

Generative Stein Poems

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ABSTRACT

Stein poems are short fragments of text that refer to life in general. They evoke emotions, past, present, and future situations through a rich vocabulary, putting special attention to syntax and semantics of phrases. We present a hypertext implementation of Stein poems. Our piece can be described as a series of rules for creating poems, but it is also a web-based authoring tool that produces simple text poems and makes them available as API. Finally, it is also a group of graphical interventions on generated text.

CCS Concepts

- Applied Computing → Arts and Humanities • Media Arts.
- Applied Computing → Document management and text processing • Hypertext / hypermedia creation.

Keywords

Text Generator; Hypertext Poetry; Generative Poetry; Graphical Interventions.

1. INTRODUCTION

Stein poems are short fragments of text that refer to life in general. In early 2015, Jean-Pierre Balpe started creating such structures as part of his extensive research and development in automatic literary text processing since the 1980s. Because the first text generators developed by Balpe were created on Hypercard, it was necessary to migrate the dictionaries and rules into more recent technologies. In late 2014, Samuel Szoniecky developed a complete authoring tool for generating texts using Flex and made it available through the web.

One of the main advantages of such environment is that generated texts can easily be distributed as simple text via an API. In this respect, Stein poems can be embedded in blogs and CMS, but they can also be seen as raw input for designing and speculating with graphical interventions.

2. DESCRIPTION OF ARTISTIC GOALS

Our artistic goal is to experiment and provoke unexpected behaviors of conventional computing in order to challenge cultural and perceptual habits. Artistic hypertext and hypermedia systems are relevant because they do not ascribe specific forms of representation to data, they rather allow for the exploration of interrelationships between the system components.

In our work, hypermedia artworks are based on systems generally comprising three components: an input interface, a processing engine and an output interface. There is no strict similarity between signals at each component. It is the processing engine, together with its design and algorithmic capabilities, what is in charge of transforming the signals from one component to another [2].

The authoring tool for generating novels and poems has been used by Balpe to create several kinds of texts: lyrical, erotic, surrealist, haikus, rock songs, and more recently Stein poems. They have been deployed in around 20 blogs signed by different pseudonyms and a web site (<http://www.balpe.name/>); together they form a hyperfiction ecology by establishing a network of links between them but challenging the notions of linearity, departing point, and final end. Indeed, because each fragment is automatically generated, readers always see a new version and thus generate new readings.

3. TECHNICAL DETAILS

3.1 Text Generator

The automatic text generator supporting the Stein poems was designed with theoretical aspects of semantic technologies in mind [3], as well as its role in the production of educational resources [4].

The generator works with dictionaries that organize, from textual fragments, the description of formal and semantic coherence of a language. The author of a generative text writes these fragments indicating the parts of the text that can be replaced by multiple choices. Then fragments used for the composition of other fragments follow a fitting fractal logic. The generation of a work consists in browsing through these interlocking choices at each level of a possible fragment.

The editing and diffusing interface of the tool facilitates the creation of generative work through import and export of dictionaries in CSV format. It helps authors to reuse existing fragments by writing grammatical rules of agreements and conjugation. Finally, it offers models for webcasting works either as raw text, html page or iframe elements.

3.1.1 Editing and diffusing tool

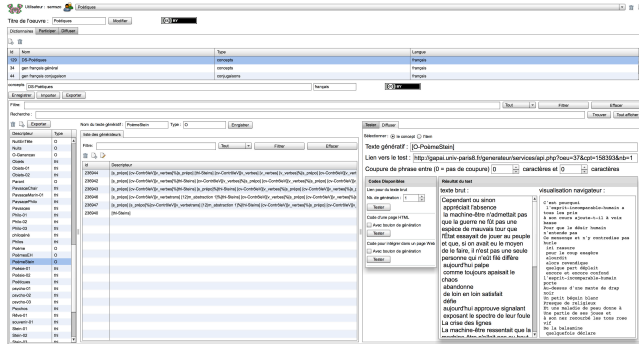


Figure 1. Editing and diffusing tool for generative text.

The text generator is available at <http://gapai.univ-paris8.fr/generateur/>. However, an identification access is required to use the interface. The simple text can be called at <http://gapai.univ-paris8.fr/generateur/services/api.php?oeu=37&cpt=158370nb=1> from any web browser.

We have produced tutorials of the text generator (<https://goo.gl/ieZ5Ne>) that show the basic uses of the tool. The source code is available on a collaborative development platform (<https://github.com/samszo/generateur>).

3.2 Graphical Interventions

Balpe's generative poems have been the subject of diverse output interfaces. For example, the piece *'Moments carolingiens'* was an ambitious installation where visitors could generate short passages describing the life between years 800-924. The graphical rendering of texts was in form of parchment and printed on paper at every text generation. This passage from screen to paper was also an attempt to ironically reflect on boundaries and limits. This installation was part of the 2014 exhibition 'Europe before Europe: The Carolingians' presented at Saint-Riquier Abbey in France [1].

More recently we have been using the generator API to produce graphical interventions in the web browser. The idea is to exploit plastic properties of text through recent graphical web technologies. Because Stein poems are short fragments and combine vocabulary from multiple domains, they can be 'experienced' and 'touched' as visual images and user interfaces. Figure 1 shows an output interface rendered as SVG text and Figure 2 uses the same API but is based on Processing.js. Both applications are interactive. While the first one randomizes position and allows to drag&drop each individual letter, the latter handles the web page as 2D matrix and applies rotation and translation transformations with a GUI. In the end, both tools create patterns and textures of text from the Stein poems.

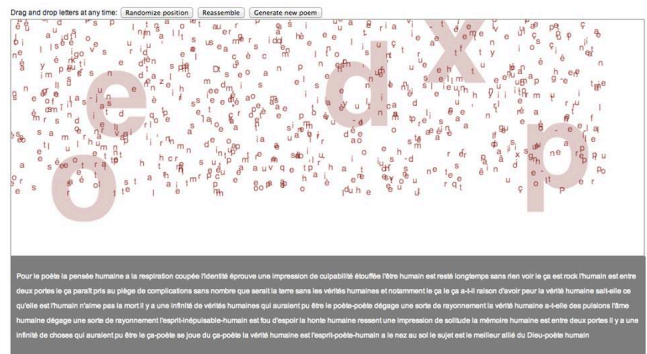


Figure 2. Stein poem API rendered as SVG text interface.

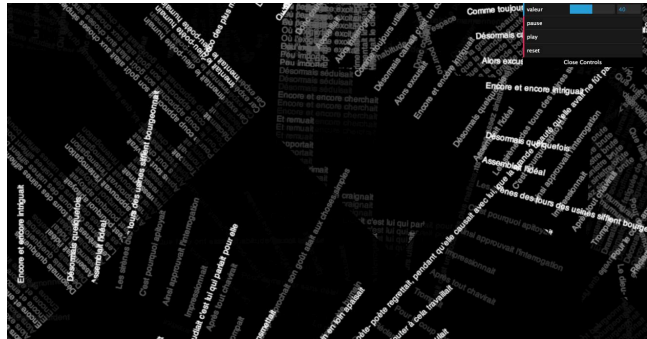


Figure 3. Stein poem API rendered as bitmap image interface with Processing.js.

Several simple online visualizations of Stein poems are available at <http://broom.org/poemesStein/>. They can be viewed with Mozilla Firefox and Google Chrome. No sound requirements are needed.

4. REFERENCES

- [1] Balpe, J.P. 2015. Hypertexte et littérature : actualité de la généritivité. *Les objets hypertextuels*, C. Angé, Ed. ISTE, London, 99-119.
- [2] Reyes-Garcia, E., Balpe, J.P. 2015. Hypertexte / hypermédia artistique. *100 Notions pour l'art numérique*. Veyrat, M. Ed. Les éditions de l'immatériel, Paris. 131-133.
- [3] Szoniecky, S., Hachour, H., Bouhai, N., 2012. The role of semantic topology in sensmaking processes : adressing challenges of indexing with metalanguages. *22nd European-Japanese Conference on Information Modeling and Knowledge Bases*. Prague, Czech Republic, pp. 244– 257.
- [4] Szoniecky, S., 2013. Dictionnaires de catégories pour la génération automatique de proverbes : vers une économie sémantique de l'interprétation. *La Néologie, Les Corpus Informatisés et Les Processus D'élaboration Des Langues de Moindre Diffusion*. Ghardaïa, Algeria.