

Exploring the Role of Artificial Intelligence in Poetry: Enhancing Creativity and Expression

Manpreet Singh

Assistant Professor, Seth Bihari Lal Chhabra Govt. College, Anoopgarh

Abstract:

This research paper explores the realm of poetry and investigates the emerging influence of artificial intelligence (AI) on generating poems. By exploring the crossroads of AI and poetry, we aim to understand the potential benefits, challenges, and implications of employing AI technologies in the field of literary arts. This paper presents an analysis of the current state of AI-generated poetry, examines its impact on the traditional poetic practices and discusses the broader implications for the future of creative expression.

Keywords: Artificial Intelligence, Poetry generation, Chatgpt, creative process

Introduction

Margaret Boden states, “artificial intelligence (AI) seeks to make computers do the sorts of things that minds can do” (Boden, 2016). But is it this simple? Before we go on to put this new technology to test we must answer a very simple but complicated question, .i.e... What is Artificial Intelligence?

Surprisingly, as simple as it seems the precise nature of Artificial Intelligence is extremely hard to define (Fetzer, 1990). Humans have been using machines since the beginning of the civilizations and since then we have been trying to improve those machine to make them think like us. Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems. (What Is Artificial Intelligence (AI)?, n.d.) Artificial Intelligence (AI) refers to the development and implementation of computer systems and machines that can perform tasks that would typically require human intelligence. It is a multidisciplinary field that combines computer science, mathematics, cognitive science, and other related areas. (Abdulov, 2020)

Industrial revolution has marked an era in the history of human civilization from where technology has seen a vast development. Ever since machines replaced humans for the execution of manual work in the various field, we started to feel the need for artificial intelligence so that machines could also replace humans where human intelligence was required.

The release of Artificial intelligence tools like AI Poem Generator, Chatgpt, and The Poetry Machine etc. for public access has made it convenient for anyone to generate a poem on any particular topic without any single line matching with an existing poem. But this new development in the technology has also raised some new questions and fields of research.

- How and to what extent can Artificial intelligence be used for writing poetry?
- Where does the poetry created by AI stands in comparison to the ones created by humans?

- Can we use AI for teaching poetry or literature? If yes, then how can we regulate the use of AI for teaching of literature?

The purpose of this paper is to find answers to these questions. And to achieve that we will analyze some poems generated by AI tools. We will also try to learn the process of creating poetry with the help of AI.

Use of AI in Poetry creation

AI is being used in the fields of healthcare, education, Agriculture, finance and what not. Now with all the miracles that AI is producing around our lives another significant wonder that AI can perform is the task of writing poetry. When provided the input in the form of a sentence, a couple of phrases or even a photo, the intelligent system can produce whole paragraphs of text. With the amount of input text growing every day, these systems are becoming more and more competent in producing meaningful sequences of speech.(Neelam, 2022)

1. How and to what extent can Artificial intelligence be used for writing poetry?

Artificial Intelligence is a powerful tool that can be used for various applications, including poetry writing. Ai algorithms can analyze and generate text based on patterns and structures found in large datasets of poetry.

We will take the following three tools capable of generating creative text for our research paper: Chatgpt (ChatGPT | OpenAI, n.d.), AI Poem Generator(AI Poem Generator, n.d.).

Generating Poems:

AI can analyze existing poems to identify patterns and structures. This in turn enables AI to write new poems. Poems thus created can be completely unrelated and different than any existing poem. By using machine learning algorithms, AI models can generate new poems that mimic the style, tone and theme of the input poems.

Here is an example:-

Experimenting with Chatgpt for writing poetry:-

PROMPT: Write a sonnet

RESULT:

In realms where twilight's soft embrace does fade,
Where shadows dance upon the whispering breeze,
There lies a tale of love, both bright and swayed,
Entwined in secrets, woven through the trees.

Within the garden of the moonlit night,
Two souls, enraptured, found their hearts entwined,
Their love a beacon, burning pure and bright,
In sacred union, bound by fate aligned.

Yet time, relentless, casts its shadowed cloak,
And whispers of departure softly sigh,

Though parted, still their love remains bespoke,
In whispered echoes 'neath the azure sky.
So let this sonnet echo through the years,
A testament to love, undimmed by tears.

Upon analyzing the above poem we can see a miraculously quick and meticulously written poem by Chatgpt in the style of William Shakespeare. The Algorithm even goes on to explore explicitly human themes of memory and legacy ,eternal love, time and separations. AI even goes on to employ literary devices like personification, metaphor and alliteration making it almost impossible to differentiate between a poem written by creative mind and artificial intelligence.

This also brings us to our next part of the same question. What is extent of writing poetry with artificial intelligence and to how far can we take it. To find the answer to our next question we give the following Prompt.

PROMPT TO CHATGPT: Write a sonnet in the style, themes and language of Shakespeare

Result:

Upon the Moon's Fair Light, Our Hearts Alight
When morning's blush doth gild the heavens wide,
And shadows from the day retreating lie,
The moon, in her resplendent grace, doth bide,
To cast her silv'ry beams upon the sky.
In such a realm where dreams and love entwine,
Two hearts, like stars, in mutual radiance burn;
Their vows, like whispered winds, through ages twine,
And thus their love, through time, doth sweetly churn.
Yet as the fleeting hours of day are spent,
The night, in sorrow, hath its tender close;
Though parted, still, our hearts remain unbent,
And in our parting, love's true essence shows.
So let this sonnet in the stars be sown,
A testament to love, by time o'erthrown.

Although, the poem effectively captures the essence of a Shakespearean sonnet, employing traditional form and language to convey themes of love and fate with depth and resonance but we upon close inspection we find that this poem quite similar to the one generated when asked to generate a sonnet. Artificial Intelligence completely relies upon the data available to it from where it can learn and it has not the potential to go beyond its learning patterns.

TO TEST ABOVE HYPOTHESIS AND TO BRING IN SOME VARIETY WE TRIED TO GENERATE POEM WITH SIMILAR PROMPT ON **POETRY GENERATOR**.

RESULT:

Upon the page where words like rivers flow,
In quill's embrace, a sonnet doth arise,
With themes of love that time cannot outgrow,
And language rich, where hidden passion lies.

O muse, inspire this heart to weave the lines,
In iambs' dance, let every syllable sing,
For in the shadows of the stars that shine,
The echoes of sweet longing softly cling.

Each couplet formed, a tender truth expressed,
As if to capture fleeting moments' grace,
With rhymes that linger, never to rest,
In every heart, a mirrored soul they trace.

So let these verses, like the moonlight's gleam,
Awake the dreams that flutter in the stream.

A close analysis of this poem shows that Poetry Generator tool also employs almost similar themes as the one created by Chatgpt. The language and structure hold on to Shakespearean conventions, employing traditional elements while exploring the personal and mystical aspects of writing.

Although very meticulous and charming pieces of poems can be created with the help of AI but certainly this revolutionary new technology has its limits and is particularly dependent on the type of Prompt it gets and on the type of data it has access to from where it learns. It does not show creativity nowhere near human intelligence but it can certainly be used to provide examples to the students of literature.

Where does the poetry created by AI stands in comparison to the one by humans?

AI models have impressively shown the ability to imitate the writing styles and word choices of different profession but the question remains as to whether true art can be generated by machines?(Hutson & Schnellmann, 2023)

Here is another comparison of a poem by William Blake and a poet created by Ai on the same subject.

"The Tyger", one of the most famous and frequently anthologized poem by English poet William Blake. It was published in 1794 as part of his collection titled "Songs of Experience." The poem explores themes of creation, power, and the nature of existence through the imagery of a tiger.

Here is the poem "The Tyger" by William Blake:
Tyger Tyger, burning bright,

In the forests of the night;
What immortal hand or eye,
Could frame thy fearful symmetry?

In what distant deeps or skies.
Burnt the fire of thine eyes?
On what wings dare he aspire?
What the hand, dare seize the fire?

And what shoulder, & what art,
Could twist the sinews of thy heart?
And when thy heart began to beat,
What dread hand? & what dread feet?

What the hammer? what the chain,
In what furnace was thy brain?
What the anvil? what dread grasp,
Dare its deadly terrors clasp!

When the stars threw down their spears
And water'd heaven with their tears:
Did he smile his work to see?
Did he who made the Lamb make thee?

Tyger Tyger burning bright,
In the forests of the night:
What immortal hand or eye,
Dare frame thy fearful symmetry?

Scholars have often discussed this poem and its deeper meanings particularly in relation to the nature of good and evil, human condition and the divine. William Blake is regarded as one of the greatest poets who can evoke a sense of awe and wonder by employing vivid imagery and rhetorical questions. The depiction of such a powerful and enigmatic creature in the poem is a fine example of Blake's imagery.

Now here is an example of poem created by AI when asked to write a poem on Tiger:-

In shadows deep, where darkness lies,
A creature roams 'neath starry skies,
With eyes aglow, a fiery blaze,
In silent stride, through moonlit haze.
What cosmic hand, with deft design,

Crafted this beast of fearsome line?
From distant realms, what force untamed,
Ignited stars where dreams are named?
And what skillful artistry was employed,
To forge a heart so fiercely enjoyed?
What pounding rhythm, what fearsome beat,
Breathed life into this creature's feet?
What forge, what furnace, what celestial flame,
Gave birth to this creature, fearsome in name?
What cosmic artist, what divine spark,
Shaped this tiger in the dark?
As stars wept tears upon the night,
Did creator smile at such a sight?
Did they who formed the gentle lamb,
Also fashion this beast, fierce and grand?
Oh, Tyger, in your fiery light,
What hand or eye dared such a sight?
In forests deep, where shadows dance,
Thou art a mystery, a wild romance.

This poem is just another version of the poem written by William Blake. It draws inspiration from the same poem and tries to revolve around the same themes and symbols as employed by Blake. Evidently Chatgpt AI is not capable of writing poems as its own, although dissimilar these poems are directly influenced by the original works.

Improving Poems: AI can also be used to provide suggestions and improvements to existing poems. By analyzing the language, rhyme schemes, and meter, AI algorithms can provide feedback to poets, helping them enhance their work. Sometime a poem or work of poetry can become difficult to explain to students who have learnt English as a second language. In a situation like that AI can prove to very help for teachers by rewriting or improving an existing poem.

To test the usefulness of AI in improving poems we decided to give it a children rhyme and asked Chatgpt to improve the poem.

Prompt:- Simplify and rewrite the poem Windhover by G M Hopkins to make it

Result :

Certainly! "The Windhover" by Gerard Manley Hopkins is a beautiful and complex poem. I'll simplify it to make it more accessible to school students.

Original Poem: "The Windhover" by Gerard Manley Hopkins

I caught this morning morning's minion, king-
dom of daylight's dauphin, dapple-dawn-drawn Falcon, in his riding
Of the rolling level underneath him steady air, and striding

High there, how he rung upon the rein of a wimpling wing
In his ecstasy! then off, off forth on swing,
As a skate's heel sweeps smooth on a bow-bend: the hurl and gliding
Rebuffed the big wind. My heart in hiding
Stirred for a bird, – the achieve of; the mastery of the thing!
Brute beauty and valour and act, oh, air, pride, plume, here
Buckle! AND the fire that breaks from thee then, a billion
Times told lovelier, more dangerous, O my chevalier!
No wonder of it: sheer plod makes plough down sillion
Shine, and blue-bleak embers, ah my dear,
Fall, gall themselves, and gash gold-vermillion.

Simplified Version for Students:

This morning, I saw a falcon,
A bird that is like a prince of the sky,
Flying through the early dawn.
It soared high above the ground,
Riding the wind with steady wings,
And in that moment, it was filled with joy!
Then, like a skater gliding on ice,
It turned and swept through the air,
Defying the strong winds.
My heart was moved by this sight—
Seeing the falcon's strength and skill.
The bird is full of wild beauty, courage, and action.
Its feathers and pride seem to bend under the force,
And then, suddenly, a fiery energy bursts from it,
So powerful and beautiful, it's almost dangerous,
Like a knight in shining armor.
This isn't surprising—
Just as hard work makes the ground shine
When a plow digs into the earth,
Or like how cold embers,
When they break apart, reveal glowing, fiery gold underneath.

As we can see this version simplifies the language and structure of poem to make it easier for the students to understand without missing the essence of the poem. This feature can prove to be a revolutionary help for teaching of language and literature to the students who take up English as a second language. This analysis also answers our third question: **Can we use AI to teach poetry or literature?** The answer is yes, we can.

Poetry and literature is an extremely important part of education. It not only teaches students language but also teaches them to express themselves. With the arise of AI we are forced to find new possibilities where we can use AI as helping hand in teaching literature to the students. As discussed above AI has the ability to access, read and learn from a large number of data on the internet and it can use that data to create new poems, improve already written poems, discover new styles and assist with inspiration.

Literature where it is taught through a second language may become a tough challenge as subject because for a person who studies literature in a foreign language tends to face difficulties. But studies have suggested that AI can help teachers in teaching literature and particularly poetry. The use of AI in writing poetry may increase student's interest in the poetry and it can increase their interest in poetry.(Kangasharju et al., 2022)

Some other AI tools that can be used in the similar way as Chatgpt for generating poems.

AI Poem Generator(AI Poem Generator, n.d.)

AI poem generator uses Natural Language Processing(NLP) for generating poems. It can generate new original poems on vivid themes and in different styles.

Poem Generator.io (AI Poem Generator - Free AI Rhyming Poem Maker Online, n.d.)

Another useful tool that can generate poems on different topics is Poemgenerator.io. This tool is very handy as it provides different options during poetry writing. We can generate a free verse poem, haiku poem and sonnet etc. as we decide to prompt.

Conclusion:

AI uses the method of deep learning which in turn is a subset of machine learning. Deep learning is the use of neural networks or deep neural networks and this way tries to mimic the capacities of human mind. This technique enables computers to learn from enormous set of information and data that is available on the internet and other servers. And in the case of poetry AI has access to the countless number of poems available on the internet; it can read them and learn from them in a surprisingly short amount of time. But as Wordsworth states “poetry is the spontaneous overflow of powerful feeling” Artificial intelligence cannot convey feelings and emotions as humans can. Edmund Clarence Stedman states “Natural emotion is the soul of poetry as melody is of music...” (1885 Edmund Clarence Stedman: The Twilight of the Poets, n.d.). As stated above AI can learn from poems countless poems available but it can only learn to use words in a set form of words and although AI is capable of employing literary devices like alliteration, similes, hyperbole etc but it cannot convey emotions as humans can yet. But the most important question that we have discussed through this paper is “Can we use AI for teaching of literature or better achieve teaching outcomes with the help of AI?” The answer is a big Yes.

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