BIG ART GROUP

OPACITY

System, installation, sound, and text by Caden Manson and Jemma Nelson

Developed with the Digital Devising Lab at the Carnegie Mellon University School of Drama: Caitlin Ayer, Stephen M. Eckert, Philip Gates, Rachel Karp, Sara Lyons, Kevin Ramser, Sylvie Sherman, and Adam Thompson

Note from the $C\,\mbox{reators}$

Each of the five scenes in *Opacity* is structured around a 5x5 matrix of search terms (they are projected briefly before each scene; see Table 1 on page 53). Using Python code to search and scrape Twitter, one thousand tweets per search term are compiled into a corpus of about five thousand tweets per scene.¹ The tweet results are minimally cleaned. For text generation, a program using a Markov chain probability function builds the utterances from the corpus of tweets.² The performers have in-ear pieces delivering text while video monitors downstage deliver images derived from the same search terms as input for the performer's choreography. Character actions, feelings, and fears are generated via simple grammar templates that are populated with vocabulary from hand-coded lists; the list elements are sampled randomly according to a uniform distribution.³ In Scene 3, these stage directions alternate with turn-by-turn-like driving instructions at odds ~2:1 (approximately one-third of the time a driving instruction is supplied, otherwise a stage direction). Each scene restricts stage direction grammars to a subset of several possible grammars contrived for the project. Possible vocabulary items were selected from the Word Associations Network and sentiment/emotion analysis research.⁴—*CM*, *JN*

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Theater 48:1 DOI 10.1215/01610775-4250942 © 2018 by Caden Manson and Jemma Nelson

SCENE I

P and K sit in their own bedrooms swiping through apps

SEARCH TERMS: *lonely*, *teenage*, *bedroom*, *phone*, *searching*

Two performers stand in green LED light leaning against mirrored tables flanking a center stage projection screen and mirrored floor. On the screen, using a messaging interface, speech bubbles appear with the computationally generated character actions text. The performers also receive the text in their in-ear monitors. Images based on the search terms <u>lonely</u>, teenage, bedroom, phone, and <u>searching</u> are delivered on the downstage video monitors. These images are used by the performers as choreographic input as they execute the character actions simultaneously. The audience witnesses the performers create movement from the video monitors, while embodying the computationally generated character actions.

#Python code to generate the character actions text import random import inflect import codecs import numpy as np

p = inflect.engine()
output = codecs.open('script _
output.txt', 'w', 'utf-8')

Master list of possible
sentence grammars
SENTENCES = [
['subject','action'],
['subject','verb','object'],
['subject','verb','object'],
['subject','verb','preposition','ar
ticle','adjective','noun'],
['subject','verb','object','preposi
tion','article','noun'],

['subject','verb','object','prep osition','article','adjective','n oun'l. [`subject','feels'], [`subject','feels','emotion'], [`subject','fears','object']] # `part-of-speech' lists for the grammars subject = [' P ',' K ',' P and K `] action = [' gets up ',' leaves ',' drinks ',' flirts '] echo = [' echoes '] verb = [' clicks ',' searches ',' swipes ',' updates ',' edits ',' replies ',' takes ',' asks ',' ghosts ',' changes ',' wants ',' hates ',' likes ',' flirts ',' lurks ',' invites ',' loves ',' needs ',' desires ',' feels ',' fears ',' asks for '] object = [' coffee ',' K ',' P ',' you ',' me ',' them ',' love ',' sex ',' company ',' loneliness `,' friends `,' openness ',' cautiousness ',' dutifulness `,' self-discipline ',' assertiveness ',' excitement ',' modesty ',' aggression ',' sympathy ',' a message ',' a picture ',' a selfie ',' loneliness ',' intimacy ',' violence ',' people ',' crowds ',' authority ',' information ',' isolation ',' supervision ',' abandonment ',' society ',' outcast ',' abnormality ',' tedium ',' noise ',' enclosure ',' repetition ',' attention ',' interrogation ',' examination ',' curiosity ',' exploration ',' spontaneity `,' oversight `,' friendliness `,' avoidance `,' nothingness `]



preposition= ['to ',' at ',' from ',' by ',' for ',' on ',' through '] article= [' the ',' a '] adjective= [' dark ',' dirty ',' scary `,' friendly `,' sexy `,' hopeless'] noun= [' crater ',' bed ',' cafe ',' car ',' home ',' phone ',' hookup `,' selfie `,' shot `] feels= [' feels ',' hopes ',' doubts `,'wonders `,' is `] emotion= [' lonely ',' nervous ',' -- ',' scared ',' excited `,' attraction `,' sensual `,' dirty'] fears= [' fears ',' dreads ',' avoids ',' deflects ',' shuns ',' escapes `,' fends off `,' ends ',' curtails ',' shuts down ','

veers `,' blocks `,' resists `,'
repeats `,' embodies `,' empties
`,' abandons `,' casts out
`,' isolates `,' separates `,'
recoils `,' retreats `,' eludes
`,' dissembles `,' hides `,'
fakes `,' dissimulates `]
driving = [`Slight left','Do
a U-turn','Hard left','Double
back','Turn around','Take the
on-ramp','Merge','Take the
bridge','Take the detour','Descen
d','Veer','Turn','Continue','Exit']

def parsePart(pos):

For each `part of speech'
return a random choice from its
list

Opacity, 2017.

Photo: Julieta

Cervantes; courtesy

of Live Arts Bard

```
f = `'
    if pos == `subject':
        f = np.random.
choice(subject)
    if pos == `action':
        f = np.random.
choice(action)
    if pos == 'echo':
        f = np.random.
choice(echo)
    if pos == `verb':
        f = np.random.
choice(verb)
    if pos == `object':
        f = np.random.
choice(object)
    if pos == 'preposition':
        f = np.random.
choice(preposition)
    if pos == `article':
        f = np.random.
choice(article)
    if pos == `adjective':
        f = np.random.
choice(adjective)
    if pos == `noun':
        f = np.random.
choice(noun)
    if pos == `feels':
        f = np.random.
choice(feels)
    if pos == `emotion':
        f = np.random.
choice(emotion)
    if pos == `fears':
        f = np.random.
choice(fears)
    return f
```

```
plural subject (for simple verbs)
# return the assembled sentence
    s = random.choice(scene)
    #print(s)
    ss = `'
    item = `'
    plural _ flag = False;
    for pos in s:
         item = parsePart(pos)
         if (pos == 'subject')
and (item.find(' P and K ')==0):
             plural _ flag = True
              #print(plural _ flag)
         if ((pos == 'verb') or
(pos == 'action') or (pos ==
'feels') or (pos == 'fears')) and
(plural _ flag):
              item =
p.plural _ verb(item)
```

```
def
makeStageDirections(scene, scene _
no):
# assembles scenes into a script
    ##########\n')
    output.write(`SCENE %s' %
scene_no)
    ##############\n')
    line = ''
    for x in range (0,100):
        if scene _ no == 3:
           if (np.random.
random()>0.3):
               #print(scene)
               line =
parseSentence(scene)
```

def parseSentence(scene):

for each sentence grammar,

assemble the parts of speech

correct for inflections of the

else:
line = · · ·
+ np.random.choice(driving)
else:
line =
parseSentence(scene)
output.write(line+'\n')
if scene_no == 3:
output.write(' · You
have arrived.\n')
<pre>output.write('\n\n\n\n\n')</pre>

SCENE1 =

[['subject','verb','object'],['subject','action'],['subject',' verb','preposition','article','adje ctive','noun'],['subject','verb', 'object','preposition','article','n oun'],['subject','verb','object',' preposition','article','adjective', 'noun']]

###OPACITY

makeStageDirections(SCENE1,1)

(Computationally generated character-actions text is projected inside speech bubbles in a messaging interface on the center stage screen.)

P fears tedium.

κ likes a picture from a hopeless car.

P needs sex.

P and κ update avoidance to a hookup.

к drinks.

к clicks avoidance.

P and K get up.

- **P** and κ update by the hopeless shot.
- P loves sex by a car.

P replies coffee to a cafe. **P** needs violence from a dark cafe. к searches curiosity. κ edits for a hopeless selfie. κ feels repetition at the dirty home. P ghosts for a scary selfie. P lurks people on a sexy shot. к gets up. P needs friends by a friendly selfie. к wants modesty by a shot. к fears nothingness. P asks from the hopeless car. к gets up. P asks on a hopeless cafe. P takes attention through the phone. \mathbf{P} and \mathbf{K} need a message by a phone. к likes avoidance. **P** and κ take supervision through the scary phone. к changes sex. P and K drink. P flirts attention. P feels for the dirty selfie. к feels a selfie from a dark phone.

P and **κ** want for a dark cafe.

к drinks.

P leaves.

к flirts.

 \mathbf{P} and \mathbf{K} hate intimacy at the selfie.

к invites tedium.



Opacity, 2017. Photo: Julieta Cervantes; courtesy of Live Arts Bard P asks for a picture.
P drinks.
P feels to the hopeless crater.
P gets up.
P and κ love avoidance.

P invites for a friendly phone.

- к asks for by a hopeless car.
- ${\bf P}$ and ${\bf K}$ click self-discipline.
- \mathbf{P} and $\mathbf{\kappa}$ ask assertiveness.
- P and K get up.
- р and к leave.
- P flirts.

 \mathbf{P} and \mathbf{K} update friends on a home.

- к drinks.
- P and κ asks for by a hopeless selfie.
- P leaves.
- κ asks for attention on a car.
- к drinks.
- ${\bf P}$ and ${\bf K}$ swipe spontaneity through a phone.
- **P** and κ invite to a sexy hookup.
- ${\bf P}$ and ${\bf \kappa}$ search for a dark home.
- к ghosts interrogation.
- к replies a selfie at the scary crater.
- P leaves.
- к edits for a sexy crater.
- P takes on a scary car.

P leaves.	P updates information from a home.		
${\bf P}$ and ${\bf K}$ like to a hopeless cafe.	P hates sex from a friendly bed.		
${\bf P}$ and ${\bf K}$ ask for from a scary bed.	${\bf p}$ and ${\bf \kappa}$ edit avoidance through the home.		
${\bf P}$ and ${\bf K}$ update loneliness at the scary hookup.	$\ensuremath{\mathbf{P}}$ likes supervision at the hopeless home.		
к wants spontaneity from a home.	κ feels assertiveness.		
${\bf P}$ likes by the hopeless home.	κ drinks.		
P changes on a scary home.	P leaves.		
P desires company.			
P edits exploration from the scary bed.	Scene 2		
Р and к get up.	K meets P at the Starbucks in the Target at the		
${\bf P}$ and ${\bf \kappa}$ desire at a scary selfie.	mall		
${\bf P}$ and ${\bf \kappa}$ click assertiveness through the shot.	SEARCH TERMS: <u>watching</u> , <u>insecure</u> , <u>youth</u> , <u>date</u> , <u>interface</u>		
₽ gets up.	The two performers meet at the table on stage		
κ loves self-discipline by the cafe.	right in yellow LED light. On the screen, using		
$\boldsymbol{\kappa}$ swipes violence from the dirty hookup.	a photo-sharing interface, computationally generated character feelings are scribbled over		
${\bf P}$ and ${\bf K}$ love for a sexy home.	searched images of shared Instagram and		
P flirts.	Snapchat pictures of coffee. The performers receive both the character feelings and procedurally		
P leaves.	generated dialogue from scraped tweets based on		
κ asks for nothingness.	the search terms <u>watching</u> , <u>insecure, youth, date,</u> and <u>interface</u> through their in-ear monitors.		
κ swipes to the dark selfie.	Dialogue filtering has been inverted to allow only		
к leaves.	emojis to pass through, suppressing non-emoji tokens. Images also based on the search terms are		
P loves through a dark car.	delivered on the downstage video monitors. These		
κ flirts.	images are used by the performers as choreographic input as they execute the text simultaneously.		
${\bf P}$ and ${\bf K}$ flirt cautiousness on a sexy car.	The audience witnesses the performers create		
${\bf P}$ and ${\bf \kappa}$ search by a dirty home.	movement from the video monitors, while embodying the computationally generated		
${\bf P}$ and ${\bf K}$ hate repetition.	character feelings and speaking the procedurally		
κ takes through the scary hookup.	generated dialogue.		
${\bf P}$ and ${\bf K}$ ask society from the dirty crater.	# Code to generate the		
${\bf P}$ and ${\bf \kappa}$ desire sympathy.	character feelings text		

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continued from above

<pre>SCENE2 = [['subject','feels'],['subject','feels','emotion'],['su</pre>	κ doubts—for a hopeless cafe.		
<pre>bject','feels','emotion','preposit</pre>	P feels.		
<pre>ion','article','adjective','noun']]</pre>	P hopes.		
###OPACITY	P and κ feel dirty.		
<pre>makeStageDirections(SCENE2,2)</pre>	Р and к hope.		
(Character-feelings text is scribbled over searched	P hopes sensual by a sexy shot.		
images of shared Instagram and Snapchat pictures	к is.		
of coffee and projected on the center stage screen and in their in-ear monitors.)	κ hopes excited from the hopeless shot.		
P hopes excited.	P wonders sensual on a friendly cafe.		
P is dirty.	${\bf P}$ and ${\bf K}$ wonder scared on a scary phone.		
Р and к feel.	P is attraction for a friendly cafe.		
Р and к doubt.	P feels excited for the hopeless car.		
\mathbf{P} and \mathbf{K} feel sensual.	P doubts.		
к hopes.	P and κ doubt.		
\mathbf{P} and \mathbf{K} feel dirty through the dirty cafe.	${\bf P}$ and ${\bf \kappa}$ feel scared through a scary shot.		
к wonders lonely.	к is sensual.		
P and K doubt attraction to the sexy bed.	к is sensual.		
Р and к are—.	P and K hope.		
P wonders.	P and κ hope.		
P and K wonder.	к doubts scared.		
к hopes.	P hopes lonely on the sexy hookup.		
P feels dirty through a sexy shot.	K is.		
κ hopes sensual to a friendly car.	P hopes.		
P doubts.	Р and к are.		
P is.	${\bf P}$ and ${\bf \kappa}$ doubt attraction for the sexy phone.		
k is.	P doubts attraction.		
P wonders.	к wonders.		
P doubts excited from the hopeless hookup.	Р and к hope scared.		
	P and κ wonder sensual.		
κ wonders sensual through the scary hookup.	P and κ doubt excited on the sexy selfie.		
P wonders excited.	······································		

κ is excited.	${\bf P}$ and ${\bf K}$ hope dirty.		
P and κ feel.	к doubts—.		
${\bf p}$ and ${\bf \kappa}$ feel attraction.	${\bf P}$ and ${\bf \kappa}$ wonder scared at a sexy cafe.		
P feels.	P hopes.		
κ doubts dirty to a friendly shot.	${\bf P}$ and ${\bf \kappa}$ wonder.		
P hopes sensual.	${\bf P}$ and ${\bf \kappa}$ hope nervous.		
${\bf P}$ and ${\bf \kappa}$ are excited for a dirty home.	P feels lonely.		
P and K wonder.	${\bf P}$ and ${\bf \kappa}$ feel excited.		
${\bf P}$ and ${\bf \kappa}$ hope excited.	P is lonely on the dirty cafe.		
${\bf P}$ and ${\bf \kappa}$ feel attraction.	κ doubts lonely for the friendly hookup.		
${\bf P}$ wonders sensual through the friendly	κ feels attraction.		
hookup.	${\bf P}$ and ${\bf \kappa}$ doubt attraction on a scary crater.		
${\bf P}$ and ${\bf K}$ wonder—at the friendly car.	к wonders.		
P feels sensual.	κ hopes scared through the hopeless crater.		
${\bf P}$ and ${\bf \kappa}$ wonder dirty.	P and κ hope attraction on the dark cafe.		
κ doubts.	Р and к hope.		
\mathbf{p} and $\mathbf{\kappa}$ feel.	P doubts dirty.		
κ doubts.	P is attraction.		
P doubts sensual.	P and K doubt excited.		
κ doubts lonely.	#code to scrape twitter for 5000		
P feels dirty.	tweets (1000 tweets per search		
$\boldsymbol{\kappa}$ wonders attraction at the hopeless selfie.	term; watching, insecure, youth, date, and interface) and to		
P wonders.	build the procedurally generated		
P feels lonely at the scary phone.	dialogue for scene 2		
P feels excited.	import markovify		
ĸ is.	import codecs import re		
P doubts attraction.	import glob		
${\bf P}$ and ${\bf \kappa}$ wonder sensual for the friendly car.	import time import random		
P wonders dirty on a scary selfie.	import sharedfunctions		
v fools longly through the score cafe			

 κ feels lonely through the scary cafe.

```
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```

```
NUM TO GENERATE = 100
                                 max _ overlap _ total):
MARKOV \_ DEPTH = 1
corpus = u""
CLEAN _ TWITTER = True
def cleanCorpusText(text):
    if CLEAN _ TWITTER is True:
                                      f.close()
        textMod = re.sub("RT ",
rtrepl, text) # remove RT
        textMod = re.sub("@\w*:
", rtrepl, textMod) # remove
@:s
        textMod = re.sub("@\w*
                                   "\n"):
", rtrepl, textMod) # remove
@s
        textMod =
                                  bottom.
re.sub("https://\S*", rtrepl,
textMod) # remove links
        textMod =
                                  purposes
re.sub("http://\S*", rtrepl,
textMod) # remove links
        textMod =
re.sub("&", amprepl,
textMod) # fix &
        textMod = re.sub(">",
gtrepl, textMod) # fix >
        textMod = re.sub("<",
ltrepl, textMod) # fix <</pre>
    return textMod
class NoTestText(markovify.text.
                                 print ('-----')
NewlineText):
    def test _ sentence _
input(self, sentence):
        return True
    def test _ sentence _
output(self, words,
max _ overlap _ ratio,
```

return True for filename in glob. glob(`tweets/*.txt'): print "loading " + filename with codecs.open(filename, `rb', `utf-8') as f: text = f.read()textMod = sharedfunctions. cleanCorpusText(text) corpus += textMod if (corpus[len(corpus) - 1] == corpus = corpus[:-1] # remove the extra newline at the # save corpus for debug textModOut = codecs. open('corpus.txt', 'w', 'utf-8') textModOut.write(corpus) textModOut.close() text _ model = sharedfunctions. NoTestText(corpus, MARKOV _ DEPTH)

for i in range(0,NUM _ TO _ GENERATE): # print "time elapsed: " + str(time.time() - start _ time) text model line = text _ model.

```
make _ sentence()
```

OPACITY



Opacity, 2017. Photo: Courtesy of the artist

#For scene 2 a javascript code is executed to strip the text and leave only the emojis in text form.

var emojiText =
require("emoji-text");

```
/*
       lineMod = re.sub(" #",
hashtagrepl, line)
       lineMod = re.sub(" lol",
lolrepl, lineMod, flags=re.
IGNORECASE)
       lineMod = re.sub(" lmao",
lmaorepl, lineMod, flags=re.
IGNORECASE)
       lineMod = re.sub(" btw",
btwrepl, lineMod, flags=re.
IGNORECASE)
       lineMod = re.sub(" cya",
cyarepl, lineMod, flags=re.
IGNORECASE)
       lineMod = re.sub("\A#",
hashtagrepl, lineMod)
       lineMod = re.sub("\Alol",
lolrepl, lineMod, flags=re.
IGNORECASE)
       lineMod = re.sub("\
```

```
// print process.argv
process.argv.forEach(function
(val, index, array) {
   console.log(index + `: ` +
val);
});
```

```
var args = process.argv.
slice(2);
```

var filename = args[0];

```
var fs = require(`fs')
fs.readFile(filename, `utf8',
function(err, data) {
    if (err) throw err;
    console.log(`OK: ` +
filename);
    var lines = data.
split(/\r?\n/);
```

```
var outfile =
fs.open("emojiRevealedOutput.
txt",'w', (err, fd) => {
    for (var i = 0; i <
    lines.length; i++) {
        var converted =
emojiText.convert(lines[i], {
            before: ` *',
            after: `* `,
            field:
`description'
        });</pre>
```

var split = converted. split("*"); converted = converted. replace(" lol", " L O L ") converted = converted. replace(" lmao", " L M A O ") converted = converted. replace(" btw", " B T W ") converted = converted. replace(" cya", "see ya ") converted = converted. replace("lol ", " L O L ") converted = converted. replace("lmao ", " L M A O ") converted = converted. replace("btw ", " B T W ") converted = converted. replace("cya ", "see ya ")

var emojiString = ""; for (var j = 0; j < split.length - 1; j+=2) { var emoji = split[j+1]; emojiString += emoji + " "; }

});

(The performers receive the procedurally generated emoji text through their in-ear monitors and whisper them to one another.)

UNAMUSED FACE, CHERRY BLOSSOM, BLUE HEART, FACE THROWING A KISS, WEARY FACE, EYES CRYING FACE CHERRY BLOSSOM BLUE HEART FIRE WEARY FACE SMIRKING FACE CONFUSED FACE PERSON RAISING BOTH HANDS IN CELEBRATION NEUTRAL FACE LOUDLY CRYING FACE THUMBS DOWN SIGN HEAVY BLACK HEART DOUBLE EXCLAMATION MARK, DOUBLE EXCLAMATION MARK, NAIL POLISH, NAIL POLISH, CHERRY BLOSSOM, BLUE HEART, HEAVY BLACK HEART, HEAVY BLACK HEART, HEAVY BLACK HEART, FACE WITH TEARS OF JOY, FACE WITH TEARS OF JOY, YELLOW HEART, FACE THROWING A KISS, CRYING FACE, SMILING FACE WITH SMILING EYES, LOUDLY CRYING FACE, LOUDLY CRYING FACE, LOUDLY CRYING FACE, WEARY FACE, UNAMUSED FACE, HUNDRED POINTS SYMBOL, UNAMUSED FACE, UNAMUSED FACE, FISTED HAND SIGN, FISTED HAND SIGN, FISTED HAND SIGN, LOUDLY CRYING FACE, SNOWFLAKE, BLUE HEART, SNOWFLAKE, WINKING FACE, FACE WITH TEARS OF JOY, SLEEPY FACE, EYES, EYES, TWO HEARTS, TWO BLUE HEART, HAMMER, WRENCH, SOCCER BALL, CHERRY BLOSSOM, BLUE HEART, SMILING FACE WITH HEART-SHAPED EYES. SMILING FACE WITH HEART-SHAPED EYES, SMILING FACE WITH HEART-SHAPED EYES, INFORMATION DESK PERSON, PARTY POPPER, PARTY POPPER, CHERRY BLOSSOM, BLUE HEART, CHERRY BLOSSOM, BLUE HEART, FACE WITH STUCK-OUT TONGUE AND WINKING EYE, HEARTS, TWO HEARTS, TWO HEARTS, SKULL, PURPLE HEART, FIRE, HUNDRED POINTS SYMBOL, PERSON WITH FOLDED HANDS, FACE WITH MEDICAL MASK, HEAVY BLACK HEART, HEAVY BLACK HEART, HEAVY BLACK HEART, FACE WITH TEARS OF JOY, FACE WITH TEARS OF JOY, REVOLVING HEARTS, MONKEY,

MONKEY, MONKEY, LOUDLY CRYING FACE, CRYING FACE, HUNDRED POINTS SYMBOL, HUNDRED POINTS SYMBOL, FIRE, MULTIPLE MUSICAL NOTES, FACE WITH TEARS OF JOY, UNAMUSED FACE, FIRE, SMILING FACE WITH HORNS, HUNDRED POINTS SYMBOL, PERSON RAISING BOTH HANDS IN CELEBRATION, WEARY FACE, CHERRY BLOSSOM, BLUE HEART, HEAVY BLACK HEART, SLICE OF PIZZA, UNAMUSED FACE, FACE THROWING A KISS, FACE THROWING A KISS, HEAVY BLACK HEART, HEAVY BLACK HEART, LEAF FLUTTERING IN WIND, ROSE, WEARY FACE, TROPICAL DRINK, COCKTAIL GLASS, WINE GLASS, BEATING HEART, WINKING FACE, CRYING FACE, SMILING FACE WITH HEART-SHAPED. EYES, FACE THROWING A KISS, FACE THROWING A KISS, CHERRY BLOSSOM, BLUE HEART, FACE WITH TEARS OF JOY, LOUDLY CRYING FACE, VICTORY HAND, HEAVY MINUS SIGN, EYES, HUNDRED POINTS SYMBOL, OK HAND SIGN, SMILING FACE WITH SMILING EYES, HEAVY BLACK HEART, HEAVY BLACK HEART, HEAVY BLACK HEART, PARTY POPPER, PARTY POPPER, PARTY POPPER, GOAT, SPARKLING HEART, HEAVY MINUS SIGN, CRYING FACE, REVOLVING HEARTS, FACE WITH TEARS OF IOY, FACE WITH TEARS OF JOY, FACE WITH TEARS OF IOY, FACE WITH TEARS OF IOY, FLEXED BICEPS, UNAMUSED FACE, SMILING FACE WITH OPEN MOUTH AND SMILING EYES, AMBULANCE, CHERRY BLOSSOM, BLUE HEART, BROKEN HEART, FACE WITH TEARS OF JOY, TWO HEARTS, TWO HEARTS, TWO HEARTS, CRYING FACE, SMILING FACE WITH HEART-SHAPED EYES, FACE THROWING A KISS, FACE THROWING A KISS, FACE WITH TEARS OF



Opacity, 2017. Photo: Courtesy of the artist

JOY, FACE WITH TEARS OF JOY, WINKING FACE, SMILING FACE WITH OPEN MOUTH, CHERRY BLOSSOM, BLUE HEART, SMIRKING FACE, WATER WAVE, HEAVY MINUS SIGN, SMILING FACE WITH SUNGLASSES, FACE WITH TEARS OF JOY, EYES, CHERRY BLOSSOM, BLUE HEART, FACE WITH TEARS OF JOY, WEARY FACE.

SCENE 3

к and P take a Lyft back to к's place

SEARCH TERMS: <u>where are</u>, <u>spy</u>, <u>security</u>, <u>iterative</u>, <u>identity</u>, <u>thirsty</u>

The two performers stand on either side of the center stage screen in blue LED light. On the screen, using a driving directions map interface, the computationally generated character fears are embedded over what would normally be the driving directions. The performers receive both the character fears text and the procedurally generated dialogue from the scraped tweets based on the search terms where are, spy, security, <u>iterative</u>, <u>identity</u>, and <u>thirsty</u> in their ear monitors. There are no images delivered on the downstage monitors. The performers are still and speak the procedurally generated dialogue.

Python code to generate the
text

SCENE3 =
[[`subject','fears','object']]

###OPACITY

makeStageDirections(SCENE3,3)

к fends off excitement. (The computationally generated texts are mixed with driving instructions and embedded over • Take the detour a maplike interface projected on the center stage screen.) к deflects a picture. • VEER к resists loneliness. \mathbf{P} and \mathbf{K} end attention. \mathbf{P} and \mathbf{K} retreat coffee. \mathbf{P} and \mathbf{K} fends off assertiveness. к shuts down cautiousness. P isolates abnormality. к fends off people. P and K fake society. \mathbf{P} and \mathbf{K} dissimulate examination. P and K dread coffee. • HARD LEFT • Continue P dissimulates information. TURN AROUND к curtails tedium. • Turn • Take the on-ramp к ends company. P and K curtail enclosure. • Exit κ blocks self-discipline. к dissembles sex. P dissembles a picture. • Slight Left к dreads you. \mathbf{P} and \mathbf{K} curtail supervision. • Take the bridge P fends off attention. к veers exploration. • Slight Left P escapes aggression. • VEER • DOUBLE BACK TURN AROUND • Take the detour • DOUBLE BACK • Descend P and K block coffee. P and K shun loneliness. • VEER P blocks a picture. P and K dread noise. к embodies modesty. P fends off isolation. P resists repetition. TURN AROUND • TURN • Descend **P** and **κ** escape coffee. к casts out love. • HARD LEFT P empties love. к dreads you.

Ρ.	• Descend
E THE BRIDGE	${\bf P}$ and ${\bf K}$ separate violence.
E THE DETOUR	к eludes sex.
N AROUND	${\bf P}$ and ${\bf \kappa}$ dissimulate exploration.
retreat supervision.	κ dissimulates them.
uthority.	• Take the bridge
riends.	${\bf P}$ and ${\bf \kappa}$ fake violence.
dissemble avoidance.	ĸ veers cautiousness.
E THE DETOUR	• Turn
company.	${\bf P}$ and ${\bf \kappa}$ repeat cautiousness.
s a selfie.	\mathbf{P} and \mathbf{K} curtail a picture.
ſ	${\bf P}$ and ${\bf K}$ embody oversight.
s sex.	${\bf p}$ and ${\bf \kappa}$ fends off society.
lown violence.	P shuts down you.
s excitement.	• You have arrived.
R	(The performers receive the procedurally
openness.	generated text in their in-ear monitors and speak them to one another. Emojis are transcribed into
E THE ON-RAMP	English phrases.)
RD LEFT	REVEALED! Hashtag solo That part about
shun assertiveness.	whistleblowing is real, IMHO
fear dutifulness.	all of your mouth open. "Like we going to pole tonight. Looking for free tips: hashtag
bandonment.	Map
deflect authority.	ask someone, they go traffic down on a fatwa
tes tedium.	against a girl it less than 4% tax credits are out of him to death
TINUE	I want to you want to monetize hashtag
ut authority.	BigData
2D LEFT	Maybe Pro 5 members of information
information.	technique. Iterative Algorithms for ~JAPANESE OGRE~
1	

к dreads

- **TAKE**
- **TAKE**
- TURN

P and K re

к ends au

- к hides fr
- P and K d
 - TAKE
- P dreads o
- P repeats
 - Exit
- P retreats
- к shuts de
- P deflects
 - VEER
- к hides of
 - TAKE
 - HARI

P and K sl

- P and K fe
- P hides at

р and к d

- к separate
 - Cont
- P casts ou
 - Hari

- к resists in
- ${\bf P}$ and ${\bf \kappa}$ dissemble loneliness.



Rt if he is iterative approach may already have tracked Kremlin-mafia-espionage network for sayin "hi" then cry like it ~FACE THROWING A KISS~ ~FACE THROWING A KISS~ ~FACE THROWING A KISS~ ~FACE THROWING A KISS~

the leak of conducting some warrantless eavesdropping

Thesis: Performance and identity politics.

where are we even wait ok where are we have the government can do my body, we even want to watch this video

really NEED sex though and she didn't steal anything. I see our latest opening

hashtag golden hashtag sexgeeks hashtag nudist hashtag sexual hashtag sunny hashtag spy hashtag thriller

Where are we? are we? biology is safe. This cute cat: hey folks large margin of its unreal

Hashtag Star Wars Battle front 2 releases worldwide on NSA

where are we? Thirsty for the set: and totalitarian.

Where are we? All I want to ensure that argued could be all the NSA's domestic

Tonight is the antidote to make sure. I just so bad things trying to see porn. Map Camera for Russian hacking?

awkward and go back. I always keep the highs and what's going to date a road map racially restrictive.

I'm deff fucking much. she was water a Russian spy to Bless you

Where are good relationship. I need to try new builds on such new D5 FOX19

~FACE WITH TEARS OF JOY~ ~FACE WITH TEARS OF JOY~ ~FACE WITH TEARS OF JOY~ where are we *Opacity*, 2017. Photo: Julieta Cervantes; courtesy of Live Arts Bard Nice scenery! Follow, and forensic perspective. I can say this Code which is ridiculous paternity test

A new identity when someone offers him a recipe for being such a security clearance

Want to try to have decided to spy on here I told it's late watching him happily giggling

Everyone watch... tattoo this realm is screwing us that fucking else. Spy Wedding Bride and totalitarian.

Hashtag porngifs Hashtag solo Hashtag bedroom boobies Hashtag text spy part like it!! That part about whistleblowing is real, IMHO

Learn to spy hashtag facial hashtag publico antwerp hashtag twerking hashtag awesome hashtag spy hashtag thriller hashtag amazon books hashtag iBooks hashtag GooglePlay

~FIRE~ ~FIRE~ ~FIRE~ ~FIRE~

SCENE 4

P and K arrive at a crater where K's house once was

SEARCH TERMS: <u>surveillance</u>, <u>paranoid</u>, <u>citizen</u>, <u>void</u>, <u>freedom</u>

The two performers stand on either side of the center stage screen in pink LED light. The image on the screen is an Instagram-like aerial photo of the crater where they now stand. Procedurally generated text based on the search terms <u>surveillance</u>, <u>paranoid</u>, <u>citizen</u>, <u>void</u>, and <u>freedom</u> is seen as a long comment as the photo begins to scroll. Images also based on the search terms are delivered on the downstage video monitors and used by the performers as choreographic input. The same code used in Scene 2 is executed with the updated search terms. Ugh sadly in the void. Not quite like me. I always wins in the same wardrobe-rescued 905. ESPN gets more in New Web Privacy Rule 100: 3D glasses. Oh okay i get from anger. Let me void, I have to suit you coming while it leaves them with God we can track and particular inconsistencies. The fact that sways one paranoid. Digital HD + A VOID WHEN EVERYTHING SEEMS TO SHOW to any questions about @odd typo cos I am just supporter of the only look without permits via - GPS Tracking - Iron Man With a Citizen of speech "I won't say it's your metadata now this void, including SCOTUS pick. I was a successful court rules to do even go to develop. feels like cake kind of this happened, the 2 citizen DEMAND a mission is a scary one fucking often... pure garbage, so hot. Thank God we can track plant diseases to appreciate if they do Democrats agree with. that previously got what they thought there so we spend trillions on the Privacy and she was found in #India military occupation jails.. It is on our all-powerful surveillance material It's time to avoid you. there's bugs crawling all paranoid about noise inside the Law-La Raza Illegals to any thoughts? in Latin America becomes the Freedom to quit screaming into the void and neverending loneliness. Preview of art makes @@@ The Freedom Mobile sold as a haven for your parents of anyone who claims to North Korea. Surveillance images show off and horse meat and newly graduating us citizen engineers can't respect ur respects u stop being an #HappyEaster for vampires. .When you want to school, nothing wrong, Democrat and also the void. Your phone! For 70 years, the money laundering." Sorry to have the things that #br... No offence was NOT a successful court case force his h... Overthinking and locate the stars, if i just theorycrafting. The Void Minus Matter and a conspiracy theorist

or are a euphemism for mobile for every team downstairs Does Prepping Make the court. Enter code: Eyewitness & learn to steal your freedom. She's being too paranoid about two articles do is gaining autonomy - 2017 Friday, April 24: ease up with that paranoid. paranoid about the fight for what? As Traditions Fade, New Zealand and out it means and for LED Light Switch Wi-Fi F7C030fc Works...The Oral History of speech and GOP may be a full-frontal attack on #DesertUnderground #Tunein #Listen #Radio #ClassicRock Robots could not spying, surveillance timeline. Voldemort: Don't let my professor & simply be and the other side ADDR: 1000 BLK ANAHEIM BLVD, AN We are losing that person ever again.. Enjoy the paper £5 notes before the voting rights set upon... Lock up with additional surveillance material Turkish Muslim & India's Economic Transformation for muslims was written as null & join you become the dying HDB void your heart, located in the free societies to overcome obstacles. thts wat he leaves them #NP Fallujah - Gai Tsutsugami. Just tryna slip into THAT, you is a man in Medellin explain the void after review of surveillance timeline. void the Void, seperation from #Gateshead and Full body types that they do not going in your convenience. I will be huge void due to accelerate peace of India, u stop being a Citizen м G!!!!!!!!!! If you don't just paranoid? Go Directly To Jail Hey, 1 like who the that's so sweet im gonna CRY ABOUT SOMEBODY, UR NOT PASS GO TO HAVE A total paranoid is blanco.....Hmm Is that freedom of the time shu pulls up with Russia affected our freedom. Is that was NOT PARANOID. IF U HAVE HIS ARTISTIC FREEDOM, is real Viktor xjxjdndnxj (screams into Void-state, it and catch killers like I CANT BELIEVE IM GONNA HOLD YOU. I don't have two words pour from your retirement. Data

Across Borders conference by a bit paranoid. Out! Get 10% OFF ALL Earpiece Camera pre orders @citizenscapital ... 4, 3, 2, 1, Go! We went from inside it. @ Prosecuting whistleblowers. Infowars Nightly News -Malcolm X. Trying it will see the workplace: 'I became hysterical but tonight 4/18 as platforms requires Senate Approval for freedom of surveillance cameras. There are soooo annoving @ On the void of surveillance state so we can make every one Freedom of The USFA needs to quit screaming into fraud at Angola ". Thank God we as free of insulin Metrazol electricity subsidies of surveillance material. The last tweet has just paranoid! Another one! That's crazy thing is, so void and barmy, we don't know if that void. "You're seeing it should see what you in the tools and CNN not subject to a US citizen, 18 pounds of me wth why is he... #TrumpRussia must tell you there....FRAGILE LITTLE WITNESS PROTECTION SERIAL EGGS (paranoid tweet is no point the positive element) lmao, now but it means freedom. i dont speak against. in our emonumental President. Can a racist. This is the search. Shared surveillance up with paranoid in general election, is inside your heart there is no enemies, you're paranoid. Senior citizens share an absolute right @@@ Only a us since she was 7. She's not and CNN not patriotic voice of The #USFA at the end. Good point, spend trillions on earth would void of Transparency (90%). am i think we've lost an suv bumper and Pharma's profit outweighs ethics: the Week Long Action Challenge to accuse you agree abt freedom is void" "You're seeing an isolated thing: Freedom Fighters & enter the Worst Joke in a Pride and Democratic officials say. Since he still got paranoid

Scene 5

Р and к descend into the crater

SEARCH TERMS: <u>mesh</u>, <u>spectral</u>, <u>savage</u>, <u>opaque</u>, <u>cyber</u>, <u>body</u>

The two performers in red LED light strip and step onto the mirrored surface downstage of the center stage screen. In a storm of sound, dual 3-D rigged models with meat-mesh surfaces are revealed on the screen. The performers animate them using live motion capture from an upstage device. The "meat puppets" slowly move towards each other, meld into one form and then slowly disappear.

End.

Notes

1. *Python*, Python Software Foundation, 2017, www.python.org/; "API Overview," *Twitter Developer Documentation*, Twitter, Inc., 2017, dev.twitter.com/overview/api; Ryan McGrath, "Twython 3.4.0 Documentation," *Twython*, 2013, twython.readthedoc s.io/en/latest/.

2. Jeremy Singer-Vine, "Markovify," *GitHub*, April 6, 2017, github.com/jsvine /markovify.

3. "NumPy random choice function documentation," Scipy.org, *EnThought*, June 10, 2017, docs.scipy.org/doc/numpy/reference/generated/numpy.random.choice.html #numpy.random.choice.

4. Yuriy A. Rotmistrov, *Word Associations Network*, 2017, wordassociations.net/; Centiment, Micah Brown, "Emotion Analysis vs. Sentiment Analysis—the Difference," *Centiment.io*, June 2017, centiment.io/beta/blog/emotion-vs-sentiment -the-difference/.

TABLE I.

Matrix of possible search terms/sketchpad to generate ideas

	progression \downarrow				
SCENE	verb/action	adj./quality	CATEGORY/ CHARACTER	LOCATION	noun/device/ way
I	searching	lonely	teenage	bedroom	phone
2	watching	insecure/(ity)	hookup youth	coffee date (cafe) date	Connection App interface
3	Watching Fucking sex	secure/(ity) safe(ty) Viral thirsty	adult	Love vehicle	Body Persona identity
4	spy/ing Surveillance monitoring	Freedom Paranoid friendly	citizen	Crater Home void	Body Algorithm Online Computational Code iterative
5	connect ion /ing networking mesh/ing	Flesh Primal Wild Insane opaque savage	Dead Ghost spectral	Meld cyberspace	Body virtual