Using ML to Improve UX and Literacy for Young Poets
Contents

● Power Poetry Story
● Growing Pains
● Experiments
● Poetry Genome
● What’s Next
HUMBLE.

Design Whaler | Head of NY

Joined circa 100k poets
Contents

- Power Poetry Story
- Growing Pains
- Experiments
- Poetry Genome
- What’s Next
Started from the Bottom (since 2012)

0 Poets

2012

430k Poets

2018

#stratadata
Who is Whole Whale?

Whole Whale is a digital agency that leverages web data and technology to increase the impact of nonprofits.
Who is Power Poetry?

✓ Learning resources
✓ Social Impact guides
✓ Online writing mentors
✓ Supportive community of 430,000+ poets
One Classroom in the Bronx
The Documentary

If you don’t learn to write your own life story, someone else will write it for you.

"One of the BEST DOCUMENTARIES of the year." The New York Times

@powerpoetry | powerpoetry.org | #stratadata
Why Poetry?

- Literacy
- Emotional Expression

Poetry

- Negativity
- Minority
- Black
- Big
- Am I a mis-fit?
- Fear, pain, worry, anger
- Lis.
- Scissors
- Desolation
Nice, but So What?

85% of kids facing juvenile detention can’t read the verdict.

Source: Begin To Read & RIF.org 2013
Impact Numbers

- Total Poets: 431,000
- Total Poems: 400,000
- $1k Scholarship Slams all time: 20
- Peak MAU: 223,000
- School Groups: 124
- Poetry Teachers Trained: 1,600

Educational hours added in 2017:

90,785 Hours

(*54,471 US)
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Tech = Leverage

Countries: 175
Sessions/month: 200,000
Avg. Duration: 3:52
Poets: 430,000
Poems: 298,000
Annual Budget: $120k
Staff: 2.5
Staff of 2.5 vs User Support

Jessica

POETS: 431442 | GOAL: 500000

Hello
my name is

SPAMMER
The bane of virtual existence.

www.spiderspawner.com
Spammers Gonna Spam

We didn’t build it, but thrilled to use it!

Thanks Drupal & Bayes Theorem geeks
Contents

- Power Poetry Story
- Growing Pains
- **Experiments**
- Poetry Genome
- What’s Next
Make It Fun

Top Poetry Supporters

- Active Poet
- Verified Poet
- Super Poet
- Awesome
- Bada**
- MVP

TMI
Night Owl
Velez Junior

@powerpoetry
powerpoetry.org
#stratadata
Karu @ChasingKaru · 29 Apr 2014

Little we know, Bigger we expect. We often want the truth, but get satisfied with a lie. #poetrywars

powerpoetrywars @powerpoetrywars · 29 Apr 2014

Replying to @ChasingKaru

@ChasingKaru Your poem scored 51.0%. For a detailed explanation see: war.powerpoetry.org/?route=poetic/…
Contents

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Feedback couldn’t scale

- Tested a “Request Mentor” feature for poets leading to **4,000 requests in 2 days**
- Early program to train volunteers to respond to poetry feedback failed to keep up with demand.
- Failing to keep the user promise, it was discontinued.
<table>
<thead>
<tr>
<th>Rapper</th>
<th>Score (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kendrick Lamar</td>
<td>3.7</td>
</tr>
<tr>
<td>Wale</td>
<td>3.7</td>
</tr>
<tr>
<td>Gucci Mane</td>
<td>3.5</td>
</tr>
</tbody>
</table>
Supervised Learning

Google Cloud Prediction API allows high volume of requests during peak periods.

Data are then locally stored to reduce load on API.
Training Set

- 30 Top Rap artists
- 10+ cleaned songs, verse only with chorus hook removed

<table>
<thead>
<tr>
<th>Artist</th>
<th>Verse</th>
<th>Song</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kendrick Lamar</td>
<td>Ay, I remember syrup sandwiches and crime allowances. Finesse a nigga with some counterfeitts, but now I'm countin' this Pamesan where my accountant lives; in fact, I'm downin' this D'USSE with my boo bae tastes like Kool-Aid for the analyts Girl, I can buy y' a world with my pay stub Ooh, that pusey good, won't you sit it on my taste bloods? I get way too pitty once you let me do the extras Pull up on your block, then break it down: we playin' Tetris A.M. to the P.M., P.M. to the A.M., funk Pies out your per diem, you just gotta hate 'em, funk If I quit your 8M, I still ride Mercedes, funk If I quit this season, I still be the greatest, funk My left stroke just went viral! Right stroke put if baby in a spiral Soprano C, we like to keep it on a high note It's levels to it, you and I. Know who dat nigga thinkin' that he frontin' on Man Man? (Man Man) Get the fuck off my stage, I'm the Badmen (Badmen) Get the fuck off my disk, that ain't right I make a play fucking up your whole life I'm so fuckin' sick and tired of the Photoshop Show me somethin' natural like anro on Richard Pryor Show me somethin' natural like ess with some stretch marks Still will take you down right on your mama's couch in Polo socks Ayy, this shit way too crazy, ayy, you do not amaze me, ayy I blew cool from AC, ayy, Obama just paged me, ayy I don't fabricate it, ayy, most of y'all be fakin', ayy I stay模式 'bout it, ayy, she elaborate it, ayy This that Grey Poupon, that Ewan, that TED Talk, ayy</td>
<td>Humble</td>
</tr>
</tbody>
</table>
Why remove the Chorus?

“HUMBLE” Chorus

(Hol’ up bitch) sit down,
(Hol’ up lil bitch, hol’ up, lil bitch) be humble
(Hol’ up bitch) sit down (sit down hol’ up lil bitch)
Be humble (bitch)
(Hol’ up, hol’ up, hol’ up, hol’ up) bitch sit down
Lil bitch (hol’ up lil bitch) be humble
(Hol’ up bitch) sit down
(Hol’ up, hol’ up, hol’ up, hol’ up) be humble
(Hol’ up, hol’ up, hol’ up, hol’ up lil bitch) sit down
(Hol’ up lil bitch) be humble
(Hol’ up bitch) sit down
(Sit down lil bitch) be humble
(Hol’ up, hol’ up, hol’ up, hol’ up lil bitch) bitch, sit down
(Hol’ up lil bitch) be humble
(Hol’ up bitch) sit down
(Hol’ up, hol’ up, hol’ up, hol’ up)

“HUMBLE”

But now I’m counting this
Parmesan where my accountant lives in fact I’m down at this
D’usse with my boo bae, tastes like kool aid for the analysts
Girl, I can buy your ass the world with my paystub
Ooh that pussy good, won’t you sit it on my taste bloods
I get way too petty once you let me do the extras
Pull up on your block, then break it down we playing Tetris
A.M. to the P.M., P.M. to the A.M. funk
Piss out your per diem you just gotta hate em, funk
If I quit your BM I still ride Mercedes, funk
If I quit this season I still be the greatest, funk
My left stroke just went viral
Right stroke put lil baby in a spiral
Soprano C, we like to keep it on a high note
It’s levels to it, you and I know, bitch be humble

Literary Value: Low

Literary Value: High(er)
Beautiful Black Woman

Beautiful woman this poem is for you
Full of beauty and grace
Rare black Queen sitting high on your throne
No one can take your place
Your heart is full of pure gold
Never to be played with
Bought or sold
Your Love is Patient Your Love is kind
Always trying to bring joy to others even when you can’t do it for yourself
And keeping them close in mind
A good woman is what you are
A woman to whom is proud of who she is and what she stands for
Never seeking definition from whom she is with
A strong woman is what I see when I look at you
One who can pick up the small pieces of her broken heart
And carry on as if she was never hurt in the first place.
When talking about this woman I can’t help but smile
Knowing the woman that I can speak so highly of is ME.
Discovery

ISAIAH RASHAD

Educational Background and Location
Middle Tennessee State University, Chattanooga TN

Brief Personal Bio
Isaiah Rashad was raised into becoming a preacher until he found his calling to music when he listened to a copy of OutKast's ATLiens album which inspired him. He then began ditching school to record music and his career took off from then.

These are a Few of Their Favorite Things
- Favorite Books (as a child/teen)- Dragon Ball Z comics, "Cat in the Hat", "One Fish, Two Fish", "Twilight"

Common Literary Elements/Structure/Themes in their Work
Isaiah Rashad "bleeds his influences and idols into a lo-fi jazzy intimate portrait of his life, adding layers to the original music that inspired him".

Link to Matching PP Guides/Glossary Terms
http://www.powerpoetry.org/actions/5-tips-using-rhythm-and-rap
http://www.powerpoetry.org/actions/7-steps-addressing-post-racial-myth
YoY Improved Bounce & Exit

Behavior metrics for bounce rate and exit improve showing more interested users. Quantity metrics also increase but can’t be completely attributed to Poetry Genome.

<table>
<thead>
<tr>
<th>Page path level 1</th>
<th>Pageviews</th>
<th>Unique Pageviews</th>
<th>Bounce Rate</th>
<th>% Exit</th>
</tr>
</thead>
<tbody>
<tr>
<td>/poems/</td>
<td>40.93%</td>
<td>41.48%</td>
<td>15.20%</td>
<td>6.70%</td>
</tr>
<tr>
<td></td>
<td>803,824 vs 570,361</td>
<td>701,662 vs 495,934</td>
<td>40.48% vs 47.74%</td>
<td>51.50% vs 55.20%</td>
</tr>
</tbody>
</table>

1. /poems/

- Jul 20, 2017 - Dec 31, 2017
  - Pageviews: 803,824 (100.00%)
  - Unique Pageviews: 701,662 (100.00%)
  - Bounce Rate: 40.48%
  - % Exit: 51.50%

- Jul 20, 2016 - Dec 31, 2016
  - Pageviews: 570,361 (100.00%)
  - Unique Pageviews: 495,934 (100.00%)
  - Bounce Rate: 47.74%
  - % Exit: 55.20%

% Change
- Pageviews: 40.93%
- Unique Pageviews: 41.48%
- Bounce Rate: -15.20%
- % Exit: -6.70%
Attributed to Poetry Genome

Avg Bounce rate 46%

Genome Launch

Avg. Bounce rate 40%

(Oops, we broke GA on launch then fixed)

yup, did it again...

Bounce rate PowerPoetry.org/poems/* June 1, 2017- Dec 31st, 2017
## Encourage Discovery

<table>
<thead>
<tr>
<th>Rapper</th>
<th>Percentage of total bio views</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. /kendrick-lamar</td>
<td>12.26%</td>
</tr>
<tr>
<td>2. /slick-rick</td>
<td>8.82%</td>
</tr>
<tr>
<td>3. /lil-yachty</td>
<td>7.25%</td>
</tr>
<tr>
<td>4. /nicki-minaj</td>
<td>7.12%</td>
</tr>
<tr>
<td>5. /eminem</td>
<td>6.47%</td>
</tr>
<tr>
<td>6. /drake</td>
<td>5.79%</td>
</tr>
<tr>
<td>7. /wale</td>
<td>5.31%</td>
</tr>
<tr>
<td>8. /isaiah-rashad</td>
<td>4.77%</td>
</tr>
<tr>
<td>9. /nas</td>
<td>4.12%</td>
</tr>
<tr>
<td>10. /2-pac</td>
<td>4.02%</td>
</tr>
</tbody>
</table>
99 problems and Classification is one...

Classification Problems

Complexity & dimensions

Overfitting

BETA! Don’t make perfect the enemy of done.

<table>
<thead>
<tr>
<th>Rapper</th>
<th>Score (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>De La Soul</td>
<td>4.0</td>
</tr>
<tr>
<td>T.I</td>
<td>3.8</td>
</tr>
<tr>
<td>Wale</td>
<td>3.7</td>
</tr>
</tbody>
</table>
Dear Power Poetry,

I hope all is well. I’m just emailing you to inquire more about the rapper score tagged to poems? I’m not sure exactly what they mean or how it’s determined, etc. Any and all help regarding the rapper score is greatly appreciated.

Best regards,

Jeffrey Phillips II
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Getting Smarter

Add new categories and build more cognitive bridges to increase literary exploration

<table>
<thead>
<tr>
<th>Famous American Poet</th>
<th>Score (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Langstone Hughes</td>
<td>28.4</td>
</tr>
<tr>
<td>Emily Dickinson</td>
<td>16.8</td>
</tr>
<tr>
<td>Walt Whitman</td>
<td>9.0</td>
</tr>
</tbody>
</table>
ML That Matters

We Don’t Care
If drones can deliver beer faster to bros, or put bodegas out of business.

We Care
About increasing the quality of learning hours for teens that need it the most.

Image credit: Unmanned Systems Technology

@powerpoetry
powerpoetry.org
#stratadata
Mission:
1,000,000 by 2023

Have: Partners, Poets, or Pennies?
Contact: ann@wholewhale.com