Introduction into the lesson:

Despite storytelling’s use in formal and informal education in the past, the application of digital technologies has gained importance in modern educational technology. Digital storytelling can provide one of the most relevant learning experiences; it can be a powerful tool for creating more engaging and exciting learning experiences. Most importantly, digital storytelling has the potential to involve learners as knowledge creators in the learning process, rather than passive receivers of information (Lugmayr et al., 2016). In higher education, digital storytelling is becoming more and more popular.

This lesson aims to present how digital storytelling can be used in education as an effective learning tool for students and as a learning tool for teachers.

This lesson has the following chapters:

1) Digital storytelling as a tool for learning
2) Educational uses of digital storytelling
3) Other Uses of Digital Storytelling - outside the education
4) References

1) Digital storytelling as a tool for learning

In educational settings, teachers and students (from kindergarten through graduate school) create digital stories on every topic imaginable, from art to zoology and numerous content areas. Digital storytelling has also become a worldwide phenomenon, with practitioners from across the globe creating digital stories to integrate technology into the classroom, support language learning, facilitate discussion, increase social presence, to support the design of e-learning applications and curriculum development. In addition, personal stories can be used to make content more interesting in adult learning. (Robin, 2016; Lugmayr et al., 2016).

As discussed in Kaya & Mayis, 2018, digital storytelling can bring many qualities that cannot be achieved through traditional storytelling in an educational setting, namely:
- Students are actively involved in the process of digital storytelling
- Students discover themselves in the process of creating digital story
- Students use technology effectively

Digital Storytelling has become a powerful instructional tool for both students and educators. It allows students and teachers to bring multimedia, video, painting, art, music and sound effects together and tell their stories. Digital storytelling in education is a tool that supports learning, promotes cooperation, improves decision-making processes, brings together formal and informal learning processes, and provides students active participation in the learning process.

**DIGITAL STORYTELLING**

**Definitions**

There are many definitions of what a digital story is. However, they all coincide in pointing out that digital stories combine traditional means of telling a story with different types of digital multimedia: images, audio, and video (graphics, text, recorded audio narration, video and music to present information on a specific topic). These multimedia elements are blended using computer software to tell a story that usually revolves around a specific theme or topic and often contains a particular point of view. Most digital stories are just a few minutes long and are saved in a digital format that can be viewed on a computer or other device capable of playing video files. In addition, digital stories are typically uploaded to the internet, where they may be viewed through any popular web browser. (Robin, 2016). The Digital Storytelling Association defines digital storytelling as a "**modern expression of the ancient art of storytelling**" (The Digital Storytelling Association, 2011).

**Characteristics and elements of digital storytelling.**

**The Seven Elements of Digital Storytelling** as discussed in Lambert, 2007 and Robin, 2011

1. **Point of View** – what is the perspective of the author?
2. **A Dramatic Question** – a question that will be answered by the end of the story.
3. **Emotional content** – serious issues that speak to us in a personal and powerful way.
4. **The Gift of your Voice** – a way to personalise the story to help the audience understand the context.
5. **The Power of the Soundtrack** – music or other sounds that support the storyline.
6. **Economy** – simply put, using just enough content to tell the story without overloading the viewer with too much information.
7. **Pacing** – related to Economy, but specifically deals with how slowly or quickly the story progresses.

Apart from those elements, Paul & Fiebich, 2005, describe in detail five elements that are shared by all digital stories: a) The combination of different media used to create them, b) the type of action (content and user), c) the open or closed relationship between the user and the digital story, d) the limitless context through linking to related, relevant information and, e) the presence of multimodal communication.

In sum, given the above, it is clear that digital storytelling results from a good combination of more traditional techniques of telling stories and the most innovative multimedia resources.

**What is digital storytelling is also described under topic 1 (page 4) and topic 3 (pages 1 - 2)**
Much has been written regarding the personal nature of digital stories and that this personal and often emotional viewpoint is an essential element of digital storytelling. Also, in education, digital stories are often personal but can also refer to non-personal topics, such as those related to content-based subjects explored in the classroom.

2) Educational uses of digital storytelling

Steps on the creation of Digital stories are presented and described under topic 3 (pages 3 – 6)

Digital storytelling pedagogy

Digital storytelling is viewed as a pedagogical opportunity to combine traditional and creative learning methods to engage otherwise reluctant students in knowledge/skill development, allowing students to create a narrative and illustrate course content, showcase autobiographical learning, share a person’s or communities point of view, as well as promote social justice. (Grant & Bolin, 2016).

Digital Storytelling and Diversity

Digital storytelling projects have the potential to challenge student understanding of diversity concepts and social justice issues and build critical educational and workforce skills. Critical and open dialogue on diversity-related topics can be inspiring. Multiple researchers have described digital storytelling as a tool to establish an open dialogue, create compassion, and sustain student engagement within a community of learners. (Grant & Bolin, 2016)

Different types of digital stories (with examples of how each type can be used in education)

Major types of digital stories can be categorised into three categories:

- personal narratives - stories that contain accounts of significant incidents in one’s life;
- historical documentaries – stories that examine dramatic events that help us understand the past, and
- stories designed to inform or instruct the viewer on a particular concept or practice

The articles of Robin, 2011, on The educational uses of digital storytelling presents practical examples of how each type of digital story can be used in education.

Personal Narratives

One of the most popular reasons for producing digital stories is to create a personal narrative. An excellent example of a digital story that uses a personal narrative is Almost Paradise (http://www.coe.uh.edu/digitalstorytelling/almostparadise.htm).
This story provides an account of a mother bringing her children to the United States from South Korea searching for a better life. It outlines the difficulties in coming to a new country and the clashes between a mother and daughter as they each have different feelings about their lives and heritage. This type of story has multiple benefits in an educational setting. First, other students who view the story learn about people from diverse backgrounds other than their own. Second, they can appreciate the types of hardships faced by classmates whose families have come from another country. Third, a story such as this one can be used to facilitate discussions about current issues such as race, multiculturalism and the globalisation that is taking place in today's world. In addition, a student who creates such a story can benefit from sharing that story with others and thereby use the information to eliminate some of the distance that foreign-born students feel between themselves and their peers. Finally, a personal narrative like this one can also be a positive means of dealing with some of the emotional family issues described in the story.

Digital Stories that Examine Historical Events

Although many personal narratives can include historical information to add context to the story, a different kind of digital story can be created from historical material that students might explore in a classroom. For example, an audio recording of US President Abraham Lincoln's Gettysburg Address is used to illustrate a famous American speech. The digital story is online at: http://www.coe.uh.edu/digitalstorytelling/gettysburg.htm and was created by using historical photographs taken during the American Civil War and other materials found on the internet.

Stories that Inform or Instruct

And while it can be argued that all digital stories inform (and perhaps instruct), the distinction here is that there is room to create a separate category for stories that reflect instructional material in content areas such as math, science, health education and instructional technology. The story, located at: http://www.coe.uh.edu/digitalstorytelling/agingwell.htm is an example of a digital story created to inform people about the ageing process and some of the things they can do to increase their health as they grow older.

And of course, stories can be created using combinations of these three methods, such as autobiographical stories that use historical material as the backdrop of a personal narrative.

Digital storytelling as an effective learning tool for students

Digital Storytelling can be a powerful educational tool for students of all ages and grade levels who are tasked with creating their own stories. This use of digital storytelling capitalises on the creative talents of students as they begin to research and tell stories of their own, learn to use the library and the internet to research-rich, in-depth content while analysing and synthesising a wide range of information and opinions. In addition, students who participate in creating digital stories develop enhanced communication skills by learning to organise their ideas, ask questions, express opinions, and construct narratives. Students who can share their work with their peers may also gain valuable experience in critiquing their own and other students' work, which can promote gains in emotional intelligence, collaboration and social learning (Robin, 2016).

For students, digital storytelling is particularly well suited to the constructivist classroom where these students can construct their meaning through the multi-faceted experience of selecting a story topic, conducting research on the topic, writing a script, collecting images, recording audio narration and using computer-based tools to construct the final story. The result is a multimedia artefact that richly illustrates what the student has researched and brought to life and what they have learned from the experience (Robin, 2016). One of the most important features of digital storytelling practices is that students (in the classroom) need to be individuals who implement, think and interpret, rather than being passive listeners, to create and direct scenarios during the digital transition period. Activities in the procedure of digital storytelling in the classroom allow students to become narrators, writers, actors, and producers, and in this way, transform students from an inactive position into active participants of the learning process (Kaya & Mayis, 2018).

In addition to digital stories as a distinct stand-alone activity, students might also be encouraged to develop instructional materials that can be used to support the educational topics and themes of the digital stories they produce. These educational resources can include links to additional readings and websites, external media such as podcasts, interviews or other videos, quizzes, lesson plans, definitions, and other materials that can be used to make the digital story the starting point for further exploration. An example of a digital story that includes these types of educational materials may be viewed online at: [http://digitalstorytelling.coe.uh.edu/view_story.cfm?vid=397&categoryid=16&d_title=History](http://digitalstorytelling.coe.uh.edu/view_story.cfm?vid=397&categoryid=16&d_title=History) (Robin, 2016).

Gregori-Signs, 2014; and Smeda et al., 2014, stress several benefits that digital storytelling has on students:
- digital storytelling allows students to "evaluate the reality that surrounds them and produce their interpretation of it; this contributes to the acquisition of knowledge-based skills and interaction with the physical world; social and citizen skills, and cultural skills"
- digital storytelling can improve students’ confidence and enhance their social and psychological skills

**Literacies, skills, and outcomes for 21 century**

As discussed in several kinds of research (Robin, 2008, 2011 and 2016; Brown et al., 2005), through the creation of digital stories, students gain valuable literacies and skills that contribute to student’s development:

<table>
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<tr>
<th>Digital literacy*</th>
<th>The ability to communicate with an ever-expanding community to discuss issues, gather information and seek help.</th>
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<td>Global literacy*</td>
<td>The capacity to read, interpret, respond, and contextualise messages from a global perspective.</td>
</tr>
<tr>
<td>Technology literacy*</td>
<td>The ability to use computers and other technology to improve learning, productivity, and performance.</td>
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Garcia & Rossiter, 2010 suggest adding to this list three other learning outcomes that result when students share digital stories, they create and are essential for today's learners who will become "tomorrow's citizens".

- Empathy and perspective-taking: Shared digital stories allow viewers to share the experiences of the storyteller and enlarge their own perspectives.
- Self-understanding: Shared digital stories invite self-reflection and allow the storytellers to see themselves in new ways.
- Community-building: Shared digital stories facilitate connections with others and through shared experiences.

Digital Storytelling as an effective teaching tool for teachers

Digital Storytelling can provide educators with a powerful tool to use in their classrooms. There are numerous ways that Digital Storytelling can be used in education. One of the first decisions to be made when deciding to use this tool in the curriculum is whether an instructor will create the Digital Stories or have their students do it. Some educators may choose to create their own stories and show them to their students as a way to present new material. Teacher-created digital stories may also be used to enhance current lessons within a larger unit, as a way to facilitate discussion about the topics presented in a story and as a way of making abstract or conceptual content more understandable (Robin, 2011).

How can educators support students in the production of their stories

Educators can support students in the production of the stories in the following ways, as discussed in Robin, 2016; Jakes & Brennan, 2005; Lambert, 2007; Morra, 2013; Ohler, 2008

<table>
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<th>Analysis Phase:</th>
<th>Educators help students identify an instructional goal and analyse aspects of the digital story related to the topic and script, and consider the potential audience for the story.</th>
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<td>Design Phase:</td>
<td>Educators help students complete the script and storyboard for the design of the story and collect and organise appropriate media such as images, audio and video.</td>
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### Development Phase:
Educators help students use technology, hardware and software to build the story.

### Implementation Phase:
Educators help students plan how the story will be used and create additional resources, including lesson plans, handouts, and other supporting materials.

### Evaluation Phase:
Educators use a variety of measures to determine if the students achieved the goal for the digital story project or need to revise the story and supplemental materials based on this input.

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**3) Other Uses of Digital Storytelling - outside the education**

Some examples (as presented in Bouchrika, 2021; and Robin, 2016):

- In health sciences, digital storytelling can be a tool for patients, families, and healthcare workers to help share their experiences, cope with illnesses, and add a human element to serious health problems.
- Business sector - as tools of user-generated content, with consumers sharing opinions based on their own experiences of a product or service.
- In museums, as a method that helps capture visitors' attention. Community and non-profit organisations can also use digital storytelling as an effective way to engage audiences and gain support for their causes. Because digital stories can be shared online, they can help community organisations advance their missions by effectively engaging larger audiences.
References: