Crossovers: Digitalization and literature in foreign language education

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Abstract
Digitalization produces increasingly multimodal and interactive literary forms. A major challenge for foreign language education in adopting such forms lies in deconstructing discursive borders between literary education and digital education (romance of the book vs. euphoric media heavens), thereby crossing over into a perspective in which digital and literary education are intertwined. In engaging with digital literary texts, it is additionally important to consider how different competencies and literary/literacy practices interact and inform each other, including: (1) a receptive perspective: reading digital narratives
and digital literature can become a space for literary aesthetic experience, and (2) a productive perspective: learners can become “produsers” (Bruns, 2008) of their own digital narratives by drawing on existing genre conventions and redesigning “available designs” (New London Group, 1996). Consequently, we propose a typology of digital literatures, incorporating functional, interactive and narrative aspects, as applied to a diverse range of digital texts. To further support our discussion, we draw on a range of international studies in the fields of literacies education and 21st century literatures (e.g., Beavis, 2010; Hammond, 2016; Kalantzis & Cope, 2012; Ryan, 2015) and, in turn, explore trajectories for using concrete digital literary texts in the foreign language classroom.

Keywords: digital literature; literary learning; digitalization; foreign language education

1. Toward digital literature: Crossing borders in foreign language education

In the digital age, new media formats such as mobile apps are gradually working their way into the foreign language classroom. Although this process might at times be supported with sound pedagogic and purposeful reasoning, such integration is also very often selective and unsystematic. Yet, such integration requires a deep understanding and typologization of frequently emerging digital media in view of their learning and teaching potential. Apart from when new apps or software “flash up” in an isolated fashion, the digital age also moves whole phenomena and fields of inquiry – such as literature and literature didactics – into focus to call into question and renegotiate their disciplinary and material self-conception (see Hammond, 2016; Zimmermann, 2015). In this article, we will develop a line of reasoning that centralizes the phenomenon of digital literature and its role in renegotiating what counts as literature in the digital age. In doing so, we incorporate the terminology offered by Zimmermann (2015, p. 14) and Simanowski (2002), who use the term “digital literature” to demarcate and redefine related terms such as hyperfiction, net literature or electronic text in order to reconfigure significant literary concepts such as the reader role or authorship. This reconfiguration invites a range of new perspectives for the teaching of literature as a distinct field of study within ELT and TEFL, including:

- the role and nature of literature in the curriculum and the classroom (Beavis, 2010);
- the changing reading preferences of learners (e.g., multimodal and digital texts) and attempts to mirror students’ out-of-school textual experience in the classroom (Beavis, 2010; Kalantzis, Cope, Chan, & Dalley-Trim, 2016);
- the changing realities of socializing children and teenagers into becoming “readers,” which encourages a careful reflection upon established practices of “reading” in classrooms.
To specify these perspectives, we draw on Dawidowski (2013) who elaborates how reading digital literature is often no longer a linear endeavor as with print literature, but, indeed, a discontinuous decoding of textual and multimodal information where contemporary reading practices by readers below the age of 30 are marked by “switching, zapping [and] zooming” (Dawidowski, 2013, p. 13). In a similar vein, Gralley (2006, p. 36), illustrator of children’s books, argues that when we are “able to uncouple the idea of the book from paper thinking” – new possibilities for constructing and connecting texts and images in multimodal and digital ways open up that have hitherto been unthinkable with the materiality of print and page-bound books (see also Ritter, 2013). This can lead to new dynamics of presenting and interweaving narrative elements in digital literature, thus, creating innovative literary and aesthetic experiences for a “new” readership outside of pure “paper thinking.” In considering language learners as members of this “new” readership, we are concerned with the ways in which digital literature may open language learners to new and relevant discourses as they engage with digital texts, with how meaning is formulated for learners as they encounter the target language alongside a range of semiotic systems within digital literary spaces, and with how new aesthetic experiences offered by digital literature relate to established considerations on the pursuit of literary competence in the foreign language classroom. These considerations are rooted within a larger orientation towards literary learning – or literature didactics, as it is known in Germany – in foreign language education (e.g., Diehr & Surkamp, 2015; Küstler, Lütge, & Wieland, 2015; Lütge, 2012). The authors take for granted the valuable role literature can play in the development of communicative competencies and broader literacies as learners interact with authentic texts that offer access to aesthetic literary experiences and opportunities to engage with relevant intercultural insights and social themes.

In contrast to the above rather optimistic outlook towards digital literature, one can also retrace public and educational discourses – articulated, for example, by parents or teachers – that at times tend to privilege the analog book as an educational medium and marginalize digital literature (Dawidowski, 2013). A certain skepticism towards digital media, in particular towards accepting their alleged, real or assumed “promises of salvation” as absolute, also becomes apparent in discourses of literary didactics. For the teaching of German literature, Ritter (2013, p. 1) identifies pendulum swings that characterize digital-literary formats either as innovative border crossings or as superficial sensationalism. For the future of the literature classroom, we argue that it will become necessary to avoid articulating the relationship between the digital and the literary in such purely bipolar oppositions where the pedagogic trajectory is either clearly negative or excessively positive. Instead, we propose taking up a more sober and
mediating position to explore the diverse ways in which digital literatures are bound to develop, and to engage with the manifold perspectives and potentials these developments will engender for the theory and practice of literature didactics (Lütge, 2018). Specifically, it will be interesting to see the conceptualization of new notions of literacies required by practices of digital reading (see Harrison, 2009), from which new impulses for discussing the nature of literature and its educative potential can be expected. As our line of argumentation will show, it is a deep understanding of the structure of digital literature and the way such literature is “read” that contributes relevant insights to this discussion – both from the vantage point of literary studies and the pedagogy of teaching literature.

We further argue that our crossover of digitalization and literature in the context of EFL pedagogy must be accompanied by combining the didactic discourses of using literature and of using media in the classroom, which are currently considered in a fairly separate manner rather than being investigated for productive overlap. This separation must seem ever more surprising when we take seriously what Kalantzis et al. (2016, p. 2) observe:

Meaning is made in ways that are increasingly multimodal – in which written-linguistic modes of meaning interface with oral, visual, audio, gestural, tactile and spatial patterns of meaning . . . we need to extend the range of literacy pedagogy beyond alphabetic communication . . . we need to supplement traditional reading and writing skills with multimodal communications, particularly those typical of the new, digital media.

This inextricable entanglement of diverse meaning-making modes and practices of text reception in the context of digital media can also be readily transferred to dealing with digital-literary texts, where literary meaning is constructed in multimodal, interactive and functionally innovative ways. Against this backdrop, we seek to legitimize and achieve the combination of teaching digital media with teaching literature in foreign language education, for example, by bringing together concepts of literary literacy or literary competences (e.g., Diehr & Surkamp, 2015; Lütge, 2012; Volkmann, 2012, 2015) and media competences and digital literacy (e.g., Dudeney, Hockly, & Pegrum, 2013; Volkmann, 2012). Apart from a few exceptions (e.g., Brunsmeier & Kolb, 2018), we wish to emphasize that although the research on teaching with literature in foreign language education is quite robust, particularly within Germany (e.g., Diehr & Surkamp, 2015; Küstler et al., 2015; Lütge, 2012), this body of work has rarely engaged with digital developments in the world of literature so far. This is surprising not only in view of existing international research in this field, such as in view of Kalantzis et al.’s (2016) observation quoted above, but also because the advent of an extended notion of text and a broad understanding of what counts as literature have long been considered established in research and classroom practice...
Therefore, we conceptualize our engagement with digital literature in this article as a promising case in point for bringing together a literary and digital education that neither cashes in on a euphoric technological “cybertopianism” (Page & Thomas, 2011, p. 8) nor celebrates uncritically a romance of the print book when the understanding of what counts as literature in the digital age must be deeply expanded. What follows is an exploration of a new field that couples our research on analyzing and typologizing the phenomenon of digital literatures with harnessing the potentials (e.g., interactive, creative-productive, imaginative) for foreign language education.

2. Digital literature: Modelling a typology

In this section, we propose a multidimensional model to describe and typologize the phenomenon of digital literature. Such a model, we argue, is crucial groundwork to conceptualize – in a second step - pedagogical implications for the EFL literature classroom in which digital literature moves into focus. This model is a key outcome of the current research project DigitaLiterature that has been implemented at the Chair of TEFL at the Ludwig-Maximilians-Universität (LMU) in Munich since 2017. From a theoretical perspective, the articulation of this model integrates research from media and literary studies, pedagogy and impulses from games studies. Based on a broad corpus of digital-literary texts stored on digital devices (mainly tablets or laptops), we closely examined a range of digital-literary texts and analyzed their specific characteristics. This allows us to develop a deep understanding of the changing nature of literature in light of the digital and to generate substantial insights into an area hitherto largely unexplored and unknown in foreign language education research.

With the advent of new narratives, as Page and Thomas (2011) show, new practices of reading and conventions of reception will emerge. Yet still, the influence of digital literature on literary theory and literature didactics has yet to be systematically explored. For example, what needs to be explored is the degree to which the technological and functional features of a literature app can influence a story’s development and its narrative potential. Only then can one reasonably evaluate the possibilities of didactic applications of digital literature - rather than jumping to polemic and hasty conclusions. This discussion is imperative both for identifying which digital literature is valuable for curation into the foreign language education context and in considering which methodological interventions may be developed for working with such digital literature in the classroom. On a further level, what appears relevant to us is the dimension of interactivity which can unfold between a reader, a digital text and potentially other readers. In addition, we also turn to those elements that affect – and often
fundamentally influence – the *narrative* structure and architecture of a story. Therefore, literature in the so-called “brave new digital classroom” (Blake, 2013) has to consider a range of parameters which we will detail in the following section. These include what we have identified as aspects of functionality, interactivity and narrativity on the one hand, but also the double bound function of the learner as reader or reader as learner that is relevant both from a literary studies and a literature didactics perspective. By taking up these parameters in an acronymic fashion, we call our model FINaLe to entail aspects of Functionality, Interactivity, Narrativity and Learner-Reader-Role (Figure 1). In taking this FINaLe model as a starting point, it will become possible to achieve a systematic exploration and description of digital literature and reflect didactically on the changing nature of what counts as literature. Based on this thorough understanding of digital literature and the ensuing implications this has on foreign language education, it becomes increasingly possible to articulate the digital-literary competences necessary to engage more deeply with digital literary texts and their meaning-making through the interplay of functional features, interactivity parameters, narrative architectures and learner-reader-roles.

![Figure 1](image.png)

**Figure 1** The FINaLe model with its aspects of functionality, interactivity, narrativity and the learner-reader-role serve the systematic exploration and description of digital literature and the articulation of digital-literary competences necessary to engage deeply with digital literary texts

To introduce the FINaLe model into ELT discourse, what will now follow is an explanation and exemplification of the individual parameters this model entails. For each parameter, we offer a few brief examples of existing digital literary
texts and a more extensive exploration of example texts in select case studies. In doing so, we draw on a range of existing theory and typologies on digital literature from both inside and outside the fields of general education and foreign language education. By substantiating each theoretical parameter with concrete literary-digital examples, we seek to illustrate the intricate connection – or indeed, the crossover – between digital and literary education.

2.1. Functionality

To achieve a sound typologization, what needs to be explored are the functions of digital literature that are immediately caused by technological-digital parameters. For this purpose, we consider Ruben Puenteledura’s SAMR model to be particularly valuable (Puenteledura, 2015). As an acronym, SAMR is based on four elementary steps called Substitution, Augmentation, Modification and Redefinition. These four elements are helpful for constructing categorizations that capture and characterize the functional structure of digital media and apps at large, and of digital literature in particular. The SAMR model is didactically relevant in that it shows – and here we follow Dudeney et al.’s (2013) evaluation of this model – that “some uses of new technologies lead at most to an enhancement of education, while other uses lead to real transformation” (p. 46). Thus, a starting point opens up that allows for differentiating between mere enhancements or true transformations of teaching approaches that rely on digital media (Lütge, 2018). According to Puenteledura (2015), substitution and augmentation are located on the level of enhancement:

1. With substitution, the technological component serves as a direct tool substitute for analog functionalities, but there is no functionally qualitative add-on to traditional applications (e.g., simple e-books that can be read on e-devices where they substitute paper, but do not offer any enhanced functionalities apart from turning the page electronically).

2. On the level of augmentation, technological components work towards substituting analog functionalities and, simultaneously, enhancing possible application options (e.g., more advanced e-books which offer a broader range of functions, such as being able to highlight passages and take notes which can be shared digitally, audio readings of the text which can be toggled on or off, or interactive vocabulary glosses. Functionally, these components substitute, for example, bookmarks and sticky notes, paper dictionaries and audiobooks).

The level of transformation also distinguishes between two distinct sublevels, modification and redefinition (see Puenteledura, 2015):
1. *Modifications* introduce technological components that achieve a substantial change in terms of what is possible on the level of task design (for example, the children’s literature app *Wuwu & Co* (Step In Books, 2016) features embedded riddles that need to be solved while reading in order to continue with the storyline).

2. Finally, the aspect of *redefinition* addresses technological components that offer completely new and hitherto unimaginable or unattained possibilities for task design (e.g., the app *80 Days* (inkle, 2016), a digital adaptation of Jules Verne’s classical text, generates numerous individual paths for navigating a highly complex storyworld while setting the reader different tasks that are generated depending on how the player interacts with the game world).

In evaluating the SAMR model in view of pedagogy and classroom usage, what becomes clear is that digital literature located on the level of enhancement merely adds to what becomes possible in the classroom. Many functionalities offered through e-readers (e.g., digital annotations or embedded dictionaries) are primarily practical, easily accessible and a quick substitute for, say, print dictionaries. However, they do not fundamentally change the process of accessing these texts as, after all, different modes of delivery still serve the same purpose (e.g., retrieving additional information or word explanations). On the level of transformation, the innovative technological components may substantially affect the didactic and methodological possibilities compared to analog approaches, particularly where the relevant media is paired with appropriate tasks that lean into these transformative aspects.

In considering concrete examples of literary apps, we see that such texts may offer functional advantages across different levels of Puentedura’s scale, as is the case with the tablet app, *The Tempest*, by Heuristic Shakespeare (2016). Within the level of enhancement, the app adopts many established functionalities from e-books and digital informational environments for making Shakespeare’s work easier to navigate and understand, including pop-up vocabulary glosses, the ability to highlight, copy and take notes, as well as providing hyperlinks to paratexts and informational articles. Within the level of transformation, however, the app includes an eloquent design for layering modal forms (e.g., videos of performers speaking lines are synchronized to the playtext scrolling below) and allows for multiple, novel ways for reconfiguring and re-visualizing the playtext. For instance, the app offers a scene map where users can select scenes and watch as the character icons rearrange themselves to illustrate who is in which setting and with which players at different points in the play. Users may additionally see the line density of a particular character’s role, along with a full list of that character’s lines linking back to the core text. While engaging
with the core play text, users can tap on the right margin to pull up a timeline of the play, concise summaries, illustrations and curated lines of text that are especially iconic or significant to the play. What makes these features more transformational than enhancement-based is the ways in which they open up tasks that can be engaged in in language education. Within *The Tempest*, the reconfigurability of the app could facilitate novel readings of the play (e.g., multimodal readings at the intersection of play text, video performances, and the expressive illustrations provided in the app; or readings that engage with the language of one character, possibly through a gendered or postcolonial lens) that would be prohibitively complex and time consuming within a language learning context relying on analog media alone.

### 2.2. Interactivity

In their discussion on interactivity in multimedia learning, Domagk, Schwartz and Plass (2010) emphasize that although “interactivity has been heralded by many as the one feature of technology that holds the strongest promise for educational use” (p. 1024), it is so inconsistently defined across broad fields of inquiry as to lose its applicability in discrete contexts. In this vein, it is imperative to delineate what exactly interactivity might entail in terms of learner engagement with both digital media in general and digital literature more specifically. More generally, we may consider Domagk et al. (2010)’s core definition of interactivity as a “reciprocal activity between a learner and a multimedia learning system, in which the [re]action of the learner is dependent upon the [re]action of the system and vice versa” (p. 1032). Within their discussion, interactivity entails not just a reciprocal reaction on the part of both learner and machine, but also degrees of responsiveness, where “the (re)actions on both sides are related, relevant, and sustain the continuity of the interaction” (p. 1025). In considering what this responsiveness might look like in the case of narrative media, we draw on Ryan’s (2011, 2015) “onion” of interactivity in digital narrative, which describes different layers of interactivity as follows:

*Peripheral interactivity:* “Here the story is framed by an interactive interface, but this interactivity affects neither the story itself, nor the order of its presentation” (Ryan, 2011, p. 37). Such interactivity is particularly common with print books that have been adapted to adopt the aesthetics afforded by the digital medium. For instance, in the tablet app, *Alice in New York* (Oceanhouse Media, 2011), the story is organized in the same manner as any e-book (i.e., linearly, with links to individual pages or chapters) but with expressive illustrations that can be flung across the screen with the swipe of a finger or that move as the user tilts the device. When considered didactically, a question that arises with such texts is
do they implement peripheral interactivity in a way that is either meaningful for the learner (i.e., providing support, such as through interactive vocabulary glosses or audio that reads text out loud) and/or in a way that is meaningful for the text as literature (i.e., adds expressive and interpretive value to the narrative).

*Hilda Bewildered* is an example of a literary app that integrates peripheral interactivity as an expressive and interpretable element of the narrative. The graphic story centers around a princess and a homeless girl who, depending on your individual reading of the text, may be seen as separate individuals (reminiscent of Mark Twain’s *Prince and the Pauper*) and/or as alter egos. The reader flips between each page by tapping an arrow in the lower-right corner, a feature common to many straightforward e-book apps, but *within* each page the reader can interact with multiple layers of text, images and frames through different taps and swipes. This layering tends to engage with themes that are central to the narrative, such as the dichotomies of wealth and poverty or privacy and celebrity (Stace, 2015). On one page, for example, the reader is confronted with the “pauper” character staring out the foggy window of a bus. When the reader swipes their finger over the window, the city skyline is revealed along with the hazy reflection of the girl in the form of the “princess” (Figure 2). This represents a moment of interpretational opportunity for learners engaging with such a text: Does the reflection represent the girl imagining herself as a princess? Is the girl a princess in disguise? Are both true? This example illustrates that even where interactivity in digital literature can be described as “peripheral,” it may be implemented meaningfully to warrant exploration as an element of expressive literary design with implications for how the reader and learner aesthetically experiences the text.

![Figure 2](image_url) The reader swipes the window to reveal the pauper’s reflection, which is that of the princess. (Screenshot reproduced with permission. Copyright: Slap Happy Larry; Lynley Stace & Dan Hare)
Interactivity affecting narrative discourse and the presentation of the story: Here users navigate a predetermined story, but the order in which the story is told may vary. Perhaps the most well-known examples within this layer are Choose Your Own Adventure (CYOA) novels, where the reader is confronted with a fully authored branching story, but has the option of pursuing different story paths with each read-through. Ryan (2015) describes the narrative structure of such texts as a tree, where every path branches into further paths, with the end of each branch representing a complete and well-formed story. As Ryan attests, however, digital narratives within this layer of interactivity can be built in a wide range of narrative structures, some of which may fold into themselves or even be generated randomly. Within the interactive graphic novel, Meanwhile, the reader is confronted with decision branches that are similar to a CYOA novel, but several branches either fold back into themselves or fling the reader back to the beginning of the narrative where the reader must use information gleaned from previous read-throughs to access new narrative branches (Figure 3). This iterative and maze-like narrative structure plays into the central conceit of the graphic novel, which is to act as a narrative realization of multiple worlds theory as articulated in quantum physics.

![Figure 3](image)

**Figure 3** In following a particular branch of the story, the reader is confronted with an access code (left). In later read-throughs, this code can be used to access new narrative branches; (right) the full graphic novel as a maze-like network of frames. (Screenshot reproduced with permission. Copyright: Jason Shiga)

Interactivity creating variations in a predefined story: What distinguishes this layer of interactivity from the previous one is that the user has increasing freedom of action within a “storyworld” and generally involves the user developing or taking on a role, such as when a player inhabits an avatar in a video game (Ryan, 2011, 2015). The storyworld offers such a complex array of choices (e.g., which direction to walk in, which object to buy, which character to talk to...
in which order) that even when the main story points remain consistent for different users, each individual path for reaching these points can be quite unique. *80 Days* (inkle, 2016), a literary app which is adapted from Jules Verne’s *Around the World in 80 Days*, features screen upon screen of CYOA-style branching narrative paths. But what distinguishes this text from those in the previous layer of interactivity are the game mechanics that allow the user to configure their progression through the story. The player, who takes on the role of Passepartout, Phileas Fogg’s valet, is enabled to explore towns, to engage or not to engage in conversation, to buy and sell objects, to take out or repay bank loans, to choose how much luggage to carry and, in light of these decisions, to decide on which mode of transport to take between cities. These decisions impact the player’s relationship to Phileas Fogg, their money, the passage of time and, finally, which narrative paths may or may not be available to the player as they continue through the text. The effect of all of these moving parts is that, unlike with the texts depicted in the previous layer, it would be virtually impossible for a player to recreate a single play through.

*Real-time story generation:* Within the aforementioned layers of interactivity, stories are first authored and then embedded into digital applications, which impacts how the user interacts with the narrative – meanwhile, the actual story or content of the application remains the same. Within real-time story generation, the program is able to generate novel, rather than predefined, story paths in response to a user – a programming feat which relies on artificial intelligence and machine learning systems. While strides are being made in this area of computing, the resulting narratives of story generating programs tend to lack coherence or, as Ryan (2011) states, fail to appeal to the sensibilities of “Aristotelian form and narrative closure” (p. 55). Whether we will one day have story generating apps that will be of literary value to language learners, remains to be seen.

*Meta-interactivity:* Within this layer, the interactor not only interacts with the program, but is able to generate new content and opportunities for interaction for other users, such as by “designing a new level for a computer game, creating new costumes for the avatar, introducing new objects, associating existent objects with new behaviors, and generally expanding the possibilities of action offered by the storyworld” (Ryan, 2011, p. 59). Within this layer, the user becomes a producer of digital narrative content, another dimension of digital literature which will be discussed later in this article.

2.3. Narrativity

The third dimension of our model – narrativity – is crucial and constitutive to understanding the narrative structure and architecture of digital literature. It needs
to be stressed though that the aspect of narrativity is not completely separate or different from the aforementioned parameters of functionality or interactivity. Rather, this third parameter allows for a literary and narrative exploration of what functional technology and interactive features make possible. To encapsulate the dimension of narrativity, we draw on Bode and Dietrich’s (2013, p. 1) concept of “Future Narratives,” abbreviated to FNs in their research. They use this concept to encompass narrative forms whose inherent future (i.e., in terms of how the future story develops) is marked by radical openness, indeterminacy and multi-linearity. In departing from “traditional” narratives with a linear, predetermined and closed story development, Bode and Dietrich (2013) elaborate how these stories are defined by their so-called nodal situations, nodal points, or simply nodes that are embedded in the sequential narrative display of events as the story unfolds. When the reader is traversing the current storyline, they reach a nodal situation that allows for at least two, but normally more, continuations of the story (Bode & Dietrich, 2013, p. 1). The decisive factor here, however, is that nodal situations are not mentioned en passant, but instead they are centrally presented and “staged” on the medial-textual surface of the text. The reader has to enter the nodal situation (inter)actively and act on or within that node by deciding to choose one of the various storyline options offered to them. Thus, nodal situations are:

- multi-linear: from a node onwards, a corridor of possible storypaths is opened up from which several runs through the story can be realized and from which the reader chooses one particular run in their individual exploration of the story;
- open: the actual run a reader takes is not fully predetermined through the design of the story; what Bode and Dietrich (2013, p. 29) describe as the “freedom to operate” and as “exploration of possibilities” always leads to a new configuration of how events are connected; theoretically speaking, a digital story with many diverse nodal points can be read in almost endless runs where no run is just like the other.

In each nodal situation, the reader has command of their choice and agency. They must decide cleverly and actively which story path might be the best option to pursue for a successful, intriguing or efficient run through the story. This demonstrates the central characteristic of FNs:

The future is a space of yet unrealized potentiality . . . by allowing the reader/player to enter situations that fork into different branches and to actually experience that ‘what happens next’ may well depend upon us, upon our decisions, our actions, our values and motivations. (Bode & Dietrich, 2013, p. 1)
From a didactic and literary viewpoint, this openness of a *what happens next* can primarily be realized through digital forms where technological features are key to presenting FNs and staging nodal situations, while the material medium of print and page-bound books is severely limited in its capacity to achieve this (Bode & Dietrich, 2013, p. 25). This engenders expressive and aesthetic spaces for new and freer forms of narrativity, which in turn inevitably lead to new cultural conventions for dealing with the reception of digital literary media. Such new conventions also need to be considered in didactic reflections and pedagogic contexts (such as the EFL literature classroom) in order to cater for, and respond to, changing reading habits and innovative possibilities for literary (inter)action (e.g., engaging with new levels of involving readers through choice and agency).

To take up a previous example, *80 Days* features a tremendous number of nodal situations encompassing both concrete story decisions (in a CYOA-manner) as well as in the freedom of action offered to the player as a member of a configurable storyworld (in managing an inventory and resources, such as health, time and money). The resulting narrative openness results in a significant experience gap, not just between one user’s various playthroughs, but in terms of how different users will experience the text. In using such a text in the language classroom, one has to consider the implications of managing this ‘experience gap’ in addition to the ‘interpretation gap’ that is generally exploited in literary learning. On the one hand, this widening gap could represent an insurmountable burden for the language teacher (who themselves will not be able to experience every *run* or playthrough experienced by their learners). On the other hand, this gap could be meaningfully exploited to encourage further communicative and literary discourse when learners and teachers exchange their divergent experience of exploring the complex storyworld. We assume that the active construction of individual *future narratives* and the choice and agency enabled through nodal points can not only draw learners/readers into the story but also increase the need to engage in such communication.

### 2.4. Learner-reader-role

Readers of digital literature are confronted with the dimensions sketched out above, but when these readers are also learners in an educational school context, they are also supposed to develop literary and digital competences. Therefore, it is not only the structural characteristics of digital literature that become important in literature didactics. It is also necessary to explore the role a reader or learner assumes when engaging with digital literature. Here, Mela Kocher’s (2004) research on typologies of interaction, which incorporates Ryan’s aforementioned work on interactivity, is helpful to systematize digital genres from the
perspective of their narrative architecture and their structure of play. In following both Kocher (2004) and Ryan (2011, 2015), we develop their work further and propose a four-dimensional model to capture the learner-reader-role in digital literary texts and how the learner-reader is situated towards or within the digital literary text. This model is differentiated along the lines of external/internal and exploratory/creative1 (Figure 4):

![Diagram](image)

**Figure 4** Situating the reader-learner towards and within the digital text along the lines of external and internal as well as exploratory and creative

1. **External and exploratory**: This dimension can be found in applications where the learner-reader is positioned outside of the fictional world of the story and encounters the characters and events of the narration as an onlooker. There might be options for choosing different pathways of the narrative, but the learner-reader cannot negotiate or influence the story itself, but merely accompanies and explores it (e.g., *Meanwhile*).

2. **Internal and exploratory**: Here, the learner-reader has their own role within the events of the story and is involved in the narrative more closely, for example, through their own avatar. Similar to the first dimension, however, the reader-learner cannot co-construct or influence the story elements even though there are also options for choosing different

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1 Kocher (2004) labels the dimensions of her model “external ontological” and “internal ontological.” We expand on and change this terminology and use “creative” instead of “ontological” in our context.
narrative paths (e.g., the CYOA app, Ryan North’s To Be or Not To Be, where the player may take on the role of Hamlet, Ophelia or Hamlet Sr.).

3. **External and creative**: Within this dimension, the learner-reader is situated outside of the fictional storyworld, yet they can actively influence the plot development, and their agency and choice have immediate consequences on how the narrative unfolds. This dimension offers high degrees of interactivity and space for their own creative contributions to the story (e.g., the popular and long-lived video game, The Sims).

4. **Internal and creative**: Here, the learner-reader is directly integrated into the events of a story as a protagonist. Depending on the interactivity with other readers or players they can directly influence and co-construct the narrative (e.g., 80 Days).

With this model, it becomes possible to conceptualize what a learner-reader is supposed to be performing when reading and exploring digital literature. The model also shows that the distinction between “reading” and “playing,” or the transition from “reading” into “playing,” is actually fluid. Therefore, some digital literary texts are also leaning into so-called **ludonarratives**, a further variety of genre-crossing formats that are exemplary of the interactive and creative potential of digital texts (Aarseth, 2012; Hocking, 2007; Lütge, Merse, & Stannard, 2018; Stannard & von Blanckenburg, 2018).

### 3. Producing Digitaliter@tures: Exploring the potential of digital storytelling in the EFL classroom

Having argued for crossing the border between analog and digital literature in the EFL classroom, we proceed by making the case for not only reading, but also producing digital texts. Jenkins (2006) points out that “as we would not traditionally assume that someone is literate if they can read but not write, we should not assume that someone possesses media literacy if they can consume but not express themselves” (p. 170). This notion can easily be expanded from general media literacy to digital-literary competences. In the same line of thought, Hallet (2002) highlights that understanding a text, for example, a digital narrative, means to redesign a given text and to shift from comprehension to processing and production (p. 128).

Taking up the first dimension of the FINaLe model, i.e., functionality, the reception of digital literature can range from mere enhancements to true transformations of teaching approaches with digital media. The same applies to the production of digital literature: to begin with, on the level of substitution, students could write a story on the computer, for example, using MS Word. In this case, technology does not entail any functional improvement, students would
simply fulfill the task by typing instead of writing with pen and paper. On the second level, i.e., augmentation, technical tools bring some minor functional enhancement. In the aforementioned example, students might use spellchecking while writing their story. Accordingly, the level of modification involves substantial task redesign due to the use of technology. For instance, learners write a text collaboratively using GoogleDocs. On the final level, i.e., redefinition, the integration of technology allows for the creation of new tasks. When thinking about writing texts in the EFL classroom, the practice of digital storytelling can be put into this final category as it enables the students to tell a story by combining an increasing range of semiotic modes – a task only feasible thanks to digital tools. Digital storytelling describes the fusion of the old art of oral storytelling with a variety of technical tools to tell personal stories intertwining digital images, music, and sound together with the author’s own story voice (Porter, 2004). Due to their highly multimodal nature, the production of digital stories mirrors contemporary ways of meaning-making. Therefore, its integration into the EFL classroom appears as a favorable opportunity for the students to communicate in the target language more authentically.

Not only does digital storytelling reflect the multimodality of today’s communication, but it also takes account of one of the major changes technology brings to contemporary society: the fading distinction between producer and user. To describe this development, Axel Bruns developed the notion of the “produser” which “highlights that within the communities which engage in the collaborative creation and extension of information and knowledge . . . , users are always already necessarily also producers of the shared knowledge base, regardless of whether they are aware of this role - they have become a new hybrid, produser” (Bruns, 2008, p. 2). While creating a digital story, students both utilize pre-existing resources, for example, images or sound files they find online (i.e., acting as users), and create new content, for instance by narrating the story with their own voices (i.e., acting as producers). By combining the two to tell their story, they get to practice a central cultural technique of the 21st century in the English classroom and act as produsers.

Furthermore, the integration of digital storytelling into the EFL classroom is also an opportunity to foster multiliteracies. While produsing digital literature, students have to confront both multicontextuality and multimodality. When it comes to the context, the learners have to consider the subject of the story and the corresponding register. At the same time, they must take into account the envisaged audience, their interests, their needs and their prior knowledge. What may be even more demanding is meaning-making with different semiotic modes. In this light, Hafner (2014) identifies three different ways of interaction between those modes:
1. **Concurrence**: the meanings of different semiotic modes strengthen each other.
2. **Complementarity**: the meanings of different semiotic modes support each other, but emphasize other aspects.
3. **Divergence**: the meanings of different semiotic modes challenge one another (see Hafner, 2015, p. 660).

These possible ways of interplay should be introduced in the classroom before the creation of a digital story, otherwise students might not be aware of the ample possibilities at their hands. Another essential distinction is made by Oskoz and Elola (2016) who differentiate between “transformation (the actions that reorder and reposition semiotic resources within a mode) and transduction (the reorganization of semiotic resources across modes)” (p. 328). So, students not only have to keep in mind the interactions between different modes, but they should also be aware of the possibility to shift various meaning-making elements around. Concomitantly, the discussion of these design choices while creating digital literature also serves to foster the development of textual competences, as requested by Nünning and Surkamp (2010).

Moreover, while creating their digital stories, students learn about the constructed character of literature: they experience how digital texts come into existence and how certain narrative techniques have certain effects (Nünning & Surkamp, 2010, pp. 67-69). This practice can also be related to the New London Group’s idea of design where every meaning-making activity is understood as a creative use and connection of available conventions and resources, i.e., available designs. When creating a digital story, such available designs may include pictures or sound files found online. During the process of designing, available designs are recontextualized and reconstructed, and they become the redesigned. While integrating the pictures or sound files into a new digital story, they are placed in a new context and take on a new meaning. The new product of this process, in our case: the digital story, can be used by others to create new cultural artefacts, i.e., the redesigned is at the same time a new available design. In the English classroom, students might be shown digital stories by older students and use elements from those as an inspiration for their own products.

All in all, the integration of digital storytelling is a unique opportunity to foster “the capacity to copy, mash, change, spoof, and in other ways create and share new literary digital texts or paratexts” (Beavis, 2013, p. 246) in the English classroom; all of which are “an important affordance of contemporary technologies and central to participatory culture” (Beavis, 2013, p. 246). Only by recognizing the various forms of literature nowadays and working with them both receptively and productively, can educators cater for “the need for students to be critical, capable and creative users of digital and multimodal forms of literacy, alongside traditional print-based forms” (Beavis, 2013, p. 244).
4. Conclusion

All in all, we want to highlight that we feel language education is at an important crossroad, or, to stick to the terminology of digital narratives, a nodal situation. Due to digitalization, the practices of reading and writing are inevitably going to change. As educators, we have to decide whether we would like to cling to tried and true print media or to respond to changing reading habits and innovative possibilities for literary (inter)action. For us, the latter path appears to be the better option to prepare our students for a successful run through the 21st century. After all, this does not entail banning the traditional book from the classroom; on the contrary, we want both digital and traditional literature to work alongside one another and complement one another. While the use of traditional literary texts in the language classroom already appears to be fairly well researched, we hope that the FINaLe model serves as a starting point in order to better exploit the potential of digital literature for the foreign language classroom in the future. To fully harness this potential, it seems about time for media didactics and literary didactics to work together more closely and further research and refine the notion of digital-literary competences and its implications for foreign language education. Such implications include the design of tasks and classroom methodologies that engage learners in the functional, interactive, and narrative features of digital literature, that allow for a reflection of the changing roles and relationships between readers and texts, and that are suitable for achieving and scaffolding the development of digital-literary competences.
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Crossovers: Digitalization and literature in foreign language education

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