Children's literature and hypermedia. The digitalization breakthrough in the children's publishing sector

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Abstract. The paper aims to reflect on the parallelism between traditional and digital literature while analyzing the offer available on electronic market platforms. Taking into consideration adaptations of children's literature classics and original productions, such as enhanced books and apps, the paper purpose is to focus on interactivity and on the various degrees of involvement of the "digital reader" increasingly direct towards a prefigured visual narration.

Keywords. Children's literature, enhanced book, adaptation, picturebook, hypertext

Taking into consideration adaptations of children's literature classics and original productions, such as enhanced books and apps, the article purpose is to focus on interactivity and on the various degrees of involvement of the "digital reader" increasingly direct towards a prefigured visual narration. During the twentieth century children's literature had been progressively contaminated by other literary currents becoming more and more complex and rich in significance, literary and meta-literary speaking. However, children's literature developed in such way as a consequence of its adjustment to the literary current present worldwide, when narration was being carried through with a process of experimentation and reflection. Therefore, it is possible to say that twentieth century literature in general results both from the quantity proliferation of works inspired by previous genres and subgenres, and from the always increasing efforts of making the narration different and more complex also and above all thanks to experimentation. In the last fifty years the text major complexity proceeded side by side with a modification process of the narrative aids when, as stated by Bacchetti "consumable literature increased: cartoons, comic books, instant books"[1]. These novelties transformed "that 'minor literature' for youngsters, which had a mediocre worth as genre but a complex educational function. These paper texts become strongly incisive above all, if they are combined with videos, television programs"[2]. This changing situation contributed to produce a continuous series of educative and entertaining information spread through texts and images. The variegation of proposals causes the variation of themes and narrative codes thanks to different and new types of aids with variable interaction characte-

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[1] Bacchetti F., Cambi F., Nobile A., Trequadrini F., *La Letteratura per l'infanzia oggi*, Bologna, CLUEB, 2009, p. 26
[2] *Ibidem*, p. 26

ristics: from the collection of storybooks to books with images, illustrated books and pop-up books. The aids themselves went through more or less innovative variations and modifications; suffice is to think about the recent interpretations of illustrated books that changed their subject matter including specific sounds and textures.

1. From the traditional literature to the digital one

The arrival of electronics gave its contribution in making the offer even more complex with regard to the objects children relate with, affecting also the narrative domain. The progressive development of digital technology and the displacement of services and contents on the new electronic platforms led up to a significant change also for the fruition of the literary production.

The book maintains its attraction for being an almost perfect product thanks to the balance between readability, facilitation of the memorizing capacity, transporting convenience and immediate use. However, it is necessary to consider that the digital alternative, i.e. e-books, represent the turning point for the knowledge fruition history because they give the reader the possibility of holding in their hands the equivalent of the world literary production (the last models of e-reader have an internal memory up to 32 GB that allow to carry around about 50,000 books, in a device that weighs less than two hectograms)[3]. On the one hand these new technologies offer a huge potential, on the other hand they change the reading method, the fruition, the transmission, the education and the interfacing of the "digital reader". Therefore, this technological evolution, even more than in the case of books, requires an adult to be present as a guide and a mediator to educate young readers so that the latter can use electronic devices in a conscious and critic way[4]. The new ways in which untouchable and continuously changing digital products are used make cause their displacement from one platform to another without control. Therefore, always more powerful and versatile devices are brought into the equation becoming the meeting point among E-readers, Walkmans, television, computers and consoles. Smartphones and tablets apply for the title of king and queen of the all-round entertainment. The hardware features include a good audio quality, a back camera to photograph objects, and a front camera to "mirror" and take a picture of themselves. The high-resolution screen of such devices is equipped with a 10 simultaneous touches multitouch and the integrated microphone together with gyroscope and accelerometer. This microphone allows an immediate interaction. Is no wonder that children, teenager and sometimes even adults are immediately attracted and

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[3] Regarding the digital revolution C. Di Bari points out that "during the twentieth century the book domain had been questioned mainly by two revolutions: the first is electronic communication, which favored the diffusion of mass media, the second is information digitalization, which makes available an almost infinite quantity of pieces of information. In this respect, Gino Roncaglia speaks about "forth revolution" and, in accordance with Roger Chartier, affirms the current revolution is even more radical than the Gutenberg's one. New multimedia and digital technologies own characteristics that mirror the book structure, whereas previous revolutions had created tools to be alternative to books but not designed to replace them with specific functionalities and characteristics" See Di Bari C., *Testi, editori e lettori "digitali". Riflessioni pedagogiche,* in "Studi sulla Formazione", vol 2, 2013, p. 106
[4] See Campagnaro M., *Lettura tradizionale e lettura digitale. Quali proposte per continuare a leggere?* In Campagnaro M. (ed.), *Le terre della fantasia. Leggere la letteratura per l'infanzia e l'adolescenza*, Roma, Donzelli, 2014, pp. 219-231

ensnared by them thanks to their immediacy and ease of use, which are simplified every day more. In that regard, it is necessary to warn parents against the dangers of an indiscriminate use of electronic devices by children. In fact, Campagnaro reminds that "an unbridled and incorrect use of devices can damage psycho-physical health above all of children and youngsters. This incorrect use can also compromise learning and relational life because it makes them spend a lot of time indoors and in incorrect position and further reduce exercise and physical activity […]. Besides, it can make it difficult to focus on study and hamper the development of some cognitive functions and dimensions, such as creativity"[5].

With regard to true and proper digital literature, that is the full conversion of paper work in digital format, it is necessary to distinguish two main categories of products: e-books and enhanced e-books. The main difference between the two lies in the fact that e-books are simple transpositions of text and graphic works, whereas enhanced books are alternative products combined with the opportunity to interact with the digital book and benefit from extra contents such as animations, music etc. The last development of this product line is the hybrid composed by the paper book and the dedicated app, which is called enhanced publication because besides books it contains also articles, magazines and other types of paper aids. The utilization of the augmented reality enables the camera of the tablet or smartphone to frame the paper illustrated book or book and through the framing of specific pre-defined symbols make animations, clips, music and other types of digital contents start on the device.

- Apps offered and available on digital platforms can divided in three in three principle categories:
- Playful: apps designed to be a playful hobby, whose main objective is the user entertainment.
- Creative: apps specifically designed to stimulate the user creativity and favour their cognitive development.
- Storytelling: apps linked to narration, which include but are not limited to E-books, Enhanced E-books, AR apps and all those apps that carry forward narration through the text, images and interaction.

Unfortunately, such cataloguing must be considered as a broad outline distinction and does not find a real feedback in the effective app framing on the of digital marketplaces. This because they use many subcategories that vary depending on the reference platform (iOS or Android). Therefore, apps are electronic programs whose major key point is the interaction with the user. The offer evolution created a continuous flux of literary and non-literary production and modified its diffusion platforms. Narrative digital texts became more and more complex whilst multimodal fruition dynamics[6] increased up to when they even changed form, moving from the classical linguistic channel to a plurality of multimodal and multimedia channels[7].

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[5] Campagnaro M., *Lettura tradizionale e lettura digitale. Quali proposte per continuare a leggere?* In Campagnaro M. (ed.), *Le terre della fantasia. Leggere la letteratura per l'infanzia e l'adolescenza*, Roma, Donzelli, 2014, p. 222
[6] Lebrun M., Lacelle N., Boutin J. F. (ed.), *La littératie médiatique multimodale: de nouvelles approches en lecture-écriture à l'école et hors de l'école*, Québec, Presses de l'Université du Québec, 2012
[7] Lebrun M., Lacelle N., Boutin J. F. (ed.), *La littératie médiatique multimodale: de nouvelles approches en lecture-écriture à l'école et hors de l'école*, Québec, Presses de l'Université du Québec, 2012

Those available on the electronic market are apps that offer significantly high quality and educational levels, even if they are the minority of them and they are primarily designed from a purely commercial point of view. Good to remind is the economic footprint of these platforms that propose a wide range of offers dedicated to childhood to make it possible to choose among vast number of playful, educational and of mere entertainment[8]. However, editors and developers catalogue this mare magnum of applications according to not homogeneous criteria, which most of the times, tend to take into account primary the market orientation. The current production often evaluates the target audience instead of producing a true and proper educational program. This cataloguing freedom often increases the confusion of the consumer-reader, who is going to find apps in the sections dedicated to books and entertainment in addition to "duplicated" apps proposed in both categories.

2. The "complication" of the digital element

The digital one is for sure the last frontier of literature that is gradually expanding also in this sector; In fact, its value is recognised and there are specific dedicated spaces during the international fairs like the Bologna Children's Book Fair, the *China Shanghai International Children's Book Fair,* the *Montreuil Children book fair, The New York Rights Fair*, the *London Book Fair and others.* This increasing attention for digital brought a significant number of products ranging from text transpositions to the reworkings of great classics, which are integrated thanks to transmedia and cross-media material[9]. The proliferation of new articles offered, sometimes completely independent and innovative, pointed out some analogies with the variety of the editorial classic offer.

Currently, in digital bookshops coexist classics, which are re-proposed in various more or less reviewed editions, and true and proper re-workings that are inspired only by original works. Moreover, there are products that demonstrate a careful study of the original work modifying its aspect without transgressing its essence. This way forward contributes instead to renew such products making them an inter-semiotic proposal[10]. The majority of apps focuses on the integration of interactive elements that recall those present in the paper version as for example the app *Moi, j'attends*. This app is available on the electronic distribution platform Apple's App Store and therefore usable on iOS. The work by Davide Cali and Serge Bloch published by Éditions Sarbacane in 2005[11], which on the same year received the Prix Baobab at the *Salon du livre in Montreuil*, was converted in digital format in 2013 thanks to the collaboration among *Les films d'ici 2*, *La Station Animation and Les Éditions Sarbacane*. In this case the transposition resumes the original atypical form of the illustrated book (published in the stepped-outline format 270 mm wide and 105 mm and high) transporting in digital its poetic atmosphere besides integrating it with animations that require the reader interaction. In fact, with a touch the reader animates the element that triggers animations, that is that significative

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[8] Cfr. Frabboni, F., *La questione degli e-book*, in "Il Pepeverde", n. 90, 2011, pp. 25 – 27
[9] Cfr. Antoniazzi A., *Dai Puffi a Peppa Pig: media e modelli educativi*, Roma, Carocci, 2015 pp.83-87
[10] Eco U., *Dire quasi la stessa cosa: esperienze di traduzione*, Milano, Bompiani, 2012, p. 29
[11] Bloch S., Cali D., *Moi, j'attendes,* Paris, Éditions Sarbacane, 2013, currently available only on Apple App Store <https://itunes.apple.com/it/app/moi-jattends/id733823646?mt=8> (last consultation 9th February 2019)

fil rouge, which plays a fundamental role also in the original paper version. In the case of *Un livre des bruits* by Soledad Bravi, published by *L'École des Loisirs in* 2004, it is possible to find, always in the App Store, the App *Les Jeux du livre des bruits* that resumes the idea of the original work widening it in form of interactive games, which have the double effect of stimulating and educating the user.

As a result, apps, when they are not simply limited to pursue monetary objectives, prove to be a particularly effective mean, that expand beyond the standards of classic literature. Because of their hypermedia and interactive intrinsic characteristics, and by virtue of the plurality of semiotic resources used, in fact, apps bypass the normal analysis literary methods complicating the picture markedly. The narrative communication channel, which appears decidedly important also with regard to the paper aid, in this case becomes a further variable that complies with the individual's abilities and characteristics; in fact, the hypermedia text fruition by youngsters did not raise spontaneously and is not universally verifiable but results instead from development environment and reflects the cultural context and the educational practices typical of the social and family environment, in which people live[12]. Besides these variables, which already complicate considerably the evaluation picture, it is important to take into account the child's attitude and willingness to become an active and interactive reader. These are characteristics that vary depending on character traits, socialisation skills and on the motor development[13].

Cognitive psychology demonstrated a general attitude that favours people's development of comprehension processes concerning narration. The onset of such processes does not depend on type of narrative fruition and results independent from the mean of communication used, regardless of its being visual, auditory or multimedia (reading, out loud reading or vision of clips[14]. Nevertheless, recent studies demonstrated that children respond in different ways to the multiple types of multimedia narration, which provides variable responses regarding the reception and the interpretation of the message. Moreover, in absence of an adult guiding and addressing children towards a conscious use, the latter tend to use electronic aids merely for ludic and entertainment purposes[15]. Even if readers demonstrate a particular liking for the interactive parts of hypermedia texts[16], the latter risk to bore and distract the reader when they do not prove some degree of interaction variation and unpredictability. The result of this is that the comprehension and the involvement of the reader are considerably reduced.

Bellatalla points out that reuse and rewriting are used to make youngsters approach literature classics. Practically this is about drawing with both hands on the great classic proposing new publications, in which the original text is "often maintained in a properly reduced form. In other cases, instead, it is even rewritten both with a modern and com-

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[12] Ramada Prieto L., Reyes López L., *Digital Migrations: Exploratory research on Children's E-Lit Reading Profiles* in Manresa M.,Real N (ed.), *Digital Literature for Children. Texts, readers and educational practices,* Bruxelles: Peter Lang, 2015 pp. 121–136

[13] Cfr. Real N., Correro C., *Digital Literature in Early Childhood. Reading Experiences in Family and School Contexts,* In Manresa M., Real N. (ed.), *Digital Literature for Children. Texts, readers and educational practices,* cit. p. 181.

[14] *Ivi,* p.185

[15] *Ibidem*, p.185

[16] Manresa M., *Traditional Readers and Electronic Literature. An Exploration of Perceptions and Readings of Wigital Works,* In Manresa M., Real N. (ed.), *Digital Literature for Children. Texts, Readers and educational practices,* cit. p. 111

prehensible language and in brief form"[17]. These productions have the undoubted value of making youngsters approach great classics by stimulating their imagination, encouraging them to broaden their still limited horizons and addressing them towards the fruition of refined and of great significance works. Obviously, there is also the reverse side of the coin that is the economic, marketing, aspect. This aspect affects those re-editions, because they are customised but most of the times distort the original message.

3. The digital editorial proposal between Google Play Store and Apple App Store

Analysing the offer available on electronic platforms, it is evident that adaptations of great classics are much more widespread compared to original works, which are realized and thought for such platforms especially considering the characteristics of the fruition means. In spite of this lack of true and proper works to be considered entirely new, in any case, apps appear imaginative and the plurality of semiotic levels used favours the emotional involvement and the reader interaction adding further elements to the narrative material.

The adaptation of great classics is certainly not an innovation arising from the out coming of digital and simply represents the last step of a narrative process of re-interpretation, process that, over time, spaced through all media channels. Therefore, the availability of a higher number of great classics transpositions is not to be considered negatively, but rather as a picture of the digital offer available on the different multimedia platforms at the moment of drafting this article.

A significative example, which resumes the above, is *The Little Prince* app, a pop-up book for children[18], edited by Larixpress. The small start-up in Bolzano[19] transformed the famous story narrated by Antoine de Saint-Exupéry adjusting it in five chapters that include a total of thirty-four animated scenes combined with five pieces of original music and more than sixthly sound effects. Starting from the original drawings of the author, Larixpress tried to harness the work's poetics recreating the work in a condensate of multimedia and interactions, which entertain the reader taking advantage of all the semiotic channels at disposal. This app is a more than striking example of what reported up to now concerning the digital world: it not only set fully in the category of great classics transpositions and fully reflects its characteristics, but it serves as picture of the chaotic situation regarding contents management mentioned above. Therefore, a research carried out on the store of Google Play inserting the keywords 'little' 'prince', would make come out, in chronological order, results concerning audiobooks, e-books proposed by different publishing companies, music, films and only at last, apps including

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[17] Bellatalla L., *Interpretare i Classici*, in Bacchetti F. (ed.), *Percorsi della letteratura per l'infanzia. Tra leggere e interpretare*, Bologna, CLUEB, 2013, p. 50

[18] Available on Google Play Store <https://play.google.com/store/apps/details?id=com.larixpress.kleineprinz&hl=it%E2%80%A8http://> (last consultation 5th February 2019)

[19] AA. VV., *The Little Prince. Free adaptation for children*, Bolzano, Larixpress, 2016, <http://larixpress.com/it/home-it/> LARIXPRESS is a publishing company that produces apps for children available in Italian, German and English, on smartphones and tablets destined to the international market. The apps *he Little Prince* and *Tino the Triangle* obtained international distinctions, among which one nomination by KIRKUS REVIEWS in the category the best books of 2013. The publishing company cooperates also with museums and cultural institutions in order to find customized digital solutions such as audio guides or didactic paths.

this one, even if it can be found in the 'education' category. It is necessary to mention another result of such research regarding the app of Books2AR[20], which is a divided programming of the small Spanish publishing company Editorial Paidotribo in Badalona[21], which proposes books combined with app that take advantage of the augmented reality**.** The one of the Augmented Reality is a developing sector, which makes the assortment of apps available more various and complex placing alongside the simple transpositions the already mentioned enhanced publications. The majority of apps that take advantage of the augmented reality allow, through smartphones and tables, the framing of the surrounding world. Moreover, such apps, thanks to specific drawings affixed on signs, plates or in this case on the book, provide the input for the app to 'increase the perception of reality'. Most of the times, such augmented reality, consists in information tables, three-dimensional models or animations linked to the text, which integrate perfectly with it[22]**.** In case of 2AR books, for example, it is possible to frame the planet of the Little Prince and see active volcanos firing smoke and, in case of touching the forefront volcano, it is possible to see it sparkling. In the case of the Baobab representation instead, once the drawing has been framed with the camera, it is even possible to play with a three-dimensional planet attempting to save it from the uncontrolled plants growth. Another illustrated book combined with the augmented reality (even if only for animations objectives) is the illustrated book published by DeAgostini: *L'orsetta MUR[23]*. Images that include a robin can be framed with the camera, and touching the bird, makes animations start. Though it is well designed and drawn, the app is quite limited and 'accompanies' the reader with 'contour' animations. They are contour animations because they are de-touched from the text and do not add anything to the narration.

Therefore, enhanced books demonstrate to be, unlike mere digital transpositions, the point of contact between classic literature and digital apps. This contact not only allows the existence of both but their co-existence in a sort of narrative symbiosis, in which they merge with each other giving way to a work that raises and develops inside of this delicate balance, which could not take shape, if one of them failed.

The different digital forms, in which great classics are transposed, are innumerable range from the conversions to audiobooks, to e-books and to true and proper apps, which include the transposition of the whole original work subdivided into separated chapters combined with original illustrations. An example is *Alice's adventures in Wonderland* by Lewis Carroll, which takes digital the form in an infinite number of applications, which include: themed card games, animated screen savers, endless run games, three in a row games, graphic adventures and so on, without considering the innumerable transpositions in audiobooks, e-books and apps subdivided into chapters. Of the latter, there are more than ten available each one is sometimes accompanied by original drawings sometimes by new illustrations. Among the numerous apps dedicated to Alice

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[20] <http://www.books2ar.com/epc/index.html > (last consultation 30th January 2019)
[21] <http://www.paidotribo.com/> (last consultation 2nd February 2019)
[22] Toschi L., *La comunicazione generativa,* Milano, Apogeo, 2011
[23] Happonen K., Vasko A., *L'orsetta Mur*, Milano, DeAgostini, 2018 app available on Google Play Storeandd Apple App Store <https://play.google.com/store/apps/details?id=com.stepinbooks.mur&hl=it> <https://itunes.apple.com/it/app/mur/id1182905793?mt=8> the app was developed in 2016 by the digital publishing company Step in Books

particularly interesting is *Alice Wonderland - Adventure Game*[24] by the Finnish program-
ming company *Harha Studios,* which consists in a true and proper 3D graphic adven-
ture with first-person view. In this completely free indie game, whose *Beta Release* was
at the end of 2018 and whose more recent update is dated 9 February 2019, people find
themselves playing in the shoes of Alice in an adventure that goes faithfully back over
the book plot. Currently the game is still being developed and it is possible to play up
to when Alice runs away from the rabbit house to meet the Brucaliffo. Apart from the
merely technical judgement about the videogame, which even if developed with recent
graphic motors such as *Unity Engine*[25], in its realization shows the limits of a software
house probably developed only by one programmer, who works more for passion than
for profit[26]. In any case, the amalgam created taking advantage of the mingling betwe-
en game and setting interspersed with the original text. This method, regarding style
and use, is borrowed from the silent cinema of the early twenties of the twentieth cen-
tury**.** In this case, the app takes advantage of the video game to obtain an even more
marked identifying bringing to the hybridisation of narration, which if developed with
the appropriate means, could lead to undoubtedly interesting scenarios. Other literature
classic that sees itself being reinvented and re-proposed through an infinite number of
variables is the Little Red Riding Hood fairytale; that is also elaborated in innumerable
versions and games as *Alice's Adventures in Wonderland*. Wanting to name some of the
most interesting apps dedicated to them, a starting point could be *Lil' Red - An Interac-
tive Story*[27] edited in 2012 by Brian Main, who in this case is also author and illustrator.
The story plot, although it is sketched, is almost identical to the classic version: different
is only the fact that the grandmother, instead of being eaten by the wolf, is locked by it
in a wardrobe until when she finally manages to release herself and call for help. The
difference that becomes immediately apparent is that, in this case, the transposition is
completely de-voided of text and leaves the possibility for the user to integrate and build
narration as it happened for the secular Japanese ort of Kamishibai, which has recently
been rediscovered in editorial key, concerning the works dedicated to out loud reading[28].
The app consists in an amalgam of different elements: music, illustrations and interac-
tions, which contribute to instil new life to the story. Also, the graphics is quite refined
consists of illustrations in grayscale enriched by shades of red, which offer an atypical
and captivating visual contrast. The story is narrated through visual cartoons completely
de-voided of words. This thing that contributes to overcome possible barriers imposed by

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[24] Paaso J., *Alice Wonderland - Adventure Game,* Finlandia, Harhastudios, 2018, app available on Google Play
Store <https://play.google.com/store/apps/details?id=com.JuhaniPaaso.AliceWonderland> and Apple Store
(last consultation 9th February 2019)
[25] For further information please refer to <https://unity3d.com/> (last consultation 10th February 2019)
[26] Harha Studios seems to be only composed by the programmer Juhani Paaso https://connect.unity.com/u/
juhani-paaso
[27] *Lil' Red - An Interactive Story,* Austria, Brian Main, 2012, currently exclusively available on Apple Store
<https://itunes.apple.com/no/app/lil-red-an-interactive-story/id561436050?l=nb&mt=8> the app is no longer
available on Google Play Store because of problems of compatibility with the latest version of Android
[28] Kamishibai, or image theatre, is a traditional japanese expressive form of image narration. It was
widespread in Japan between the thirties and the fifties of the last century being street theatre. The term
derives from the combination of the words "kami" (paper) and "shibai" (theatre, dramatization) and can be
translated as "paper theatre". It consists of a wood theatre to a limited extent (butai). Within which a narrator
(kamishibaiya) scrolls drawn, which illustrate a story in sequence. It was replaced by television and recently it
has been rediscovered in Japan and in other countries in the world, from Europe to South America.

language and disability. The author connects to the different characters an instrument that serves as accompaniment: xylophone for Little Red Riding Hood, contrabass for the Wolf and clarinet for the Grandmother together with other instruments, which accompany illustrations, with which it is possible to interact. The formula is certainly winning and make this app a rare pearl in an abundance of apps, whose interaction is usually repetitive and captivating.

The interface of the app *Mr. Lupo e i Dolcetti allo Zenzero*[29] results equally various and boasts more than 150 elements between interactions and sounds. Edited by the Australian programming company Blue Quoll[30] in 2011, this app proves to be a fresh reinterpretation in comic key of the classic fairytale of Little Red Riding Hood, from which it detaches itself starting from the name. The protagonist of this story is going to find herself defending her precious charge of ginger biscuits from an eager vegetarian Mr Wolf, which is going to try to take possession of the precious loot in the most various and imaginative ways. Also, in this case, the author gives a universality footprint seeking to cover as many languages as possible giving the possibility to select the narration in Italian, English, French, Spanish, Chinese or Japanese. Other app that delays about the vegetarian lifestyle, is Little Green Riding Hood edited in 2015 by the Russian programming companies Bobaka LLC[31] for Android e by Huracan App[32] for iOS. This is an organic fairytale[33], which progresses on a narrative thread surely distant from the one of the traditional story: the grandmother is a yoga teacher and Little Green Riding Hood a healthy child, who attempts to convince the wolf to modify its lifestyle in favour of a greener, healthy and modern one, which could allow it to live in peace with the other forest animals, without putting their lives because of its nutrition regime.

Among the various interpretations, which appear more similar to the classic Little Red Riding Hood fairytale, results interesting *The Little Red Riding Hood*[34] proposed by the Uzbek programming company AmayaKids[35],which foresees interludes between a classic book version and one changed from pop-up books; in fact, in this app the narrated story is subdivided into chapters with interludes of interactions. At first, narration is taken forward with the text being affixed on a virtual book with two-dimensional illustrations. When turning the page, with an animation that simulates the action of browsing a book, people suddenly find themselves causing a change of frame, which makes a three-dimensional animation appear, which simulates in all its parts the clas-

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[29] Masciullo L., *Mr Lupo e i dolcetti allo zenzero,* Australia, Blue Quoll Digital Publishing, 2012 App available on Apple Store <https://itunes.apple.com/it/app/mr-lupo-e-i-dolcetti-allo-zenzero-lite-cappuccetto/id431181109> (last consultation 11th January 2019)

[30] For further information about the digital publishing company please refer to <http://www.blue-quoll.com/> (last consultation 12th February 2019)

[31] < http://bobaka.com/ > (last consultation 8th February 2019)

[32] <http://huracanapps.com/> (last consultation 2nd February 2019)

[33] *Cappuccetto verde, una favola ecologica,* Russia, Bobaka, 2015 Available on Google Play Store <https://play.google.com/store/apps/details?id=com.bobaka.greenridinghoodapp&rdid=com.bobaka.greenridinghoodapp> and on Apple App Store <https://itunes.apple.com/it/app/cappuccetto-verde-il-libro/id977242839?mt=8 > (last consultation 5th February 2019)

[34] *The Little Red Riding Hood*, Uzbekistan, AmayaKids, 2018, the app is available only on Google Play Store <https://play.google.com/store/apps/details?id=com.amayasoft.single.redridinghood.en> (last consultation 3rd February 2019)

[35] AmayaKids creates educational games for children in order to build long lasting learning through gaming. Their aspiration is introducing children in the digital world in a ludic and 'kind' way opening for them a completely new world. Play to stimulate children's imagination and creativity.

sic pop-up illustrations of paper books. In this pop-up animation it is possible to interact with the scene objects: in the first animation Little Red Riding Hood asks the user to indicate which is the bird that is emitting the audible sound and if the answer is correct, she gives pieces of information about the animal, adding to the entertainment also educational elements, detached from the original story. In truth, this app is not the only one of this kind but is part of group that is proposed through a mini '*App Store*' of AmayaKids. The latter is an app for Google Play Store entitled *Fairytales ~ Children's Books, Stories and Games*[36], which serves as library for the novels proposed by the programming company. The purchase of the single fairytales is made by using golden virtual coins, which can be gained directly purchased on the store through electronic payment. Also, in this case, transpositions provide a significant level of universality thanks to the possibility of selecting from the app *Fairytales* the language to be used (it is possible to choose among English, Russian, German French, Korean and Spanish). In some cases, this function could limit the number of available novels, because they could not be translated; in fact, such selection will not only modify the language of the menu and of the text story but also the narrating voice and the dialogues in the animations, seem to be dubbed in an efficient way. To be considered is also the fact that also this app gives the user the possibility to read the text directly or to request the out loud reading by the narrator.

The contemporary production of works that can be defined as 'new' in every aspect, tends to use interactivity and hypermedia in order to give the user a poetic experience very similar to that of modern illustrated books back. This practice prefers an open interpretative approach, without holding back even on complex issues. Among the different recent works, some take advantage of an essential and minimalist poetics, inherited from the more intimist literature and 'speak' directly to the 'reader'. Blezza Picherle points out that "this type of writing, which digs further, engages the youngster deeply, who consequently becomes interested in reading. This because, he finds alike to life. Moreover, as he sees between the lines problems and emotions similar to his, he can obtain a better comprehension and consciousness regarding his state of mind"[37]. There are apps that gain the ownership of this method of direct communication; these include *Florence*[38], app edited and distributed by Annapurna Interactive[39], which is a true a proper interactive fairytale that takes forward a silent narration made of ludic dynamics and simple graphic solutions but not to be considered foregone. Created by Mountains an Australian team of producers whose leader is Ken Wong, lead designer of Monument Valley[40]. Florence tells the first true love story of a young woman, highlighting both the

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[36] *Fairytales Children's Books, Stories and Games,* Uzbekistan, AmayaKids, 2018, <https://play.google.com/store/apps/details?id=com.amayasoft.bookstorem4.en> (last consultation 3rd February 2019)

[37] Blezza Picherle S., *Libri, bambini, ragazzi. Incontri tra educazione e letteratura*, Milano, Vita e Pensiero, 2004, p. 266

[38] Wong K., *Florence*, Australia, Annapurna Interactive, 2018 Disponibile su Google Play Store

<https://play.google.com/store/apps/details?id=com.mountains.feathertop&hl=it>; e su Apple App Store

<https://itunes.apple.com/us/app/florence/id1297430468?mt=8>;   and on App Store <https://itunes.apple.com/us/app/florence/id1297430468?mt=8>

[39] Gaming division of the producer and distributor Annapurna Pictures <http://annapurna.pictures/>

[40] See Palmisano A., *Nulla è ciò che sembra. Ustwo is back on the scene with an exceptional game,* 2014 <https://multiplayer.it/recensioni/130533-monument-valley-nulla-e-cio-che-sembra.html> (last consultation 13th February 2019)

slighter and the more conflictual sides. Narration is taken forward in the almost total absence of textual and vocal elements but only thanks to music, game dynamics and the characters' posture and expression together with the illustrations graphics. The app proves to result from a careful reflection; the team of developers stated to have drawn its inspiration from the atmospheres of the film *Eternal Sunshine of the Spotless Mind*[41], by Michel Gondry, and it seems good to underline that narration is taken forward with rare taste and poetics; the impossibility of reconstructing the puzzle of two now separated entities, the drift of a photograph torn to pieces, which seems impossible to recompose and the obligation of letting a past love go, simply waiting for the lack of action. These are only some examples of this work's communicative solutions. According to the scholar Blezza Picherle "The research of a cared for language, that is incisive and original challenges not only the authors, who write for youngsters and adolescents, but also those, who target children in preschool age. Very often this is all about a simple style, refined for the expressions being used, for the ability with which authors choose terms combining them in an unpredictable way invent the first simple similarities"[42]. In the same manner, authors of this app found simple and direct solutions and combinations, which, however, result weighed and pondered as the modifying of puzzle connections that compose comic strips. Such comic strips become more and more sharp edged as the contrast turns into a discussion as for the instruments notes underline the statements of everyone, in a discussion, in which also the body posture seems to make understand how each of the two lovers takes over overpowering and crushing each other.

Conclusions

The work digitalisation allows to obtain organised texts in always different ways thanks to the variety of manipulating interactions offered on touch surfaces of electronic devices. Potentialities offered by such aids modify also the same structure of pages, which become malleable and can be browsed in different directions rotating the device and touching specific parts of the screen. Thanks to integrated sensors in smartphones and tablets, such as accelerometer and gyroscope, apps appear true and proper hypermedia works, whose development possibilities seem to be, if not infinite at least boundless. The gap with the classic paper literature becomes therefore abyssal at least concerning the sensory experience. However, this difference raises an interesting question about the consequences of the displacement of the communicative language. The multiple interaction possibilities offered by apps, even if numerous, interesting and unedited, in any case vary in number, from an app to another but falls in a rigid predetermined scheme. It is not important how much the level of interaction is complex, or the freedom left to the reader, apps, although complex, are subject to the computer programming laws and therefore provide an anyway finite branch of decisions, interactions and possibilities[43]. This finiteness inherent in apps entails therefore limitations, which on the one hand

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[41] See Ramonda C., *Florence. La cronaca di un'amore,* 2018 <https://www.mamamo.it/app/florence-cronaca-un-amore/>
[42] Blezza Picherle S., *Libri bambini ragazzi,* op. cit., p. 250
[43] See McConnell S., *Ingegneria del codice: manuale pratico per la costruzione di software completo*, Segrate, Mondadori Informatica, 2005, pp. 3-6

enriches narration experiential elements, on the other hand impoverishes it in the variety of possible interpretations[44]. The enrichment of semiotic levels, generated by different media, which stimulate simultaneously different sensory channels, adds to the narrative experience a ludic level of undoubted value[45] contributing to create an alternative narration to the traditional one. However, at the same time, narration is limited at interpretation level by the same enrichment process of the experience, which provides already 'precompiled' and finite interpretations. At least in part, these replace those imaginative processes made necessary by classic literature. Literature uses the text as communicative mean giving the reader guidelines for the interpretation of narration and leaving the reader free choice about the figuration of characters and environments details. This hybrid narration instead provides a packaged product moving the imaginative limit from the reader fantasy to the programmer fantasy as it happens in other narrations like the cinematographic one[46].

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[44] Concerning this, it is interesting to take into account what stated by Calabrese with regard to the 'credulity' of the reader/user: "Nowadays readers are free to enter a fictitious world and (to believe that) affect the course of events when it weakens the authority idea and in this power vacuum, in this no-man's-land of narrative communication, which imposes itself the immersive entertainment, whose salient point is precisely a mix of fiction that imitates realty and of reality that imitates fiction in a mixture, which has shaded borders that favors more than evert he suspension of incredulity mentioned by Coleridge. Indeed, nowadays it is possible to talk about a voluntary 'activation of credulity', a temporary faith in fiction by the user, who voluntarily chooses to be 'deceived' and wants to consider himself as a sub-creator, who makes a voluntary and personal contribution to the story world, in which advances" See Calabrese S., *Romanzi in realtà aumentata,* in "Between", vol IV, n.8, 2014, p. 9

[45] See Maragliano R., *Manuale di didattica multimediale*, Laterza, Roma, 1994, pp. 90-91

[46] See Tinazzi G., *La scrittura e lo sguardo*, Marsilio, Venezia, 2010, pp. 15-27

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