



Rethinking Inclusion in Children's Animation: The Cartoon Able Model in “Lampadino e Caramella nel MagiRegno degli Zampa”

Chiara Roccatello, University of Udine 

Contemporary debates have repositioned children's animation within broader cultural and pedagogical discourses, challenging its long-standing confinement to the domain of entertainment. This shift is closely linked to animation's expressive capacities beyond photographic realism and to its ability to mobilise universal codes and intuitive visual languages for the mediation of knowledge, values and social difference. Within this framework, the article examines the Cartoon Able model, developed by the Italian animation studio Animundi in collaboration with the publishing house Puntidivista for the production of *Lampadino e Caramella nel MagiRegno degli Zampa* (2020–), a series broadcasted by the Italian public service RAI. The analysis argues that the Cartoon Able model represents a singular experiment within the Italian animation landscape, explicitly conceived to formalise inclusion-and accessibility-oriented practices for children's content and to position them as potentially transferable. By deconstructing the model, the article investigates how inclusion is articulated not only through narrative and aesthetic strategies, but also across the production, institutional and regulatory frameworks underpinning Italian television animation. Methodologically, the study combines close textual and formal analysis with a production-oriented perspective, integrating approaches from animation studies, disability studies, media education and media industry studies.

ORCID

0009-0004-0384-2083

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INTRODUCTION

Over the past decade, animation has undergone a significant epistemic and cultural reconfiguration, moving beyond its traditional association with entertainment and towards a recognised pedagogical and cultural function, capable of conveying values and addressing complex social issues, including diversity and disability (Rosa and Chellini 2025).

This transformation can be traced to two converging developments. First, advances in the sociology of childhood have challenged the notion of the child as a passive, in-the-making subject (Jeffress 2022), instead foregrounding children's



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agency and their active role in processes of meaning-making and media interpretation. Second, the progressive segmentation of television provision and the expansion of thematic channels—together with increasing internationalisation—have encouraged broadcasters to differentiate their offerings through content that is not only commercially viable but also pedagogically and socially relevant. This latter aspect has been further reinforced in recent years by Environmental, Social and Governance (ESG) policies promoted at the European level, initially through the Non-Financial Reporting Directive (2014/95/EU) and subsequently through the Corporate Sustainability Reporting Directive (2022/2464/EU). These frameworks introduce mandatory non-financial reporting requirements for companies with more than 500 employees, requiring disclosure of impacts and initiatives related to the Sustainable Development Goals (SDGs) of the 2030 Agenda, including the reduction of inequalities (SDG 10). This obligation also extends to broadcasters, becoming a central element in the development of guidelines and principles for best practices, both on-screen—concerning the representation of content—and off-screen, relating to the development of inclusive production cultures (EBU 2026).

Within the Italian landscape, a significant role is played by the public service broadcaster RAI, which, since 2018, has initiated a process of integrating these criteria, culminating in 2022 with the establishment of the RAI Sustainability-ESG Directorate (RAI 2022). In parallel, these policies have also been implemented within the RAI Kids Directorate, responsible for the thematic channels Rai Yoyo and Rai Gulp, targeting preschool (3–7 years) and school-age (8–12 years) audiences, respectively. In this context, content production has progressively shifted not only towards recreational purposes but also towards a clearly defined educational and formative mission, with particular attention to issues of accessibility, inclusion, and diversity (RAI 2020).

In light of this framework, the present article offers an analysis of what has been described as “the first inclusive and barrier-free cartoon” (my translation) (RAI Press Office 2020, 49), *Lampadino e Caramella nel MagiRegno degli Zampa* (2020–), and aimed at the preschool audience of Rai Yoyo. The case study is particularly significant for the development of the Cartoon Able model devised by Animundi, which entails, at the off-screen level, a rethinking of production logics, alongside the codification of on-screen principles for the representation and accessibility of animated content. The model promotes, on the one hand, awareness of inclusion among neurotypical children and, on the other, enables access to the series for children with sensory impairments.

The first section brings into dialogue the theoretical frameworks of media education and disability studies, focusing on the multisensory design codified within the Cartoon Able model for the accessible design of content. The second section, building on the same theoretical references, examines the narrative organisation of inclusion, highlighting both its innovative elements and the critical issues related to its reception. The third section relates scholarship in media industry studies to national reports on the Italian animation sector and to RAI’s ESG non-financial reporting, placing the formal innovations of the Cartoon Able

model in tension with the material and productive conditions of contemporary production. From this perspective, the model risks being framed as a case of inclusion-as-exception, lacking systemic diffusion and scalability, and therefore unable to sustain, in the medium to long term, the development of genuinely inclusive off-screen processes and practices. Finally, the fourth section situates the case study and the preceding analyses within the national and supranational regulatory framework, highlighting critical issues in the governance of accessibility and inclusion, which are often programmatic in nature and not fully translatable into concrete operational practices and implementations.

THE CARTOON ABLE MODEL AND THE MULTISENSORY DESIGN

The origins of the series can be traced back to the multi-version publishing project Cartoon Able, launched in 2015 by Puntidivista, an Italian publishing house specialising in inclusive content and in raising awareness among adults and children of different accessible communication codes. In collaboration with Animundi, Puntidivista subsequently adapted the *Lampadino e Caramella* stories into an audiovisual format, identifying television as "another tool capable of fostering inclusion" (my translation) (Perciavalle 2021, 35).

At the core of the Cartoon Able model lies a set of operational guidelines concerned with the design of accessible content. As Elizabeth Ellcessor (2016) observes, animation cannot be assumed to function automatically as an inclusive technique capable of universally representing diversity. Certain aesthetic, visual and dynamic solutions may, in fact, prove unsettling for neurodivergent young viewers, making it essential to consider technical, graphic, sonic, and linguistic dimensions in an integrated manner.

From a technical, visual, and auditory standpoint, the Cartoon Able model draws on theories of spatiotemporal processing deficits, according to which autistic children demonstrate "better performance in static and local analysis" (my translation) (Bianca, Cesana, and Molteni 2022, 61) than when confronted with excessively dynamic or rapid stimuli, which may lead to perceptual overload and hinder comprehension (Bianchi, Cesana, and Molteni 2022). In *Lampadino e Caramella*, these principles are reflected in a smooth animation style characterised by the absence of abrupt transitions, accelerated pacing or virtuosic movements. In response to the same deficit, from a graphic perspective the observation of the series reveals a consistent use of essential yet clearly defined shapes, clean lines, marked contours, and simplified backgrounds, combined with a restrained colour palette composed of pastel tones, natural colours, and softened cool shades. On the one hand, this design facilitates the processing of more static stimuli, enabling a focus on characters and key visual elements while reducing potentially misleading and superfluous details (Bianchi, Cesana and Molteni 2022). On the other hand, this approach also aligns with principles derived from neuroaesthetics, recalling studies on the modulatory role of co-

lour in children's emotional responses (Demiral 2020), here aimed at fostering a sense of calm and sustaining attention.

Comparable attention is devoted to sound design. Unlike many animated products marked by intense and frenetic rhythms (Krcmar, Bernard and Lin 2007), the series avoids audio-video asynchronies, overlapping voices or background noise, as well as sudden sharp sounds. The soundtrack is built around a single musical line—predictable and moderate in tempo—designed to support emotional expression and sensory engagement, addressing documented difficulties among individuals with autism spectrum disorder (ASD) in integrating auditory information in the presence of competing stimuli (Bianchi, Cesana, and Molteni 2022).

The Cartoon Able model also intervenes at the linguistic level, addressing difficulties associated with semantic deficits (Bianchi, Cesana, and Molteni 2022), which can complicate the comprehension of wordplay, sarcasm, irony and metaphor—devices often central to animated storytelling for their cognitive and imaginative value (Di Bari et al. 2022). Accordingly, the series favours over-explanatory and repetitive language, reducing implicit meanings wherever possible.

Although *Lampadino e Caramella* largely adheres to these guidelines, studies on accessible and neurodiversity-informed media suggest that some aspects of the representation of characters' emotional and cognitive states could be further enhanced. This informational layer, while present, is not always systematically conveyed through explicit verbalisation, contextual cues or marked uses of mimicry, prosody and gesture, which remain highly stylised and essential. While this does not undermine overall narrative intelligibility, it may nonetheless limit full accessibility for certain neurodivergent profiles, particularly those experiencing difficulties with "perspective taking" (Bianchi, Cesana, and Molteni 2022, 60).¹

NARRATIVE ACCESSIBILITY AND DIEGETIC INCLUSION

When considered in terms of narrative organisation and diegetic construction, the Cartoon Able model deliberately refrains from prescribing explicit guidelines, leaving a high degree of creative autonomy. While this openness enhances the model's potential transferability across different stories and production contexts, the present analysis, considered alongside existing studies on accessible storytelling, suggests that further conceptual development could provide additional support for creators and help prevent the inadvertent reproduction of stereotypical characters and representational tropes. *Lampadino e Caramella* nonetheless benefits from the established conventions of pre-school serial formats—short episodes, recurring settings and recognisable characters—which enhance acces-

¹ Perspective taking refers to the ability to understand and infer others' mental states, emotions and intentions. This capacity may be partially impaired in certain neurodivergent profiles, affecting the interpretation of implicit emotional and relational cues in audiovisual narratives (Bianchi, Cesana, and Molteni 2022).

sibility for children with sensory impairments by limiting narrative variability and reinforcing predictability (Bianchi, Cesana, and Molteni 2022).

Within this framework, disability functions as what Rosa and Chellini define as a “free motif” (2025, 173), namely a narrative element that is present but not central to plot progression. This narrative positioning is closely linked to the series’ overarching storyline, which does not revolve around disability as a thematic focus. *Lampadino e Caramella* follows the daily routine of the two protagonists who regularly meet at the Park of the Great Oak. By reciting a magical formula, they are telesported into the fantastical Kingdom of the Zampa, where they experience imaginative adventures alongside a group of characters, including Zampacorta. The narrative is thus structured around fantasy, play and discovery, rather than around disability-related issues or challenges. Instead of speaking explicitly *about* disability, the series seeks to educate viewers *towards a relationship* with disability (Jeffress 2022), normalising difference through everyday interaction.

Zampacorta, a secondary character whose shorter paw is neither emphasised nor problematised, exemplifies this approach: diversity is integrated into the fabric of the narrative without requiring explanation or justification, and the group is configured as a space of welcome and shared protagonism (Perciavalle 2021; Greenberg 2022).

Fig. 1:
Still from the series
Lampadino e Caramella
nel MagiRegno degli
Zampa (2020–). ©
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However, the series itself is not entirely immune to reproducing some of the problematic representational patterns long identified by media and disability studies. For this reason, the Cartoon Able model could benefit from the introduction of more explicit guidelines concerning diegetic construction and the narrative representation of disability, providing creators with a framework capable of preventing what scholarship has identified as stereotypical or problematic portrayals (Schianchi 2023). This is exemplified in the episode S01xE18, featuring Federica, a wheelchair-using

character, the narrative may occasionally evoke the well-documented supercrip trope.² Federica's victory in a running race—amplified by the group's use of superlative language—reproduces a rhetoric of “heroism despite disability” (my translation) (Guerini et al. 2022, 74), which risks obscuring material barriers and promoting a hyper-performative image of the disabled body (Rosa and Chellini 2025).

Beyond the visual and auditory adjustments designed primarily for autistic children, one of the most innovative features of the Cartoon Able model lies in its integration of accessibility devices—understood as systems, techniques and adaptations that enable media consumption by children with diverse sensory, cognitive and communicative needs (Ellcessor 2016). These include a narrating voice functioning as an audio guide for blind or visually impaired viewers, open subtitles for partially sighted children, and simultaneous translation into Italian Sign Language (LIS), performed by live-action actors embedded within comic-style frames for deaf audiences. Such solutions remain largely unprecedented in the field of animation, particularly with regard to their diegetic status. Drawing on Mara Mills and Johnatan Sterne's (2017, 16) notion of “dismediation,” these devices can be said to crip the medium from within, disrupting normative modes of mediation by reconfiguring accessibility tools as integral aesthetic and participatory elements of the narrative form. Accessibility tools traditionally conceived as external or auxiliary are reconfigured as aesthetic and participatory elements, incorporated into the narrative form itself and directly shaping the viewer's experience.

Fig. 2:
Still from the series
*Lampadino e Caramella
nel MagiRegno degli
Zampa* (2020–). ©
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² In disability studies, the term supercrip refers to a stereotypical narrative that portrays disabled people as heroic or extraordinary individuals for overcoming or transcending their disability through sheer willpower, exceptional talent or personal achievement (Schianchi 2023).

Nevertheless, as Ines Guerini et al. (2022, 77) observe, the series—"while a valid attempt at inclusive animation" (my translation)—could become even more accessible through the implementation of additional inclusive strategies. Specifically, the authors highlight the lack of integration of the non-signed narrator's voice in both subtitles and Italian Sign Language (LIS), as well as a LIS interpretation restricted solely to dialogues. However, this observation can be contextualized in light of the cinematic rule of "show, don't tell" (McKee 1997, 334). Since deaf children face no limitations in processing visual content, verbal or signed explication becomes redundant when the image is already self-explanatory. Furthermore, the analysis conducted here—limited to the first season of the series—raises several concerns regarding the effectiveness of the subtitles, which at times tend to overestimate the reading abilities of the preschool target audience. Up to the age of six, reading remains a slow and laborious process, strictly tied to the initial phases of decoding and syllabification. At the same time, the simultaneous presence of LIS windows, subtitles, and animation may risk generating cognitive and perceptual overload for children with ASD, thereby undermining part of the efforts directed toward the effectiveness of the previously mentioned multisensory design. Finally, a broader pedagogical consideration emerges: children do not automatically develop an understanding of diversity simply through exposure to animated representations (Sabila and Kurniawati 2020). In the absence of guided mediation—whether provided by adults, narrative characters or an explicitly didactic narrator—children tend to engage primarily with images, colours and movement, lacking the interpretive tools necessary to grasp underlying meanings (Di Bari et al. 2022). In *Lampadino e Caramella*, mediation appears to be assumed rather than actively constructed: the narrator describes events but does not offer an explicit interpretive framework for the accessibility devices or the models of disability representation at play. This limitation echoes longstanding concerns within media education and points to the need for further refinement of the Cartoon Able model through strategies aimed at enabling children to engage dialogically with images, expand their interpretive responses, and reconstruct narrative elements in a reflective manner (Perciavalle 2021).

OFF-SCREEN STRATEGIES AND PRODUCTION FRAMEWORKS

A further area for reflection in *Lampadino e Caramella* concerns the configuration of off-screen strategies—that is, the cultural, industrial, and institutional conditions that support and amplify the formal innovations introduced by the Cartoon Able model. As Ellcessor has argued, genuinely inclusive technologies and cultural products require an "implicit architecture of participation" (2016, 70): a system that does not merely generate accessibility at the textual level, but is sustained by coherent practices, policies and production models, contributing to the development of a broader form of "cultural accessibility" (2016, 157).

Within the production framework of the Cartoon Able model, the only inclusion-related elements explicitly highlighted by the RAI Press Office (2020; 2022b) concern, on the one hand, the involvement of a pool of experts—including teachers, educators, psychologists and medical professionals—and, on the other, the participation of several well-known figures from the entertainment industry in the dubbing process, none of whom identify as having disabilities. A partial exception is represented by the presence of Italian Sign Language (LIS) interpreters, members of the CREI (Social Cooperative for LIS Interpreting, Research, and Training) and themselves deaf. In addition, Animundi collaborates with other local partners that contribute to enhance the series' core values. Among these is Mir Integral Ecology, where women survivors of violence and other vulnerable individuals create costumes for LIS actors, combining social inclusion with environmental respect. Indeed, Animundi's clear commitment to establishing a solid scientific grounding for the Cartoon Able model, along with its deep value-driven approach, is evident throughout this process.

Nevertheless, when analyzed through the theoretical frameworks of disability studies applied to cultural and creative industries, the model may still risk appearing to reproduce forms of design and representation that engage with disability largely by proxy, thus configuring itself predominantly as "a work about disabled people" rather than with disabled people (Greenberg 2022, 70). Moreover, publicly available sources provide only limited information regarding the direct participation of neurodivergent practitioners in the material production of the series within Animundi, as well as the adoption of dedicated assistive technologies aimed at facilitating their integration within a participatory production culture.

The conditions that risk maintaining the Cartoon Able model within a form of disability by proxy are not, however, directly attributable to Animundi. Rather, they stem from the economic and contractual constraints inherent in television series production, as well as from the investments required for advanced technologies associated with "crip technoscience" (Alexander and Sterne 2024, 192). These factors must be situated within the broader context of the structural limitations affecting the economic sustainability of the Italian animation industry.

The reliance on temporary, project-based forms of employment, which are characteristic of animated series production, reflects one of the four structural conditions identified by Doris Eikhof and Chris Warhurst (2013) as potentially contributing to the persistence of discrimination, inequality, and exclusion within the cultural industries. Such a model reinforces occupational precarity and constitutes a structural barrier to the development of medium-and long-term careers for individuals belonging to under-represented groups (Ozimek 2020). The presence—albeit symbolically significant—of deaf professionals exclusively in roles related to LIS interpretation further introduces a risk of "ghettois[ing]" labour (Ozimek 2020, 20; Saha 2018). In this dynamic, disabled professionals are disproportionately assigned to disability-specific productions, limiting their professional mobility and contributing to the symbolic devaluation of such work in relation to mainstream content (Ozimek 2020).

From a technological perspective, despite the significant advances achieved in assistive technologies since the 1980s (Ellcessor 2016), animation technologies continue largely to embody a "preferred user" position, implicitly constructed as male, white, able-bodied, and English-speaking (Alexander and Sterne 2024). In a sector heavily dependent on advanced software and hardware infrastructures, the adoption of practices associated with crip technoscience requires the integration of assistive technologies capable of reconciling accessibility and usability throughout the entire production pipeline. However, although systematic monitoring data are lacking, the national sector has historically experienced a delay in technological and digital upgrading (ANICA–National Association of Film, Audiovisual and Digital Industries, and Cartoon Italia 2024) compared with other European contexts, partly due to the limited availability of investment incentives, thus making the consolidated presence of assistive technologies within studios implausible at present.

These constraints are further reflected in the structural economic uncertainty that continues to affect the Italian animation sector. The industry remains largely composed of small and medium-sized enterprises operating under project-based and resource-constrained conditions. In the field of animated serial production, sustainability is further undermined by a highly concentrated national market structure in which RAI effectively acts as the principal commissioner and distributor, while the limited resources available through its investment mechanisms are insufficient to sustain the sector as a whole (ANICA and Cartoon Italia 2024). Under these circumstances, the implementation of dedicated assistive technologies, the introduction of specialised professional roles, and the creation of more inclusive production environments may be perceived as additional financial burdens that many studios are currently unable to absorb (Ozimek 2020). Their adoption therefore requires not only individual commitment but also a stronger regulatory framework and targeted public support measures capable of reducing the economic risks associated with such investments.

As noted above, RAI Kids occupies a structurally pivotal position within the Italian animation industry, as the economic sustainability of projects depends to a large extent on access to its commissioning system. Such centrality inevitably has significant implications for the production orientations of animation companies. Under the direction of Luca Milano, RAI Kids has declared its commitment to promoting a more inclusive form of television (RAI Press Office 2022), grounded in the principles of diversity, inclusion, and social responsibility. From this perspective, these values may operate both as ethical and cultural orientations and as strategic resources through which production companies seek to strengthen their institutional legitimacy, enhance their visibility, and increase the economic attractiveness of their projects (RAI 2020).

The question that emerges, therefore, concerns the extent to which RAI Kids is able to leverage its position of economic centrality to support and guide its production partners towards more participatory production cultures and the adoption of practices and policies aligned with these objectives. The analysis

presented here suggests, however, that this governance role remains fragile. Firstly, the initiatives promoted within RAI's Sustainability-ESG Directorate appear to focus primarily on internal managerial governance and, in the case of RAI Kids, on the commissioning and promotion of content addressing diversity and inclusion, in line with the tenth Sustainable Development Goal concerning the reduction of inequalities. At present, however, no operational guidelines have been identified concerning textual design or production choices that would ensure the concrete implementation of these principles within production processes. Secondly, the RAI Public Service Contract 2023–2027 (RAI 2022) addresses inclusion primarily in terms of pluralism and accessibility, introducing obligations regarding programme subtitling (Art. 25, paragraph 1, letter h), without directly affecting content production practices. Moreover, these obligations are binding mainly for generalist channels, while remaining largely voluntary for thematic channels such as Rai Yoyo and Rai Gulp.

Against this background, the limited and uneven picture emerging from the 2025 RAI catalogue—corresponding to the final phase of Luca Milano's mandate over animated content managed by RAI Kids—is particularly revealing. Out of 372 available titles, only four series (approximately 1%) are explicitly identified as inclusive and, significantly, are also included in RAI's ESG non-financial reporting (RAI 2023): *Pablo* (Paper Owl Films, Kavaleer Productions, Ingenious Media, Cake Entertainment, 2017–2020), *Lampadino e Caramella, Il mondo di Leo* (BrandCross, RAI Kids, 2022–2024), and *The Sound Collector* (Eagle vs Bat, Enanimation, 2023).

From the perspective of technical accessibility, an analysis of the Rai Easy Web platform further shows that, among the 372 titles available in the catalogue, only 42 (11.3%) provide subtitles, 41 (11%) include audio description, and just 3 (0.8%) offer translation into Italian Sign Language (LIS). Taken together, these findings suggest that, although inclusion constitutes an important element of RAI Kids' institutional discourse, its capacity to translate these principles into an effective steering function capable of influencing production partners and industrial practices remains limited and deserves further investigation in future research.

DISABILITY, ANIMATION, AND REGULATION

A final key dimension, which opens up further reflection on the critical relationship between inclusion and disability awareness within the animation industries, concerns the role of the State as an active and responsive actor in shaping policies, guidelines and incentive structures related to accessibility and disability (Goggin and Newell 2003).

At a supranational level, protection against discrimination is articulated through a constellation of legal instruments and jurisprudential frameworks, including the European Convention on Human Rights (ECHR), the European Social Charter and the Charter of Fundamental Rights of the European Union. More targeted regulatory attention to disability emerges with the Equality Di-

rective 2000/78/EC of equal treatment in employment and occupation, which extends anti-discrimination safeguards to access to employment, working conditions, remuneration and vocational training. These measures form part of a broader normative trajectory reinforced by the United Nations Convention on the Rights of Persons with Disabilities (CRPD) of 2006, ratified by both the European Union and Italy in 2009. The CRPD played a decisive role in reframing disability beyond a purely medical or assistential paradigm, instead promoting a social model centred on the removal of barriers and on accessibility and inclusion as structural principles. A similar orientation underpins the European Accessibility Act, formalised through Directive (EU) 2019/882, which entered into force on 28 June 2025 for all Member States. The Act seeks to harmonise accessibility requirements for products and services within the European internal market. Despite their central role in establishing anti-discrimination principles and promoting equality, these supranational instruments remain insufficient in themselves to generate automatic or uniform operational transformations within cultural and media industries. They function primarily as value-driven and programmatic frameworks, defining general objectives while leaving unresolved questions concerning binding technical standards, production models and sector-specific mechanisms of implementation in complex fields such as the audiovisual industry. In the case of the European Accessibility Act, regulatory attention remains largely focused on technological and infrastructural domains—digital interfaces, applications and online services—without explicit reference to audiovisual content or to the professional inclusion of disabled people within creative industries. Their effectiveness is further mediated by national implementation, which binds Member States primarily to overarching goals while granting wide discretion in the selection of regulatory instruments and concrete enforcement practices.

At the national level, the ratification of the CRPD contributed—albeit belatedly—to the adoption of Law No. 69 of 21 May 2021, which formally recognised Italian Sign Language (LIS) and tactile Italian Sign Language (LISt). Nevertheless, as Carmela Bertone, Michela Franceschini and Beatrice Giuliano (2024) observe, this recognition remains ambiguous, insofar as LIS continues to be treated predominantly as an auxiliary support to spoken language rather than as a fully autonomous linguistic system. Further fragmentation of the regulatory framework emerges with Law No. 68 of 1999 on the right to work of persons with disabilities, which introduces the principle of “targeted placement” (my translation) (Art. 2), defined as a set of tools and supports aimed at facilitating employment consistent with individual abilities and competences. The application of this law is contingent upon companies exceeding specific size thresholds—one disabled worker for every fifteen employees—a condition that, in the Italian animation sector characterised by small and medium-sized enterprises, extensive reliance on freelance labour, and project-based contracts, effectively allows widespread circumvention of its obligations. In line with the principles articulated by the European Accessibility Act, Law No. 220 of 2016 on cinema and the audiovisual sector introduced accessibility as a criterion for the alloca-

tion of public funding to audiovisual works (Art. 12, para. 4, lett. a). However, as also noted by AUDECON (the Italian Observatory on Inclusion and Audiovisual Accessibility), in the absence of binding minimum quotas within implementing calls and of systematic monitoring mechanisms, this provision has had limited operational impact, remaining largely declarative in nature (Labarile 2025).

More specific obligations derive from the revised Audiovisual Media Services Directive (AVMSD), transposed into Italian law through the Consolidated Act on Audiovisual Media Services (Testo Unico dei Servizi di Media Audiovisivi, TUSMA; Legislative Decree No. 208 of 2021), which defines the remit of the public service broadcaster. At present, the only binding regulatory obligations concerning audiovisual accessibility apply exclusively to RAI in its capacity as a public service provider. Under TUSMA, RAI is required to ensure subtitling for at least 85% of generalist programming broadcast between 06:00 and 24:00—excluding advertising and service announcements—as well as for all daily editions of news programmes across the three generalist channels, guaranteeing at least one subtitled national news bulletin per day. No equivalent binding obligation applies to private broadcasters, nor is an analogous requirement imposed on children's programming. In this area, the public service broadcaster is merely required to "progressively extend subtitling and audio description to thematic channels, particularly those aimed at children," without the specification of quantitative targets, timelines or concrete implementation criteria (European Audiovisual Observatory 2023, 98). Accessibility for children's content thus remains framed as an aspirational objective rather than as an enforceable standard.

Lately, it is within this regulatory gap that Article 31 of TUSMA assumes particular relevance. Implementing Article 7 of the AVMSD, Article 31 introduces a framework aimed at progressively enhancing accessibility through co-regulatory mechanisms coordinated by the Italian Communications Authority (AGCOM), involving the broadcasters and organisations representing persons with disabilities. The implementation process has been notably protracted: the technical working group established in 2022 led to the adoption of the first operational guidelines only with Resolution No. 291/25/CONS of 18 December 2025. The guidelines introduce principles of progressivity, proportionality and non-discrimination, requiring the submission of three-year action plans incorporating annually increasing accessibility targets through subtitles, LIS- and audio description, with particular attention devoted to news programming, children's content and the accessibility of emergency information, alongside an annual monitoring system based on standardised reporting. Although these measures represent a step forward at the regulatory level, they remain largely confined to broadcasting obligations and do not directly address audiovisual production processes, creative workflows, labour conditions or the professional inclusion of disabled people within the animation industry. As Article 31 becomes formally operational from 1 January 2026, it is therefore uncertain whether its implementation will be sufficient to transform accessibility from a normative requirement into a structurally embedded industrial practice, or whether it will continue to depend on the voluntary alignment of the public service broadcaster and its production partners.

CONCLUSION

The analysis of *Lampadino e Caramella* testifies to the epistemic and cultural reconfiguration that has affected animated seriality over recent decades, becoming progressively less oriented exclusively towards entertainment and increasingly aimed at engaging with families through the introduction of complex social issues, in line with the educational and pedagogical mission of the public service broadcaster RAI and, in particular, the direction of RAI Kids. The series stands out as the first content promoted by the broadcaster as a barrier-free cartoon, contributing to the dissemination of themes of inclusion and accessibility while also addressing sensory disability, often overlooked in traditional representations of disability, which have predominantly focused on physical impairment (Perciavalle 2021).

The codification of the Cartoon Able model further contributes to problematising a central issue within disability studies: the need and urgency to rethink inclusion and accessibility not only at the on-screen level, but also within their original productive dimension. Particularly significant is the fact that the series does not explicitly thematise disability within the diegesis, but rather constructs a relationship with disability. For neurodivergent children, the multisensory design of the content enables the adoption of visual and sonic aesthetic solutions consistent with the principles of neuroaesthetics, reducing and slowing down stimuli in order to facilitate the processing of more static perceptual configurations. At the same time, the integration of accessibility devices within the narrative allows the work to be accessed by deaf, blind, and visually impaired children. However, this design may benefit from further refinements, and a number of considerations can be put forward in this regard. On the one hand, the simultaneous integration of accessibility devices may generate perceptual overload, potentially compromising the viewing experience for individuals with autism spectrum disorder; on the other hand, subtitles are often unsuitable for the reading abilities of preschool audiences and, like the LIS interpretation, do not include translation of the audio guide, being limited solely to dialogue. With regard to neurotypical children, the absence of a mediating figure capable of introducing them to the different codes of accessibility tends to presume an autonomous capacity for critical interpretation that has not yet been fully developed in children (Atkinson, Danielson and Rogers 2024), thereby limiting their ability to understand how such codes constitute a form of education towards accessibility and the pluralism of communication.

At the off-screen level, the Cartoon Able model still appears far from supporting the emergence of what has been described as a new configuration of "making practices"³ (Ozimek 2020, 39) within the Italian animation industry. To date, the model has not demonstrated genuine scalability, remaining instead a case

3 The term "making practices," as used by Ozimek (2020, 39), refers to production practices that emerge from situated professional experience and, when consolidated, contribute to reshaping the implicit norms and cultures of a given industry.

of inclusion-as-exception: a project widely celebrated and recognised through prestigious awards⁴ (RAI Press Office 2024), yet still anchored to a predominantly communicative and value-driven dimension. In this sense, it risks reproducing certain stereotypical dynamics associated with disability in creative labour, remaining confined to a project-based logic and failing to structurally impact the access of disabled professionals in the medium to long term, which would be necessary in order to overcome forms of representational delegation and promote genuinely inclusive production cultures. The implementation of transformative and empowering interventions nevertheless requires significant initial investment, particularly within a highly technology-intensive sector such as animation, which is difficult to reconcile with a national industrial context characterised by economic discontinuity, labour precarity, and regulatory uncertainty. Added to this is a regulatory framework concerning the reduction of inequalities that remains largely programmatic, limited to the articulation of general principles and lacking structured incentives, binding operational guidelines, and effective monitoring mechanisms.

Within this framework, considering the structural relationship between the animation industry and public service broadcasting, RAI could strengthen its governance role by moving beyond the tendency to confine ESG criteria to the sphere of internal managerial governance alone. The Cartoon Able model could be promoted by the broadcaster as an operational guideline for production partners, particularly with regard to the visual and narrative design of content. In order to address the model's off-screen limitations, RAI could also intervene through the definition of operational criteria, economic incentives, and external mentoring programmes, drawing upon and expanding the principles already outlined within its internal ESG policies (Eikhof and Warhurst 2012).

A different consideration, however, concerns accessibility codes. Given that digital television inherently provides a wide range of inclusive tools (Ellis 2019)—in the case of RAI, through the Rai Easy Web and Rai Play platforms—the implementation of accessibility codes appears more appropriately attributable to the distributive rather than the production level. From this perspective, the Cartoon Able model could serve as a useful reference to identify and systemize key communication solutions. Meanwhile, the broadcaster would be responsible for implementing them through customizable systems that do not necessarily imply mediation toward a sharing viewing model. This approach would make subtitles, LIS windows, and audio guides activable or selectable based on the needs of different audiences, including neurodivergent viewers. Such imple-

⁴ The series has received prestigious awards, including the UNICEF Award for Best Animated Series at *Cartoons on the Bay* in 2020 and, in 2022, the highest qualitative classification awarded by the Italian parents' association MOIGE for its suitability for family viewing and its positive educational content. Further acknowledgements include its nomination for the Diversity Media Award 2023 and its designation as "Ambassador of Civil Economy" at the 2024 National Festival of Civil Economy (FNEC), as well as its selection by the Described and Captioned Media Program (DCMP), which adapted the series and translated it into American Sign Language (ASL)

mentation also appears necessary in light of the recent application of Article 31 of the TUSMA, which extends accessibility obligations to animated content as well. These perspectives would therefore enable the Cartoon Able model to become genuinely scalable, moving beyond its current configuration as primarily a design device and towards a transferable professional practice.

In conclusion, the European framework highlights how the definition of policies and guidelines concerning accessibility and the representation of diversity in the media remains at an early and evolving stage. Only in 2025, alongside the entry into force in Italy of Article 13 of the TUSMA, did the European Broadcasting Union (EBU 2026) issue specific recommendations concerning representation and inclusion in television programming. This suggests that *Lampadino e Caramella* should be understood less as a fully developed and deliberately replicable model than as a pioneering experience. At the same time, its limitations should be interpreted both as the result of a context still lacking consolidated regulatory and operational frameworks, and as conditions of possibility and reflection capable of opening the way for future implementations and developments.

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