StoryScape: A Platform for Supporting Communication and Language

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Abstract

The use of story for communication and teaching reaches back to the beginnings of society. In modern times it is almost universal that our early introduction to language is through the combination of illustration, text, and spoken word. Technological advancements are creating new opportunity how stories are transmitted, interacted with, and created. StoryScape is a platform that leverages new technologies to create a platform focused on communication and learning through stories.

Author Keywords

Autism; Communication; Language; Story Craft; Transmedia

ACM Classification Keywords

H.5.m. Information interfaces and presentation

Introduction

An early introduction to language is important for the development of sophisticated communication. This is especially true for children diagnosed with autism spectrum disorder (ASD). Literature suggests the single most important prognostic indicator for young children diagnosed with ASD is language ability [1]. The importance of communication, and language ability, results in extensive effort by parents, teachers, and

therapists to help children diagnosed with ASD develop functional communication.

Because of the many language related impairments of those diagnosed with ASD, the use of illustration in conjunction or in place of text is common. Like most young children who are introduced to language through illustrated stories, children diagnosed with ASD use such materials and methods, but for longer into their life and in more ways.

We are developing a platform, StoryScape, to support the story process. From reading to creating, StoryScape provides many rich opportunities for learning and communicating while engaging in language centric activities.

Supporting Children with Complex Communication Needs

The CHI 2014 Supporting Children with Complex Communication Needs presents a great opportunity to share our work with other experts in design, UI, data analysis, and language practitioners. The StoryScape platform is provides users with all the tools needed to make hyper-personal, interactive stories (See Figure 1-4). While StoryScape has been developed to meet some of the unique needs of individuals diagnosed with autism and the broader autism community, we feel it is a inclusive technology with broader use for supporting creative and language activities. Having the opportunity to share this work with other experts would be valuable to the continued development and mission of the work.

StoryScape's Contribution

I would like to conduct a workshop that gives people hands-on experience building their own unique, interactive, and transmedia story. In addition to StoryScape's tools for authoring stories, and authoring animated story actors, it is possible to connect physical objects to the digital narrative. In conducting a workshop I will provide instruction, tablet computers, and physical assets for creating transmedia elements. Participants would need to provide their own laptop computers for accessing the web-based authoring tools.

Benefits of Participating

StoryScape has been developed from the beginning to support a broad range of users, from children diagnosed with autism, to parents, to teachers and therapist. While I have received feedback and input along the way, I have yet to reach out to the broader academic world, and have the critical feedback of experts from multiple domains use our tools and consider StoryScape's use more broadly for facilitating communication and language.

I feel that I would not only get meaningful feedback related to the technology and goals of the project, but there may also be opportunities to work more closely with others in the field.
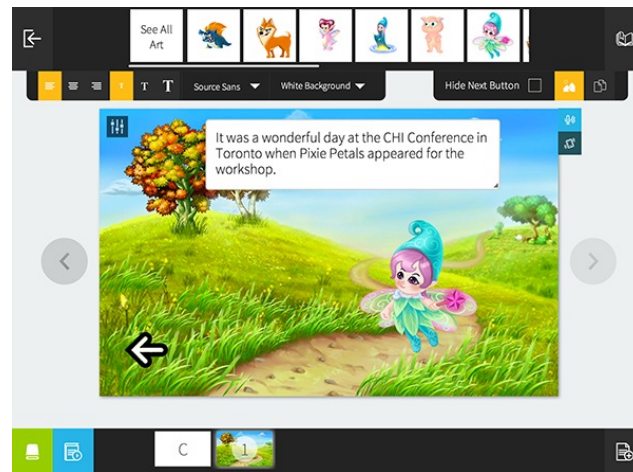
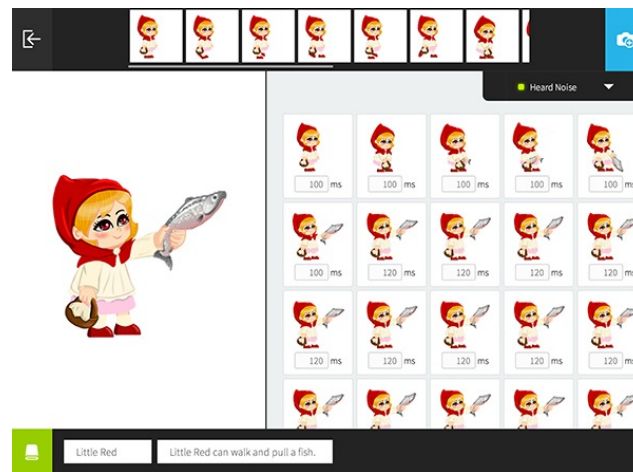**Figure 1**. Web-based story authoring tool with completed scene.

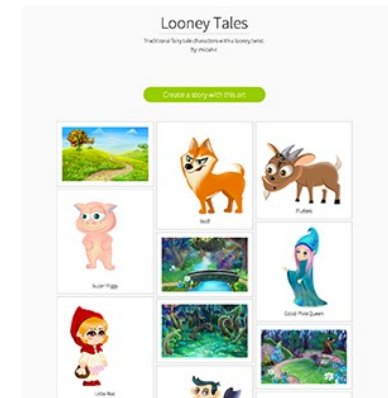**Figure 2**. Web-based actor animation tool allows for construction of animated sprites for story use.

Figure 3. Remixable art sets allow users to easily create stories.

Figure 4. Completed story on Android Tablet.

References
1.   Koegel, Lynn Kern. "Interventions to facilitate communication in autism."Journal of Autism and Developmental Disorders 30.5 (2000): 383-391.