

Little Procedural People

Playing politics in generators

expressiveintelligence**studio**

UC Santa Cruz

Kate Compton

Motivation: PCG in Context

My work intersects a broader range spaces than most PCG workshops

- 10,000 Twitter bots
- Chatbots at Google
- Generative art toys
- PCG workshop, GDC, ICCC, apps, futurism
- *Reporting back from the wider world of generativity*
- ***PCG in more contexts!***

Performative and Procedural Gender in Video Games

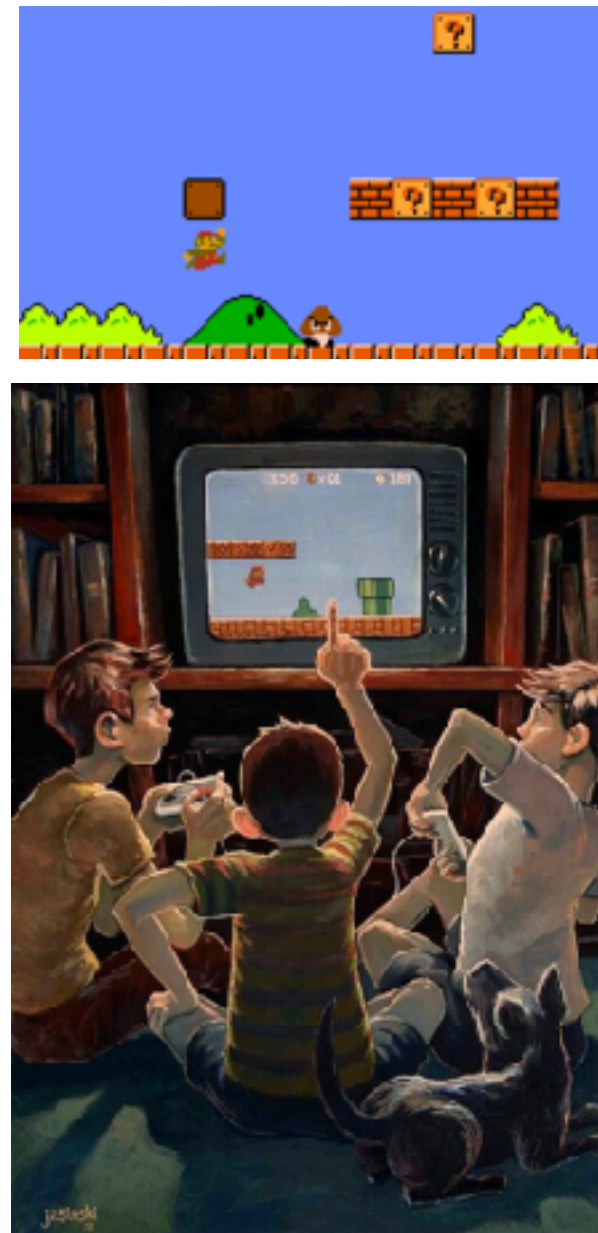
by
Katherine Compton

Submitted to Pomona College in partial fulfillment of the degree of

Motivation: PCG in Context

Why talk about politics, ethics, or society in the PCG community?

- Designing generative systems is no less political than writing a play or painting a picture
- All generative systems have **context**
- “Why are you generating **that**?”
 - “Why are **you** generating that?”
 - What context does it have for you?
For your audience?



Motivation: PCG in Context

Application Domains Considered in Computational Creativity

Róisín Loughran and Michael O'Neill
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University College Dublin
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Abstract

We present a review of papers presented at IJWCC and ICCG, specifically considering what applications these papers are engaged with, either directly in generative systems or indirectly in evaluation or framework proposals. The primary focus of this work was to ascertain if there are any trends in the applications considered over the years, any topics that are becoming more dominant or any that have been neglected. Our initial classification among 16 specific categories indicated that Music was the most popular application domain; when we reconsidered seven broader categories we determined that papers involving variations of language processing were most popular. We considered the trend among application domains over the past 12 years and noted that contrary to early discussions on creativity, problems based on logic, science or mathematics do not appear often. We consider the implications of this research as to what information it may convey both to the computational creativity community and to a general computer science audience.

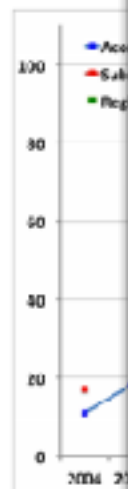


Figure 1: Number of papers accepted

CC is a

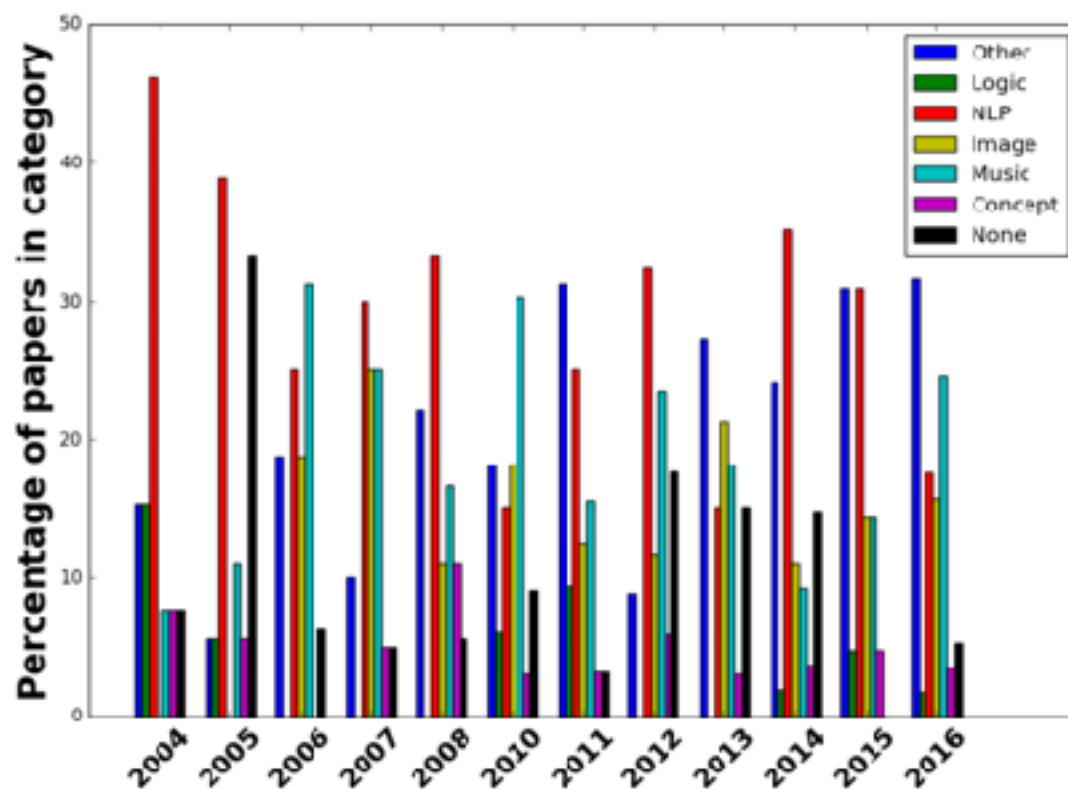


Figure 4: Percentage of papers in each category, 2004-2016

Motivation: PCG in Context

When we generate (with or about) people, we inherit **more context**

***This talk:** 4 sites to examine context*



It's tournament time! Each character will now play against every other character: that's 10 paired matches, and 10 rounds per match.

Who do you think will get the highest *total* score? Think carefully about it... and then **PLACE YOUR BETS:**

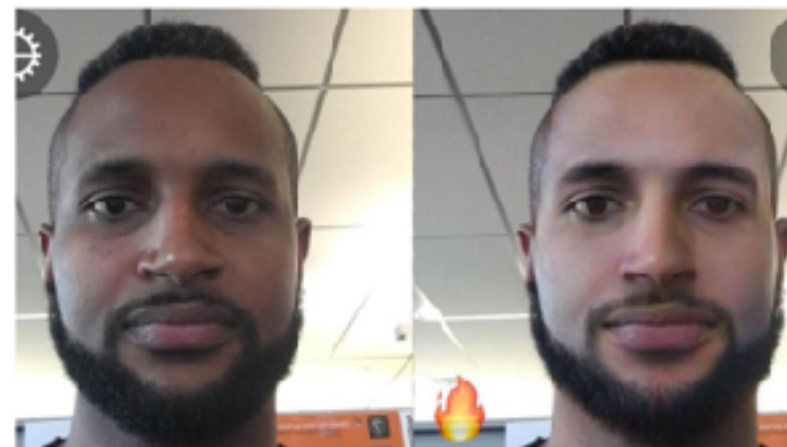
Copycat	All Cooperate
All Cheat	Grudger
Detective	(forgot who's who? hover buttons to see descriptions of each character!)

THE UNBEARABLE WHITENESS OF BEING A TECH COMPANY

That Viral 'FaceApp' Is Making Everyone Look Whiter



SARAH EMERSON
Apr 24 2017, 3:32pm



Twitter/Terrance AB Johnson

#1: Signs and signifiers in generators

- So you want to build a generator...

```
giggling", "loud voice", "nervous", "graceful", "mysterious", "calm", "tattooed", "grim", "laid-back", "smiling", "hungover", "genial", "one-armed", "quiet", "thoughtful", "argumentative", "long-braided", "relaxed", "pleasant", "long-haired", "short-haired", "free-spirited", "oddly dressed", "well-dressed", "curly-haired", "blond", "sunburned", "disheveled", "polished", "outgoing", "introverted", "cheerful", "mournful", "chatty", "gossipy", "silver", "#color#-haired", "graceful", "distracted", "mustachioed", "bearded"],
personSuit: ["sundress", "unitard", "bathrobe", "wearing a lab coat", "carrying", "in paint-smeared overalls", "caftan", "headscarf", "tuxedo", "ballgown", "jacket", "bathing suit", "wedding dress"],
personPostDesc: ["in #color.# #personSuit#", "covered in mud", "with mud-covered blank expression", "with a dazed expression", "carrying a stuffed rabbit", "paper bag", "carrying a suitcase", "with a sword", "carrying a stack of thick wearing an overstuffed backpack", "with an accordion", "with a Southern drawl British accent", "in #personSuit.#", "with a strangely-shaped scar", "with an old guitar", "carrying a ukulele", "carrying a briefcase", "carrying talking on their cellphone", "holding a heavy wooden crate", "wearing sunglasses wheelchair", "on crutches", "wearing a blindfold", "with haunted eyes", "wearing", "with long dreads", "trying to hide their face", "with an enormous beard", "dangling earrings", "with a parrot on their shoulder", "carrying a small dog enormous hat", "wearing a #color# ballgown", "dressed entirely in #color#", "#color# robe", "with tall #color# boots", "in a #color# #personSuit#"],
personType: ["supermodel", "witch", "soldier", "child", "wizard", "rock star", "sailor", "young woman", "hiker", "biker", "truck driver", "gentleman", "pirate", "movie star", "young man", "violinist", "duchess", "farmer", "soldier", "civ", "acrobat", "fireman", "judge", "retiree", "catgirl", "stranger", "hooded figure", "writer", "frat brother", "nurse", "tourist", "doctor", "clown", "nun", "clown", "nun", "queen", "politician", "lumberjack", "bodybuilder", "rugby player", "professor", "grad student", "student", "high-schooler", "football player", "nerd", "goth", "cowboy", "priest", "nun", "monk", "granny", "girl", "hipster", "businesswoman", "businessman", "surfer", "old lady", "old man", "kid", "20-something", "woman", "man", "person", "being"],
```

A scowling nerd orders Stagehaven Decadence

A group of distracted goths leaves the cafe

A silent farmer carrying a stuffed rabbit and a long-b leaves the cafe

A hungover truck driver with mud-covered shoes orders Stagehaven Decadence

A crowd of introverted beings orders Lostmind Barre

A slouching witch wearing an enormous hat orders L Robin Cellars Chenin Blanc

A slouching sailor with a parrot on their shoulder shaven wizard

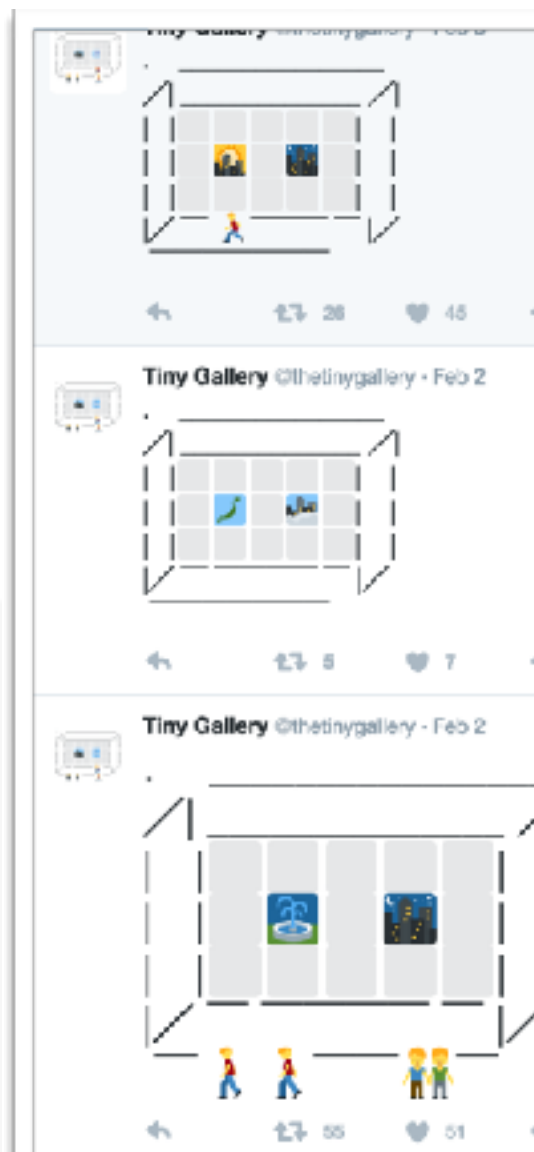
orders Lavender Robin Cellars Chenin Blanc

A pair of lanky businesswomen orders Lostmind Sirah

A pair of feminine girls orders Lavender Robin C

#1: Signs and signifiers in generators

- So you want to build a generator...
 - Where does the meaning come from?
 - **Structure + Signifiers**



#1: Signs and signifiers in generators

- Where does meaning come from?
 - 10% functional, 90% social
 - Signifiers carry a lot of social/cultural context

■ 🙌 Even 🙌 structures 🙌 come 🙌 with 🙌
social 🙌 context 🙌 attached 🙌



#1: Signs and signifiers in generator

Juxtaposition is powerful

- Signifier + signifier + structure = **free meaning!**
- More cultural/narrative/social significance => more free meaning!
- **but** you abdicate control..
- ..and uncontrolled juxtaposition of socially heavy signifiers => **risk of telling the wrong stories**

A pregnant football player carrying a briefcase leaves t
A few lanky grad students orders Lostmind Barrels Pet
A hungover witch dressed entirely in pink orders Stag
Decadence
A pair of gossipy clowns orders Stagehaven Decadence
A group of silver-haired strangers orders Lavender Ro
Chenin Blanc
A scowling old man orders Fresh Capybara Barrels Syr
A chatty gentleman leaves the cafe
A gossipy priest clutching a brown paper bag leaves
An outgoing clown carrying a stack of thick books le
A crying supermodel orders Fresh Capybara Barrels
A person orders Lavender Robin Cellars Chenin Blar
A surfer and a mournful catgirl with a British accent
Stagehaven Decadence
A sweaty 20-something carrying a boombox orders
Capybara Barrels Syrah

<http://tinysubversions.com/notes/transphobic-joke-detection/>

#2: Real location, real content, real issues

Where can an algorithm get lots of “significant”
input? (reality!)

What do you do with it?

#2: Real location, real content, real issues

- Generative systems often take input
 - Seed values
 - User choices (intentional or not)
 - Photographs or images
 - Text corpora
 - Maps or room data (augmented reality)

Terry Pratchett NERDS There opening night, dressed in sequins and drinking champagne to TEACH ALGORITHMS.

— ME

We'll Guess Your Age Based On What Type Of Existential Crisis You're Having

You got: You're 36 years old

You're 36 years old but you still get ID'ed. All. The. Time.

#2: Real location, real content, real issues

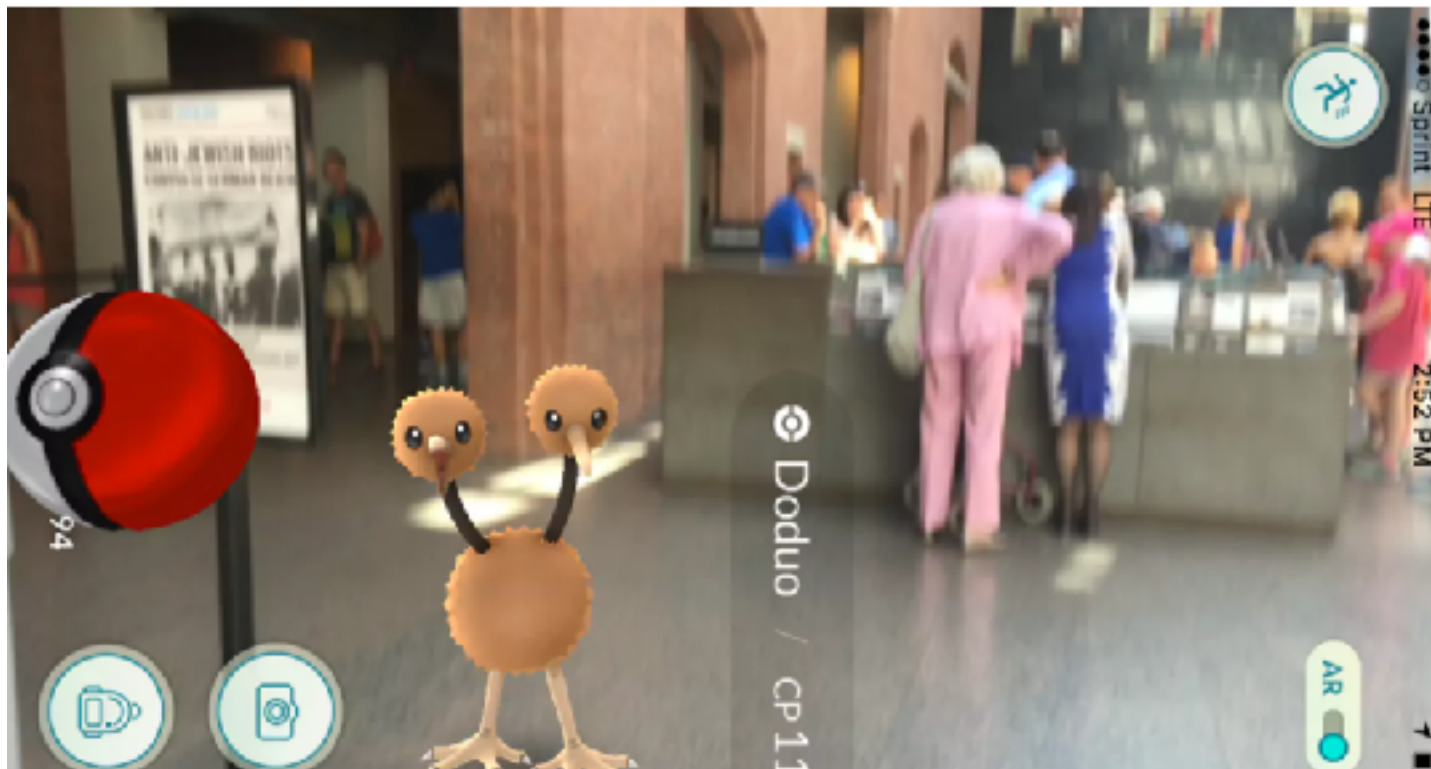
- Whose data are you playing with?
 - Did they consent for it to be used?
 - Used like **that**?
 - Can a surprising and emergent generator have informed consent? How will people revoke consent? (reroll, delete, mark boundaries, etc)
 - Are you opening a gamespace in someone else's home?

#2: Real location, real content, real issues

The Switch

Holocaust Museum to visitors: Please stop catching Pokémon here

By [Andrea Peterson](#) July 12, 2016



#2: Real location, real content, real issues

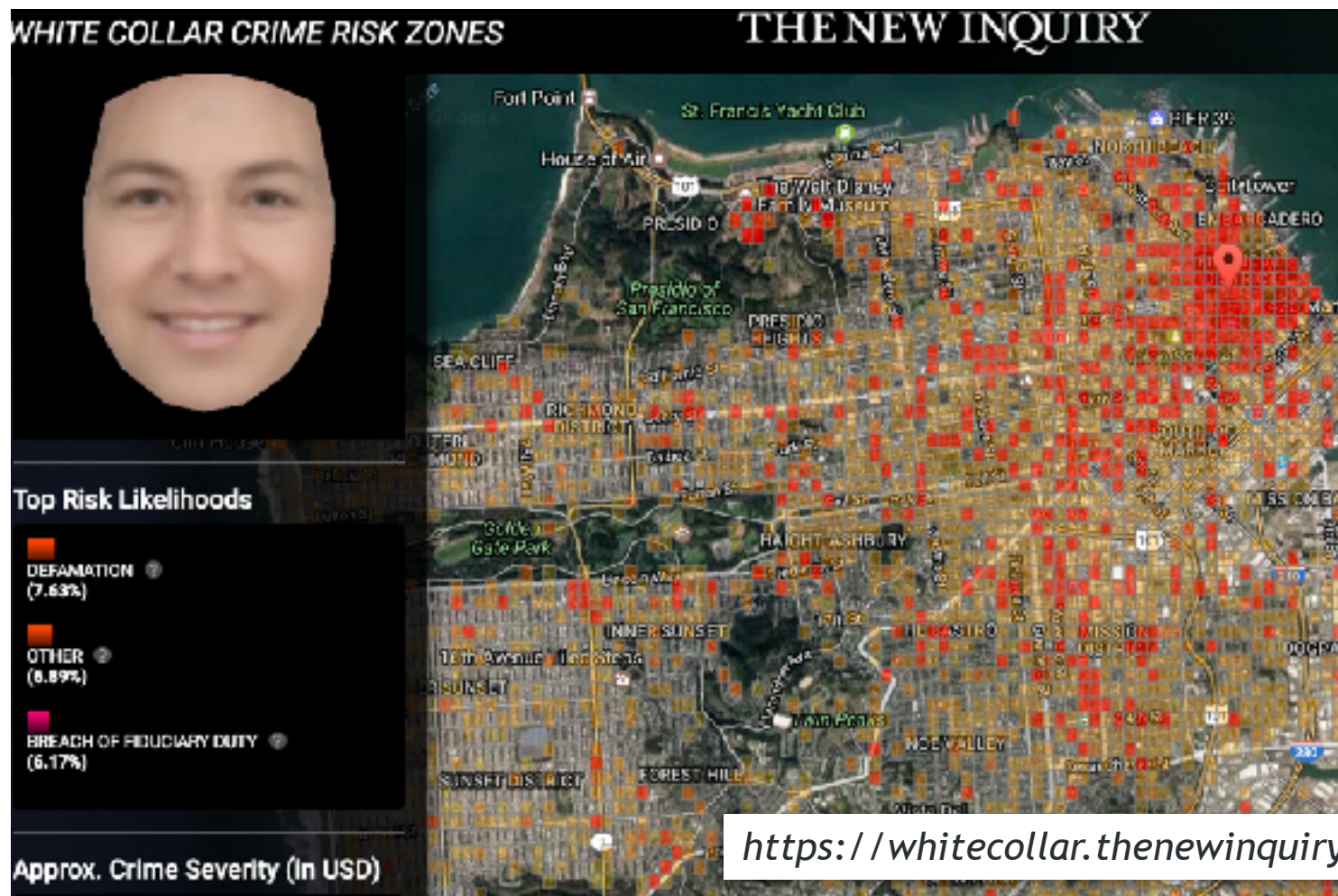
Every Rat in NYC (That People Complained About in 2016)

Source: 2016 Rats [NYC Open Data on 311 calls for rat sightings](#), via Jeremy Singer-Vine's newsletter. Click on a rat dot to learn about them. Their pics are from nearby, but may not have been taken by the rat personally. (Created with @GalaxyKate's [Tracery.js](#) and the flickr API. For [@savasavasava](#) and [@meetar](#) and [@CaseyG.](#))



Attach generatively shuffled signifiers to physical location?
Signifiers(context) + location(context) = double context!

#2: Real location, real content, real issues



Attach generatively shuffled signifiers to physical location?
Signifiers(context) + location(context) = double context!

#2: Real location, real content, real issues

Generativity + Reality = [Meaning] + ?????

#3: Generativity in social environments

- Generative agents sharing social space with humans
 - Posting, following, responding, reacting, liking
 - Harassing, stealing, reposting, interrupting, decontextualizing, derailing
 - Who “owns” what the bot generates?
 - The author or the bot?
 - The person who requested it, the person talking in the conversation?
The person whose data was used to generate it?

#3: Generativity in social environments

■ What creates context in a social environment?

- Social expectations (**etiquette**) and conventions (**locally shared values, memes and language use**)
- Status and social standing (bots as servant)
 - Which social groups does this bot belong to?
- Social structures: “Am I talking to...”
 - “my friend/follower/ally”
 - “someone I’m conversing with”
 - “someone I interrupted”
 - “someone who just requested a commission”



#4: What is a person? Possibility & impossibility spaces

- A person is
 - Structures
 - Signifiers
 - Social expectations
 - Simulation
 - ?????



#4: What is a person? Possibility & impossibility spaces

- A person is
 - A name, health data and occupation (Oregon Trail)
 - A table of ever-changing needs (the Sims)
 - A gender, age, attractiveness, skills, fears, set of chemical dependencies and injuries (Rimworld)
 - One of three pronouns, possessions, and a crew of cannibals (Sunless Seas)
 - In the simulation or in the UI?
 - **System-visible vs user-visible properties**

#4: What is a person? Possibility & impossibility spaces

- Gender is a:
 - Boolean
 - Enum
 - Floating point number
 - Vector
 - String
 - Lookup table of event handlers

#4: What is a person? Possibility & impossibility spaces

- Marriage is a: <https://qntm.org/gay>

Two

Believe it or not, this is actually a fractionally less stupid database schema.

```
males
- id
- forename
- surname
- birthdate
- wife_id (unique foreign key references column females.id, may
```

```
females
- id
- forename
- surname
- birthdate
```

This reduces the scope for ambiguity but it has suddenly become eye-poppingly sexist. Plus, what if you want to store information pertaining to the marriage itself? Like, the date it began?

Fourteen

(Hell's bells, he's still going.)

The legal ramifications of what I'm about to describe are unguessable. I have no idea what rights a civil union like the ones which would be possible below would have, nor do I have any idea what kind of *transhuman universe* would require so complex a system. This is the marriage database schema to take us up to the thirty-first century, people.

Right. Intransitive marriage.

```
humans
- id
- forename
- surname
- birthdate

binary_marriages
- id
- partner_1_id (foreign key references column humans.id)
- partner_2_id (foreign key references column humans.id)
- marriage_date
- divorce_date (NULL if still married)
```

In a transitive marriage, everybody is married to everybody else.

#4: What is a person? Possibility & impossibility spaces

System-visible vs user-visible properties

- Often system-visible:
 - **Health, inventory, skill bonuses** & abilities, nationality/allegiance, morality (Ultima-style)
- Often user-visible but not system-visible:
 - **Gender, ethnicity, presentation**, appearance, personal history, name (and other social signifiers)
- Rarely represented in generative systems
 - **Religion** (except as allegiance/morality), pregnancy, mental health, legal power

#4: What is a person? Possibility & impossibility spaces

Any generative system is a **map** of a space

- It includes some features that are relevant for the use case
 - It simplifies other features
 - It obscures or ignores the rest
-
- What features did you obscure, what features did you highlight?
 - How does that inform how this system can be used? What kind of people it can represent?

- Selecting and juxtaposing signifiers
- Deciding what (how/who) to simulate
- Engaging in a social space
- Making use of people's data

Describing people

Simulating people

With people

About people