Ecopoetry Online: Analyzing User Engagement with Environmental Poetry on Instagram

Lydia Nixon
Department of English, Indiana University Bloomington

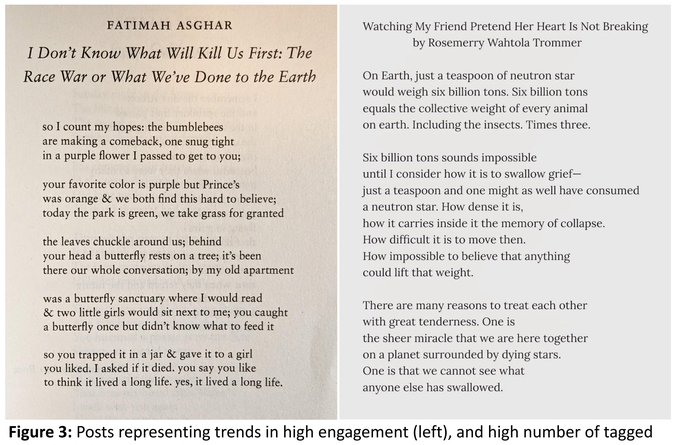
Research Questions

1. What linguistic, syntactical, and grammatical **trends** are present in posts with most likes and user tags?
2. What can these trends tell us about the **impact** of ecopoetry on readers?

Word Frequency in Poems with High Engagement

Figure 1: Most frequent words (with stopwords removed) in poems with highest number of likes. Interestingly, many of these words occur frequently across all poems, including *love, like, life, time, day, light, tree, beautiful,* and *things.*

Figure 2: Most frequent words (with stopwords removed) in poems with highest number of tagged users. Notable differences from the above word cloud include *world, alive, body,* and *make.*
Sinclair, Stéfan and Geoffrey Rockwell, 2016. *Voyant Tools*. Web. http://voyant-tools.org



FATIMAH ASGHAR

I Don't Know What Will Kill Us First: The Race War or What We've Done to the Earth

so I count my hopes: the bumblebees
are making a comeback, one snug tight
in a purple flower I passed to get to you;

your favorite color is purple but Prince's
was orange & we both find this hard to believe;
today the park is green, we take grass for granted

the leaves chuckle around us; behind
your head a butterfly rests on a tree; it's been
there our whole conversation; by my old apartment

was a butterfly sanctuary where I would read
& two little girls would sit next to me; you caught
a butterfly once but didn't know what to feed it

so you trapped it in a jar & gave it to a girl
you liked. I asked if it died. you say you like
to think it lived a long life. yes, it lived a long life.

Watching My Friend Pretend Her Heart Is Not Breaking
by Rosemerry Wahtola Trommer

On Earth, just a teaspoon of neutron star
would weigh six billion tons. Six billion tons
equals the collective weight of every animal
on earth. Including the insects. Times three.

Six billion tons sounds impossible
until I consider how it is to swallow grief—
just a teaspoon and one might as well have consumed
a neutron star. How dense it is,
how it carries inside it the memory of collapse.
How difficult it is to move then.
How impossible to believe that anything
could lift that weight.

There are many reasons to treat each other
with great tenderness. One is
the sheer miracle that we are here together
on a planet surrounded by dying stars.
One is that we cannot see what
anyone else has swallowed.

Figure 3: Posts representing trends in high engagement (left), and high number of tagged users (right). Image credit: Poetryisnotaluxury.

Overview

Can literature matter in a time of climate crisis? This question is both the foundation and the existential anxiety of ecocritical studies. Endeavoring to answer this question, my project integrates ecocritical approaches, empirical data, and digital tools to study the impact of ecopoetry on readers in social media spaces, focusing on Instagram user engagement with ecopoetry.

Methods

1. Collected metadata on ~100 *nature poems from four popular Instagram poetry accounts (419 poems total).
   a. **For this study, I define "nature poem" as any poem with nature imagery or references.*
2. Used CLAWS online tagger and Voyant to study **word frequency**, **readability indicators,** and **POS frequency** in most popular vs. less popular poems, and in poems with high rates of tagged users.
3. Simulated topic modeling to **categorize** poems by representation of "nature".

Results

Trends in Popular Poems vs. Less Popular Poems

- **Simulated topic modeling**: In three of the four poetry accounts, poems categorized "climate change" averaged the highest number of likes.
- **Coleman Liau readability index**: 0.753-10.757 vs. 3.854-14.407
- **Word frequency:** "I" pronouns significantly higher in popular poems (153 > 99) vs. "we/us" notably higher in less popular poems (61 > 47).
- Post length, vocabulary density, and average words per sentence: no significant difference in popular vs. less popular poems

Trends in Poems with Highest Number of Tagged Users

- **Simulated topic modeling:** In three of the four poetry accounts, poems categorized "ecology" averaged the highest number of tagged users.
- **POS tags:** Poem text averaged 20% nouns, 9% personal pronouns, 26% verbs.
- **Word frequency :** High frequency of "I" pronouns (159) with high rate of "you" collocates (32).

Simulated Topic Modeling

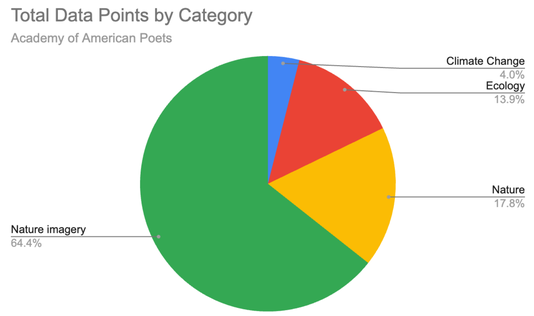


Figure 4: Results from a simulated (i.e. manual) topic modeling indicate that poems with nature imagery are more prevalent than poems with stronger environmental themes.

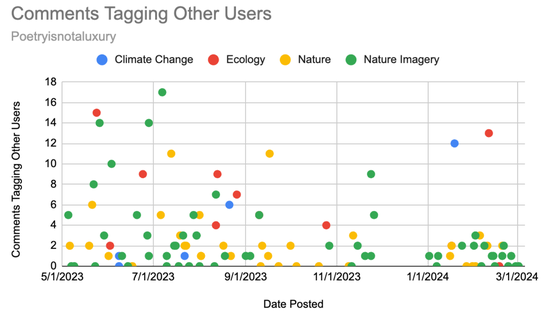


Figure 5: Results from a simulated topic modeling indicate that poems with stronger environmental themes tended to elicit more comments tagging other users.

Conclusions / Next Steps

This project identifies two important ways in which future research can contribute to ecocritical studies:

1. Identifying categories of ecopoetry circulating on Instagram and analyzing user engagement to better understand how ecopoetry might reorient readers to the nonhuman world.
2. Analyzing connections between poetic/linguistic elements and community-building responses (i.e. tagging other users in the comments) to better understand how ecopoetry can move readers from awareness to action.