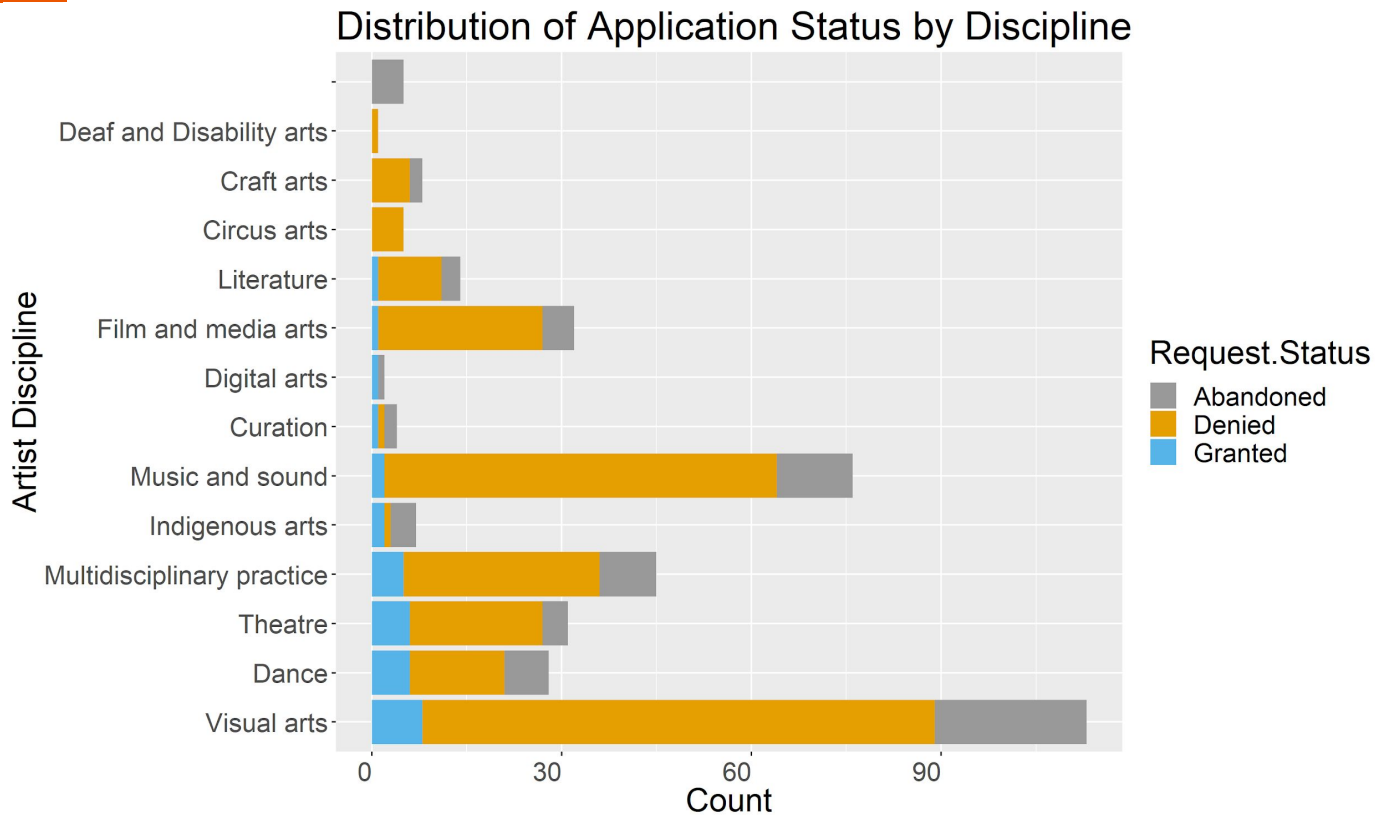




Group 6 - Text Analytics Team

Individual Artist Program 2018

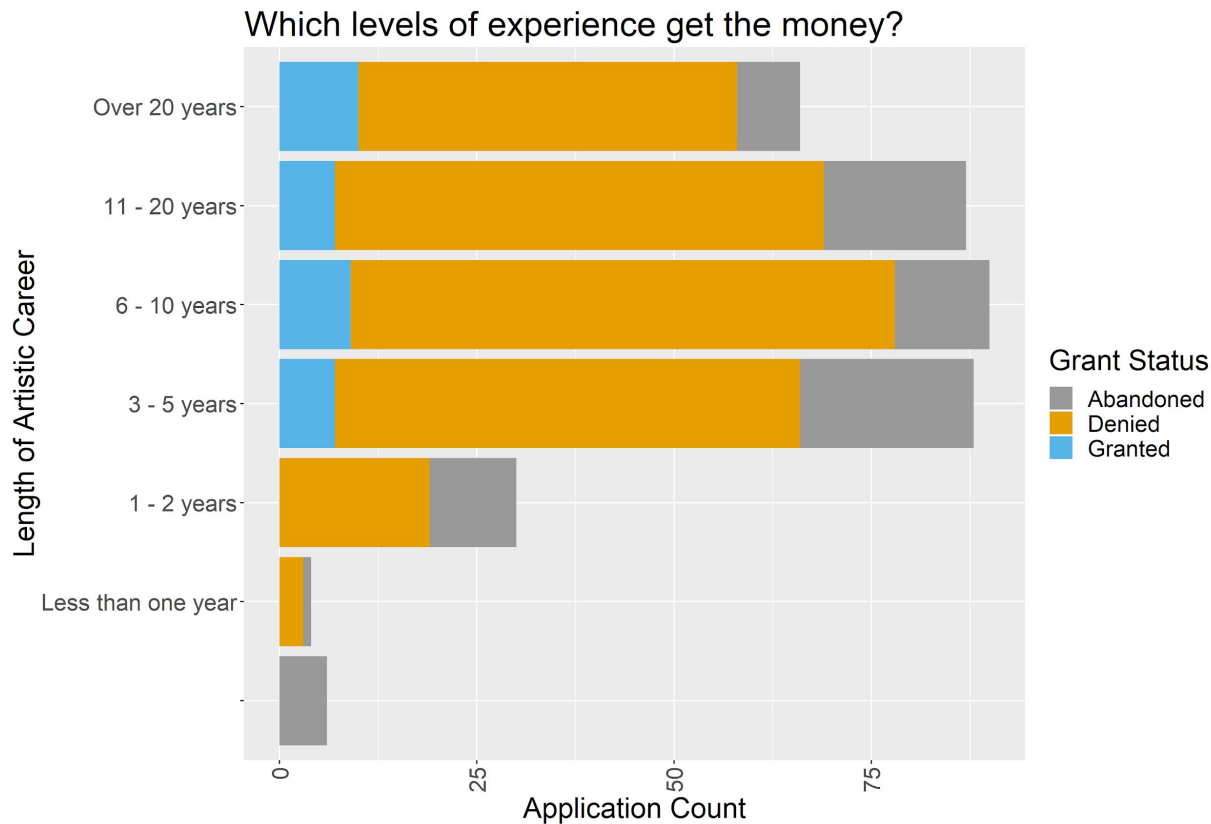
Which discipline gets funding?



Which level of artist experience gets funding?



Artists with less than 3 years of experience account for 9 % of applications, but get 0% of grants funded.





Looking at frequency of words in successful and unsuccessful applications

Used tidytext package in R

Package preprocessed data, and removes non-key words like 'of', 'the', 'and', etc

And then count the frequency of words, and provide a word cloud

ALL NON-NORMALIZED DATA - NORMALIZATION WILL BE THE NEXT STEP

Wordcloud looks pretty

WordMap Successful vs Unsuccessful Applications





Mean & SD of Emotions in IAP Data

Mean Successful applications = 0.1122 +- 0.2848

Mean Unsuccessful applications = 0.1145 +- 0.2872

This is normalized data - using the “syuzhet” get emotions function in R while “tidytext” removed all the noise in the sentences

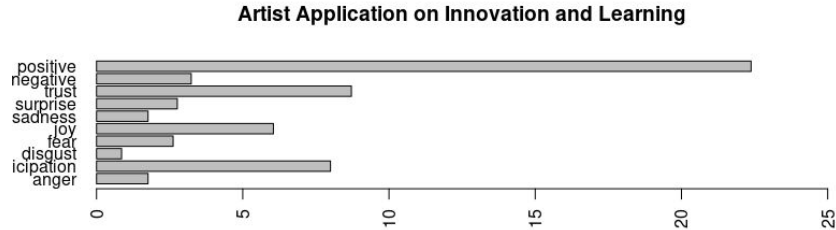
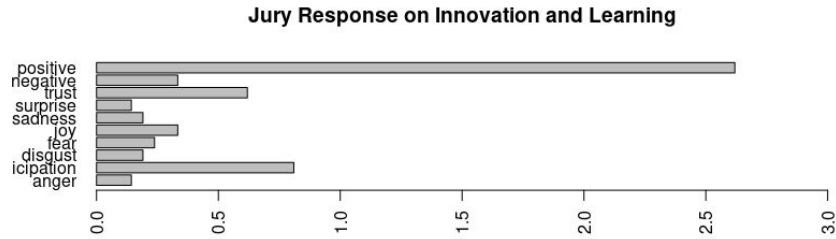
Nobody seems to be overly positive or negative. Should we try to be overly positive??



Jury Responses to Individual Artist Program Applications

- Jury notes on 57 applications
 - 32 Granted applications
 - 25 Rejected applications
- Jury notes were in a 32 page word file and had to be text mined, converted to csv and then matched by name to their application results
- Comments were made on each application's:
 - Artistic Impact
 - Public Impact
 - Innovation/Learning
 - Planning

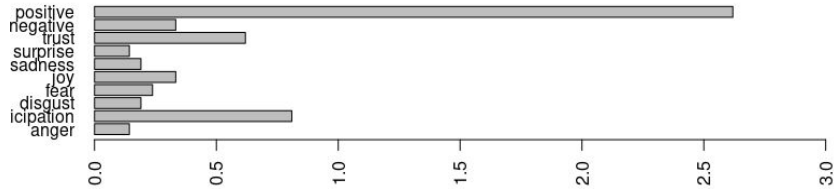
Jury Response VS Artist Application: How the data was made



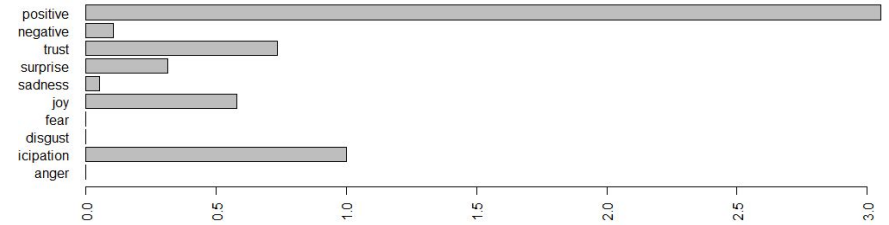
- Apache Solr was used to clean the IAP data csv and convert it into a block of JSON data
- Flex used to parse the Jury Response data and convert it into a CSV
- Used OpenRefine to combine the IAP and JR CSV's based on a unique identifier left in the data
- Used Michael's R-code to perform sentiment analysis on data in RStudio

Sentiment Analysis on Jury Response VS Artist Application: Innovation and Learning

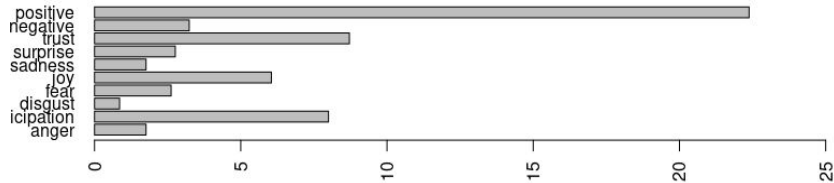
Jury Response on Innovation and Learning



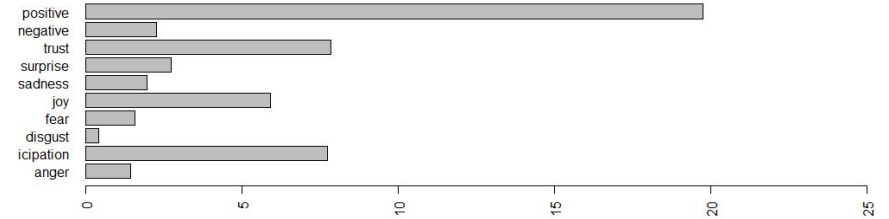
Jury Response on Innovation and Learning Deny



Artist Application on Innovation and Learning

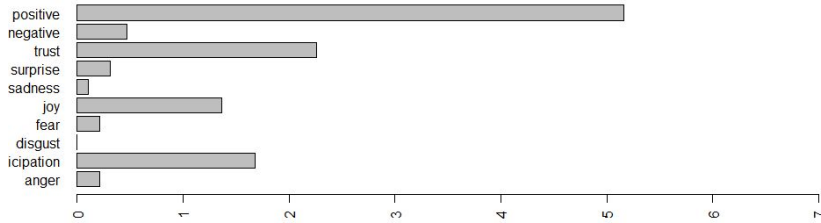


Artist Application on Innovation and Learning Deny

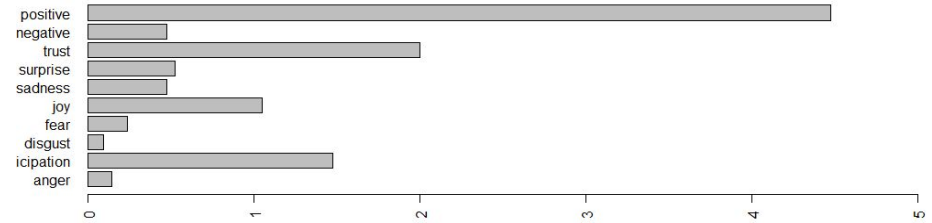


Sentiment Analysis on Jury Response VS Artist Application: Public Impact

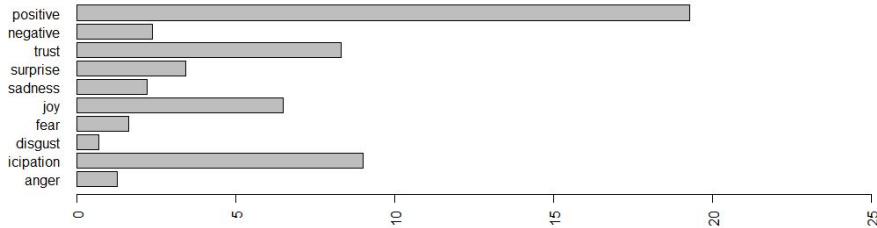
Jury Response on Public Impact Deny



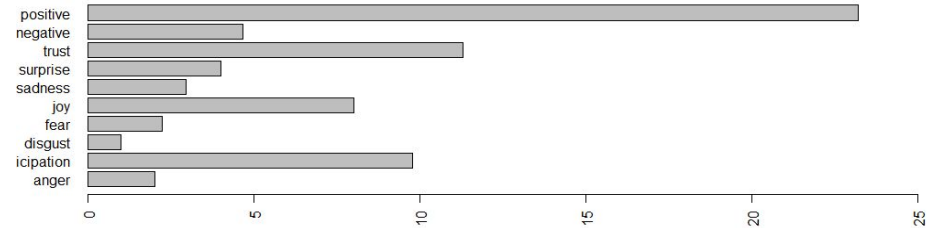
Jury Response on Public Impact



Artist Application on Public Impact Deny

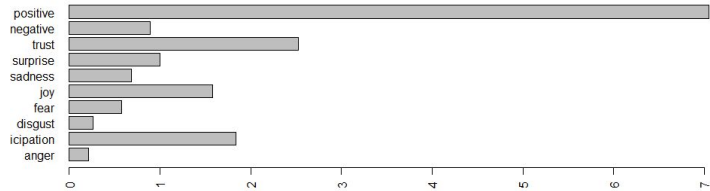


Artist Application on Public Impact

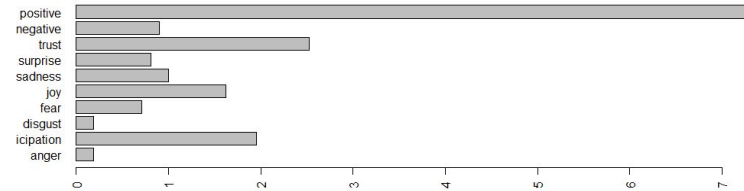


Sentiment Analysis on Jury Response VS Artist Application: Artistic Impact

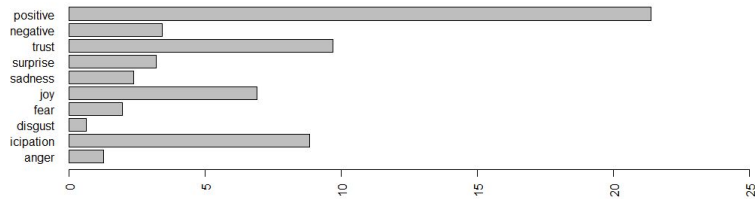
Jury Response on Artistic Impact Deny



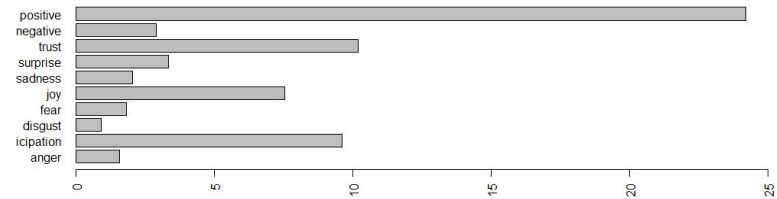
Jury Response on Artistic Impact



Artist Application on Artistic Impact Deny

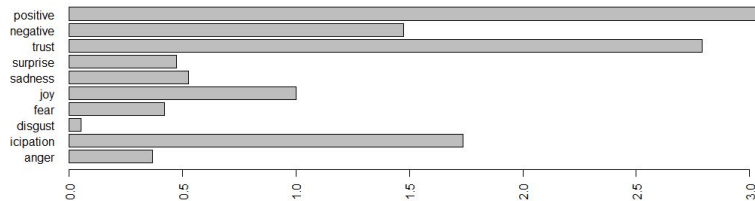


Artist Application on Artistic Impact

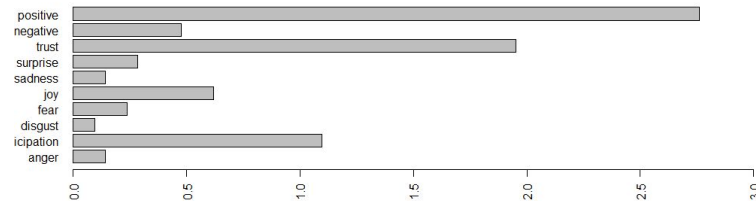


Sentiment Analysis on Jury Response VS Artist Application: Planning vs Artistic Goals

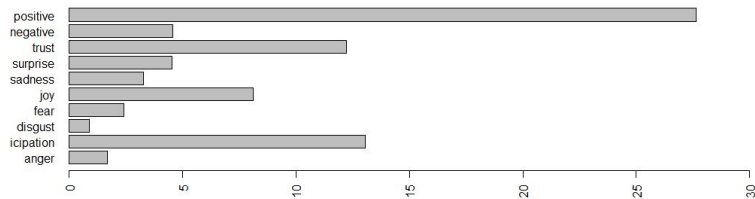
Jury Response on Planning Deny



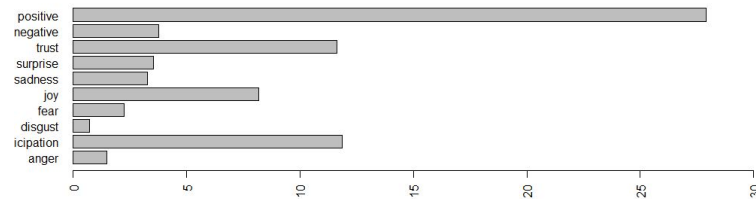
Jury Response on Planning



Artist Application on Artistic Goals Deny



Artist Application on Artistic Goals



Jury Response Bigrams starting with Negation (more, not, no, etc.)



Rejected Grants



Successful Grants

Jury Response Bigrams starting with Negation (more, not, no, etc.)



Rejected Grants (25 Applications)

Bigram			N
1	more	information	13
2	not	clear	5
3	more	of	4
4	more	detail	3
5	little	unclear	2
6	more	collaboration	2
7	more	detailed	2
8	more	elaboration	2
9	more	from	2
10	more	specific	2

Accepted Grants (32 Applications)

Bigram			N
1	more	detail	4
2	more	information	4
3	more	specific	4
4	not	necessarily	3
5	little	more	2
6	more	context	2
7	more	explicit	2
8	more	robust	2
9	not	all	2
10	little	buzzwordy	1


Jury Response Bigrams starting with Affirmation (good, clear, well, etc.)



A word cloud for rejected grants. The most prominent phrase is 'really interesting' in green. Other phrases include 'clear that' in grey, 'really impactful' in pink, 'really important' in pink, 'clear in' in green, 'clear if' in green, 'well as' in green, 'really exciting' in pink, and 'really like' in pink.

really interesting
clear that
really impactful
really important
clear in
clear if
well as
really exciting
really like

Rejected Grants



A word cloud for successful grants. The most prominent phrase is 'really great' in pink. Other phrases include 'clear and' in grey, 'good sense' in green, 'good to' in orange, 'good for' in orange, 'high quality' in green, 'really hard' in green, 'really interesting' in orange, 'really about' in green, 'really good' in green, 'well as' in orange, 'well thought' in green, 'really important' in blue, 'really helpful' in green, 'clear that' in grey, and 'really exciting' in orange.

good sense
clear and
good to
good for
high quality
really hard
really great
really interesting
really about
really good
well as
well thought
really important
really helpful
clear that
really exciting

Successful Grants

Jury Response Bigrams starting with Affirmation (good, clear, well, etc.)



Rejected Grants (25 Applications)

Bigram	N
1 clear that	5
2 really interesting	3
3 well as	3
4 clear if	2
5 clear in	2
6 really exciting	2
7 really impactful	2
8 really important	2
9 really like	2
10 clear and	1

Accepted Grants (32 Applications)

Bigram	N
1 clear that	16
2 really great	7
3 really important	6
4 clear and	4
5 really exciting	4
6 really interesting	4
7 well as	4
8 good for	3
9 good to	3
10 good sense	2

Artist Opportunity Grant 2018

WordMap Successful vs Unsuccessful Applications





Attempted to correlate Grant Amount vs Request Status

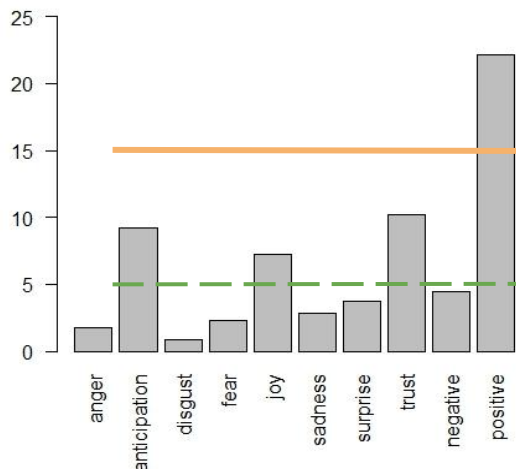
- Investigate if lower amount meant a higher success rate
- Really no success
- Grant amount had only two values, \$5000, and \$10000
- 'glm' fit did not provide anything reasonable

Organization Grants

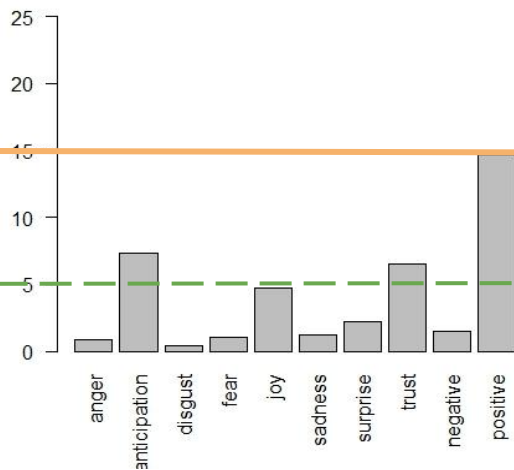
Emotions conveyed by Grant Applications



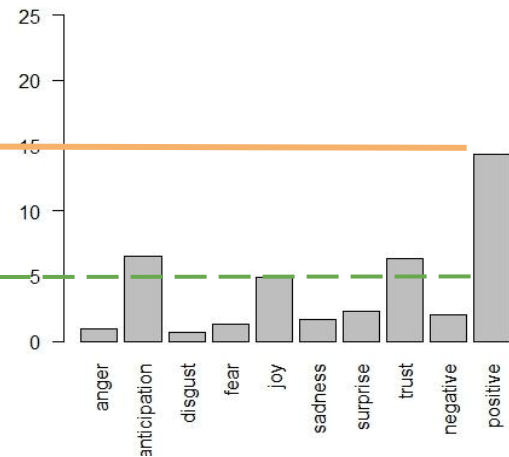
Accepted (Public Impact)



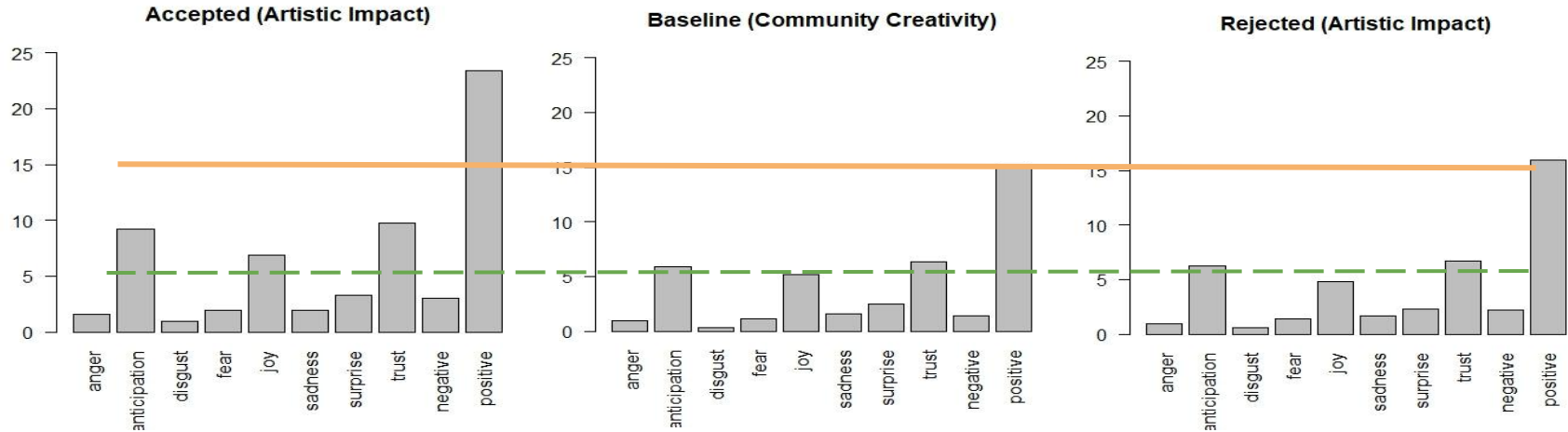
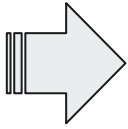
Baseline (Public Impact)



Rejected (Public Impact)



Emotions conveyed by Grant Applications



Unique 2-Words Combos And Emotions


NRC Sentiment x Relationships between 2-words

Animated, Engaged 

 Untitled Art(s)

Lastly...  "Arts"

'Key' words to Success

	Describe what is compelling about the artistic experiences you provide.	What are your organization's short- and long-term artistic aspirations?	How does your organization interact with the public?	What are your organization's short- and long-term aspirations for public impact?	Statement of Resiliency	How do your artistic activities contribute to your artistic discipline as a whole?
High Success	NA	Community, Work	Concert	Perform, Term, Continue	Dance, Board	Artist
Medium Success	Work, Theatre	Calgary	Artist	NA	Program, Time	Festive
Low Success	Calgary	Continue, Product	Audience, Show, Calgary	Theatre, Calgary	West, Village, Theatre	Dance



Cont'd.

	What role do you see your organization playing in fostering creativity in Calgary's communities?	What current conditions, either internal or external to your organization, allow you to achieve and sustain your mandate?	What constraints are there, if any, to achieving and sustaining your mandate?	What are the conditions necessary to achieve your artistic and public impact aspirations?
High Success	Music	Year, Support	Increase, Develop	Increase
Medium Success	Work	NA	Operation, Member	Need
Low Success	Program	Continue	Support, Time	NA



Improvement to the Model

Standardize the high-medium-low ratio

Collect a larger sample size


Compute the IDF with a larger Corpora

Potential Outlier in the success rate - one was above 1.0

Number of applications with a high success rate: 85
Number of applications with a medium success rate: 55
Number of applications with a low success rate: 20

```
org_app['Success Rate'].describe()
```

count	160.000000
mean	0.670772
std	0.257886
min	0.000000
25%	0.500000
50%	0.720000
75%	0.882919
max	1.186000



Q: Does being flagged for resiliency affect the success rate?

Resiliency Box plot

- Very similar median and variance
- "Yes" has a higher min
- Similar range from the 1st to 3rd quartile
- Doesn't take other parameters into consideration

A: No, it doesn't appear so (stat test?)

