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LET'S PLAY TOGETHER: FAIR RULES FOR MINOR VIDEO GAMERS A RESEARCH AGENDA

Federica Casarosa* and Lavinia Vizzoni*

Abstract

This short paper provides for a research agenda dedicated to the critical position of minors as video game players in the EU scenario. Firstly, minors are contextualized in the digital scenario as primary users of several applications, also AI-based, but at the same time exposed to the consequent risks. Then, the specific case of young video gamers is considered, with its implications related to crucial issues like the processing of minors' personal data, unfair business practices and the nature of the video game itself.

In the EU legal framework, few solutions emerge, however, along with some confusion and overlapping rules. The contribution aims at highlighting such challenges, providing initial indications to be further discussed in academic literature on how to protect minor gamers, with the objective of finding effective solutions without, at the same time, excluding children from entertainment.

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* Federica Casarosa is a Research Affiliate at the Scuola Superiore Sant'Anna and Lavinia Vizzoni is a Tenure-track Assistant Professor at the University of Pisa. Double blind peer reviewed contribution.

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Keywords

Minors – Video games – Data protection – Artificial intelligence – Capacity of discernment

1. Introduction. Minors in the digital context between risks and opportunities

The rapid development and consequent massive diffusion of scientific and technical knowledge and applications[1] has affected all areas of individuals' activities, and specifically, it has prompted a profound debate concerning the role and protection of the person under the age of 18 years. Among the different perspectives, an interesting dimension emerges, giving rise to a new chapter in the regulation of juvenile and family law:[2] Gaming and virtual reality played by minors.[3]

In general, minors commonly make use of applications that employ digital technologies, sometimes supervised and/or supported by their parents and relatives, sometimes, instead, in complete autonomy.[4] Statistics show that minors are the users

[1] On the relationship between law and science, see Giorgio Oppo, 'Scienza, diritto, vita umana', in Riv. dir. civ. (2002) I, 11 who points out that applied science, and thus technology, is ontologically destined to be regulated by law. See also, Guido Alpa, 'Tecnologie e diritto privato, in Riv. it. sc. giur. (2017) 205.

[2] Talks about new "dimension" of family law Amalia Chiara Di Landro, 'Best interest of the child e tutela dei minori nel dialogo tra legislazione e giurisprudenza, giurisprudenza' in Nuove leggi civ. comm. (2020) 2, 452. On the relationship between new technologies and family law and the theorization of a kind of "cyberfamily," see Sandro Nardi, *La famiglia e gli affetti nell'era digitale*, Naples, 2020, 7 ff. and with specific regard to children, 39 ff.

[3] M. V. Birk, S. van der Hof, and A. van Rooij, 'Behavioral design in video games' in Games: Research And Practice (2024) 2(2), 1-3; E. Fosch Villaronga, et al., 'Toy story or children story?: Putting children and their rights at the forefront of the artificial intelligence revolution' in Ai & Society (2021) 38(1), 133-152.

[4] Francesco Di Ciommo, *Evoluzione tecnologica e regole di responsabilità civile* (ESI, 2003) 32 ff. On the massive diffusion of new technologies in the daily lives of minors as well, see also Emanuela Andreola, *Minori e incapaci in Internet* (ESI, 2019) 22 ff.

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par excellence of certain content:[5] from accessing and surfing the Net, to browsing social networks, usually through smartphones. These activities exploit devices whose operation maybe also based on Artificial Intelligence systems, interconnected within Internet of Things,[6] such as wearables,[7] smart home speakers[8] or smart toys, as well as video games consoles. However, such high diffusion is not always coupled with knowledge and awareness of the risks emerging from such an environment.[9] An example of the possible risks comes from the affair of the "Hello Barbie" smart toy: the Mattel doll released in 2015 was equipped with a microphone and software able to interact with children. However, the conversations were not just a trigger for the reactions of the doll but were recorded and stored on cloud, after the interaction. Then, the recordings were transmitted to a California company specialized in the development of AI systems, with the aim of improving the relevance and quality of the interaction the toy has with its young owner.[10] When this process was uncovered, issues regarding data protection and security were raised along with claims regarding bias and discrimination in the speech interactions provided, leading to the discontinuation of the smart toy production.

The example shows that minors, more candid and willing to engage in imaginative play, are less conscious of the risks, and may become victims of offences perpetrated through smart technologies.[11] Thus, the potential fragility of minors demands special

[5] Unicef, The State of the Children in the European Union in 2024. In particular, the statistics show that in 2023 in the EU, 97 % of people under 15 have access to Internet". See the Digital technology policy brief at https://www.unicef.org/eu/media/2826/file/Digital%20technologies%20policy%20brief.pdf.pdf.

[6] See Rolf H. Weber, 'Internet of Things - Need for a New Legal Environment?', in Computer Law & Security Review (2009) 521. On the potential of the IoT, see Amedeo Santosuosso, *Intelligenza artificiale e diritto* (Giuffrè, 2020) 180 ff.

[7] See Italian Data Protection Authority Order No. 179 of March 26, 2015, Launching the Public Consultation on the Internet of Things.

[8] Lavinia Vizzoni, *Domotica e diritto*. La *Smart Home tra regole e responsabilità* (Giuffrè, 2021) 72 ff.

[9] For an overview of the digital risks see UNICEF (n. 5), p. 4. See also Ronny Bogani and Burkhard Schafer, 'Artificial Intelligence and Children's Rights', in Marcello Ienca et al. (eds), The Cambridge Handbook of Information Technology, Life Sciences and Human Rights (Cambridge University press, 2022), 217 ff.

[10] On the matter, see Irina D. Manta, David S. Olson, 'Hello Barbie: First They Will Monitor You, Then They Will Discriminate Against You. Perfectly' 67 *Alabama Law Review* (2015)135.

[11] See also Bogani and Schafer (n. 9) who underline that children are more vulnerable than adults due to their developmental psychology and in particular to "*their emotional volatility and impulsiveness, which provides a unique opportunity for online marketers to reach a particularly vulnerable target customer market*", 218.

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attention.[12] Indeed, the consequences of uncontrolled exposure to the risks of the digital ecosystem can become devastating with respect to subjects who, being physiologically in a psycho-physical condition of vulnerability, it is easily influenced in their capacity for self-determination.[13]

However, the aforementioned risks must not outweigh the benefits springing from the use of technologies. The use of various digital tools by minors represents a form of manifestation of their personal and digital identity, integrating a decisive moment in the formation of their personality, in a context in which the physical world and the virtual world represent two articulations of the same space of relationship.[14] This is confirmed by fundamental rights principles and declarations both at the supranational and at the national levels: first, the UN Convention on the Rights of the Child (hereafter UN CRC)[15] recognizes that the welfare and development of children should be protected, allocating a set of rights to children; then, Art. 24 of the EU Charter of Fundamental Rights affirms that children's well-being entails protection and care, as well as recognition of their opinions and choices.[16] In more general terms, finally, Article 2 of the Italian Constitution implies that the minor can freely express and develop his or her personality, which means that the minor can freely move in that direction for the realisation of their identity interests.[17]

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[12] The delicate relationship between young users and the Internet is investigated, among others, by Alessandro Mantelero, 'Teens online and data protection in Europe' in Contr. impr. Europa (2014) 442., Id, 'Children online and the future EU data protection framework: empirical evidences and legal analysis' in Int. J. Technology Policy and Law (2016) 169, Carolina Perlingieri, 'La tutela dei minori di età nei social networks' in Rass. dir. civ. (2016) 1324.

[13] Talks about the "vulnerability" of the "electronic body" of "digital native minors", Antonina Astone, *I dati personali dei minori in rete. Dall'internet delle persone all'internet delle cose* (Giuffrè, 2019) 5 ff; Ilaria Garaci, 'Il "superiore interesse del minore" nel quadro di uno sviluppo sostenibile dell'ambiente digitale' in Nuova giur. civ. comm. (2021) 801.

[14] See Arianna Thiene, 'I diritti della personalità dei minori nello spazio virtuale', in Annali online did. e form. doc. (2017) 13/2017, 26.

[15] Convention on the Rights of the Child, adopted on 20 November 1989, by General Assembly resolution 44/25.

[16] M. Kellerbauer, M. Klamert, and J. Tomkin (eds), 'Article 24 CFR', in Manuel Kellerbauer, Marcus Klamert, and Jonathan Tomkin (eds), *The EU Treaties and Charter of Fundamental Rights: A Commentary*, 2nd Edition (Oxford Law Pro, 2024) 520.

[17] Roberto Senigaglia, *Minore età e contratto. Contributo alla teoria della capacità* (Giappichelli, 2020), 75; Id, 'L'identità personale del minore di età nel cyberspazio tra autodeterminazione e parental control system', in Nuove leggi civ. comm. (2024) 6, 1568. And formerly, see Francesco D. Busnelli, 'Immagini vecchi e nuove della tutela della salute del minore', in Andrea Bucelli (ed.), *Identità e salute del minore* (Pisa University Press, 2021) 3. More recently,

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Within this context, this contribution aims to provide a research agenda that considers two main challenges emerging from the policy perspective and from the academic perspective. On the one hand, the contribution aims at identifying the risks and problems that result from the restrictive approach adopted in some countries as regards the use of technology by minors: imposing a ban, or strict limitation, for minors in general, such as, for instance, in the Italian draft bill on Protection of minors in the digital environment,[18] is in clear contrast with the evolving capacity of discernment that minors acquire throughout the years. Such development is acknowledged by international treaties, such as the abovementioned UN CRC. How has the evolving capacity of discernment of minors been taken into consideration by the legislator so far? Is there a difference between the approach adopted at the European and national levels? Which are the criteria that the legislator has identified to show the development in the capacity of discernment?

On the other hand, the analysis of the academic literature on the protection of minors has so far approached this topic from a sectoral perspective, for instance, looking specifically at the specific rules applicable to protect minors' personal data,[19] or discussing the risks of cyberbullying,[20] etc. Few are the occasions in which the analysis is full-fledged and encompasses the overall activity of the minor in the digital realm.[21]

Daniela Marcello, *Circolazione dei dati del minore tra autonomia e controllo. Norme e prassi nel mercato digitale europeo* (ESI, 2023) 51.

[18] The draft bill in question was presented to the Chamber of Deputies and the Senate on 13 May 2024 and is currently under examination in committee. On its main contents and critical issues see Lavinia Vizzoni, *I "minori digitali" tra doveri educativi e tutele* (Bari, 95 ff.)

[19] With specific regard to the processing of a child's personal data, see Antonina Astone, *I dati personali dei minori in rete. Dall'Internet delle cose all'Internet delle persone* (Milano, 2019) *passim*, Daniela Marcello, *Circolazione dei dati del minore tra autonomia e controllo. Norme e prassi nel mercato digitale europeo* (Napoli, 2023) *passim*. See also I. A. Caggiano, 'Protecting Minors as Technologically Vulnerable Persons Through Data Protection: An Analysis on the Effectiveness of Law' (2022) *European Journal of Privacy Law & Technologies*.

[20] On the phenomenon of cyberbullying and strategies for its counteraction, see Carolina Perlingieri, *Profili civilistici dei social networks* (Napoli, 2014) 33 ff., Anna Carla Nazzaro, 'Cyberbullismo' in *Tecnol. e dir.*, 2020, n° 2, 465 ff., Ettore Battelli, 'Minori e social network: cyberbullismo e limiti della parental responsibility' in *Corr. giur.*, 2021, n° 10, 1269 ff., Francesca Zanovello, 'Prevenzione e contrasto del bullismo e del cyberbullismo. Tra novità e criticità della l. n. 70/24' in *Nuove leggi comm.*, 2024, n° 4, 826 ff. For an analysis of cyberbullying and online abuse from a criminological and legal perspective, proposing strategies to improve the digital environment see also F. Ahmed, F. Chaudhary, & S. Shahzad, *Cyberbullying and Online Harassment: A Criminological and Legal Perspective. Policy Research Journal*, (2025) 3(2) *Policy Research Journal* 52–59.

[21] See the attempt to outline a comprehensive legal framework for the digital minors by Vizzoni (n. 18) at 57 ff., and with specific regard to the position of parents, at 121 ff.

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The present contribution will instead adopt a different methodology in order to identify the several legal dimensions that the use of technology may trigger. This will allow not only to have a clear picture of the emerging risks that the minor will face, but also identify if and how the legislative interventions may coordinate and provide for synergies in order to solve or mitigate the risks, or vice versa may overlap and contradict potentially imposing additional burdens to manufactures of ICT that, indirectly, impact on the abilities of minors to fully exercise their rights.

According to the above-mentioned objectives, the role of minors in the digital environment will be investigated, focusing on the use of (online) video games. This will allow us to highlight the importance of such increasingly sophisticated applications and devices for the lives of minors, as well as the related risks, especially when AI-based tools and services are embedded. Special attention will be devoted to the balance between the legislative framework, still anchored to an age-based definition of minors, vis-à-vis the expanding autonomy of minors in the practices, able to show evolving capabilities. Special attention will be paid to the Italian legal system implementing and integrating with the EU legislation.

The results of this initial exploration, which will consider some practical cases too, will then provide some tentative interim conclusions in order to delineate a conceptual foundation for further scholarly inquiry and legislative consideration.

2. An underestimated risk: the use of video games by minors

Video games are a daily feature in minors' lives.[22] Many options are available for individual play, that engage the minor in a solitary challenge that can either require an Internet connection or not, but also multiplayer games, where the added value is provided by the possibility to play online with other users, which may or may not be known by the minor. Additionally, virtual reality games are also available, where simulated experiences require additional devices in order to enhance immersion in virtual reality.

[22] J. Gottfried and O. Sidoti, *Teens and Video Games Today* (Pew Research Centre, 2024), available at https://www.pewresearch.org/internet/2024/05/09/teens-and-video-games-today/

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The use of video games by minors is not only a means of entertainment, but also, depending on the type of interaction and features available, video games become a tool to engage with friends, connect with people with the same interests, experiment with personal identity, and enhance imagination.[23] The positive effects of video games do not exclude the risks that emerge from prolonged and assiduous use, affecting the ability to restrain and engage in social interactions,[24] or the risks of exposure to harmful or unlawful content.[25]

Such risks may be enhanced by the design choices of video game manufacturers. If, in the early days of video games, the business models adopted by manufacturers were based on direct micro-payments, through the availability of consoles in arcades, or on the purchase of the entire games on a physical support that allowed the gamers to play at home, nowadays manufacturers has widened their business models through advertisement and/or user-data driven models.[26] As a matter of fact, in order to generate profit, video games are designed in a way to enhance the participation and engagement; although, in principle, this is legitimate from the manufacturer's perspective, it becomes problematic as soon as the design choices lead to economic

[23] The importance of play in the development of minors is also recognised by the UN Committee on the Rights of the Child, 'General comment No. 14 2013 on the right of the child to have his or her best interests taken as a primary consideration (art. 3, para. 1) (2013), available at: https://www2.ohchr.org/English/bodies/crc/docs/GC/CRC_C_GC_14_ENG.pdf. The document affirms that "*Play and recreation are essential to the health and well-being of children and promote the development of creativity, imagination, self-confidence, self-efficacy, as well as physical, social, cognitive and emotional strength and skills. They contribute to all aspects of learning; they are a form of participation in everyday life and are of intrinsic value to the child, purely in terms of the enjoyment and pleasure they afford. [...] Play and recreation facilitate children's capacities to negotiate, regain emotional balance, resolve conflicts and make decisions.*" (at p. 4). See also Simone van der Hof et al., "Don't Gamble With Children's Rights"—How Behavioral Design Impacts the Right of Children to a Playful and Healthy Game Environment' *Front. Digit. Health* (2022) 4:822933, 5, where several examples of healthy games are presented.

[24] The psycho-social literature has long highlighted the substantial risks inherent in the use of video games by infants and adolescents, which may also result in addiction. Cfr. P. Ghezzo and G. M. Pirone, 'Videogiochi e minori, le questioni aperte', in Difesa sociale (2007) 1, 11; F. Romano and M. Conti, 'La dipendenza da videogiochi', in Psicologia di comunità (2014) 1, 71. More in general, on the anxiety that affects Gen-Z people, see Jonathan Haidt, *The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness* (Penguin Books Ltd, 2025) 20 ff. The author identifies two trends: overprotection in the real world and underprotection in the virtual world as the major reasons why children born after 1995 became the so-called anxious generation.

[25] See Van der Hof et al (n. 23) who distinguish among different types of harm: social harm (e.g., invasion of privacy, hate speech or cyberbullying), mental harm (e.g., sexual abuse or aggression from playing violent games), physical harm (lack of exercise, obesity, poor sleep), at 6.

[26] See Max V. Birk, Simone van der Hof, and Antonius J. van Rooij 'Behavioral Design in Video Games', ACM Games 2, 2, Article 16 (August 2024).

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exploitation of gamers, and in particular minors. Such an exploitation can emerge through different forms: unlawful personal data processing,[27] manipulation of economic choices, and a push towards harmful activities.[28]

These are not only theoretical risks, as a recent U.S. case has uncovered a real "Pandora's box". In 2022, Epic Games, the company that owns the famous video game Fortnite, was the recipient of a substantial fine following a settlement with the Federal Trade Commission.[29] The challenged conduct pertained to the collection of personal data of users under the age of thirteen[30] - such as their names, email addresses, identifiers used to track players' progress, purchases made, game settings, and friends lists – without the consent neither of the minor, nor of the parent. The investigation uncover that such activity was malicious as the company's data controller was perfectly aware of the data collection.

Additionally, the Federal Trade Commission imposed a sanction for the manipulation of minors put in place by Epic Games: the company in order to push underage users to purchase virtual goods used dark patterns, essentially carrying out unfair business practices, inducing underage players to make purchases that could take place without parental consent.[31]

Although the case was solved based on the U.S. legal framework, it highlights a set of problems that may also be translated into the European context. Which are the legal provisions that may be applicable to video games? The following sections will try to identify an initial overview of the problems taking the perspective of the minor user. Given that different (and overlapping) pieces of legislation apply, the following

[27] Not only is the creation of children profiles, without their (or their parents') consent is unlawful but it may also be exploited directly and indirectly: for instance, the video game manufacturer can send reminders to the email account of the player to rejoin the game; or can share or sell the personal data to third parties.

[28] Van der Hof at al. (n. 23) at 7.

[29] See Fulvio Sarzana di S. Ippolito, 'Fortnite viola la privacy di minori e li inganna: così la super sanzione da 520 milioni di dollari', in *cybersecurity360.it*, 20 dicembre 2022

[30] The thirteen-year limit arises from the U.S. *Children's Online Privacy Protection Act* (COPPA) of 1998. See Sasha Grandison, 'The Child Online Privacy Protection Act: The Relationship Between Constitutional Rights and The Protection of Children', in University of the District of Columbia Law Review (2011) 14(1) 209.

[31] See Tommaso Crepax and Jan Tobias Muehlberg, 'Upgrading the Protection of Children from Manipulative and Addictive Strategies in Online Games: Legal and Technical Solutions Beyond Privacy Regulation', in International Review of Information Ethics, 31(1), 1 ff. (2022): the authors analyse manipulative and addictive strategies in online games for children and proposes legal and technical solutions to enhance their protection.

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analysis will look upon the practical steps that the minor will follow when deciding to engage with video games: from the moment of the purchase or download of the video game, where national contractual rules apply; to the moment of play, where the recent European legislation on Digital Services Act and AI act apply, as well as the provisions on unfair commercial practices; and the possibility to communicate and engage with other players, triggering the application of the General Data Protection Regulation.

3. Buying and downloading options for video games

Although minors are the users par excellence of video games, their act of purchase or download of such video games raises some doubts about the validity of the relevant contract of sale/supply. In the Italian legal system, minors are considered to be structurally fragile, vulnerable people, who raise protective needs, which are centred essentially on the dogma of the minor's absolute incapacity to act, pursuant Article 2 of the Italian Civil Code. But of course, a static solution, where the minor, regardless of their age and effective capacity, is prevented from carrying out any legally relevant act, does not grasp the complexity of the present and the variety of dynamics in which the underage person is the leading actor.

Therefore, there are several instances that enhance the autonomy of the minor. Still, in the Italian civil code, there are so called "exceptions" to the incapacity rule. For example, under some conditions and over a certain age, a minor can work and recognise a child born out of wedlock. And the emancipated minor has a partial capacity. The real change is due to the already mentioned international charters of rights, especially the UN CRC, which adopted for the first time at the international level the well-known principle of the best interest of the child.[32] This principle, which has to drive every decision in which an underage person is involved, and the two other

[32] See Arianna Thiene, 'I diritti della personalità dei minori nello spazio virtuale', in Annali online did. e form. doc. (2017) 13/2017, 26.

[32] On the best interest of the child see, among others, Enrico Quadri, 'L'interesse del minore nel sistema della legge civile', in Famiglia e dir. (1999) 80, Leonardo Lenti, '«Best interests of the child» o «best interests of children»?', in Nuova giur. comm. (2010) 157, Vincenzo Scalisi, 'Il superiore interesse del minore, ovvero il fatto come diritto', in Rivista di diritto civile (2018) 405, Michele Sesta, 'La prospettiva paidocentrica quale fil rouge dell'attuale disciplina giuridica della famiglia', in Famiglia e dir. (2021), 763 ff., Elisabetta Lamarque, 'Pesare le parole. Il principio dei best interests of the child come principio del miglior interesse del minore', in Famiglia e dir. (2023), 365 ff.

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principles that derive from it, that is to say, the right of the minor to be heard,[33] and the capacity to discern,[34] build the new value triad of juvenile law.

The capacity to discern is presumed to have been acquired at the age of twelve, although its existence can be proved even before. The evaluation of discernment is an assessment of the single minor and requires a careful, concrete investigation, a specific analysis to be carried out case-by-case in order to prove the real maturity of the individual.[35] The reference to an age threshold other than the eighteenth year, which has always traditionally worked as a border between incapacity and capacity to act, is particularly meaningful. Another "dogma" seems this way to be shattered, the undifferentiated category of the minor, inclusive of individuals from zero to eighteen years,[36] expressive of what has been called a «uniform and flattened view of reality».[37] And yet, the doctrine's reflection has gone further. As already said on the side of personal acts, a wide area of autonomy has long been recognized for the minor. Some openings are now shown even toward a contractual capacity of the minor, recognizing the minor capable of discernment, the ability to perform even those acts that, although expression of the exercise of patrimonial rights, are functional to the implementation of personal rights, in accordance with the constitutional right to pursue the development of their personality.

[33] On the minors' right to be haerd, see Cesare Massimo Bianca, 'Il diritto del minore all'ascolto', in Nuove leggi civ. comm., 2013, 546 ff., Pietro Virgadamo, 'L'ascolto del minore in famiglia e nelle procedure che lo riguardano', in Dir. fam. pers. (2014) 1656 ff.

[34] See, also from a critical perspective, Giovanni De Cristofaro, 'Il diritto del minore capace di discernimento di esprimere le sue opinioni e il c.d. ascolto fra c.p.c. riformato, convenzioni internazionali e diritto UE', in Familia, (2023), 363.

[35] On the different capacities and abilitites of minors, see Grace Icenogle et al. 'Adolescents' cognitive capacity reaches adult levels prior to their psychosocial maturity: Evidence for a "maturity gap" in a multinational, cross-sectional sample', in Law and human behavior (2019) 73. In particular, the authors distinguish between "cold" cognition and "hot" cognition, the former refers to "mental processes (such as working memory or response inhibition) employed in situations calling for deliberation in the absence of high levels of emotion", where young adults perform comparably to older individuals; while the latter "involves mental processes in affectively charged situations where deliberation is unlikely or difficult", where instead the young adults show striking differences with older individuals.

[36] Francesco Donato Busnelli, 'Capacità ed incapacità di agire del minore', in *Persona e famiglia. Scritti di Francesco D. Busnelli*, Pisa, (Giappichelli, 2017), 216.

[37] The suggestive words are from Pietro Rescigno, 'Una ricerca sui minori', in Marcello De Cristofaro, Belvedere (eds) *L'autonomia dei minori tra famiglia e società*, (Giuffrè 1980), XI.

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The General Data Protection Regulation (GDPR)[38] highly contributed to consolidating a new role for minors. According to the GDPR framework, minors require special protection regarding the processing of their personal data, as they may not be fully aware of the risks, consequences, and security measures related to such processing. In particular, Article 8 establishes that the processing of minors' personal data is lawful only if the minor is at least sixteen years old; otherwise, parental or guardian consent is required. Member states can lower this threshold, not under thirteen years, as Italy has done, setting the age at fourteen.[39]

So, minors who are at least fourteen years old can provide their consent personally for the processing of data, in relation to information society services, such as registering on social networks. This recognition of the capacity to give consent is closely linked to the possibility of recognizing the minor's capacity to enter into contracts, related to the provision of such services.

In the video games field, it has to be highlighted, though, that first of all, there is no control, so the purchase of the video game is limited to those indicated as suitable for the age group to which the young user belongs.[40] Sometimes, in fact, users are anything but great minors capable of self-determination and of making autonomous and wise choices in function of the development of their personality, assuming that such a function can be configured regarding the purchase of such a product/service.

As regards giving consent to the processing of the user's personal data in the context of an information society service, often the minor data subject is well below the age limit of fourteen, relevant in the Italian legal system, as well as in other EU legal systems, to provide a valid, autonomous consent. Besides, the capacity to give personal consent is not necessarily symmetrical to the capacity to enter into the

[38] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

[39] See C. Caglar, 'Children's Right to Privacy and Data Protection: Does the Article on Conditions Applicable to Child's Consent Under the GDPR Tackle the Challenges of the Digital Era or Create Further Confusion?' (2022) *European Journal of Privacy Law & Technologies*, where the author examines whether the provision on the conditions applicable to a child's consent under the GDPR addresses the challenges of the digital age or merely adds complexity, L Jialin, 'Reflection on Data Right Protection for Minors in the Digital Age' (2025) *Children and Youth Services Review*, in which the author proposes an expansion of the protection of minors' sensitive information, emphasising the responsibilities of data controllers.

[40] Giovanni Ziccardi, 'I minori online tra videogiochi e metaverso, in Ciberspazio e dir. (2023) 3, 325.

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connected contract. The main underlying issue is whether the contract of purchase/download of a video game can be considered as functional to the development of the minor's personality, in the digital environment. This specific answer actually depends greatly on the age of the minor and on the circumstances of the case.

Even if the underage user is above the fourteen years threshold, and the related contract is considered to contribute to the development of the minor, there are still several matters to solve: regarding the category of "older" users, first of all there is the need not to the exclude them from entertainment, but also to correctly identify the applicable rules, in order to protect them properly, in a multi-level perspective.

4. AI-based systems embedded in video games

The "digital issues" arising from the use of AI-based technologies, also with regard to minors, have recently been addressed by the so-called Artificial Intelligence Act,[41] having the objective of improving the functioning of the internal market and promoting the adoption of reliable and human-centred Artificial Intelligence, while ensuring a high level of protection of the fundamental rights enshrined in the Charter of Fundamental Rights.

The Regulation, adopting a risk base approach that now dominates the regulation of new technologies, is strongly focused on the categorisation of AI systems according to the risk they generate[42]. This ranges from unacceptable risk, which makes the use of the AI systems prohibited, to high risk, so that the AI systems defined as such are required to meet stringent requirements under the Regulations, including risk mitigation measures, to minimal risk, which does not require the fulfillment of any

[41] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act).
[42] Giusella Finocchiaro, 'La regolazione dell'intelligenza artificiale', in Riv. trim dir. pubbl. (2022) 4, 1085, part. 1093 ff.

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obligations under the AI Act,[43] but providers are encouraged to voluntarily adopt additional codes of conduct.

There is also a limited, "specific transparency" risk: as clarified by the European Commission itself in a statement, the official communiqué of August 1st 2024, on the entry into force of the AI Act,[44] systems that fall under it, such as chatbots, must clearly inform users that they are interacting with a machine, while some content generated by AI must be explicitly labelled as such.

The category of the minimum risk of AI-based systems, when compared to their use by minors, arouses immediate perplexity, especially when the Commission, in its communiqué, refers to AI systems characterised by a minimum risk, by way of example, "video games that exploit AI". The risks of such a qualification may enhance the possibilities of exploitation against minors, as video games already exploit several algorithmic or AI-based tools. The (slightly) less worrisome ones relate to, for instance, the use of dynamic difficult adjustments,[45] which allow the possibility to reduce the difficulty of the game every time the player fails to reach the conclusion of the game. Although this technical adjustment aims at keeping the player interested in the game from the beginning to the end, it may also affect the player's ability to disengage, resulting in an infinite game duration. Other cases instead are more problematic, as for instance, the case of monetized matchmaking which is based on the possibility of linking players (with different levels of expertise) in such a way as to trigger the less expert player to purchase items or goods (internal to the game) used by the more expert one. It is clear that in this case, the AI-based system allocates the linked players based on players' data, including not only game-based data (such as skill level items used, amount of time dedicated to the game, etc.) but also personal data. Clearly, this type of application results in encouraging microtransactions rather than increasing the actual quality or playability of the game.[46]

[43] Note that apart from the general obligation regarding AI literacy envisaged in Art. 4, no additional requirements in the design, development and deployment of the AI system are applicable.

[44] See https://commission.europa.eu/news/ai-act-enters-force-2024-08-01_it#:~:text=Il%201%C2%BA%20agosto%202024%20%C3%A8,'intelligenza%20artificiale%20nell'UE.

[45] See more at https://en.wikipedia.org/wiki/Dynamic_game_difficulty_balancing.

[46] Van Der Lot et al. (n. 23) at 10.

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5. Communication tools and platform regulation

Coming specifically to the potentially underestimated risks that the use of video games can produce on underage users, firstly, it is rare that video games do not avail themselves of solutions declined in terms of chatbots: the configuration of a "customer service" answering FAQs is sufficient for this purpose; and furthermore, in narrative video games, it is precisely a chatbot that appears by default, perhaps with human features, to answer the player's questions.

So, in this way, the video game *tout court* has already trespassed into the category of limited risk of the AI Act mentioned above, which nevertheless requires the fulfilment of mere transparency obligations, so that, as mentioned, the user is informed that he or she is interacting with a machine.

Along with chatbots, another feature available on video games is the possibility of interacting with other players through messaging systems or directly with conversations that take place through headsets equipped with a microphone. This feature is not without issues too: a first question emerging is the classification of the messaging service according to the legal framework. This qualification depends upon the level of integration within the game itself, in some cases it is fully integrated (and therefore operated by the same manufacturer of the video game), in other cases it may be provided by third party service providers, as exemplified by widely used platforms Discord.[47] This element is not without relevance, as the classification of the service may, in turn, bear on the legal nature of the video game itself. Indeed, one might contend that enabling interpersonal communication among players effectively transforms the video game into a digital platform, thereby rendering it subject to the regulatory obligations imposed by the Digital Services Act[48] and giving rise to a complex interplay of applicable normative frameworks.

[47] See Jeevan Joseph, Akshara Anilkumar, Treesa Thomas, Binny S, 'Discord: An all in one messaging application (Case Study)', International Journal of Engineering Technology and Management Sciences, Issue: 5 Volume No.6 August-September 2022).

[48] Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC.

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From the application of the DSA would derive, among other things, the prohibition of profiling minors in art. 28(2) DSA,[49] which would be difficult to comply with where the video game records the conversations of minors and consequently proposes targeted advertising to them, intercepting their consumption needs, as occurred precisely in the aforementioned Fortnite case.

The attention is bound to return to the protection of personal data collected in the context of conversations, which could be recorded: it is no coincidence that in 2020, Sony announced that the PlayStation 5, to be released shortly, would record conversations between players for the purposes of moderating them within gaming groups.[50] Conversations, written or audio, could in fact be recorded or saved by many video games, without them being provided with complete information, which clarifies, for example, the recording methods and retention times, as well as specific, compliant with the more stringent requirements already provided for by the GDPR.

Moreover, the game-based advertising aimed at minors could further integrate an unfair business practice; for that reason alone, it is prohibited and sanctioned. This has also been confirmed by the recent intervention of the European Commission, which has announced an action aimed at probing alleged unfair practices in the video game "Star Stable Online", targeting in-game purchases aimed at children.[51] Star Stable is a children's video game where players explore an online world by riding horses and competing with friends in obstacle races. However, players who spend real money gain advantages within the game. To acquire items, players must exchange real money for in-game currency, known as "star coins".

Therefore, the Commission, in collaboration with the Consumer Protection Cooperation Network, has requested information from the Swedish game developer of Star Stable to understand its commercial practices. As highlighted in the EC statement, the upcoming Digital Fairness Act may include stricter rules on virtual

[49] Although the formulation of this provision is not that clear. See Guido Scorza, 'Digital services act. Le luci e le poche ma gravi ombre delle nuove regole UE', in *agendadigitale.it*, April 28 2022.

[50] See the news released on October 17, 2020 on the website https://gaming.hwupgrade.it/, and the official statement, dated October 16, 2020, by Catherine Jensen, President of the "Global Consumer Experience" Division https://blog.playstation.com/2020/10/16/details-on-new-voice-chat-functionality-coming-to-ps5/, which does not deny the activation of the functionality in question and, indeed, even highlights the technical impossibility of deactivating it, while declaring it generically compliant with the regulations on privacy.

[51] See at https://ec.europa.eu/commission/presscorner/detail/en/ip_25_831.

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currency transparency and fairness, and a crucial goal is "to ensure a safe online environment for consumers, particularly children, so they can enjoy gaming without facing unfair practices".[52]

And last but not least, there are serious dangers of grooming for the minor when interfacing with other users, even adults, who may come into possession of important information relating to the minor, as well as the risks of becoming a victim of conduct that can be classified as cyberbullying.

In this regard, the EU Directive 2011/93 on combating the sexual abuse and sexual exploitation of children and child pornography[53] should therefore come into play, also in combination, in the Italian legal system, with Law No. 71 of 2017, aimed at preventing and combating the phenomenon of cyberbullying specifically, as well as the recent Law No. 70/2024, which also contains provisions aimed at preventing and combating the phenomena of both bullying and cyberbullying.

6. Tentative conclusions

In seeking to articulate some necessarily provisional conclusions, it must be acknowledged that, in the context of minor users of video games, the constellation of legal issues emerging is both multifaceted and conceptually intricate. The foundational premise is that minors constitute a structurally vulnerable category of users vis-à-vis smart technologies that may use AI-based applications, including but not limited to interactive entertainment systems. The spectrum of protective measures that may be envisaged is inherently differentiated and stratified.

At the outset, it should be observed that the existing regulatory landscape is characterised by a high degree of normative fragmentation. As the previous analysis has shown, the applicable framework at the European level is both complex and polycentric: multiple instruments converge, at times partially overlapping, thereby generating interpretative uncertainty and a consequent deficit in legal certainty.

[52] See the news published on March 21st 2025: https://www.euronews.com/next/2025/03/21/european-commission-targets-in-game-currency-in-childrens-video-games.

[53] This Directive should be overcome soon, considered the recent Proposal for a Directive on combating the sexual abuse and sexual exploitation of children and child sexual abuse material and replacing Council Framework Decision 2004/68/JHA.

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Although some specificities emerge from the national legislation, they cannot mitigate the complexity nor, obviously, detach from the European legislation.

What emerges clearly is the limited sensitivity of the European legislator to the specificities of the phenomenon. This does not mean that no rules are provided as regards the protection of minors, but rather that they still adopt a 'flattened view' of the minor. In particular, neither the AI Act nor the Digital Services Act takes into account the evolving capacity of a minor in relation to his or her degree of maturity. Some positive hints come from another set of interventions: the GDPR, as well as the Italian national legislation—albeit through interpretative approaches that are at times complex—allows for an assessment and recognition of a minor's capacity prior to reaching the age of majority. In particular, the GDPR proves instrumental from a contractual perspective, as it permits recognition of the ability to provide consent and, consequently, to enter into contractual obligations in the field of digital services, even for individuals who have attained the age of fourteen.

The true lever that enables the attribution of legal capacity to minors is therefore the notion of discernment, which is already firmly established as a principle at the international level. Yet, it must be observed that the capacity for discernment is conceptually distinct from the capacity to act. The former, in fact, is a principle whose primary foundation lies in the minor's freedom of expression, and which finds its principal application within the realm of public law, notably in procedural matters — as an expression of the right to be heard — and, more broadly, in all matters involving minors. What is required, however, is a rearticulation of the notion of discernment, primarily by applying it to intra-family relationships, wherein the minor should be able to express personal inclinations and aspirations, which ought to guide his or her upbringing.

Furthermore, the capacity for discernment constitutes a general principle that requires implementation through indicators and criteria laid down by the legislature. In this regard, some practical tools already available may become effective: the so-called Pan-European Game Information (PEGI) standard may serve as useful benchmark for industry operators willing to acknowledge varying levels of maturity and discernment among the minor user base, and to introduce corresponding distinctions regarding the suitability of video games. After all, the fundamental freedom of expression is also manifested in the recreational sphere, particularly through the use of video games.

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The PEGI system is, indeed, a method of rating video games based on age. Available guidelines classify video games into five age categories (+3, +7, +12, +16, +18) and eight content descriptors (bad language, discrimination, drugs, fear/horror, gambling, sex/nudity, violence, in-game purchases), in order to determine the games most suitable for minors. However, as noted, such indications often go largely unnoticed, resulting in the risk that minors may play video games unsuitable for their age, both in terms of content and visual elements.[54]

In parallel, recourse to soft law instruments, such as codes of conduct, has been explicitly endorsed at the European level as a regulatory modality of preference in this sector. This is exemplified by the Resolution adopted by the European Parliament on 18 January 2023, entitled "Consumer protection in online video games – a European Single Market approach", which advocates for the elaboration of harmonised governance strategies capable of reconciling market integration with the imperative of child protection.

Moreover, notwithstanding the aforementioned lack of attention to the evolving maturity of minors within the AI Act, a crucial element can nonetheless be discerned in the notion of "AI literacy" as enshrined in Article 4 thereof. According to this provision, providers and deployers of AI systems shall take measures to ensure not only a sufficient level of AI literacy among their staff and other persons involved in the operation and use of AI systems on their behalf, but also to consider the persons or groups of persons on whom the AI systems are to be used. Consequently, providers will need to specifically assess and, where appropriate, provide training tailored to the audience on which their system is intended to have an impact. Particular attention should be given to systems that are, or could be, intended for use by minors. In such cases, the literacy requirement should be significantly elevated, due to the increased risks associated with the inherent vulnerability of the individuals concerned.

If rigorously implemented, this normative apparatus could operate as a catalyst for the epistemic empowerment of minors in their interaction with technological ecosystems, thereby attenuating informational asymmetries and mitigating the

[54] See T. Casadei and C. Coniglione, *Patti educativi digitali: come indirizzare i ragazzi a un uso consapevole dei device*, in *www.agendadigitale.it*, November 13th 2023.

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manipulative potential of dark patterns. The correlative risk, however, concerns the distributive implications of such regulatory prescriptions, which risk engendering disproportionate compliance burdens for economic operators within the interactive entertainment industry.

Against this backdrop, an ancillary — yet significant — trajectory emerges: the systematic investment in training and awareness-raising initiatives, conceived not merely as auxiliary measures but as constitutive components of a governance architecture predicated upon inclusion rather than exclusion.

Such an approach would resonate with the foundational principle of proportionality, ensuring that minors — particularly those approaching the threshold of majority — are not unjustifiably marginalized from the digital entertainment sphere.