freeze in place but adjusts to new challenges and remains workable.

In conclusion, safeguarding intellectual property in today's media sphere cannot rely on a single set of tools or rules. It requires a combination of ethical awareness, cultural sensitivity, legal regulation, and technological support. When these elements work together—and when trust, professional honesty, and a shared sense of responsibility are genuinely present — the media environment is more likely to move from punishing violations after the fact to preventing them before they happen. Such an approach also helps create a more stable and ethically grounded culture of producing and sharing information. If the recommendations discussed here are applied consistently, they can contribute to building a system in which creative work is not only legally protected but is also recognized and respected as a meaningful part of professional and cultural life, ultimately supporting the long-term stability of the media sector in the digital era.

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RAQAMLI MUHITDA INTELLEKTUAL MULKNI HIMOYA  
QILISHNING AXLOQIY, MADANIY VA TEXNOLOGIK  
CHAQIRIQLARI

**Annotatsiya:** Ushbu maqolada zamonaviy intellektual mulkni himoya qilish tizimidagi axloqiy me'yorlar, madaniy qarashlar va texnologik yutuqlar o'rtasidagi o'zaro bog'liqlik ko'rib chiqiladi. Kontentni yaratish va tarqatishning raqamli shakllariga tezkor o'tish mualliflik huquqi qanday ishlashi kerakligi haqidagi an'anaviy tasavvurlarni o'zgartirib, faqat rasmiy-huquqiy chekllov larga asoslangan yondashuvlarning samaradorligini pasaytirdi. Media sohasi ushbu o'zgarishlarga moslashar ekan, mualliflikni to'g'ri ko'rsatish, manbalar shaffofligi va ijodiy mehnatga hurmat kabi kasbiy mas'uliyat masalalari tobora muhim ahamiyat kasb etmoqda. Jamoatchilikning intellektual mehnatga bo'lgan munosabati hamda medialar savodxonligi darajasi mualliflik huquqi qoidalarining amalda qay darajada bajarilishiga ta'sir ko'rsatadi. Sun'iy intellektning ta'siri alohida e'tiborga loyiq: mashinalar tomonidan yaratilgan materiallar muomalaga kirar ekan, mualliflik va javobgarlik tushunchalari yanada murakkablashmoqda. Tahlil shuni ko'rsatadi, zamonaviy himoya strategiyalari asta-sekin jazolovchi choralaridan voz kechib, texnologik va tashkiliy vositalar orqali suiste'mollarning oldini olishga qaratilgan tizimlarga o'tmoqda. Shu

nuqtai nazardan, mualliflik huquqlarini samarali himoya qilish axloqiy majburiyatlar, madaniy amaliyotlar va texnologik imkoniyatlarning uyg‘un holdagi hamkorligiga bog‘liqdir.

**Kalit so‘zlar:** Intellektual mulkni himoya qilish, Internet nashrlari, Mualliflik huquqi, Foydalanuvchi roziligi, O‘zbekiston ommaviy axborot vositalari

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### ЭТИЧЕСКИЕ, КУЛЬТУРНЫЕ И ТЕХНОЛОГИЧЕСКИЕ ВЫЗОВЫ ЗАЩИТЫ ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ В ЦИФ- РОВОЙ СРЕДЕ

**Аннотация:** В данной статье рассматривается взаимосвязь между этическими нормами, культурными установками и технологическими достижениями в современной системе защиты интеллектуальной собственности. Быстрый переход к цифровым способам производства и распространения контента изменил устоявшиеся представления о том, как должно функционировать авторское право, зачастую ослабляя подходы, основанные исключительно на формальных правовых ограничениях. По мере адаптации медиасфера к этим изменениям все большее значение приобретают вопросы профессиональной ответственности, такие как точность указания авторства, прозрачность источников и уважение к творческому труду. Общественное восприятие интеллектуального труда и уровень медийной грамотности также влияют на то, как правила авторского права соблюдаются на практике. Особое внимание уделяется влиянию искусственного интеллекта, который усложняет понятия авторства и ответственности, когда в обращение попадают материалы, созданные машинами. Анализ показывает, что современные стратегии защиты постепенно отходят от карательных мер и переходят к системам, предназначенным для предотвращения злоупотреблений с помощью технологических и организационных средств. В этом контексте эффективная защита авторских прав зависит от скоординированного взаимодействия этических обязательств, культурных практик и технологических возможностей.

**Ключевые слова:** Защита интеллектуальной собственности, интернет-публикации, авторское право, пользовательское соглашение, СМИ Узбекистана

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