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Building 21st Century Skills Through Digital Storytelling

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Abstract

Digital Storytelling is a new upgraded version of traditional storytelling which is becoming popular with the time. The young generation is surrounded by digital gadgets in their daily life. So it is necessary for the teachers also to get familiar with the digital concepts that can be used for the learning of students. Digital storytelling is one of those digital concepts. It has many pedagogical benefits and helps in engaging students in their learning. In addition, it helps in building 21st century skills of the students which is the need of the hour. NEP 2020 also talks about the importance and need of learning 21st century skills by our future generations. The current paper describes the concept of digital storytelling and 21st century skills from the lens of different frameworks. Also, the paper sheds light on the different ways through which digital storytelling helps in building 21st century skills of the students. The paper highlights the need of introducing digital storytelling in all educational institutions in order to enable the young people to learn required 21st century skills.

Keywords: Digital storytelling, 21st century skills, pedagogical benefits, digital concepts, NEP 2020, teachers

Introduction

We are all aware about the storytelling method. From ancient times, we all used to share our stories to each other in one way or the other. Traditionally, storytelling used to be through oral medium in the form of narration and then written medium in the form of story books and novels. Now in this technology age, storytelling has also been updated and converted into digital storytelling. We can share our stories using digital tools and platforms that can be utilized for varied purposes.

Digital storytelling is an effective means of conveying any message or concept in ways that captivate people on an intellectual and emotional level. It gives the storyteller complete control over the presentation, including the visuals and the narrative's timing and pacing, enabling them to create an impactful experience for the audience. It enables the narration of personal tales from firsthand knowledge and from a viewpoint that the audience may not be familiar with (Ball, 2023).

Digital Storytelling is also a method of teaching where teachers can use already produced digital stories as an instructional tool to impart material and hook students' interest while introducing novel concepts. Teachers who can produce their own digital stories may find that they are especially useful for promoting discussion about the topics covered in the stories and for simplifying abstract or conceptual material. Students can be drawn in and encouraged to explore new concepts by using a digital story with lots of multimedia as an anticipatory set or hook (Robin, 2008). Additionally, by learning how to arrange their thoughts, pose queries, voice their

viewpoints, and create narratives, students who take part in the creation of digital stories improve their communication skills. Students who are given the chance to present their work to their classmates may also learn how to critically evaluate both their own and other students' work, which can foster improvements in social learning, teamwork, and emotional intelligence (Robin, 2016).

Along with these pedagogical benefits, digital storytelling also serves a great tool to promote and enhance 21st century skills of the students. In contemporary times, 21st century skills are the need of the hour. Our future generations must be equipped with the required skills to face the struggles of life. In this light, the current paper describes what 21st century skills are needed for our future and how digital storytelling helps in building those skills.

Digital Storytelling

Using digital media technologies to convey stories is known as digital storytelling (Ball, 2023). This practice is referred to by many different names, including interactive storytelling, computer-based narratives, digital essays, digital documentaries, and electronic memoirs. However, they all generally centre on the idea of fusing the craft of storytelling with a range of multimedia, such as Web publishing, graphics, audio, and video (University of Houston, 2025). It creates a compelling narrative multimedia experience that may captivate and inform viewers by fusing visuals, music, voiceover and other audio recordings, video clips, photos, text, animation, and interactive aspects. People can learn more about a subject or gain a greater understanding of

an event by using digital storytelling in a variety of settings, including museums, healthcare facilities, and educational institutions (Ball, 2023).

Digital storytelling is not a novel approach, despite its focus on computer technology. Joe Lambert is a well-known pioneer in the industry. He co-founded the Centre for Digital Storytelling (CDS), a community arts nonprofit organisation located in Berkeley, California. Since the beginning of the 1990s, the CDS has been helping adults and youth create and share personal narratives by combining digital media tools with reflective writing (University of Houston, 2025).

The digital stories are saved in a digital format that can be seen on a computer or other device that can play video files, and they are typically brief, lasting between two and ten minutes. Furthermore, digital stories are usually posted online, where they can be seen using any widely used web browser. Digital stories can be divided into three main categories: 1) personal narratives, which are recounts of important events in a person's life; 2) historical documentaries, which are stories that explore dramatic events to help us understand the past; and 3) stories that inform or instruct the audience about a specific idea or topic (Robin, 2016).

Center for Digital Storytelling provided seven elements of a good digital story, described as follows (Robin, 2008):

1. Point of View: Story's primary message and the author's point of view.

2. A Dramatic Question: An important query that holds the audience's interest and will be resolved at the conclusion of the narrative.

3. Emotional Content: Content that is powerfully and personally brought to life and helps the viewer relate to the narrative.

4. Gift of Your Voice: Story narration in your own voice to personalise the narrative and aid the audience in understanding the context.

5. Power of Soundtrack: Sounds or background music that enhance and bolster the plot.

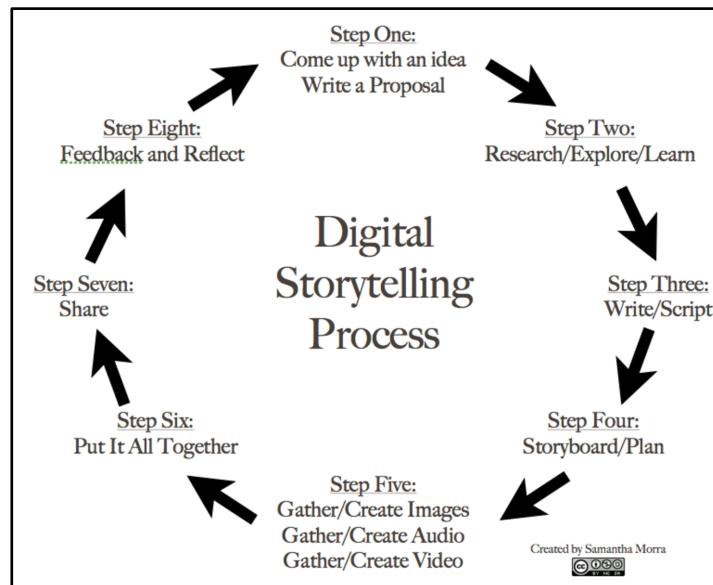
6. Economy: Telling the story with just enough information without overwhelming the audience.

7. Pacing: The story's cadence and the rate at which it moves along.

While keeping these elements in mind, anyone can create a good digital story by following the process of 8 steps, explained by Samantha Morra (see Figure 1) (Morra, 2014):

Figure 1

Steps of Creating Digital Story



1. Start with an Idea: Think about an idea for your digital story such as a lesson's theme, a textbook chapter name, a question posed in class, or our personal knowledge and experience, fiction or nonfiction, and make a rough draft of your story.

2. Research/Explore/Learn: Conduct research, examine, or acquire knowledge on the topic or subject matter that you have chosen to establish a foundation of data around which the narrative can be constructed.

3. Write/Script: Write a script of your story with proper dialogues using the research that you have done.

4. Storyboard/Plan: Make decisions regarding pictures, background music, graphics, video, sound, and transitions that will be used in your digital story. Storyboarding is a method of organizing all the elements—music, images, words, text, photos, and video—that will be included in the digital story. It will illustrate what will appear in the video and when in the chronological order of events.

5. Gather and Create Images, Audio and Video: using your storyboard as a roadmap, collect or produce pictures, audio narration, background music, sounds, and video clips, either by downloading from the internet, from copyright-free sources, or by recording from real life sources.

6. Put It All Together: Put the audio and visual components together in the software to make the finished product. Also figure out whether you have enough materials to complete your masterpiece or if your storyline needs some adjustments.

7. Share: Consider how you may tell your experiences to a wider audience. You may use an internet platform, like a blog or personal website, social networking accounts, or a platform designed specifically for displaying videos, like Vimeo, YouTube, or Wistia.

8. Reflection and Feedback: Reflect and evaluate your own work and provide others with insightful and constructive feedback. You can also use discussion boards, wikis, blogs, and polling tools.

So, with the advent of less costly and more user-friendly mobile devices and web-based tools, practitioners of all ages may now create digital stories, which were previously limited to desktop PCs or laptops (Robin, 2016). These days, anyone, anywhere, may use this method to generate these stories because it eliminates the need for costly or complicated editing software (Ball, 2023).

21st Century Skills

In the traditional approach, the educational system prioritized teaching fundamental abilities like the three Rs and rote memorization. However, simply being aware is no longer enough in light of globalization, technological innovation, and labor market disruption. Individuals must exhibit increasingly complex abilities such as problem-solving, critical thinking, and proficient communication. These abilities enable people to address contemporary issues on both a personal and professional level. Therefore, the skills needed to function well in this quickly evolving world are referred to as 21st century skills (Kumbhakar & Kumar, 2025). These are the talents that students now need to excel in the Information Age (iCEV, 2024). In

other words, 21st century skills refer to the abilities needed to help a person deal with the problems of the twenty-first century, which is characterized by global activity, digital transformation, collaborative progress, creative advancement, the need for skilled human resources, and a rapid rate of change adoption (CBSE, 2020). Additionally, in order to ensure that students are prepared for the future, the National Education Policy (NEP) 2020 also emphasizes the importance of critical thinking, experiential learning, and technology literacy (MHRD, 2020).

There can be a variety of skills that can be counted as 21st century skills. In the same light, there are different frameworks that talked about the 21st century skills, described below:

1. Partnership for 21st-Century Skills (P21) Framework:

P21 framework integrates cognitive, interpersonal and intrapersonal skills together and talks about 12 skills. These skills include Critical thinking, Creativity, Collaboration, Communication, Information literacy, Media literacy, Technology literacy, Flexibility, Leadership, Initiative, Productivity, and Social skills. Also, these 12 skills are classified into three major categories, namely, Learning skills, Literacy skills and Life skills (iCEV, 2024; Partnership for 21st Century Skills, 2009):

1. *Learning skills* comprises the first four skills i.e. Critical thinking, Creativity, Collaboration, Communication (4 C's) through which students learn about the mental processes needed to adjust to and enhance a contemporary work environment.

2. *Literacy skills* comprises next three skills i.e. Information literacy, Media literacy, Technology literacy (IMT) whose focus is on the pupils' ability to distinguish between

facts, publications, and the technology that supports them. Finding reliable sources and genuine information to distinguish it from the false information that abounds on the Internet is a major concern.

3. Life skills comprises next five skills i.e. Flexibility, Leadership, Initiative, Productivity, and Social skills (FLIPS) that explores the intangible aspects of a student's daily existence, emphasizing both personal and professional attributes.

This categorization of skills can be depicted in the figure below (see Figure 2) (iCEV, 2024):

Figure 2
21st Century Skills: P21 Framework



2. OECD (Organisation for Economic Co-operation and Development):

Future-ready students must be able to mobilize their knowledge, skills, attitudes, and values in order to address complex demands. Such students are change agents. Students will have to use what they've learned in situations that are uncertain and constantly changing. For this, they will need a broad range of skills (OECD, 2018):

- 1. *Cognitive and meta-cognitive skills:*** Critical thinking, Creative thinking, Learning to learn and Self-regulation
- 2. *Social and emotional skills:*** Empathy, Self-efficacy and Collaboration
- 3. *Practical and physical skills:*** Using new information and communication technology devices

3. WHO (World Health Organization):

WHO talks about providing life skills education in schools whose primary goal is to facilitate the development of psychosocial skills necessary to handle the rigors and difficulties of daily life. It involves using life skills in relation to particular risk scenarios and when kids and teenagers need to be given the authority to advocate for and defend their rights. As it promotes the lifelong learning and improves the quality of life, WHO defines five basic areas of life skills required for the young people (World Health Organization, 1999):

- 1. *decision-making and problem-solving***
- 2. *creative thinking and critical thinking***
- 3. *communication and interpersonal skills***
- 4. *self-awareness and empathy, and***

5. *coping with emotions and coping with stress*

4. UNESCO (United Nations Educational, Scientific and Cultural Organization):

UNESCO talks about the global citizenship education (GCED) designed to be transformative, fostering the knowledge, skills, values, and attitudes that learners require to contribute to a more inclusive, just, and tranquil world. GCED includes three core conceptual dimensions or domains of learning as the key features of 21st century skills (UNESCO, 2015):

- 1. *Cognitive skills*** that refer to the knowledge and critical thinking abilities need to comprehend the world and its intricacies better. (Critical thinking, problem-solving, and creativity)
- 2. *Socio-emotional skills*** that refer to the beliefs, attitudes, and social skills that help students grow physically, emotionally, and psychosocially and that help them coexist with others in a courteous and peaceful manner. (Empathy, collaboration, and conflict resolution)
- 3. *Behavioral Skills*** that refer to the engagement, behavior, performance, and real-world applicability. (Responsible decision-making and action-taking for sustainable development)

Additionally, UNESCO emphasizes the value of cultural and digital literacy in fostering inclusive and just societies (UNESCO, 2015).

How DST Builds 21st Century Skills

We have a lot of opportunities to practice and develop a number of specific 21st century skills due to digital storytelling. Various educators have discussed how digital storytelling can improve a number of 21st century abilities, which are detailed below (Gakhar, 2007; Porter, 2004; Stauffer, 2022):

Creativity and Inventive Thinking

Digital storytelling activates both sides of the brain. Different types of mental activity are produced by the left and right sides of the brain. However, a full brain is necessary to reach our full creative and cognitive capacity, which necessitates the synthesis of both the left and right sides working back and forth. Creativity is built on the foundation of imagination techniques and abilities. One of the best methods to inspire others' creativity is through Digital Storytelling. People who might not have had these creative school experiences or still have little exposure can now identify their uniqueness in addition to strengthening their artistic and academic skills together. You can use your imagination to create and design using the images, graphics, movement, and music of digital media while narrating a digital story. Dancing and combining them will result in something that was previously nonexistent and that only exists because of your imagination, creativity, and willingness to tell a story that needs to be told.

Multiple Intelligences/Learning Styles

Howard Gardner, a psychologist, distinguished at least eight different forms of intelligence and created a framework for multiple intelligences. Today's schools continue to emphasize logical-mathematical and verbal-linguistic skills. However, by creating digital stories, a range of intelligences can be experienced, cultivated, and exercised. A person with kinesthetic, visual, spatial, or musical intelligences can use their innate abilities when working with digital media. Students can show off their brilliance and impart their skills to others, which enhances their knowledge, comprehension of concepts, and critical thinking abilities. Using a mind mapping technique in brainstorming allows one to reach the creative function of the brain. The script is written using the verbal-linguistic portion of the brain. Storyboarding uses the logical-mathematical side of the brain. The creative half of the brain is activated by the use of color, music, and imagery. Photo scanning, keyboarding, and working with cameras all stimulate the body's kinesthetic intelligence.

Visual Literacy

We must absorb and manage enormous volumes of information in today's data-overloaded environment, and visual literacy has become a vital skill that we sorely need. It has to do with an individual's ability to use images of all kinds to enhance communication as well as their ability to understand and generate visual information. Although everyone can see, visual literacy is more than just that. Even when we passively watch television, our brains are not constantly engaged. Seeing an image does not necessarily translate into learning from it.

Learning from visual imagery and decoding visual inputs require practice. Digital storytelling requires the development and use of visual literacy skills by definition. Along with carefully selecting images that are striking and related to their ideas, authors begin to learn how to use media qualities such as color, style, form, size, tempo, and movement. Because pictures are so symbolic, emotional, and gripping, a story wouldn't be as engaging or have the same effect on the audience if they weren't there. We can look for innovative ways to use images to communicate our ideas and views. A lot of thought goes into choosing how to produce a story's visual elements. Authors can also condense their novels by employing images rather than words to communicate ideas, feelings, and facts.

Technical Literacy

Technical literacy is not limited to knowledge of software and hardware. It entails using these strategies in powerful and creative ways that enhance thinking, communication, and problem-solving. It is the capacity to improve productivity, learning, and performance via the use of computers and other technologies. In order to communicate meaning to the audience, students might benefit from experimenting with digital storytelling, which involves combining several media (images, sound, narration, transitions, and effects). It would give them the opportunity to practice digital communication skills while using practical instruments like computers, digital cameras, and the internet.

Information Literacy

Information literacy is related to comprehending data, statistics, facts, and figures. In order to guard against being misled by falsehoods, lies, and misconceptions, it trains us to tell fact from fiction, through locating, evaluating, and synthesizing information. Digital storytelling would assist students in researching their topic, examining and weighing alternative perspectives, recording their own thoughts and observations, producing informational media, and selecting appropriate images and content to highlight the importance of their stories. It would provide the children the ability to analyze the information they have read and discovered, going beyond it to add their own interpretations to their original stories.

Media Literacy

The ability to identify publication methods, platforms, and sources while distinguishing between trustworthy and untrustworthy information sources is known as media literacy. Students could effectively communicate their opinions and use multimedia to engage the audience in multimodal experiences with the aid of digital storytelling. They might choose which media outlets and formats to use and disregard.

Effective Communication

The first step to good communication is having great content that people want to share. Knowing your objective and target audience can help you choose the ideal way to communicate your thoughts, which will affect the media, approach, and content of the message. Digital

storytelling requires proficiency with a variety of digital mediums. An author must understand the functions of each element before figuring out how to best integrate still photos, animations, video, music, sounds, titles, transitions, and other special effects. Making digital stories gives everyone a special chance to discover their originality and talent. Every stage of the digital narrative creation process gives them a little more insight into effective communication. Furthermore, the quality of the craftsmanship and the message's content are closely tied to how the information item is perceived by the audience. Effective communication pieces elicit strong emotional responses, including tears, laughing, disagreement, amusement, contempt, or delight.

Collaboration Skill

The digital storytelling method's fundamental component, however, is highly personal and focuses on constructing and sharing the meaning you give to events, life turning moments, family, education, and information. This approach encourages cooperation in the process of creating digital stories rather than collaborating to produce a common outcome. Storytellers depend on each other to use the technology and craft their own original tales. The group supports one another by coaching, teaching, reflecting, celebrating, and encouraging one another. As an additional task, you can collaborate with peers or friends to create a digital story. Your narrative will be recorded and edited by a team of task professionals to create a final output.

Conclusion

The current paper describes the concept of digital storytelling. It refers to the use of digital tools with traditional storytelling to convert it into digital format. Today the young

generation is surrounded by digital tools everywhere. So digital storytelling is something that can be easily learned and used by children. In addition, it will help in improving 21st century skills of the students which is the need of today's time. Different educationists talk about different 21st century skills that can be enhanced by the use of digital storytelling such as creativity, critical skill, problem solving skill, multiple intelligences, visual literacy, information literacy, media literacy, technical literacy, communication skill and collaboration skill. Along with it, digital storytelling has pedagogical benefits as well. Thus, the study recommends the use of digital storytelling in all educational areas so that the students can exercise its benefits and face this technical era with confidence.

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