Text analytics: a case study in its application for market researchers

Charlotte Crichton and Ruva Mankola
Text analytics is a growing business
The technology has advanced considerably
“Although they are very expensive, ASC one day conferences have brilliant speakers”
Text analytics in market research
Top Software for Text Analysis, Text Mining, Text Analytics

<table>
<thead>
<tr>
<th>Software/Metric</th>
<th>Score 1</th>
<th>Score 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexalytics, IBM Watson AlchemyAPI, Provalis Research Text Analytics, SYSSOMOS, Expert System, RapidMiner Text Mining Extension, Clarabridge Synapsify, Medallia, Abzooba, General Sentiment, Semantria, Kana, Buzzlogix, Averbis, AYLIEN, Brainspace, OdinText, Loop Content, LingPipe, Megaputer, Tasta Analytics, Linguasys, mText, MeaningCloud, Oracle Endeca Information Discovery, R, DiscoverText, Angoos KnowledgeREADER, Forest for OpenText, Smartlogic, Narrative Science Quill, Microsoft Azure Text Analytics API, Dataa, Reuters Open Calais, Verint Systems, AUTINDEX, Text2data, Saplo, SYST, Text Analytics.</td>
<td>7.6</td>
<td>9.2</td>
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**Thematic**

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<tbody>
<tr>
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<td>9.5</td>
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<tr>
<td>Intellify</td>
<td>7.6</td>
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<td>SYSWAY</td>
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</tr>
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<td>DownloadBox</td>
<td>7.6</td>
<td>299.25</td>
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<tr>
<td>TheySaid</td>
<td>7.7</td>
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**Google Cloud Prediction API**

<table>
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<tbody>
<tr>
<td>Google Cloud Prediction API</td>
<td>8.9</td>
<td>8.2</td>
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**Semantics API**

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<tbody>
<tr>
<td>Rocket Search and Text Analytics</td>
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<tr>
<td>Open Calais</td>
<td>7.6</td>
<td>29.5</td>
</tr>
<tr>
<td>Google Cloud Prediction API</td>
<td>8.9</td>
<td>9.42.5</td>
</tr>
</tbody>
</table>
A Mars a day....
Our study

Work & Play
Words associated with work
Words associated with leisure
Comparing a closed and open-ended question

- **Boring**
  - Happiness index = 36
  - Do not mention boring

- **Stress**
  - Happiness index = 52
  - Do not mention stress

- **Fun**
  - Happiness index = 78
  - Do not mention fun

- **Interesting**
  - Happiness index = 88

Rating of happiness with current job on a 0-100 scale
Average happiness index = 63
There are different approaches to sentiment analysis

- Lexicon-based
- Machine learning
Differences in sentiment analysis

<table>
<thead>
<tr>
<th></th>
<th>Q</th>
<th>Google</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>🔻</td>
<td>🔺</td>
</tr>
<tr>
<td>Leisure</td>
<td>🔺</td>
<td>🔻</td>
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</table>
Comparing closed and open-ended responses

<table>
<thead>
<tr>
<th>Rating</th>
<th>0-20</th>
<th>21-40</th>
<th>41-60</th>
<th>61-80</th>
<th>81-100</th>
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<tbody>
<tr>
<td>Sentiment</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-0.3</td>
<td>0</td>
<td>+0.4</td>
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Happiness with overall work-life balance
“Although they are very expensive, ASC one day conferences have brilliant speakers”
GoPro HERO 5 Black Waterproof 4K Sports Camera

- 407 customer reviews
- Mean rating = 3.9

RRP: £299.99
Price: £261.00 & FREE Delivery in the UK. Delivery Details
You Save: £38.99 (13%)

In stock.
Want it delivered by tomorrow, 25 Sep.? Order within 2 hrs 20 mins and choose One-Day Delivery at checkout. Details
Sold by BMTech and Fulfilled by Amazon. Gift-wrap available.

Note: This item is eligible for click and collect. Details
13 new from £244.99  5 used from £209.99

Style Name: 2017 Camera

- 2017 Camera
- Arm Bundle
- Battery Bundle
- Camera (2016 Discontinued Model)
- Charger Bundle
- Chest Harness Bundle
- Dive Case Bundle
- GoPro Hero 5 Black Starter Kit
- Grip Bundle
- Diving Bundle
- Pole Bundle

- Video: 4K50 / 2.7K60 / 1440p80 / 1080p120 / 960p120 / 720p240
- Waterproof without housing to 10 m (33 ft)
- 2-inch touch display. Shake free
- Voice control on camera
- HERO5 Black Camera The Frame (HERO5 Black) Rechargeable Battery (HERO5 Black) Curved Adhesive Mount Flat Adhesive Mount Mounting Buckle USB-C Cable
- Compatible with SanDisk Ultra 64GB microSDXC Memory Card
AKASO EK7000 4K Sport Action Camera Ultra HD Camcorder

- 932 customer reviews
- Mean rating = 4.7

Price: £99.99
Sale: £59.99 & FREE Delivery in the UK. Delivery Details
You Save: £40.00 (40%)

Promotion Message
Buy 1, get a discount on selected products 2 promotions

In stock.
Want it delivered by tomorrow, 25 Sep.? Order within 2 hrs 13 mins and choose One-Day Delivery at checkout. Details

Sold by ChestStore and Fulfilled by Amazon. Gift-wrap available.

Note: This item is eligible for click and collect. Details

2 new from £59.99

Colour Name: Silver

- 4K Ultra HD Action Camera. Professional 4K 25fps & 2.7K 30fps video with 12MP photos at up to 30 frames per second for incredible photos, which is 4 times the resolution of traditional HD cameras. Capture and share your world in a fantastic resolution.
- Wireless Wrist Remote Control Sports Camera. Featuring a wrist 2.4G wireless RF Remote Control, you can capture your world in an all-new way. Controlling the camera, framing shots or recording video are now ultra convenient—just press the button of the Remote Control. No more looking to your Sports Camera to start and stop recordings or snap photos. Full control your Sports Camera with the remote.
- Longer Battery Life. AKASO EK7000 action camera comes with 2 rechargeable 1050mAh batteries. Each 1050mAh battery can record up to 90 minutes. You will no more worry about the recording time for this action camera.
- Built-In WiFi & HDMI edit & share your action in minutes. Just download App(Smart DV) on your phone or tablet and connect with this action camera. Then operate or review the images or videos via Android or iOS devices. WiFi signal ranges up to 10 meters.
- 100 Feet(30m) waterproof camera. AKASO EK7000 is designed to withstand extreme environments. Equipped with IP68 waterproof case, durable waterproof to 100 Feet (30m) ideal for water sports like swimming, drifting, surfing etc. Come along with tons of free accessories, you can transform it to fit various indoor and outdoor extreme activities.
"This camera was great. I used it on a dive down to 71 feet without any problems. Great pictures and videos at an excellent price."

"I tried mine out today and the video is outstanding! For the money the quality of the video is just off the hook. I mounted it on my motorcycle and took it on a 50 mile ride and it was easy to use and did a very good job of capturing the experience. It has good colour balance and even looking in the suns direction, again it did a great job.. glad I bought mine...!"

"This is a fantastic little camera! I bought it on an impulse just to see what it was like, and I couldn’t be happier. The price is great and includes a number of accessories. You have everything you need to get started right away. It's easy to use."
GoPro HERO 5 – negative rating (=1)

“The battery is very poor and an expensive camera is unusable without spending more money to buy card, extra batteries and charger. The battery doesn’t charge while you’re recording - instead it consumes slowly and that gives you about 4-5 hours of recording when you have it 100% charged and plugged in. It seems like a big scam from GoPro. I’m very very disappointed as I wanted a GOPro for a couple of years now.”

“I have requested to return this item. The camera case came with manufacturing flaws, nothing major but not what you expect for your money. The camera was simple to use from the box but as the week progressed I slowly found flaws: The battery life, the connection issues to iPhone and iPad, the camera failing to charge unless the battery is firstly removed, the camera freezing up and displaying “saving” before having to remove the battery to get it working again, the tiny charging cable supplied.”
More testing and exploration is needed
Text analytics will continue to develop

- Consolidation of tools
- Visualisation
- Better sentiment analysis?
Looking to the future
Thank you!