



Can DNA Be Speech?

14th Annual Intellectual Property Scholars Conference

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What do these things have in common?

- Cigarette butts in the streets of NYC
- William Shakespeare
- A glowing bunny



Protagonists

A Funny Story About DNA...

If You Look a Little Closer...



www.dnalc.org

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The Big Picture

Raising Interesting Questions

Three Areas of Interest

Free Speech

Intellectual Property

Privacy

Your DNA speaks - do you have a choice?: Jorge Roig at TEDxCharleston



My TED Talk!

<http://tedxtalks.ted.com/video/Your-DNA-Speaks-Do-You-Have-a-Ch>
Or just Google "Roig and DNA"

Information as Speech

- ◊ Is informational content sufficient?
 - ◊ Big Data
 - ◊ *Sorrell*
- ◊ Who can speak?
 - ◊ Computer Speech
 - ◊ Monkey Selfie!

DNA Is More

Expressiveness
Medium
Intentionality

Assessing Speech

**Human
Activities**

**Social
Interactions**

**First Amendment
Values**

Activities that Use DNA's Speech Characteristics

Three Types of Activities

- o DNA as Message
- o DNA as Code
- o Phenotype as Message

DNA as Message

Picking up cigarette butts in NYC
Genopolitics



Cigarette Butts in NYC

Stranger Visions, HEATHER DEWEY-HAGBORG,
[http://deweyhagborg.com/strangervisions/
about.html](http://deweyhagborg.com/strangervisions/about.html) (last visited Aug. 8, 2014)

Potential IP Issues

- o Copyright
 - o Originality
 - o Authorship
 - o Ownership
 - o Joint Ownership?
 - o Licensing?
- o Right of Publicity

Genopolitics

- Relationship between:
 - DNA
 - Political Ideology
 - Political Engagement
- Troubling potential uses:
 - Mandated Gene Therapy
 - Genetic Disenfranchisement
 - Choice Manipulation – Private Actors

DNA as Code

DNA Libraries

DNA Libraries

- Jesse Emspak, *DNA Stores MLK's Speech, Shakespeare's Sonnets*, DISCOVERY NEWS, <http://news.discovery.com/tech/biotechnology/dna-stores-mlk-speech-shakespeare-130123.htm> (Jan. 23, 2013, 1:08 PM ET)
- GEORGE CHURCH AND ED REGIS, *REGENESIS: HOW SYNTHETIC BIOLOGY WILL REINVENT NATURE AND OURSELVES IN DNA* (2012)

The Library of Congress in One Milligram of DNA!

Potential IP Issues

- o Right to Reproduce
 - o Copies?
- o Fair Use
 - o Google Books
 - o Storage and Preservation

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Phenotype as Message

Bio Art
Designer Babies



**And the One We've All
Been Waiting For...**

Alba, the Glowing Bunny



The Edunia



All Sorts of Questions...

- What is art?
 - Glowing fish at your local pet store
 - Designer Children
 - Using your own genome
- Can you own the genome of a new species?
 - Micro vs. macro
 - Patents and fair use

THANK YOU!!!!!!

