Analyzing Tweets About Online Dating: What's Love Got To Do With It?

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You’ve Got Options

• Online dating industry: ~2 billion a year
• Almost 4000 online dating sites/apps
• SeaCaptainDate, The Atlasphere (for Ayn Rand fans), TrekPassions, DateMyPet
• 33% of couples have met online; projected to be 70% by 2040
Which sites are the most popular?

- By market share, IAC is number one with Match.com, OkCupid, and Tinder. (27%)
- eHarmony (13%), Zoosk (5.1%)
- Spark Networks (JDate, ChristianMingle) 3.2%
# Online Dating Sites

<table>
<thead>
<tr>
<th>Dating Site</th>
<th>Claim</th>
</tr>
</thead>
</table>
| eHarmony            | “Our bold, scientific approach to matching means more quality dates with deeply compatible singles that truly understand you.”  
                       “patented Compatibility Matching System®”                                                                                     |
| OkCupid             | “Our matching algorithm helps you find the right people.”  
                       “We use math to get you dates.”                                                                                               |
| Chemistry.com       | “‘World-famous’ personality test that puts you into one of 4 categories (Director, builder, negotiator, explorer)”  
                       Ring finger > index finger: correlates with a personality that is more logical, decisive, and ambitious.                  |
| Match.com           | “We create romantic opportunities so singles are more likely to find someone special.”                                             |
| InstantChemistry    | “Find out how genetics and psychology influence your relationship.”                                                                     |
| Whim                | “Go out on a date—tonight!”                                                                                                         |
Most popular, according to Twitter..
Google Data Trends - 2014

- 2014 saw 'dating app' searches reach their highest point in history, while ‘internet dating’ decreased, having peaked in 2006. Romance was alive and well, with 'find girlfriend' searched 100x more than 'find boyfriend.' Despite the latest tech, we strive for the traditional, with searches for 'marriage' outpacing 'divorce.'
What are people saying?

• Do people Tweet differently about Tinder than eHarmony?

• Enter KNIME...
Getting the Tweets

GATHER TWEETS

Table Creator

TableRow To Variable Loop Start

Twitter Search

Loop End

Cell Replacer

Table Writer

List of search terms (online dating sites)

Begin looping on search terms

Perform search

Add in name of dating site

Set up Twitter credentials

Write data

Table Creator Settings

Input line:

<table>
<thead>
<tr>
<th>Row</th>
<th>column1</th>
<th>column2</th>
<th>column3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row0</td>
<td>@okcupid OR okcupid OR &quot;ok cupid&quot;</td>
<td>okcupid</td>
<td>0</td>
</tr>
<tr>
<td>Row1</td>
<td>@tinder OR tinder</td>
<td>tinder</td>
<td>1</td>
</tr>
<tr>
<td>Row2</td>
<td>@eharmony OR eharmony OR eharmony.com</td>
<td>eharmony</td>
<td>2</td>
</tr>
<tr>
<td>Row3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Processing Workflows

- Sort and Process Tweets
  - eHarmony Tweets
  - Tinder Tweets
  - OkCupid Tweets

- Row Filter
  - eHarmony Processing
  - Tinder Processing
  - OkCupid Processing

- Node 52
  - Node 51
  - Node 49

- All words
  - Tag Cloud
  - eHarmony words (all)
  - Tinder words (all)
  - okCupid words (all)

- Unique
  - Reference Row Filter
  - Remove words that are also in Tinder
  - Remove words that are also in OkCupid

- Node 59
  - Node 58
  - Node 57

- Tag Cloud
  - eHarmony words only (not in Tinder or OkCupid)
  - Tinder words only
  - OK Cupid Words Only
Processing Workflows
eHarmony – Unique Words

- Lots of usernames
  - shyraabaaby
- eHarmony is hiring
  - jobopening, jobvite, director, jobposting
- Promotionals
  - promo, lovefinder
- eHarmony founder
  - neil, clark, warren
- Articles
  - tone-deaf, disappearing,stoners,swindled
- Snark
  - baggage
OkCupid—Unique Words

- Reddit
  - rokcupid
- Comedian pranking
  - scammer, takedown, expertly
- Women types fast
  - schooled, accuses, brilliantly
- Dissatisfied customers
  - okstupid
- New book by founder
  - rudder, dataclsym
- Future of dating
  - Cyborg
- Founder
  - Yagan
- Blog
  - OkTrends
Sentiment Workflows
Sentiment Workflows
Sentiment Analysis - Tinder

Slightly positive overall: most between 0.0 & 0.2
Sentiment Analysis – Tag Clouds

Tinder
- back
- beauti
- fat
- avoid
- benefici
- forget
- least
- entertain
- attract
- bold
- frantic
- littl
- weird
- lead
- desper
- allow
- bore
- friend
- mean
- welcom
- sure
- vintag
- interest
- death
- ab
- desper
- lone
- secur
- import
- happi
- honestly
- real
- incredibili
- mistak
- white
- upgrad
- ridicul
- unrealist
- humoetern
- lose
- spirit
- learn
- help
- too
- feat
- great
- readi
- idol
- advi
- move
- wish
- well
- too
- pro
- troubl
- human
- opportun
- witti
- will
- free
- like
- swipe
- need
- top
- perfect
- wonder
- cheap
- fun
- problem
- faith
- down
- spot
- hope
- sweet
- holi
- busi
- graft
- real
- funni
- low
- gold
- suggest
- help
- dead

eHarmony
- blame
- kind
- bad
- block
- laugh
- right
- joke
- back
- close
- littl
- romant
- hurt
- reward
- jealou
- allow
-进口
- happi
- honestly
- real
- incredibili
- support
- person
- reason
- need
- bitch
- basic
- proud
- fine
- mad
- sure
- pretti
- will
- want
- better
- top
- argu
- promis
- free
- miss
- tire
- sorri
- low
- thank
- wrong
- pride
- harmoni
- friend
- natur
- true
- special
- wish
- plenti
- gold
- accept
- stand
- pleas
- game

OkCupid
- annoy
- dragon
- iron
- divorc
- avoid
- elimin
- irrit
- sad
- interest
- disturb
- awesom
- embarrass
- joke
- scare
- block
- right
- inspir
- disappoint
- extrem
- kid
- sexi
- definit
- person
- better
- reward
- impossibili
- cute
- fight
- learn
- spite
- enjoi
- pleas
- weird
- obvious
- best
- reckless
- import
- least
- spot
- fat
- poison
- will
- light
- storm
- favorit
- real
- free
- serious
- friend
- just
- try
- worst
- long
- wow
- mean
- wrong
- pretti
- imaginari
- menac
- stupid
- geniu
- sorry
- mess
- success
- heart
- straight
- too
- love
- littl
- weed
- perfect
- horribli
- flatter
- mind
- suppos
- honestly
- good
- hot
- war
- open
- holi
- content
- back
- game
- mistak
- terrifi
- hope
- true
- odd
- help
- confus
Sentiment Analysis – Most Negative

- Positive & Negative
  - Fun
- Why negative?
  - Laugh
- Scary stuff
  - Attack, scary, death, panic, devil
- Negative
  - Hate, weird, stupid, desperate
- Misc
  - Garbage, fraud, freak, drunk
- Dating sites
  - Swipe, crush
Sentiment Analysis – Most Positive

- Funni
- Love
- Back
- Right (right swiping!)
- Okay
- Better
- Hilarious
- Friend
- Success
- Amazing
- Hot
- Strong
- Genuine
- Care
- Hope

bless
care hail basic
catchi heart success goddamn
confid honestly sure okai strong genuine
hope swipe pro right joke star friendli
terrifi talent free back better interest
well top live like love thank amaz hot
want friend funni hilar i good
What about love?

• 3\textsuperscript{rd} most common word for eHarmony
• 7\textsuperscript{th} for Tinder
• 20\textsuperscript{th} for OkCupid
• Google Trends 2014: 'love' was most searched in English, fending off the Spanish 'amor' and the Malaysian 'cinta.'
Theme River - eHarmony
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