

# Learning (with) animation: semiotic premises of a transdisciplinary pedagogical framework

punctum.gr

BY: Alexandra Milyakina and Maarja Ojamaa

## ABSTRACT

The paper employs the principles of semiotics of culture and social semiotics to explore the educational applications of animation with an empirical focus on Soviet Estonian animated films. We begin by discussing the polyglottic nature of animation as a medium, highlighting features unique to the local context. Soviet Estonian animation, conceptualized as a representative of the “Soviet West” (Pikkov 2016: 28), combines the universal conventions of the genre with the experimental approaches originating within the constraints of totalitarian ideology. Using a methodological framework grounded in Juri Lotman’s functions of text (2001) and Gunther Kress’s modes of communication with the text (Kress 2010), we examine three potential roles of animation in education: technical packaging, a historical artifact, and a poetic object. The case study revolves around three animated films featured on the digital learning platform “Estonian Animation” (Eesti animafilmid 2023) developed at the University of Tartu in collaboration with the Estonian Film Institute. The paper analyzes the project results while discussing the role of animation within the transdisciplinary framework of cultural education. Examples from the platform are complemented with an overview of educational materials developed by teachers and accessible in Estonian educational databases. The transdisciplinary pedagogical framework combines three approaches to learning (with) animation: relating content to various subject fields, exploring the historical context of animated film, and interacting with it through the prism of design.

## ARTICLE INFO:

Volume: 10

Issue: 01

Summer 2024

ISSN: 2459-2943

DOI: 10.18680/hss.2024.0008

Pages: 141-157

Lic.: CC BY-NC-ND 4.0

## KEYWORDS:

Animated film

Multimodality

Semiotics of culture

Digital learning

## 1. Introduction

The animated film can be regarded from the perspective of intermedia, as it entails conceptual fusion between different forms of arts (Higgins 2001: 53). With its roots in distant pre-digital and pre-film history, animation maintains close ties with cinema, painting, theater, comic art, video games, and other media. Perhaps it is the heterogeneous nature of animation that supports its protean ability to fulfill different roles and appeal to various audiences. Often associated with children's stories and entertainment, animation can create an "illusion of understanding" in its viewers (Lotman 1973: 6) while, in reality, offering something deeper and more intricate.

The versatility of animation makes it a valued educational tool. It effortlessly navigates between simplicity and complexity, concreteness and abstractness, familiarity and estrangement. Even more so than cinema, animation can show the world from an unusual perspective, whether from a divine viewpoint or inside a living cell. While a significant body of research delves into the use of animation in learning, the primary focus lies on instructional animations explicitly created for educational purposes rather than animated films. A meta-analysis by Berney and Bétrancourt (2016) indicates the effectiveness of animation in educational settings over static visual materials, primarily due to its ability to engage students' attention and demonstrate the functioning of dynamic systems. The transdisciplinary educational potential of animated films not initially designed for learning is also notable, with recent research emphasizing benefits in language learning (Hofmann 2018), life sciences (Kenna and Waters 2017; Stibbe 2008), social sciences (Champoux 2001; Russell 2012), and beyond. From a broader cultural perspective, the animated film can be considered a reflection of an era and a self-portrait of the society (Pikkov 2016: 30). Similar to fairy tales, animated films serve "as agents of cultural memory, national consciousness, and identity" (ibid. 31), therefore are subject to both historical-political and socio-cultural analysis. As highlighted by Lotman, "film is part of the ideological struggles, culture and art of its era" (1973: 54).

This paper applies the principles of semiotics of culture and social semiotics to explore the educational applications of animation, focusing empirically on Soviet Estonian animated films. Using a methodological framework based on Juri Lotman's functions of text (2001: 11-19) and Gunther Kress's modes of communication with the text (Kress 2010), we examine three potential roles of animation in education – as a technical packaging, a historical artifact, and a poetic object. The analysis centers on three Estonian films featured on the digital learning platform 'Estonian Animation.' Drawing from our direct involvement in the project, we complement the theoretical analysis with our personal experience in the development process.

## 2. Estonian animation from an educational perspective

To this day, the Estonian animation landscape is defined by two main directions established with the founding of the Tallinnfilm studio's puppet animation department in 1957 (now Nukufilm) and the hand-drawn animation department in 1971 (now Eesti Joonisfilm). As part of the broader Soviet cultural system, Estonian animation had a complex relationship with the Soviet ideology. On the one hand, just like all other cultural productions, animation was strictly censored and required to adhere to the principles of socialist realism, which emphasized the heroism of the working class, the advantages of socialism, and optimism about the communist future. On the other hand, due to the peripheral position within the Soviet Union, the animators of Baltic republics enjoyed a "slightly greater degree of creative autonomy" compared to those in the metropole (Pikkov 2016: 28). This autonomy allowed them to explore more risky topics, such as national identity (ibid.), and to experiment with unconventional artistic methods. According to Pikkov, Soviet Estonian animation was characterized by "relatively bold experiments that corresponded to contemporary Western art movements and music" (ibid.).

Children's stories and fairy tale adaptations were viewed as relatively safe genres, less likely to undergo thorough scrutiny than feature films. When necessary, the primary tool for outmaneuvering the censors was utilizing Aesopian language, consisting of allegories, ambiguous references, and critical symbolism (Pikkov 2017: 33). It was not always successful as in some cases, the Goskino (Государственный комитет по кинематографии СССР; Госкино) officials were incredibly paranoid, leading, for example, to a scandal about a wrench, which had been randomly colored red in Avo Paistik's *Trifle* (*Pisiasi*, 1975) (Kiik 2006a: 104-105), and Paistik's *Vacuum Cleaner* (*Tolmuimeja*, 1978) being shelved for nine years, because the title character's red color was interpreted as criticism of the Soviet regime (Kiik 2006b: 92). At the same time, Paistik's immensely popular *Three Jolly Fellows* (*Naksitrallid*, 1984-1987) that got green light, depicted the main characters' victorious triumph over rats and cats in an idyllic village, while the audience quickly identified the rats as Soviet Russians and cats as the German aggressors (Pikkov 2017: 38). In general, censorship was primarily targeted at verbal scripts rather than visual implementation, gradually diminishing verbal language's importance in Soviet animation over time (Pikkov 2016: 32).

The climate of control coexisted with the perks of state funding, which ensured animators stable income and allowed them to focus on their creative work, including investigating sophisticated artistic techniques that might have been financially inaccessible otherwise (Pikkov 2016: 36). This paradoxical situation – balancing creative freedom and ideological control – fostered the creation of unique and original works and led to the lasting legacy of Soviet Estonian animation, which continues to play a significant role in both formal and informal education today.

All three films featured on the 'Estonian animation' platform and chosen for this analysis exhibit typical characteristics as described above. Both films by Heino Pars – *Jussike's Seven Friends* (*Jussikese seitse sõpra*, 1967, 09:47) and *The Town of Honey-makers* (*Meemeistrite linn*, 1983, 19:54) – as well as Priit Pärn's *Is the Earth Round?* (*Kas maakera on ümmargune?* 1977, 09:45) are regarded as classics of Estonian children's cinema.<sup>1</sup> A representative of the earlier generation of Estonian animators, Heino Pars was celebrated for his children's films in the puppet animation genre. Pars' work is marked by the innovative integration of documentary and popular science elements into children's animation, exemplified by *The Town of Honey-makers* – a puppet animation that explores the inner workings of the beehive. His earlier film, *Jussike's Seven Friends*, is a simple and straightforward adaptation of the book written and illustrated by Silvi Väljal (1966). This didactic cutout animation portrays a village boy, Jussike, who gets acquainted with different days of the week and types of work. *Is the Earth Round?* is the first independent work of the now-renowned classic Priit Pärn, who was already a successful caricaturist then. While the film's visual style is reminiscent of caricature, the story – fitting into two lines of text<sup>2</sup> – can be seen as a commentary on the absurdity of Soviet life (and school textbooks, in particular).

Soviet Estonian animation continues to play a significant role in both formal and informal learning in present-day Estonia. Film education in the country has seen substantial growth in the past decade, leading to a plethora of initiatives and educational resources (Lõhmus 2020: 34). According to a survey conducted by the Estonian Film Institute in 2018, Estonian teachers regard the integration of films into various school subjects as an important direction (ibid. 62). While teachers typically create most learning materials of this kind, the Estonian Film Institute also supports institutional efforts, such as developing the digital educational resource 'Estonian Animation' (2023) by the University of Tartu. The project is a recent addition to the 'Education on Screen' platform established in 2015 by a team of students and researchers of the Department of Semiotics. Targeted primarily at school students, the initiative combines a thorough examination of key texts of Estonian culture with theoretical introductions on topics of cultural memory, identity, environmental awareness, and more (Ojamaa and Milyakina 2019; Milyakina 2019). The materials of 'Estonian Animation' have been developed by master's students in Semiotics in collaboration with the Estonian Film Institute.

---

<sup>1</sup> For instance, these three films were included in the series of 30 DVDs featuring the best Estonian children's films, as selected by the newspaper *Eesti Ekspress* (EE filmitoimkond 2014).

<sup>2</sup> The whole screenplay of *Is the Earth Round?* has only two sentences: "The Earth is round. This is easy to prove: If we start moving and keep going in one direction, eventually we will return to where we began our journey."

### 3. Methodological framework

Our methodological framework based on the principles of cultural and social semiotics allows for the examination of animation from both the perspective of the text and its interpretation. The first direction follows three textual functions identified by Lotman (2001: 11-19): transmission of available information, capacity to preserve information, and creation of new information. These functions define how a text operates in culture but also determine its role in relation to cultural and historical contexts, creating a complex dialogue between past, present, and future interpretations. From the social semiotic perspective, the types of reader's relationship with the text can be described in terms of competence, critique, or design (Kress 2010: 6). For this research, we will attempt to integrate both perspectives to investigate the educational applications of Estonian animation.

The communicational function of texts lies at the heart of the positivist understanding of literacy aimed at acquiring competence. In the words of Kress, “[c]ompetence leaves arrangements unchallenged” (2010: 6): if the relation between the signifier and signified is arbitrary and kept stable only with the social power of convention, then literacy means passively abiding by this power. From this perspective, the act of communication is considered successful if the message remains unchanged on its way from the sender to the receiver. Text is regarded as a mere “technical packaging” for the message, and any discrepancies between the initial message and its interpretation indicate a communication breakdown (Lotman 2001: 12). Language is considered a stable and predictable system where all meanings are fixed. The passage of time does not impact the message's meaning, as if it is excluded from the temporal dimension.

The preservational function of the text introduces a diachronic perspective and allows the text to accumulate information about its previous contexts. As noted by Lotman, “Nowadays Hamlet is not just a play by Shakespeare, but it is also the memory of all its interpretations, and what is more, it is also the memory of all those historical events which occurred outside the text” (2001: 19). A text becomes a discrete sign of all the non-discrete essence that has surrounded it, which remains latently coded in the text even when it has been moved to a new communicative situation (Lotman 1988: 56). Apart from the original message intended for communication, the text also preserves memory about all its contexts, as well as images of the author and the reader (Zolyan 2016: 86). When moved into another cultural context, long-lived works of art “function as an informant that has moved to a new communicative situation and bring out hitherto latent aspects of their own coding system” (Lotman 1988: 56). From the social semiotic perspective, the preservational function can be explained by intentional or unintentional inclusion of contextual meanings into the text: “The makers of signs ‘stamp’ present social conditions into the signs they make and make these signs into the bearers of social histories” (Kress 2010: 69). Critique is a backward-oriented process that targets these additional layers of meaning and exposes the underlying power relations (ibid., 23).

Finally, the creative function allows the text to generate new information, which is not deducible from already existing information. The meaning-generating capacity of text is determined by the heterogeneity of languages involved in its creation. The unpredictable interaction of languages leads to accidents and errors in communication, while partial untranslatability means that the target message never equals the source (Lotman 2000a: 582). While a competence-based approach to communication implies stable structures, and critique targets hidden meanings implicitly embedded in these structures, design thrives in unstable, provisional, and fluid environments (Kress 2010: 133). The design draws on both competence and critique, “carries their insights forward and deepens them” (ibid., 6). Rather than reinforcing already existing systems of signs, a design approach to communication suggests that individuals have the power to assert their interests by creating new forms of signs (ibid. 63). Brand-new languages, genres, and discourses can emerge from the transformative combination of languages within one text, and the outcome will always be unpredictable. Therefore, the creative function can be associated with poiesis – the process of creating something out of nothing.

Depending on textual functions and the reader’s relationship to the text, the role of animation in the learning process can be framed as that of technical packaging, a historical artifact, or a poetic object (see Table 1).

**Table 1.** The role of animation in education against the background of Lotman’s functions of text and Kress’s modes of communication with the text.

<b>Functions of the text</b>	Communication	Preservation	Creation
<b>Reader’s relationship to the text</b>	Competence	Critique	Design
<b>Role of the text in education</b>	Animation as a technical packaging	Animation as a historical artifact	Animation as a poetic object

In the first scenario, an animated film functions as a visual textbook portraying certain phenomena or events (Russell 2012: 158). The audience perceives the text uncritically as an accurate depiction of ‘how things are.’ In the second case, the film is considered a reflection of the era when it was created, serving as a historical artifact of that time (ibid. 160). Finally, an animated film represents a unique form of artistic language continually reinvented with each interpretation, whether by the author or the reader.

## EESTI ANIMAFILMID

Õppematerjalid on koostatud Eesti Filmi Instituudi toetusel.



Figure 1. Front page of the digital learning platform 'Estonian Animation.'

### 4. 'Estonian Animation': a case study

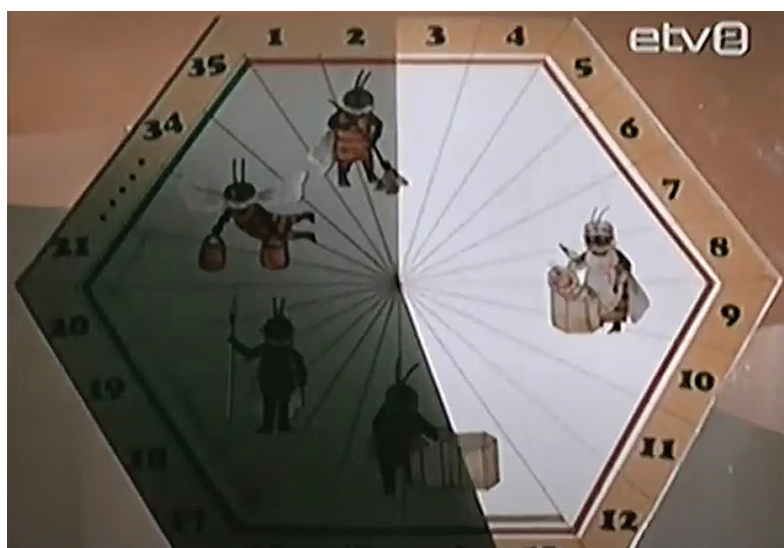
'Estonian Animation' is an open-access resource, currently available only in Estonian language (Fig. 1). The platform consists of three independent sections, each created by different authors and tailored to various audiences: the material based on *Jussike's Seven Friends* is developed by Jaanika Palm and is aimed at elementary school students; *Is the Earth Round?* (by Ulla Juske) focuses on the upper secondary school level; *The Town of Honey-makers* (by Karmen-Eliise Kiidron) targets students on the upper basic school level. Each material is divided into several parts, including the introduction, instructions for a creative project, discussion questions, and teachers' guidelines. The animated films are available to view on the same website.

In the following analysis, we will discuss the immanent properties of chosen texts and their role within the digital learning platform 'Estonian Animation.' The platform functions as a digital archive, which aims "to frame and re-frame, connect and re-connect, their various composite texts, in this way creating new textual wholes at a 'higher' level, or simply in terms of actual 'reading' sequences" (Ibrus and Ojamaa 2019: 9). Following the logic outlined in the methodological introduction, we will distinguish between two sets of functions: those inherent to the texts themselves, and those arising from the pedagogical context. The perspective presented by the 'Estonian Animation' platform will be compared to the examples of teacher-generated materials accessible in various databases.

#### 4.1. Animation as a technical packaging

The communicational function dominates animated films with a solid didactic orientation to convey specific information to children. This approach is characteristic of Heino Pars' films – *Jussike's Seven Friends* and *The Town of Honeymakers*. Like the classic edutainment series *Sesame Street*, *Jussike* introduces basic concepts, such as days of the week and different occupations, through simple verbal and visual language. The clear and straightforward story has been adapted into numerous media formats, including theater performances and radio shows, while lesson plans based on *Jussike* are available in several teacher databases (E-koolikott, Opiq, European School Education Platform). Most online resources are aimed at elementary school students or preschoolers, which corresponds to the target audience of the respective section of the 'Estonian Animation' platform.

The *Town of Honeymakers* also focuses on communicating a package of constant information, although through more sophisticated means, in terms of the narrative and technical implementation. Executed in the technique of puppet animation, the film follows the conventions of the nature documentary genre. Whereas the animation tells a fairy-tale story featuring anthropomorphized bees, the depiction is scientifically sound and enriched with typical elements of the popular science genre, such as infographics detailing the bee's life cycle (Fig. 2) and authentic beehive sounds. A keen nature enthusiast, Pars regarded *The Town of Honeymakers* as one of his best films and modestly cherished the fact that "beekeepers watched the film and did not criticize it" (Tuumalu 2005). To the present day, Pars' animation has served as a primary source of knowledge about bees for several generations of Estonians. It is actively employed as an educational tool in preschools and elementary schools. (Meehommik 17. novembril. 2023)



**Figure 2.** Infographics about the life cycle of a bee embedded into Heino Pars' animated film *The Town of Honeymakers*.

The communication function is expressed differently in the third example. Priit Pärn defies narrative conventions by crafting a deliberately absurdist and looped story in his film *Is the Earth Round?* Even if the text fulfills a communicative function, it is hard to pinpoint its exact message. The character's journey around the globe never resolves whether it is possible to return to the same point if one always moves in the same direction. Similarly, the author admitted that he intentionally left viewers pondering what is right – to stay at home or to wander the world (Teede 2017).

To summarize, the communicative function is dominant in Heino Pars' films but less explicit in Priit Pärn's work. Among three parts of the 'Estonian Animation' platform, only the *The Town of Honey-makers* section reinforces a communicative perspective. The lesson plan designed for a nature class frames animation as a source of information about the bees' life cycle, the structure of the beehive, and the various roles of bees. After watching the film, the students are encouraged to complement the acquired knowledge with additional information and create posters on different topics (the role of bees in an ecosystem, methods to increase bee populations, and ways to support biodiversity). The film's historical context or artistic qualities are not in the lesson's focus. While 'Estonian Animation' does not emphasize the communicative aspects of the two other films, we discovered various teacher-made lesson plans that use *Jussike* to teach numbers and days of the week. Additionally, *Is the Earth Round?* could potentially serve as a visual aid in a geography class to illustrate different geographical zones and the shape of the Earth.

#### 4.2. Animation as a historical artifact

A text also functions as a "condenser of cultural memory," preserving information about its previous contexts (Lotman 2001: 18). Each of the three films reflects the era in which it was created, as seen in both the artistic language and portrayed topics. Despite the relative artistic freedom experienced by the animators in the Baltic republics (Pikkov 2016: 18), all cultural production within the Soviet Union was subject to censorship and ideological constraints. As mentioned earlier, adaptations of fairy tales and folklore, significantly enhanced with didactic messages, provided a safe ground for animators. Both of Heino Pars' films, along with most of his other work, fit into this category.

*Jussike* and *The Town of Honey-makers* have a solid didactic orientation and convey the core values of Soviet society: diligent labor, social solidarity, and the importance of all forms of work. Rather than merely entertaining young viewers, both films aim to educate the audience, thus "combining business with pleasure." Additionally, *Jussike* introduces some signs of the Estonian national identity, vaguely reflected in the design of the characters' clothes, architectural elements, and natural surroundings. This aligns with the proclaimed multiculturalism of the Soviet Union as a family of many nations, which granted animators from national republics greater freedom to express national sentiments (ibid. 28).

When asked in an interview about any complications with approving his first films by the Moscow committee, Heino Pars answered: “We started with children’s films; I do not know that there were any misunderstandings” (Kiik 1995: 9). However, Priit Pärn’s experience was different from the very beginning, as his first film, *Is the Earth Round?*, was not approved for all-Union distribution and was only screened in Estonia. As Pärn himself suggested in various interviews, possible reasons for this might include “the film’s non-Soyuzmult drawing style and animation style” (Teede 2017), as well as its “excessively pessimistic” atmosphere (Trossek 2008: 33). Pärn’s film exhibits some typical traits of the Soviet animation of the 1970s – a diminishing reliance on verbal language, focus on the surrounding reality, and an increasingly melancholic mood (Pikkov 2016: 29). *Is the Earth Round?* places familiar artifacts of Soviet everyday life – such as an iconic milk carton or a children’s scooter – into an absurdist narrative, where objects constantly move and shape-shift. The familiar reality is contrasted with the capitalist abundance of the symbolic ‘West’ – depicted with flashing billboards, loud music, and constant consumerism. As markers of the parallel ‘Western’ timeline, Pärn’s animation includes allusions to contemporary art, such as the surrealist animated film *Yellow Submarine*, inspired by the music of the Beatles (Fig. 3).



**Figure 3.** Allusions to the *Yellow Submarine* animated film in Priit Pärn’s animation *Is the Earth Round?*

The educational material 'Estonian Animation' does not explicitly delve into the historical context of chosen films. However, this topic might arise during students' discussions. For instance, the section dedicated to *Jussike* briefly introduces the history of animation, situating Estonian animation within a broader historical context. Similarly, *Is the Earth Round?* is complemented by the theoretical introduction to the history of Estonian animation and juxtaposed with the works by other Estonian artists. As a part of their creative assignment, students are asked to analyze the depictions of the environment in the film, focusing on the cultural meaning of the elements. The instructions are as follows: "What signs of cultural history do you notice? What do they represent? What does their use do for the narrative? Here, it is recommended to use additional materials and the Internet" (Eesti animafilmid 2023). Finally, the lesson on *The Town of Honeymakers* includes a gallery showcasing depictions of bees across various media, such as modern animation and advertising. This prompts students to compare different approaches in terms of their accuracy. One possible outcome of this discussion could be the learners' realization that Pars' portrayal of bees is more biologically accurate than that of his contemporary counterparts. In conclusion, while 'Estonian animation' does not explicitly frame selected films as historical artifacts, this approach would be potentially applicable, albeit requiring more background knowledge or research from both teachers and students. By adopting a critical perspective, learners can analyze the films as reflections of the era, bearing the imprint of contemporary ideology and artistic tendencies.

#### 4.3. Animation as a poetic object

The third approach allows us to consider the creativity of animated films from several perspectives: the texts themselves, the authors, and the interpreters. Animations' inner creativity is fueled by the unpredictable interaction of languages involved in their development. Despite the constraints imposed by censorship and ideology, Soviet Estonian animators introduced their unique perspectives into their work, leading to the emergence of new styles and tendencies.



**Figure 4.** Character dance reminiscent of abstract art in the final sequence of Heino Pars' *Jussike's Seven Friends*

For instance, Heino Pars' work is characterized by a peculiar combination of topics and genres influenced by his personal inclinations: his films unite documentary and fiction, technology and nature, puppet animation, and live action. While *Jussike* largely followed the narrative and visual style of the original book by Silvi Väljal, the filmmakers had to find creative methods to bring the story to life. This resulted in some intriguing artistic decisions, such as a final sequence in the film portraying a collective dance of all characters, reminiscent of abstract art (see Fig. 4). The innovative synthesis of fairy tale and popular science genres in *The Town of Honey-makers* impressed even the editorial committee, one of whom admitted: "As far as I know, nothing like this has been done in world multiplication" (cited by MTÜ EFA 2022). Despite the educational nature of the film, the authors chose some unconventional approaches, such as letting the characters speak for themselves instead of relying on traditional background narration, which made the story more personal and relatable. The filmmakers' choice to incorporate actual recordings from the beehive and involve professional beekeepers in the discussion distinguished *The Town of Honey-makers* from a mere fairy tale cartoon about bees, elevating it to the status of an all-time Estonian favorite.

The creative function is expressed even more explicitly in Priit Pärn's work, not least due to the author's innovative choices. As a professional caricaturist, Pärn transferred elements of his artistic style into his first animated work, which critics characterized as "not a film but a moving graphics" (Laaniste 2006: 79). Similarly, reviews considered the film a polemic with the traditional plot structure, as the narrative line ends up being a circle (Gens 1978: 7). The ambivalence of the message – whether to stay or to go – is reinforced on the level of visual language through the use of relativity. The author himself explained in the interview: "For example, when the main character feels that he is very big and powerful, the foot of a huge animal enters the frame" (Teede 2017). The creativity of the text is further enhanced by the heterogeneity of elements depicted in it, ranging from mundane artifacts of everyday life to deeply symbolic images. Subsequently, this adds a symbolic value to everyday objects, like a carton of milk, and places existential problems, such as life and death, within the context of everyday life.

The platform 'Estonian Animation' focuses on the texts' creativity and promotes learners' creative engagement. As mentioned earlier, *The Town of Honeymakers* is predominantly approached from a communicative perspective; however, the educational materials dedicated to *Jussike* and *Is the Earth Round?* thoroughly examine the artistic choices of the authors and actively involve students in hands-on experiences. For instance, younger students can create their own versions of *Jussike* using cartoon-inspired templates. The instructions guide them through the entire process of filmmaking: cutting out and coloring the images of characters and backgrounds, filming scenes, adding a voice-over, and finally sharing the results with the audience. What is particularly interesting is that the students can observe how their creative choices affect the final results. Despite using the same source materials as in the original film (and book), each student's work will be unique.

An overview of teacher-created educational materials dedicated to the three selected films also demonstrates the significant influence of a creative perspective. For instance, a lesson plan centered on *Jussike* (Tegevuskava "Jussikese...") invites students to craft their rendition of the story with the help of the educational robot Qobo. Another lesson plan ('Jussikese seitse sõpra koos BeeBot'iga') combines creative and communicational perspectives by introducing numbers and days of weeks to preschool students while involving them in coding and artistic creation. A similar approach is adopted in the lesson based on *The Town of Honeymakers* for first graders (Ainetepäev), which integrates the creation of bee characters and animating the story with the assistance of an educational robot. Interestingly, we could not find any teacher-made educational materials centered on *Is the Earth Round?* which may be explained by the more experimental and 'adult'<sup>3</sup> nature of Priit Pärn's text.

---

<sup>3</sup> Priit Pärn's film *Is the Earth Round?* can be associated with a more adult audience due to its ambiguous message and visual style, which also includes depictions of nudity.

## 5. Conclusion

Despite their seemingly simple nature, children's animated films can serve as a springboard for diving into complex topics, discussing the historical context of animation, or contemplating the meaning-generating potential of artistic texts. Instead of being dismissed as relics of a bygone era, Soviet Estonian animation continues to play a significant role in educating the new generations of Estonians. The case study of three animated films featured on the digital learning platform 'Estonian Animation' demonstrated the educational potential of animation as a visual textbook, historical artifact, and poetic object.

The perspective brought forward in the educational context does not necessarily have to coincide with the dominant of the text itself. For instance, a film created with a communicative aim in mind could also be considered through the lens of critique rather than as a neutral 'technical packaging.' At the same time, it seems reasonable to emphasize the inherent features of the text in their educational interpretation. For example, *The Town of Honeymakers* is typically presented by teachers for what it is – a comprehensive exploration of bees' lives. At the same time, *Jussike* is employed to introduce numbers and days of the week. Similarly, the overtly law-defying nature of the animated film *Is the Earth Round?* calls for its examination from a creative perspective.

Any animated film has the potential to be analyzed from all three perspectives within a transdisciplinary pedagogical framework. A communicational approach highlights the informational value of the text, intentionally assigned by its author. A critical perspective allows for examining the animation as a product of its era, implicitly carrying the imprint of conventions and ideologies – a particularly relevant aspect of Soviet cultural production. Finally, the perspective of design brings forward the meaning-generating function of artistic texts and their capacity to engage the audience in further expansion of the artistic universe. In conclusion, this framework can potentially enrich classroom practices and perhaps the creative process of animators by offering multiple lenses through which animations can be understood and produced. It invites educators to employ animations in diverse ways, from teaching concrete facts to cultivating critical and creative thinking. At the same time, it could also challenge animators to consider the educational impact of their artistic choices.

### ACKNOWLEDGEMENTS

This work was supported by the Estonian Research Council grant PSG675.

## References

- Berney, Sandra and Mireille Bétrancourt 2016. Does animation enhance learning? A meta-analysis. *Computers & Education* 101: 150-167.
- Champoux, Joseph E. 2001. Animated Films as a Teaching Resource. *Journal of Management Education* 25(1): 79-100.
- EE filmitoimkond 2014, April 3. Filmid, mis ei tee lapsed lollimaks [Films that don't make children more stupid]. *Eesti Ekspress*. <https://ekspress.delfi.ee/artikkel/68365813/filmid-mis-ei-tee-lapsed-lollimaks>
- Eesti animafilmid [Estonian animation] 2023. *Haridus Ekraanil*. <https://haridusekraanil.ee/animafilmid/>
- Gens, L. 1978, June 30. Kunstnik ja multifilm [Artist and a cartoon]. *Sirp ja Vasar*.
- Higgins, Dick 2001 [1965]. Intermedia (with an Appendix by Hannah Higgins). *Leonardo* 34(1): 49-54.
- Hofmann, Judith 2018. Pixar films, popular culture, and language teaching: The potential of animated films for Teaching English as a Foreign Language. *Global Studies of Childhood* 8(3): 267-280.
- Ibrus, Indrek and Maarja Ojamaa 2020. The Creativity of Digital (Audiovisual) Archives: A Dialogue Between Media Archaeology and Cultural Semiotics. *Theory, Culture & Society* 37(3): 47-70.
- Kenna, Joshua L. and Stewart Waters 2017. Teaching Geography through an Animated Lens. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 90(4): 147-151.
- Kiidron, Karmen-Eliise 2023. Kuidas õppida filmi vaadates mesilaste hingeelu kohta? [How to learn about the inner life of bees by watching a movie?] *Hortus Semioticus*. <https://www.hortussemiotus.ut.ee/blog/student-showcase/kuidas-oppida-filmi-vaadates-mesilaste-hingeelu-kohta/>
- Kiik, Silvia 1995. Vastab Heino Pars [Heino Pars is answering]. *Teater. Muusika. Kino* 12: 3-15.
- Kiik, Silvia 2006a. Avo Paistiku võitlused võimu, tsensuuri ja Goskinoga II. *Teater. Muusika. Kino* 5: 97-107.
- Kiik, Silvia 2006b. Avo Paistiku võitlused võimu, tsensuuri ja Goskinoga III. *Teater. Muusika. Kino* 6: 90-97.
- Kress, Gunther 2010. *Multimodality: A Social Semiotic Approach to Contemporary Communication*. Routledge: London.
- Laaniste, Mari 2006. Eine murul. Ühe animafilmi tekst ja kontekst. Fiktsioon ja film. *Kunstiteaduslikke Uurimusi* 4(15): 77-97.
- Lotman, Juri 1973. *Semiotika kino i problemy kinoestetiki [Semiotics of Cinema and Problems of Cinema Aesthetics]*. Tallinn: Eesti Raamat.

- Lotman, Juri 1988. The Semiotics of Culture and the Concept of a Text. *Soviet Psychology* 26(3): 52-58.
- Lotman, Juri 2000a. Mozg — tekst — kultura — iskusstvennyj intellekt [Brain – Text – Culture – Artificial Intelligence]. In: Lotman, Juri, *Semiosfera*. St. Petersburg: Iskusstvo–SPB, 580–589.
- Lotman, Juri 2000b. Problema “obucheniya kul’ture” kak tipologicheskaya harakteristika [The problem of “acquiring culture” as a typological characteristic]. In: Lotman, Juri, *Semiosfera*. St. Petersburg: Iskusstvo–SPB, 417–424.
- Lotman, Juri 2001. *Universe of the Mind: A Semiotic Theory of Culture*. London: I.B. Tauris.
- Lõhmus, Johannes 2020. *Points of Departure for Film Education in Estonia. Summary*. Tallinn: Estonian Film Institute.
- MTÜ EFA 2022. Meemeistrite linn (1983). Huviinfo. Filmi arutelu Tallinnfilmi kunstinõukogus [The Town of Honey-makers (1983). Interesting facts. Discussion of the film at the Tallinnfilm Arts Committee]. *Eesti Filmi Andmebaas*. <https://www.efis.ee/et/filmiliigid/film/id/3992/huvitavat-lugemist>
- Milyakina, Alexandra 2019. Multimodality and play in literature class: Bridging a gap between school and life with education on screen. *Punctum. International Journal of Semiotics* 5(1): 159–179.
- Ojamaa, Maarja and Milyakina, Alexandra 2019. Teaching cultural literacies with films: Using the online platform Education on Screen in secondary school classrooms. *Film Education Journal* 2(2): 118–133.
- Pikkov, Ülo 2016. On the Topics and Style of Soviet Animated Films. *Baltic Screen Media Review* 4: 16-37.
- Pikkov, Ülo 2017. On the Links between Caricatures and Animated Films in Communist Eastern Europe. *Baltic Screen Media Review* 5: 28-41.
- Pars, Heino (Director) 1967. *Jussikese seitse sõpra* [Film]. Tallinnfilm.
- Pars, Heino (Director) 1983. *Meemeistrite linn* [Film]. Tallinnfilm.
- Pärn, Priit (Director) 1977. *Kas maakera on ümmargune* [Film]. Tallinnfilm.
- Russel, William B. 2012. The Art of Teaching Social Studies with Film. *The Clearing House* 85(4): 157–164.
- Stibbe, Arran 2008. Zen and the Art of Environmental Education in the Japanese Animated Film Tonari no Totoro. *Journal for the Study of Religion, Nature and Culture* 1(4): 468-488.
- Teede, Andra 2017, February 17. Lihtsad konstruktsioonid ja keerukas huumor [Simple constructions and complex humour]. *Sirp*. <https://www.sirp.ee/s1-artiklid/film/lihtsad-konstruktsioonid-ja-keerukas-huumor/>
- Trossek, Andreas 2008. ‘When Did It Get Political? Soviet Film Bureaucracy and Estonian Hand-drawn Animation’. In: Eva Näripea, Andreas Trossek (eds.) *Via Transversa: Lost Cinema of the Former Eastern Bloc*. Tallinn: Estonian Academy of Arts, 31–45.

- Tuumalu, Tiit 2005, October 13. Ütleme Heino Pars, aga mõtleme Kõps [We say Heino Pars, but we mean Kõps]. *Postimees*. <https://www.postimees.ee/1503489/utleme-heino-pars-aga-motleme-kops>
- Zolyan, Suren 2016. Lotman on text: Ideas, problems, perspectives. *Novoe Literaturnoe Obozrenie [New Literary Review]* 139: 63–96.

### Teacher's resources

- Ainetepäev. *Võru Kreutzwaldi Kool*. [Online]. Available at: <https://vkrk.edu.ee/ainete-paev-0/>
- Jussikese seitse sõpra koos BeeBot'iga. *CodeWeek*. [Online]. Available at: <https://code-week.eu/view/302056/jussikese-seitse-sopra-koos-beebotiga>
- Jussikese seitse sõpra. Kallis härra Q. *Õpik*. [Online]. Available at: [Online]. Available at: <https://www.opiq.ee/kit/425/chapter/23213>
- Jussikese seitse sõpra. European School Education Platform. <https://school-education.ec.europa.eu/en/networking/projects/173473>
- Meehommik 17. novembril* [Bee Morning, November 17]. Keila Kool. [Online]. Available at: <https://keilakool.ee/2023/11/19/meehommik-17-novembril/>
- Tegevuskava "Jussikese setise sõpra". *E-Koolikott*. [Online]. Available at: <https://e-koolikott.ee/rest/uploadedFile/15763/Jussikese%2Bseitse%2Bs%C3%B5pra.pdf>

#### AUTHOR

**Alexandra Milyakina** Researcher at the Department of Semiotics, University of Tartu, Estonia.



#### AUTHOR

**Maarja Ojamaa** Associate Professor of Semiotics at the Department of Semiotics, University of Tartu, Estonia.

