How Madonna, Rap, and Google Link to More Effective Health Messaging

Text Analytics Supports Targeted Health Messages

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NIDA for Teens Website

Site mission: To educate adolescents, parents and teachers on the science behind drug abuse by showing how drugs affect the brain and body.

Site receives over 1.6M visits per year.
NIDA for Teens Website

Site features serves teens, teachers, school administrators and parents.

Sara Bellum Blog

Meth Mouth and Crank Bugs: Meth-a-morphosis

TH-A-MORPHO

Sara Bellum

July 11, 2012

Few BBs have gotten as many grossed-out reactions from readers as this one from January 2010—check out what meth does to your body and let us know in comments what you think.

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Comments

Drug Facts

MDMA (Ecstasy or Molly)

What Is MDMA (Ecstasy or Molly)?

"Ecstasy" and "Molly" are slang terms for MDMA, short for 3,4-methylenedioxymethamphetamine, a molecule that's nearly as long as the all-night parties where MDMA is often used. That's why MDMA has been called a "club drug." It has effects similar to those of other stimulants, and it often makes the person feel like everyone is his or her friend, even when that's not the case.

MDMA is man-made—it doesn't come from a plant like marijuana or tobacco. Other chemicals or substances—such as caffeine—
“Have You Seen Molly?”

As we were monitoring NIDA for Teens search engine traffic, we started seeing molly – and a lot of her!

What is molly and how did we find her?

#28 on the list
“Have You Seen Molly?”

Why we started seeing molly: A concert and follow-up blog post.

Meet Molly: The Truth About MDMA

Sara Bellum
May 01, 2012

Recently, Madonna created some buzz when she mentioned “Molly” at Miami’s Ultra Music Festival. Madonna shouted to the audience, “How many people in the crowd have seen Molly?” Madonna was talking about the song “Have You Seen Molly?” by Cedric Gervais. However, “Molly” is also a nickname for MDMA. Many news outlets reported that the legendary pop singer was talking about drugs, not the song. Madonna responded by saying, “I don’t support drug use and I never have.”

All About Molly

We were happy to hear that Madonna doesn’t encourage her fans to use MDMA, because it’s a very dangerous drug. MDMA is manufactured—similar to the stimulant methamphetamine. It’s commonly used at dance clubs and concerts, and can make people feel like they have more energy and less fear. But the myths about MDMA being pure and safe are definitely not true.
“Have You Seen Molly?”

Madonna referencing the song *Have You Seen Molly* by the French DJ, Cedric Gervais at the Ultra Music Festival in Miami in March 2012.
“Have You Seen Molly?”

Molly-related search visits to NIDA for Teens increased site traffic significantly.
“Have You Seen Molly?”

Why US pop has gone mad for Molly, aka ecstasy

Molly Madness: A Club Drug Goes Viral
Is Rihanna Popping Molly’s With Chris Brown On Her Birthday? [PHOTOS]

Von Miller’s drug test failed because of marijuana and Molly?

Drug Overdoses at Music Festival Kill 1, Hospitalizes Dozens

Meet Molly, the dangerous "it" girl

Baseball star ame busted in ‘Molly’ ring

Miley Cyrus Admits To Singing About Molly On ‘We Can’t Stop’

So why did NIDA for Teens get all the molly traffic?

Was it Madonna?

Or something else?
“Have You Seen Molly?”

Comparison of visits to Google Trend’s Search Interest Index.

Method: Created a test set of 20 molly search terms in Google Trends and created a Cumulative Search Interest Index. Statistically correlated against visits.
NIDA for Teens Content Development

Initial Lessons:

1. Content is required to draw visitors. You build it and they will come.

2. Audience must be considered in developing content. Though Madonna kicked things off, NIDA for Teens’ teen audience is more into rap. A second blog post reflecting this was run in April 2013.
Rap is Finding Molly

Initial Lessons:

3. Don’t underestimate the influence of popular media and music. Rap music invoked the curiosity of teens concerning molly, bringing them to the site.
Rap is Finding Molly

New rap artist Trinidad James’ album, *All Gold Everything*, was a huge hit, as he sung about how he sweats when he pops a molly.
A Search Text Analytics Primer

(1) Search Syntax: [Intent] (optional) [Primary Topic] (required), [Sub-Topic] (optional)
  Example: Search = “what is molly made of”
(2) Syntax Applied:
  what is [intent = question] molly [primary topic] made of [sub-topic]
(3) Syntax Applied as a Taxonomy:
  molly [primary topic] composition (of molly)

Once the taxonomy has been developed it can be applied in an automated fashion using statistics and natural language processing, proximity, sentiment and passion to determine trends and better understand audience interests.

For this project, we used low-cost, easily obtainable tools.
Text Analytics Applied to Molly

The Taxonomy Applied

Molly = Primary Drug Abuse Topic

Sub-Topic Taxonomy

1. **Facts** (general facts and information; what is molly)
2. **Composition** (what is in molly; chemical composition)
3. **Effects** (how molly affects the brain; the body, emotions; chances of death)
4. **General/Other** (searches with no sub-topic; other topics not elsewhere classified)
Creating search taxonomies help us to better understand what brought visitors to the website, but sequencing search taxonomies over time help us to see how searches evolve.
Text Analytics Applied to Molly

Molly-related searches evolved over time in a way that was understandable.

Taxonomy Snapshots by Month
Text Analytics Applied to Molly

Inputs Affecting Molly Searches

Music/Popular Songs
- **Madonna:** Limited effects since NIDA for Teens audience is generally younger and Madonna appeals to an older audience.
- **Rap Artists:** The main input affecting molly searches.
- **Miley Cyrus and related artists:** A relatively new input.

Events/News
- **Purity of molly:** Many molly pills are cut with bath salts and other compounds.
- **Concert events:** Dozens hospitalized and one death after taking molly at a Washington state music festival.
- **Popular figures:** Their use of molly.

More Lessons
1. Web search is a living, breathing animal. An audience’s understanding of a topic changes over time and is affected by news events and other inputs.
Text Analytics Applied to Molly

More Lessons

2. Use text analytics to gain a better understanding of the dynamics of these inputs. E.g. Is it possible that visitors were looking at the composition of molly because of concerns with impurities?

3. Use these search text analytics results to create more content to inform youth concerning the dangers of molly so that perhaps in the near future we can begin to say good-bye to molly.
More Lessons

4. Use text analytics to build a drugs of abuse search monitoring program for NIDA for Teens. Such a monitoring program can easily be applied to your particular health area.
Thank You!

Credits
Stephanie Adams, VP, Data Analytics. Project strategy, analytics support and direction.

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Questions About This Presentation
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