

Sociopolitical Network for Ekphrastic Poetry and Algorithmic Co-authoring

Nicholas Trefonides
Poetry
University of Massachusetts Boston
Boston, USA
n.trefonides001@umb.edu

Emmanuel Saake
Computer Science
University of Massachusetts Boston
Boston, USA
emmanuel.saake001@umb.edu

Abstract— *CoPo (Cooperative Poem and Community Politics)* is a social network for ekphrastic poetry and postmodern politics.

Keywords—computer poetry, ekphrasis, social network, data mining, sentiment analysis, wave-particle duality

I. INTRODUCTION

Cooperative Poem is an application for writing and generating co-authored poems inspired by visual art. The poems are based on the prompt “Twenty Little Poetry Projects” by Jim Simmerman, published in *The Practice of Poetry* [1]. Users are presented with an image of original artwork and asked to respond to a little poetry project. Using their response, CoPo will generate a co-authored poem by piecing together randomly chosen responses from multiple users writing from the same image. Simmerman said of the prompt: “I created this exercise for my beginning poetry writing students who, seemed to me, overly concerned with transparently logical structures, themes, and modes of development at the expense of free-for-all wackiness, inventive play, and the sheer oddities of language itself. I created the exercise in about half an hour, simply listing, in no particular order, a lot of little sillinesses I had seen and liked, or had not seen but thought I would have liked, in poems here and there” [1].

Community Politics is for responding as a community to the representative of your voting district. By incorporating a YouTube API and requiring that users include their address while signing up, CoPo presents users with a video of their representative and an unbiased prompt. Users' responses are then randomly assembled to create co-authored poetry that truthfully expresses a community's emotional response to said political representative.

As code-objects [2], CoPo poems are not permanent, unless they are printed or published elsewhere. Poems can be generated and re-generated for an image whenever a user chooses, but the user can only generate poems for images that they've submitted to, and the poem will include one of their submissions.

CoPo encourages automatic writing and streamlines the creative process by presenting writers with both an image/video and a prompt, two prompts in one, and by requiring only one line of poetry (or more) in response. There is no time limit, but the submission process rarely takes longer than two minutes. The random arrangement of the poetry project submissions upon generation is indirectly related to automatic writing—by relying on the subconscious, automatic writing can seem random in nature to an outside observer.

CoPo is a historic network initiative for computer poetry because it is collaborative, an archive, and a publisher, which is how Funkhouser describes the role of computer poetry in organizing the network of movements: “Developments since the appearance of computer networks, such as collaborative

activities, the establishment of archives, as well as online communities and publishing, hearken back to earlier historical practices or efforts put forth by poets as analog artists. For instance, the ‘Mail Art’ movement, surrealist ‘exquisite corpse’ writings, organizations (e.g., The Poetry Project in New York City), and small press publishing taken up in previous periods, which may (or may not) have operated on a smaller scale, all served purposes similar to network initiatives” [3]. Although Copo relies on a network of contributors, the system operates using indirect collaboration, producing surrealist-style poetry, or more specifically, an exquisite corpse.

In “The Body and Possible Soul of Digital Ekphrastic Poetry,” Jolene Mathieson describes digital poetry's *raison d'être* as realizing technically the more abstract premises of its literary ancestors [2]. Along with CoPo's roots in automatic writing and *The Practice of Poetry*, by not giving privilege to certain authors, CoPo is also an unbiased, continuous publication of dissimilar poetic products untouchable to conventional criticism.

The merit of a work is usually decided within the scope of the literary canon, but CoPo shows that what distinguishes us from each other is also what enables us to exist as one collective voice. CoPo seeks creative equality, neither considering the celebrity nor skill of the individual responding to the prompt “because identity is a minimum and, hence, a type of difference, and a very rare type at that, in the same way as rest is a type of movement and the circle is a type of ellipse” [4]. Although the merit of each poem can still be established, the merit of the individual submissions that make up the poem cannot be judged because it is nearly impossible to follow who wrote what. The pressure is relinquished for each of the actors in the network [4]. Poetry is more likely to be automatic in a fully balanced actor-network like CoPo (all actors have equal agency) than it is for an individual, alone, who may be trying to gain notoriety in typical networks.

Mathieson says, “Linking the dialogical nature of ekphrasis to digital media would, it seems to me, thus require Hayles's concept of intermediation as that which logically, both metaphorically and literally, corresponds to the complex, idiosyncratic agency-actant relationship between systems and participants” [2]. The poem itself is the singular author (of itself) among the multiplicity of voices. Every poem that's generated for the same image/video is eerily similar even though there are different co-authors and the prompts are reordered. The image encourages each of the authors to write in the same vein, and in turn, the poem contains the image as an overarching theme. The poetry prompts ensure they are writing differently about the same image.

Every poem that's generated is statistically average in the sense that it is just as likely to occur as any other arrangement of text submissions. Digital poetry embodies intertextuality and shows that any text can be a collection of texts, often

leading to juxtaposition that depends on the reader [3]. For CoPo, every poem that's generated includes a submission from the person who is generating the poem, so they are more likely to read into what's written. The writer depends on the poem just as the poem depends on the reader.

As statistically average as CoPo poems may be, every poem has the potential to be extraordinary, meaning that the juxtaposition between adjacent submissions is seamless and leaves no trace. In doing so, CoPo poems disrupt literary analysis because part of that conversation surrounds tracing the thought of the poet from start to finish. Untraceable juxtaposition is more likely to occur for CoPo poems than for other random poetry generators because the authors write ekphrastically from the same image, the algorithm indirectly accommodates an element of randomness.

Everyone in the network is given authoring credit for artwork and poetry submitted, but it is still impossible to determine who wrote what. What becomes traceable is the ekphrastic qualities of the image that are imparted on the poet(s), which enables sentiment analysis. As Webb theorizes, in ekphrasis, "words do not directly represent their subjects, but are attached to a mental representation of that subject" [5]. CoPo confirms that there are commonalities between the way that people respond to an image because every image is a shared experience and perspective.

CoPo supports the proliferation of small presses in the poetry community. Most of the readers of small presses are people who have been published by the press and their friends and family for a brief period of time. CoPo brings all of those people together into a social network by maximizing that brief period of time through a continuous experience, and every reader is engaged.

The case-specific data-structures [2] that CoPo loops through are random submissions to poetry project prompts for the user who is generating the poem for a certain image, and original artwork or YouTube videos. Every poem is a performative event because the same process of creation is being repeated. There are many responses to each of the prompts for every image, and the arrangement of the prompts is random for every poem, but every poem emerges in real time. With time and participation, it becomes even more rare for the same poem to be generated twice.

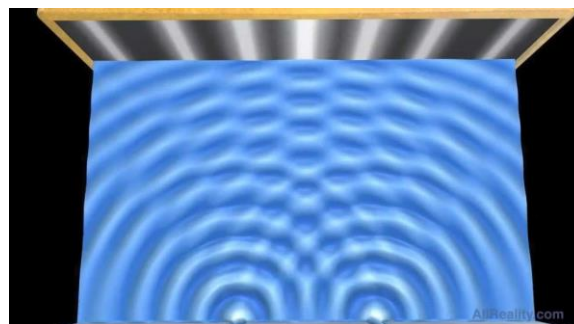
What each user puts into CoPo is also what they get in return from other users that randomly make up the co-authors for each poem: a response to a prompt for the same image; in terms of neuroaesthetics and *Feeling Beauty*, there is equality in both immersion and embodiment [6]. In *The Digital Topography of Mark Z. Danielewski's "House of Leaves"*, Mark Hansen describes a "void" in which representation and referent collapse [7]. CoPo also enacts the collapse that Hansen describes, but when the bodies meet for their collapse, they are found to fit in balance, everyone has something in common. It must be love at first sight. By going deep into ekphrasis, along with the polysemy of the ever-expanding dataset, CoPo subverts the referential void.

In the piece "What is a poem?" from *Anarchism is Not Enough*, Laura Riding writes: "A poem is nothing. By persistence the poem can be made something; but then it is something, not a poem. Why is it nothing? Because it cannot be looked at, heard, touched or read (what can be read is prose)" [8]. Riding says that poems exist in a vacuum before observation. Riding's "vacuum" and Hansen's "void" suggest

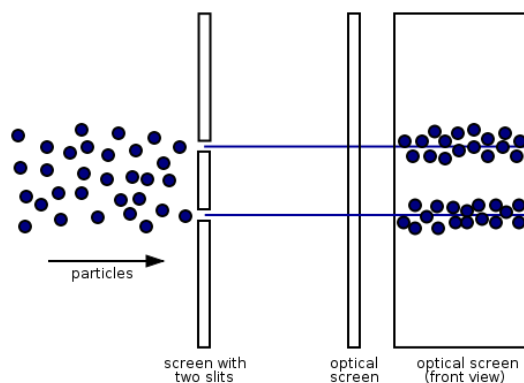
that a poem is "nothing" for the same reason that, according to quantum mechanics, a subatomic particle acts like a wave, unless it is observed, in which case it acts like a particle.

In keeping with the history of physics, CoPo is inspired by wave-particle duality and the Two Slit Experiment. CoPo poems are interference patterns of language because nobody has control of what the overall meaning of the poem will be, yet each individual has an equal say.

A wave passing through two slits becomes two waves that coincide to produce an interference pattern. An image in a poet's mind is an interference pattern of light waves, and perception is an interference pattern of images because even individual photons, particles, and bits of matter produce interference patterns. Collectively, subconsciously, they behave like a wave passing through two slits:



But when they are conscious of observation, they are probabilistic:



If language is material, or matter, then ekphrastic poems can be interference patterns of language if they are not observed, or measured, during creation. Informed decision leads to language that goes through one slit (self), or the other (appropriation), but not both (shared experience/perspective). The new difficulty is to renunciate relation and reject effect to interfere, create a pattern of language unlike any other. In *The Digital Topography of Mark Z. Danielewski's "House of Leaves"*, Mark Hansen describes Danielewski's novel as "about an impossible object, a referent that is absent not simply in the sense of being lost or unlocatable, or even in the sense—common to all fiction—of lacking any existence whatsoever prior to and outside of the fiction that conjures it up. *House of Leaves* is a realist novel about an object that, for precise technical reasons, cannot belong to the 'reality' we

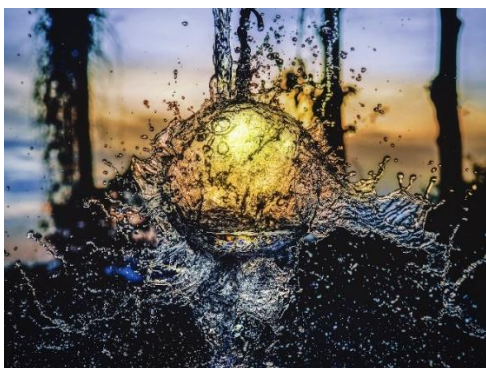
inhabit as embodied beings: even the fictional existence of this house is, in some sense, impossible.” [7]. CoPo poems are impossible because no person, alone, can accomplish what CoPo enables—poems are bellowed in a unified voice that is unquestionably human, but of nobody in particular.

The following prototype CoPo poem was created by a group of friends that I contacted through email, and now, cooperativepoem.com (i.e. copo.life) automates the process. They were each given a different poetry project, but the same image from which to ekphrastically respond. For the purposes of relating CoPo poems to physics, each submission is not made up of *lines* of poetry, but *waves*. The poetry projects represent different frequencies and the image is the source of the wave.

II. RANDOMLY ORDERED FREQUENCIES

- Say something specific but utterly preposterous
- Use a word (slang?) you’ve never seen in a poem
- Use the proper name of a person and the proper name of a place
- Use a piece of false cause and effect logic
- Make a declarative assertion that sounds convincing but finally makes no sense.
- Use a piece of “talk” you’ve actually heard (preferably in dialect and/or which you don’t understand)
- Make the persona in the poem do something that they could not do in “real life.”
- Modify a noun with an unlikely adjective.
- Write in the future tense, such that part of the poem seems to be a prediction.
- Use a metaphor.
- Use a phrase from a language other than English.
- Use one example of synaesthesia (mixing the senses)

III. SOURCE



IV. GENERATED POEM

Imagine swallowing the moon, sun, land and sea
in one violent gulp, reverberating waves
slinking and sticking like teardrops around what
once was everything and nothing, drowning life,

reversing genesis, spilling into that uncharted
void and filling what’s empty with sacred
emptiness. Miniscule droplets reflecting hues of
yellow and orange, distorting the world behind

them, elongating, squishing, creating new
images from the old. A unique world within each
droplet. Steve once said “we contain god within
ourselves”. Water from Loch Ness, West Glenville.

I got to be god of that small summer. From water
came the world, pushed in pulses of flowing
earth. From flux the sphere took shape and
knew itself, became aware of origin calling it a

knowledge. At the third position, light sheens
through, calls a question with a gargle and spills
us upon a floor. Popped latex isn’t biodegradable
even if you can recycle the picture from

Facebook to Twitter to Instagram. Quit bursting
pollutants when there are thirsting
people—instead balloon filters, clean our water. I
can’t drink likes no matter how they flow.

I hate to burst your bubble but you’re not going
to make any money doing that. Thanks, but that
bubble already popped and I’ve been having the
greatest time drowning in its dislocated

droplets. I hold the orb still with my mind, against
the spray and watch the water run over it
and drip off, sunset glowing through. I do not let
it sway. Wonder if this is how God feels about

the sun, the moon, the earth, letting each single
droplet drip where it may, but not letting it
waiver. Moons aquatic // nebulas the mind // wet
& never drowned // breath, blue-orange

paradise // and the eye is all sandy horizon.
There will be more things breaking: the light
through winter sea. This egg of ice will flood and
shatter, will spill yellow, pale at first, and paler.

It's raining and the hammer drops in pieces. A
dizzy background, something's focused: in this
droplet is the sunburst. Where we fall is no
man's land for our orb of yellow but for the

one-two-three seconds before we dissolve into a
purple-black, we'll be the epicenter of a ray,
a bedizened heat, until we—*ca pika shiu*—pool
endlessly. For a moment, liquefied silence,
bursting.

by Jessica Melendy, Westley Smith, Jaime Chernoch,
Nicholas Snow, Kieran Moriarty, Jessamyn Wolff, Megan
Waring, Shannon Kafka, Christie Towers, Nicholas
Trefonides, Krisela Karaja, and Sabina Lindsey

The cohesiveness of the prototype poem shows that CoPo, a code-object embodied by a community on a blind date, generates unimaginable poems. The voice that appears (and disappears) is seemingly endless because the more you participate to find out what it's all about, the more the poem is liberated, carved with increasing detail by becoming truer to the image for more people throughout time. The poem reveals itself, the community recreates an experience, however temporary, by randomly glancing at something from the same perspective. The image is the source of the experience, and an interference pattern of light waves is translated into language.

The image used for the prototype is a freely-available image from the abstract category of pexel.com, but the images submitted to copo.life are of original artwork created by users of CoPo, whoever wishes to submit.

Along with ekphrastic poetry for the Cooperative Poetry side of CoPo, users can participate in Community Politics, which involves watching the most popular YouTube video of the representative of your voting district and responding to an unbiased prompt to generate poems that represent how your community feels about the person that represents them. It's not polling, just thoughts, but the data can be used as "alternative polling" that determines how the constituents "feel" about their representative. For the most part, the prompts put policy aside, and the community can write about

anything really. CoPo is an example of what Mathieson describes as the utility of digital ekphrasis:

"A poetics of digital ekphrasis would thus be a type of poetics aware of and able to account for both the processes of visualization as well as their infinite desire for and embodiment of the representation of visual media and vice versa. It would be a type of poetics able to endorse both the cultural or metaphorical power of the living image as well as the technical agency of the enlivened digital image. It would also be a poetics deft at pursuing its multimodal, polysemiotic possibilities to critically reflect on and maybe even subvert the nature of the (de-)materialized digital image and its relation to material ontology. Finally, it would be a poetics that is both the result of and the instigator of intermediation. This, in turn, means that a poetics of digital ekphrasis will be very complex—thematically, structurally, and materially" [2]

CoPo is a structure for long-term sentiment analysis of digital images and videos. No ekphrastic poem or response to an image is more valuable than any other. Latour said that if "some 'social factor' is transported through intermediaries, then everything important is in the factor, not in the intermediaries. For all practical purposes, it can be substituted by them without any loss of the nuances" [4]. In CoPo, there are clearly defined factors: the poetry projects from "Twenty Little Poetry Projects" (and unbiased prompts for Community Politics). And the images/videos that are randomly presented provide context as a social factor.

Borrowing from the history of physics, in *Reassembling the Social*, Latour describes sociology of the social as pre-relativist and our sociology itself as fully relativist:

"In most ordinary cases, for instance situations that change slowly, the pre-relativist framework is perfectly fine and any fixed frame of reference can register action without too much deformation. But as soon as things accelerate, innovations proliferate, and entities are multiplied, one then has an absolutist framework generating data that becomes hopelessly messed up. This is when a relativistic solution has to be devised in order to remain able to move between frames of reference and to regain some sort of commensurability between traces coming from frames travelling at very different speeds and accelerations" [4].

CoPo manages pre-relativist experiences and incorporates the poetry written as part of the experience into a relativist framework without collapsing the wave (vacuum/void) of the individual experiences within. One of Latour's sources of uncertainty is "Matters of Fact vs. Matters of Concern." He says that social observers never meant to test their causalities and they "would easily grant that social gravitation is not like Newtonian gravitation...they tried to imagine a more modest, fuzzy, and uncertain type of causality: 'some relations' and 'correlations' between different 'factors'" [4]. CoPo is a social network that honors Newtonian gravitation—but naturally, as a network within The Network, CoPo will get about as much use as a poetry press.

Considering the fact that only about 7% of the population encounters one poem over the course of a year, that's not enough people to make a political impact. Political impact doesn't matter for Cooperative Poem, but Community Politics may require some incentive for participation. Paid crowdsourcing such as Mechanical Turk may be considered a convenience sample, but every person that's sampled has an equally valuable ekphrastic response regardless of where they

came from or how they came to respond. All responses come together as a cohesive, symbiotic representation of the image. Rather than asking, “What do you have to say about them?” CoPo attempts to answer, semi-anonymously, “How do they make us feel?”

The challenger to the incumbent is foremost the representative of the political party, they are the not yet the representative of the constituents of the office for which they are running. CoPo can be used to determine who the challenging party should support, not directly based on policy, but by feeling—the inevitable, immediate social factor in this situation. Policy plans are social factors that will directly affect constituents, but voters are not yet their constituents. Policies can always be looked at side-by-side with empathy and without emotional influence, but nothing can change how people immediately respond emotionally to a politician upon watching them speak.

By using crowdsourcing and advertisements to bring members of the community to copo.life, we can determine who the community feels should represent the incumbent political parties for the next U.S. presidential election using sentiment analysis. There is also potential for Community Politics to succeed as a social network because it digitally reassembles the subconscious social. “Thinking before you speak” is not encouraged, and that promotes public engagement in political conversation. A lot of animosity towards the so called “media” is because the various networks report more than just facts. They’re also reporting on how certain people feel about the facts. Even if their viewers switch networks, they’ll find that nobody feels exactly how they do about any given event that happened.

CoPo is a venue for the electorate where their emotional responses to representatives are individually valid, but also part of an unbiased whole. Here are the political prompts so far:

- Write in the future tense such that part of the poem seems to predict the future of our country.
- Two truths and a lie in the persona of this person.
- Typify this person.
- Ask this person a personal question?
- Imagine you are at a televised debate and ask this person a question.
- Use a metaphor.
- Use a sentence with the following construction: the (adjective) (concrete noun) of (abstract noun).
- So this person walks into a bar...
- Use a metaphor to describe any part or all of this person dress or physical appearance.
- Use reverse personification (make this human display non-human characteristics, or objectify this person).
- Use a simile for their smile.
- Psychoanalyze.
- Explain this to your child.

The Cooperative Poetry side of CoPo also has a long way to go in remaining true to the original prompt and utilizing the computing power that digital poetry is capable of—natural language processing (NLP) and artificial intelligence (AI) — while practicing poetry. To truly complete the Twenty Little Poetry Project prompt using CoPo, we must incorporate AI that generates titles for the co-authored poems and abide by the rules of the prompt in full:

“Give each project at least one line. You should open the poem with the first project, and close it with the last, but otherwise use the projects in whatever order you like. Do all twenty. Let different ones be in different voices. Don’t take things too seriously.

1. Begin the poem with a metaphor.
2. Say something specific but utterly preposterous.
3. Use at least one image for each of the five senses, either in succession or scattered randomly throughout the poem.
4. Use one example of synaesthesia (mixing the senses).
5. Use the proper name of a person and the proper name of a place.
6. Contradict something you said earlier in the poem.
7. Change direction or digress from the last thing you said.
8. Use a word (slang?) you’ve never seen in a poem.
9. Use a piece of false cause-and-effect logic.
10. Use a piece of “talk” you’ve actually heard (preferably in dialect and/or which you don’t understand).
11. Create a metaphor using the following construction: ‘The (adjective) (concrete noun) of (abstract noun)...’
12. Use an image in such a way as to reverse its usual associative qualities.
13. Make the persona or character in the poem do something he/she could not do in “real life.”
14. Refer to yourself by nickname and in the third person.
15. Write in the future tense, such that part of the poem seems to be a prediction.
16. Modify a noun with an unlikely adjective.
17. Make a declarative assertion that sounds convincing but finally makes no sense.
18. Use a phrase from a language other than English.
19. Make a nonhuman object say or do something human (personification).
20. Close the poem with a vivid image that makes no statement but that “echoes” an image from earlier in the poem” [1].

So far, Cooperative Poem meets most of the rules of the prompt because different projects are completed in different voices [1]. In the future, along with generating titles, AI and NLP can be used to complete prompts 6, 7, and 20.

Our minds are capable of more than image captioning and narrating a visual scene. By reflecting on the past, present, and future implications of a visual scene, and its associated narrative, our imaginations create unique narratives. CoPo can be utilized for sentiment analysis and for creating AI models that can be incorporated to complete any of the ekphrastic poetry projects, maybe even the political prompts on Community Politics.

When that day comes, we will have something more than poetry—the poem will have submitted to itself—and we will find out that digital ekphrastic poetry has a soul after all, don't we all? For an individual, it may be best to act with intent, but as a collective in a transparent network, we may need to do just the opposite. CoPo must be a work of collective action that involves public and scientific opinion in an accessible, non-profit environment.

REFERENCES

- [1] R. Behn, C. Twichell, *The Practice of Poetry: Exercises from Poets Who Teach*, J. Simmerman, Twenty Little Poetry Projects, NYC: HarperCollins Publishers, Inc, 1992.
- [2] Jolene Mathieson; The Body and the Possible Soul in Digital Ekphrastic Poetry. *Poetics Today* 1 June 2018; 39 (2): 359–382. doi: <https://doi.org/10.1215/03335372-4324505>
- [3] C. Funkhouser, *Digital Poetry: A Look at Generative, Visual, and Interconnected Possibilities in its First Four Decades*, R. Siemens, S. Schreibman, *A Companion to Digital Literary Studies*, 2013
- [4] Latour, Bruno., American Council of Learned Societies, and Ebrary, Inc. *Introduction to Actor-network-theory*. Oxford: Oxford UP, 2005. ACLS Humanities E-Book. Web.
- [5] Webb, Ruth 2009 *Ekphrasis, Imagination, and Persuasion in Ancient Rhetorical Theory and Practice* (Farnham: Ashgate).
- [6] Starr, G. Gabrielle. *Feeling Beauty : The Neuroscience of Aesthetic Experience*, MIT Press, 2013. ProQuest Ebook Central, <https://ebookcentral.proquest.com/lib/umboston/detail.action?docID=3339640>.
- [7] Hansen, Mark B. N. 2004 “The Digital Topography of Mark Z. Danielewski’s *House of Leaves*,” *Contemporary Literature* 45, no. 4: 597 – 636.
- [8] L. Riding, *Anarchism is Not Enough*, first ed. Jonathon Cape, 1928