Today I’m presenting my computer-generated novel, *I Waded In Clear Water*. This novel was created for the 2014 National Novel Generation Month, which is an event run by Darius Kazemi each November in which participants are invited not to *write* a novel in a month, but to write, in one month, a *computer program* that generates a novel. For the purposes of the event, "novel" is defined loosely; The only requirement is that the resulting text have at least 50k words.

Today I’m going to read some selections from the novel, and intersperse that reading with some more information about the technical concepts of its implementation, and my aesthetic goals in creating it.
Before I begin reading, here's some information just to set the stage. I used two source corpora to generate this novel. The first is Gustavus Hindman Miller's "Ten Thousand Dreams, Interpreted," published in 1901. The book includes a "dream dictionary" that tells you whether or not a particular happenstance or object that occurs in a dream portends good or ill.

The second source text is ConceptNet, a freely-available graph-based database of everyday basic knowledge, which is searchable with a web API.

Just a note: The novel has extensive footnotes; I'm going read some but to skip over others.

Here are chapters 1 through 3.
Chapter 1

I saw a healthy belly. I was cursing myself. I saw chickens going to roost.
I moaned. I sent for a clergyman to preach a funeral sermon. I preached a
funeral sermon. I saw them out of season. I was having trouble in dressing.
I thought I was having trouble in dressing. I saw ears. I tried to enchant
others. I enchanted others. I saw a jailer. I saw serpents crawling in the grass
before me. I was in a life-boat.

I heard a minister exhort. I saw a dead monkey. I heard my cry as if in
pain. I killed one. I was building a shelter. I felt that any insect stings me.

I saw the ruler of my country undressed. I saw a vat. I was favoring any
vice. I drank vinegar. I signed one.

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1 The belly was both stupid and intelligent. A bellybutton was in it.
2 A hen. They were in a fair, and this fair looked good. You found a cotton candy within.
3 Your trouble was in a street. We found a person there. (This person was warm-blooded.)
4 This serpent was slimy and unworthy.
5 We found a marmoset there. They were seen in a treetop.
6 A cottage was within our pain. (I saw them in an ass.) Red. You said they were an
    ache.
7 This shelter was in a house. Red. (A browntone.) My browntone did not appear big.
8 My ruler was straight, and we saw them in an office. (I found a telephone in this
    office.)
9 Your vice was found in a workshop. We found a vice within. My vice did not seem
    useful.
10 Your vinegar was sour, and it was fluid.
Chapter 2

I drove into muddy water\textsuperscript{1}. I saw others wading.

\textsuperscript{1}I found an anemone there. (We found this anemone in an ocean.) You said that it was not alive.
Chapter 3

I abandoned. I won the game. I ate them at any time. I was spattered with eggs. I saw a head severed from its trunk. I hugged a man. I broke open a jail. I saw a mob attempting to break open a jail. I was peeling the skin from a lamb. I saw pretty girls at this work. I drank some. I bought them. I could see the bones. I saw a shooting or falling star. I had tar on my hands or clothing. I saw others undressed. I saw it rise up in my house. I saw it appearing weird.

1I saw your time in a timetable. We found a confetti within.
2We found a yolk within. (You told me your yolk was yellow, and it was discovered in an egg.)
3The head was on. You found a mouth within. This mouth was a mouth organ but not a mouth harp.
4You found a repast in your jail. (Your repast was seen in a jail, and the jail was bad and forged.)
5Yellow. It was in a good health, and I found a skin within.
6A hose was within my girl. They seemed vain, and you said they were a nice. They appeared beautiful, and I found them in a movie.
7This work was found in a desk. (You said it was not a homework.)
8We found a cartilage in the bone, and our cartilage was found in a tendon.
9Our star was seen in an outer space. An astronaut was within this outer space. (Noisy.)
10Black.
11This tar was not a vehicle. Blacky. I found a tar pit in it, and it was found in a roof.
12Our house was a cellar but not a wine cellar. A wall was within it. (My wall was in a fridge, and my fridge was both white and black.)
I want to talk about how the sentences are constructed and arranged. I knew that I wanted to work with "10,000 Dreams," but I had to figure out a strategy for adapting the text and re-arranging it. I settled on a procedure that I think gives the text a weird, subtle but still noticeable and not entirely unnarrative-like coherence.
Marigold
To dream of seeing marigolds, denotes contentment with frugality should be your aim.

Mariner
To dream that you are a mariner, denotes a long journey to distant countries, and much pleasure will be connected with the trip.

If you see your vessel sailing without you, much personal discomfort will be wrought you by rivals.

Market
To dream that you are in a market, denotes thrift and much activity in all occupations.

To see an empty market, indicates depression and gloom.

To see decayed vegetables or meat, denotes losses in business.

For a young woman, a market foretells pleasant changes.

Here's a fairly representative excerpt of "Ten Thousand Dreams." There's a headword (like "marigold" or "mariner"), which has one or more interpretations. All of these interpretations are very similar from a syntactic standpoint. I wrote a program in Python (using the excellent Pattern library) that analyzes each of these interpretations and breaks them into two parts.
To see an empty market, indicates depression and gloom.

The first part is what I call the "action," or the thing that happened in the dream. The second part I call the "denotation"—what it means to dream about the action.

The program changes each "action" into a first person, past tense sentence. It then uses a sentiment analysis algorithm to "score" each denotation from -1 to 1, based on how negative or positive the sentiment conveyed is.
Here’s what the data ended up looking like. To arrange the sentences in the novel, I sorted the actions by the sentiment score of their corresponding denotation. The actions are then divided up into chapters. The dream actions with the worst outcomes come in the first chapters of the novel, and the outcomes gradually get better as the chapters progress. The final chapter in the novel (according to this analysis) is full of the best things you can dream of.

I like to think of the novel as a story of redemption.

Here’s an excerpt from the middle of the novel (chapter ten), where things are their most ambiguous—neither clearly positive nor clearly negative.
I was riding a white horse up and down hill. I saw a horse in the barn.

I picked up a man in the road. I visited women in a hotel. I saw a fine hotel. I was the proprietor of a hotel. I was a housekeeper. I was hurt. I saw my husband depart from me.

I saw. I was afflicted with hydrophobia.

I saw others thus afflicted. I walked on ice. I saw ice on the floor. I saw them on the train. I saw them on the ocean. I upset my ice cream in the presence of my lover or friend.

You told me your horse was strong. A mustang. It was in a corral.

Your hill looked steep and gradual. It was in an outside, and we found a barn in it.

(You said it was a sandstone.)

A cowboy was not in the barn. Our cowboy seemed popular and unpopular. (They were in a cowboy boot, and a cowboy hat.)

You told me our flesh was sweet. A meat. It was blue, and I saw it in an inside.

You told me the road was urban, and I found a fork in it. Your fork was seen in a plate, and it was wooden.

A corral was within your hotel. (My corral was in a hotel.)

The proprietor did not appear large.

You said this hotel was a motel, and this motel was in a country. This country seemed expensive. A citizen was within it.

You told me my housekeeper was dirty.

You told me my love was emotional. Unpleasant. We found them in an at home. I found a bed within, and it was a green but not a factor.

Your husband was in bed, and they were enjoyable and gratifying. They looked faithful and unfailful.

You found a shower curtain in the depart. We found this shower curtain in a hotel.

You told me the ice was flexible, and it was not a silver. We found a shower curtain in the outside. This shower curtain was found in a university.

You said that the ice was fragile, and it looked cold and hot.

This fire was smart but not bright, and a gate was within them.

The tree was organic but not constitutional. It was found in a forest, and the forest appeared dirty and clean. We found a mouse in it.

My evergreen was both dark and light. It looked green. It was not a fir, and a fire was within your in. My fire was in a kitchen.

You found my ice in a supermarket, and I found an iceberg within. You told me it was violent. It was not pale blue. It was not a water ice.

A creamy was within the cream. (It was in a coffee.)

Our presence was a deliciousness. It was both creative and conclusive.

Your friend was both intelligent and unintelligent, and a comfort was within them. They were discovered in a door, and your door looked rectangular.
I was an idiot.
I saw strange and weird illuminations.
I saw illuminated human figures\textsuperscript{168} or animals in the heavens\textsuperscript{168}. I set up an image\textsuperscript{168} in my home\textsuperscript{168}. I was an im\textsuperscript{169}.
I was using incantations.
I lost my income. I was very independent. I saw indigo. I saw objects indistinctly. I was industriously at work\textsuperscript{169}. I saw others busy. I saw others inform. I had ink on my fingers. I made ink\textsuperscript{168}. I saw bottles\textsuperscript{169} of ink\textsuperscript{169}. I saw them filled with ink\textsuperscript{169}. I saw others insane. I was intemperate in love\textsuperscript{169}. I saw intestines. I saw cities\textsuperscript{169} or country\textsuperscript{169} submerged in dark. I saw human beings swept away in an inundation. I saw a large area\textsuperscript{169} inundated with clear water\textsuperscript{169}. I visited me.
I invited persons\textsuperscript{168} to visit me.
I struck with iron\textsuperscript{169}. I manufactured iron\textsuperscript{168}. I sold iron\textsuperscript{169}.

\textsuperscript{168}You said my figure was a leek.
\textsuperscript{169}as you. I saw it in a sky, and my sky was up. (I found a planet within.)
I finished the dream interpretation part first, and found it to be slightly lacking. It didn’t have enough words, first of all, but I also wanted the text to have some polyphony. So I decided to introduce footnotes.
To generate the footnotes, I used ConceptNet. ConceptNet is an online, graph-based database that contains "relationships" between "terms." The goal is to be a computer-searchable database of everyday and cultural knowledge. This is a screenshot of what the search interface looks like. I've looked up the word "iron." The search results show that ConceptNet "knows" a number of things about iron. That it is a metal; that it has the property of being heavy; that it is found in a laundry room. (ConceptNet isn't very good at disambiguating different senses of the same word.)
This iron was heavy.

You said it was in the laundry room.

Each noun that the program encounters in the novel has a chance to be the subject of a footnote. When a noun is selected, the program searches ConceptNet for information about the noun, and then plugs the facts it finds into a number of randomly selected, pre-authored templates. So the word "iron," found to have the property "heavy," might end up with a footnote like "This iron was heavy."

The effect of the footnotes, to me at least, is that the narrator of the novel (or someone close to the narrator, a friend or lover) is reading the text and commenting on it: giving particulars about these events, or contradicting them, or showing how they felt about them.

That's pretty much all there is to it. I'm pleased with the results. To close, I'm going to read excerpts from the final two chapters of the book. I hope you enjoy.
I served as an apprentice.
I saw vacant tellers\textsuperscript{1}. I saw others doing so. I saw this beast of burden.
I walked on a carpet\textsuperscript{2}. I saw them in full bloom\textsuperscript{3}. I saw a damask rosebush\textsuperscript{4} in full foliage\textsuperscript{5} and bloom\textsuperscript{6}. I saw them on their parent\textsuperscript{7} trees. I wandered through a gloomy and barren desert\textsuperscript{8}. I saw a drum. I whipped my assailant. I defended a fort\textsuperscript{9}.
I killed a fox\textsuperscript{10}. I ate ham\textsuperscript{11}. I was hauling and putting hay into barns\textsuperscript{12}. I was a hermit\textsuperscript{13} myself.
I committed homicide\textsuperscript{14}. [\footnotesize{\textsuperscript{1}Your teller was discovered in a bank. Someone was within our bank. It looked competitive. It was not a credit union.\textsuperscript{2}The carpet was discovered in a room. A floor was within it, and you told me it was soft.\textsuperscript{3}An apple tree was in the bloom, and this apple tree was found in a backyard.\textsuperscript{4}We saw this rosebush in a garden.\textsuperscript{5}We saw the foliage in a forest.\textsuperscript{6}An orange tree was in this bloom. It was not an apple tree.\textsuperscript{7}Someone was within this parent, and the someone was both dangerous and safe. You saw it in a lake, and you told me your lake was hot.\textsuperscript{8}A cave was within my desert. (Your cave appeared underground, and it was in a bat.)\textsuperscript{9}A fortune cookie was within the fort, and this fortune cookie looked sweet and sour.\textsuperscript{10}Distinct. We found them in a fashunt.\textsuperscript{11}This ham was seen in a store. A hamper was within them. You told me they were cheap, and they appeared expensive. A hammer.\textsuperscript{12}A mouse was not in the barn. We saw it in a farm. It was ugly.\textsuperscript{13}Your hermit was in a fish tank.\textsuperscript{14}My homicide seemed human, and you said it was a murder. We found your murder in a murderer, and it seemed wrong and right.}
Chapter 20

I was sleeping on a bed in the open air. I saw a clear. I saw young girls carrying sunshades. I saw white swans floating upon placid waters. I carried a new umbrella over me in a clear shower. I waded in clear water.

1Someone was within this air. It was flammable and inflammable, and it was seen in a plant. You told me it was invisible.
2Your girl was sensitive, and we saw them in a door. They were not a niece.
3Our swan appeared black. (It was not alive.)
4A coral reef was within our water. The coral reef was dangerous and grievous.
5You found our umbrella in a front door. It was both sweet and sour, and I found someone there. (You told me it was blue.)
6We found a boat in our water. (You said it was not a steam.) Transparent. You found it in a rain, and it seemed hard.
Thank you

http://www.decontextualize.com/