# Full-Contact Poetry: Creating Space for Poetic Collaboration

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**Abstract.** Full-Contact Poetry is a collaborative digital play space for children's poetic expression. It is a Squeak environment in which children can express their poetic thoughts, create their interpretations of writing by others and also share and critique these expressions. The environment combines ideas from literary theory and analysis with constructionism to extend tools for poetic expression. Children can experience poetry by experimenting with typographic effects in combination with sound and image.

In this paper, we discuss the design principles and implementation of the Full-Contact Poetry environment. We then describe preliminary results from a workshop with a group of adolescents using the environment. The technology opened a new form of expression to the teenagers participating in the workshop. Collaboration was necessary to define full-contact poetry, but did not occur in the way expected with the technology. Participants drew from personal experience and examples to create a new genre of poetic expression.

**Keywords:** poetry, constructionism, Squeak, adolescents, expression, collaboration

## 1. OVERVIEW

The first part of this paper addresses the design and implementation of the Full-Contact Poetry environment, including an overview of related work. The second part of the paper describes a preliminary workshop using the software environment. The paper ends with a discussion of how teenagers collaboratively came up with their own definition of “full-contact poetry.”

## 2. WHAT IS “FULL-CONTACT POETRY?”

The phrase “full-contact poetry” was inspired by the collection *Aloud: Voices from the Nuyorican Poets' Cafe,* a compilation of slam poetry [1]. In the introduction, the editor speaks of the immediacy and vitality of poetry, of poetry as a "contact sport.” He describes poetry as a way to take on the world, of writers and readers facing off through words—both written and spoken.

Poetry, like music, dance and theatre, is a form of expression. A number of poets have worked in classrooms showing that poetry is an immediate and vital expressive form that children and adolescents can create [7, 10]. In Full-Contact Poetry, this notion of poetry is combined with constructionism and literary theory to create a tool for children to create and share poetry in a “full-contact” manner.

In the environment, children can create poetry using text animation, image and sound, so their poetry can dance and speak in addition to being read. Children can both create new poetry and interpret existing poetry in this space. They can then share their work online, critique each other’s work and even download and reconfigure each other's pieces.

## 3. BACKGROUND

Poetry has changed with new media. With the computer, text moved from a static to dynamic space, changing its expressive nature. A number of studies from the MIT Media Lab regarding dynamic type demonstrate ways that highlighting, layering, typography and navigation of text through space can enrich and demonstrate an understanding of that text [6, 19, 22].

There are many examples of multimedia and hypertext poetry available online. Some pieces use abstract images and sounds to interact with text, whereas others simply illustrate a given text [2, 5, 11]. Unfortunately, most of this work has been limited to adults who are experimenting with the poetic form and creating their own poetic communities, or creating literature for children to view. Children have not had the tools or the opportunity to create poetry with digital media.

Researchers have worked with computation to create spaces for children to tell stories [18], and to practice creative writing [4]. While these environments support literacy and learning, Full-Contact Poetry has a different goal. Instead of practicing literacy in a traditional sense of reading and writing, the environment is for children to author and critique interactive poetic expression.

There have also been many environments created for children to program, from Logo to Stagecast to ToonTalk [9, 13, 20]. All of these environments share ideas of giving children tools to build. The latter two environments let children program behaviors for characters while Logo supports drawing using Cartesian geometry. Again, Full-Contact Poetry has a different goal of providing a tool for children to be programmers and poets. Children can define their own functionality in addition to expressing themselves with the tool.

Malaguzzi described children as expressing themselves through a hundred languages [8]. Full-Contact Poetry combines some of these languages into a new language of expression for children.

## 4. DESIGN

The design of the Full-Contact Poetry environment is influenced by many fields, ranging from constructionism to literary theory. Seymour Papert's theory of constructionism states that knowledge is actively constructed, and that this construction can be mediated and facilitated [13]. While art is an inherently constructive activity, there exists a continuum of construction.

John Maeda stated that artists should make their own tools. Otherwise, their expression will be limited by the assumptions of the tools' creators [12]. The Full-Contact Poetry environment is implemented in Squeak in order to avert this problem. Squeak contains a high-level scripting language for novice users on top of the SmallTalk programming language. This allows Full-Contact Poetry users to define their own animations instead of being bound by predetermined functions, so they determine every level of their expression. Squeak was also chosen because it is well suited to multimedia applications. It supports a number of media types, from text and still image to various sound formats, and is object-oriented, so every object can be scripted.

Full-Contact Poetry draws upon the traditions of analysis and deconstruction from literary theory. Deconstructing a piece enables one to understand and appropriate it, then respond creatively. Two main ideas in deconstruction are that texts contain multiple meanings and influences and that a text is a starting point for response [17]. Individuals can form relationships with texts, find their own meanings and respond. A text does not exist as an end in itself, but as the beginning of a dialogue, the cycle between construction and deconstruction, writing and editing.

The environment has two parts: a space in which children can build and a space in which children can share, discuss, reflect and appropriate each other's work in concordance with the ideas of construction and deconstruction. The setup of the Full-Contact Poetry environment is simple. When children first open it, they see a basic desktop interface. The upper left contains a welcome message and a link to the workshop's collaborative space. On the lower left are controls for recording sound, a place to store sound files and text objects that the children can drag into the animation space in order to rewrite and animate them. The upper right contains a menu to save projects and import files. The lower right has a control panel that loops, stops or steps through every script open on the screen. A BookMorph appears in the center of the screen. BookMorphs consist of a series of pages, each of which can hold scripted objects. Children can either script objects on a single page to form an animation or they can program the BookMorph to automatically flip through pages when animations on each page finish, giving the effect of changing scenes.

Children can use three media components: text, image and sound. As noted above, dynamic text is a powerful medium for expression. Letters can convey emotions [6]; words in motion depict particular interpretations of their meanings [22]. Similarly, sound colors and interprets static text [15]. One speaks of "reading" into a poem, but never of "hearing" into one [16]. In the environment, children can either record new sounds or import and reconfigure existing sounds. Finally, still images can either be drawn or imported and reconfigured, and then animated.

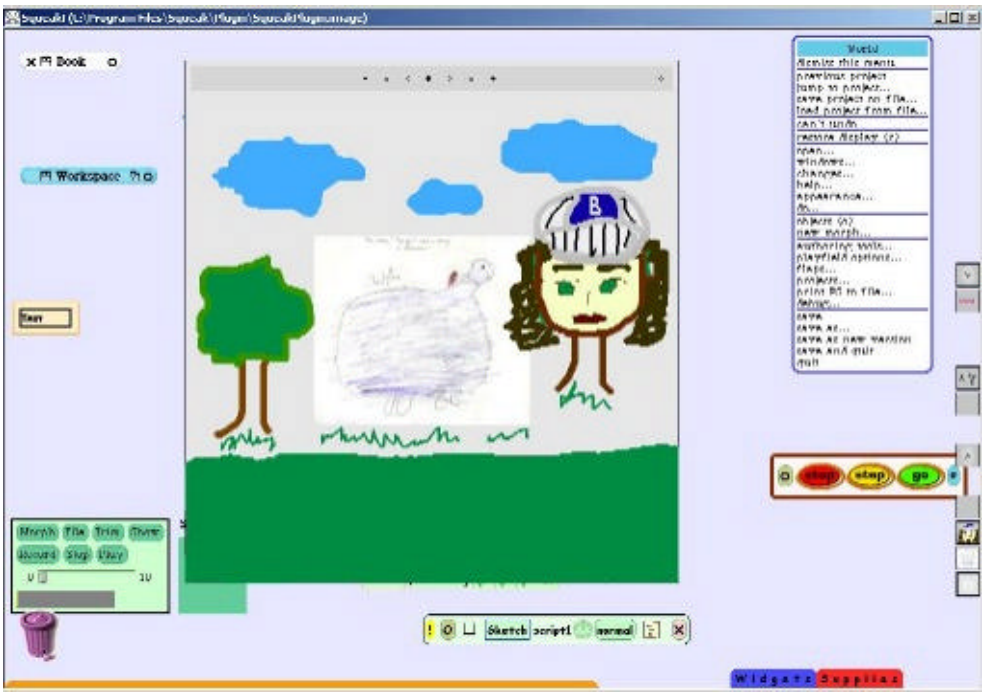

*Fig. 1. The workspace of one participant, including a BookMorph, script controls, menu and recording controls.*

The final part of the environment is the swiki, which is a pluggable web server written in Squeak. The swiki provides a space in which children can upload projects and create or modify web content. With the Squeak Plugin, Squeak projects can be viewed through web pages. The swiki contains a blank version of the Full-Contact Poetry project files and documentation on the environment. When a child finishes a project, a new empty project can easily be imported. It also contains a page of poetry links, both traditional and "full-contact," and a page for favorite poems. Children can add their own pages and projects, even download and reconfigure each other's work.

## 5. WORKSHOP

After creating the software environment, a workshop was held with a small group of teenagers to test the design of the environment and to see what kinds of expressions the group creates. The workshop was the first feedback step in an iterative design process.

The workshop was held at a community center in Boston, MA and was advertised to teenagers through the center. Participants attended voluntarily, which meant the group varied over the six weeks, but a core group of five participants attended most sessions. Their ages were concentrated between fifteen and seventeen years. The workshop met Mondays and Wednesdays from three to five p.m. for six weeks. The group had access to the community center and software when the workshop was not in session and worked on projects on their own time. There was one facilitator for the duration of the workshop. From the first day of the workshop, participants learned how to use Squeak and the swiki and designed their own projects.

The workshop, while only a preliminary study, raised some interesting and important questions. One surprising occurrence was that the children were afraid to express themselves online. The group used the online collaborative space when they were introduced to the swiki to create individual pages, but did not use it afterwards except to download new blank projects. Only one participant wrote something beyond "Waz up" on his page. It rhymed and had attitude, but as soon as the group noticed he was writing something more elaborate than a greeting, he erased it. This was the first example of many in which the participants showed a fear of sharing their work.

In most studies regarding expression and collaborative environments, where the term expression is used loosely to encompass identity construction as well as artistic expression, online spaces are generally seen as

"safe." They provide anonymity for experimentation in self-expression [3, 21]. This study was different because the group consisted of adolescents who already knew each other socially. The online space did not provide safety of anonymity. Instead, it decreased the amount of control participants had over who saw their creations and under what conditions. Once a poem was posted online, it became permanently visible, making the participant vulnerable.

The participants did not use the technology that was designed to support collaboration because of their inhibitions, yet the nature of the material required collaboration. "Full-contact poetry" was an idea outside of the group's experience, so they worked together to construct a working definition of the term from examples, their own experiences and each other.

## 6. DISCUSSION

Collaboration is an integral part to the development of artistic expression. Poets continuously borrow from each other's work, for example Keats' use of Miltonic phrasing, but they also thrive off of exchange. They give feedback, criticism and support to each other. Instead of an individual doing all of the work of reading, writing, interpreting and reconstructing, a poetic culture emulates this process. Multiple poets read, write and appropriate each other's work.

A writer needs feedback because there is no "right" or "wrong" answer to a poem as in a math problem [14]. Critiques provide artists with evaluation. How effective is a piece? Does the audience understand it? Could some aspect be communicated better?

Artists appropriate each other's work to learn, to extend their expression and to try new voices. Rap is an excellent example of art through appropriation. DJs take popular music, spin the records to a rhythm, and mix in other music while maintaining the rhythm. They scratch records and make them skip to a beat, and mix new tracks over popular music, creating new meaning and a new expressive form. These artists take popular music and return themselves, through mixing and the addition of new rhythms or spoken word tracks.

The group of teenagers participating in the workshop had never encountered the computer as an artistic or expressive tool. They saw the computer as a tool related to programming, games, finding information and social interaction. They had email, regularly surfed the web and played games online or downloaded music videos by their favorite artists. Most of them had participated in games design and robotics workshops at the center, so were experienced technically. They were able to easily start programming in Squeak and make simple animations immediately. But during the first session, they animated popular cartoons because they had not yet formed a definition of full-contact poetry, and were simply exercising the tools.

The group was shown a number of examples of full-contact poetry, both created by the facilitator in Squeak and also from online publications by artists using Flash and hypertext. They were shown a wide selection of poetry, some straightforward illustrations of narratives created for children; other more abstract interactions between image and text. The many examples were used to give a broad overview of how technology could be used expressively [2, 5, 11].

Some of the examples elicited blank looks. The children could not find anything in the poetry that resonated with them. The examples were not familiars [7] for them, pieces of their own lives that they could understand, appropriate and extend. They needed personal connections to the material, something of their own that they could reconfigure or adapt to this new mode of expression. A few pieces succeeded in sparking enthusiasm and commentary. Once the group had models that they could connect to, they started to build related pieces.

As the next generative exercise, the facilitator introduced "warm-up" exercises. In one exercise, the children were asked to free write for three minutes. They could write anything, nonsense, list things they like, dislike, how their day went, etc. No one would read their writing unless they permitted it. After three minutes, they were asked to underline a sentence that sounded interesting—not because of the meaning, but for the sound of the words. Then they were asked to draw and animate, without using text, the sound of the sentence. This activity immediately inspired projects and again produced very different work from their previous projects.

The examples and exercises succeeded in forming a community where originally there had been insecurity. With provided examples of full-contact poems, the children could analyze, discuss and appropriate pieces together that were not of their own creation. The exercises provided another collaborative space because the children were interested in seeing how other people's creations differed from their own, given the same exercise. The exercises created a space for comparison and discussion where the children's curiosity overrode their insecurity. They did not post projects on the swiki, but they downloaded other projects, commented on them and shared their exercise projects in person.

The full-contact poetry that the children created was not what the facilitator initially expected. It was not like the electronic literature one finds online or like music videos or any other established genre. Their poetry was more similar to rap. The group took elements of popular culture that were meaningful to them, like Japanese animation or R & B music, modified and personalized them, then added elements of their own invention. They added personal stories, nonsensical rhymes, sounds and drawings to express themselves through a new medium that they appropriated and redefined. Their use of technology connected them to a larger community of artists and to each other through appropriation and reconstruction. They took the expression of others and through reconfiguration, returned themselves.

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