Uncovering Hidden Profit for Global Telco from Social Media Data

The UK telco market is mature and highly competitive with four mobile networks and more virtual (or "MVNO") players. The expectation of consumers is high. Brand loyalty, churn and differentiation are the main KPIs for operators.

Analysis of public customer data

WA applied its PrediCX software to publicly available customer data, primarily from Twitter. It did this across all the UK telcos with a social care feed, namely O2, EE, Vodafone, Three, Carphone Warehouse, GiffGaff, ID Mobile and Tesco Mobile. It focused on O2.

Concepts not Keywords

PrediCX is an automated machine learning platform the quickly and accurately generates models for text, using 'human-in-the-loop' technology i.e. it only needs minimum input from a non-data scientist. It took only a few hours to generate meaningful output, no matter how large the dataset, based on concepts instead of keywords and sentiment scoring.

What PrediCX found

Overall feedback

Approximately 30% of the messages from customers were actually about fraud and marketing concerns i.e. they were writing in to check whether suspicious contacts allegedly from their provider were genuine, and also to voice concerns about their provider's marketing activity either public advertisements, or via unwanted calls and messages. Clearly these issues were important to their customers, but nothing to do with being a telco and they represented opportunity for profit as we will discuss below.

Figure 1.
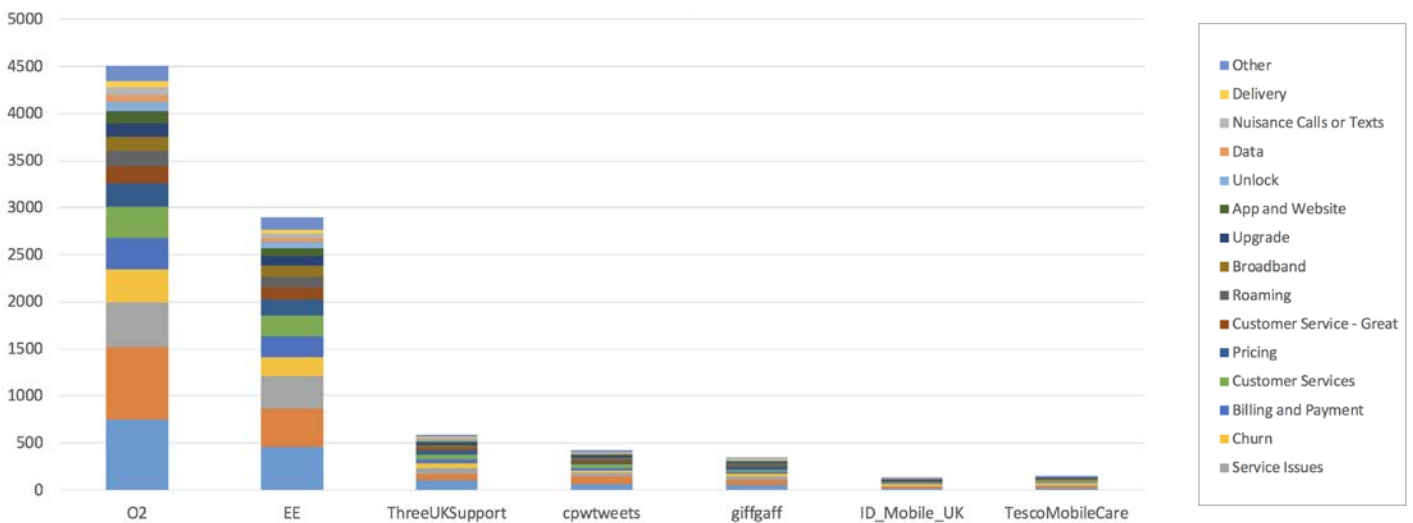
Counts for 25 May 18 to 14 Jun 18, queries only, no retweets. Vodafone & Virgin too small to show

Top issues for O2

Between 25 May 2018 and 14 June 2018 there were three spikes of activity on 29 May, 1 June and 4 June. These were across the board but there were noticeably concerns about not liking marketing, queries about offers (specifically O2's "Priority" scheme) and concerns around fraud.
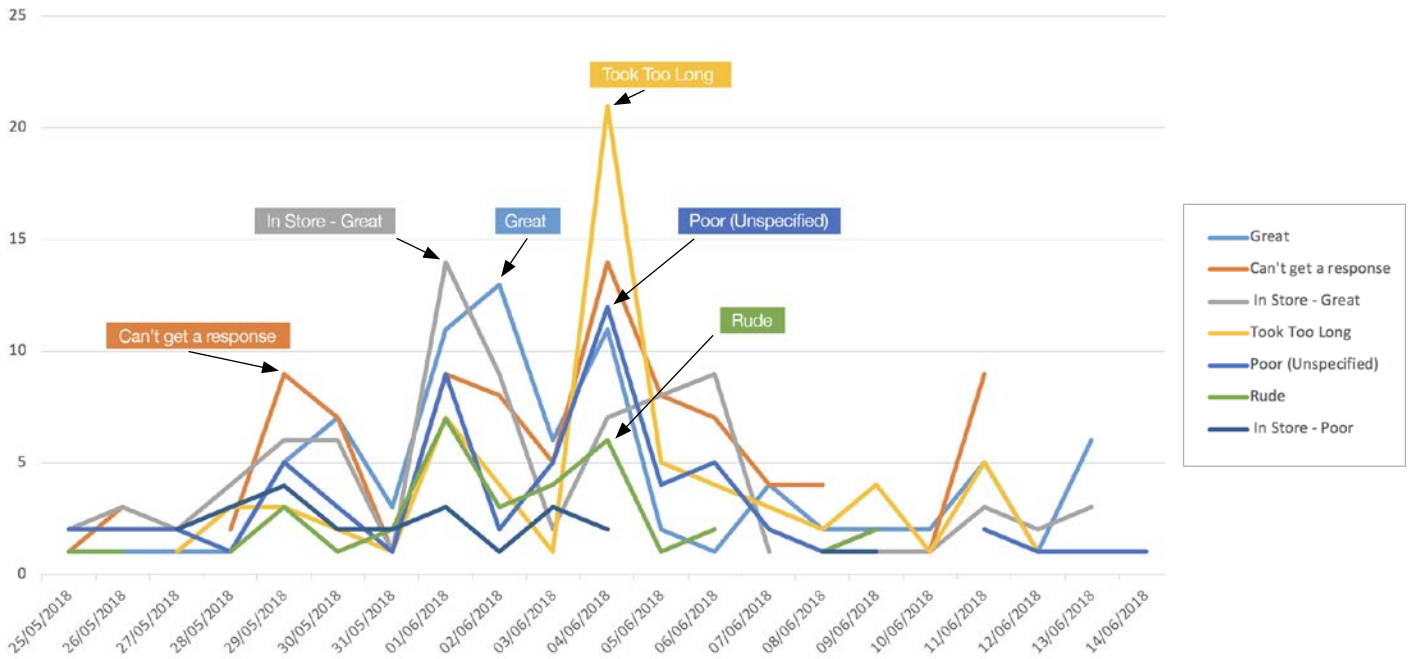
Figure 2.
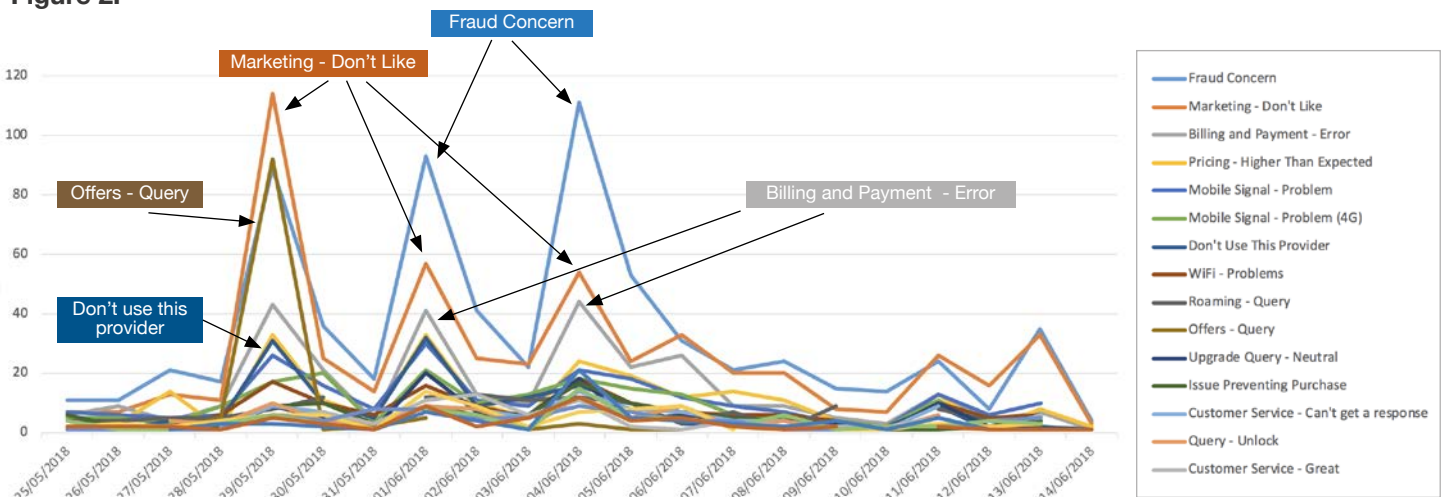
O2 Customer Services Queries

Interestingly, you can also see on these three dates an increase of customers not being able to get a response and saying to O2 that they took too long to answer (there is an anomaly of reports of great service in store on 1 June too).

Figure 3.

O2 Customers that Declared Churn

It is also clear that if you look at the declared churn concepts, they stand out on these dates, for examples customers declaring they're going to leave O2, advocating not to use O2 and expressing difficulty with making a purchase.

Figure 4.

Correlation analysis confirms that the root causes of churn were the responses taking too long and not getting a response (followed by some other factors such as pricing higher than expected for certain customers). Whilst it's unknown from the datasets whether customers did churn when they declared they would churn, it is easy to see that the marketing and fraud issues were causing an unplanned capacity constraint on the customer care centre leading to a loss in service levels which in turn led to a loss in satisfaction and churn.

What O2 could have saved with PrediCX

Further analysis of the customer concern concepts found two types of savings: Firstly, 45% of the responses could be automated with software such as PrediCX. For example, the fraud concerns could be responded to automatically to a customer (or to an agent first) saying: "thanks for the message, the telephone number 0800-XXX-XXXX is fine / not fine, please answer / ignore". This also applies to network signal checking and known issues such as website down etc. If

Automation would reduce handling costs by 45%

we assume a £2 handling cost per contact, automating this amount would effectively bring it down to £1.10. It could also automate other non-voice channels (and even help to speed up voice contacts to some extent).

Secondly, and more significantly, the issues which drive churn and the indicators of churn can be prioritised and dealt with appropriately. If we assume that between 20% and 50% of the root cause topics result in a churned customer, with prioritisation and appropriate action this number can be halved. Overall the volume of churners as a percentage of Tweeters goes from 8.9% to 4.4%. Given that each customer contributes around £10 profit per month on average, for every thousand Tweets, this represents an additional £5,300 to the bottom line. This is a significant number when scaled up (there are six thousand Tweets per month and this is a fraction of the millions of interactions per month across all channels). Potential savings are millions of pounds per month.

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Lastly, the insight into the issues and the root causes of those issues, enables O2 to make changes to its customer journey as well as feedback into its marketing effectiveness. The effects of these changes can be quantified not just as deflections from the contact centre, but obviations of likely-churning customers as well as improving the advocacy and brand equity. For this study from the data available, recommended improvements might be:

- Customer alerts to pre-empt attempted fraud, signal and other service issues, as well as focusing engineering investment to the areas which optimised customer satisfaction

- Fixing some of the customer effort issues associated with purchases and set up (purchasing data abroad and deliveries were the queries cited most often for causing frustration)

- Ensuring that emotive topics such as marketing themes and Priority tickets are dealt with in a co-ordinated way (there was a couple of specific issues during this period)

- Better proactively manage those customers and segments who expressed that pricing was higher-than-expected

- Identifying and retraining customer services staff where they were deemed unsatisfactory

- Also this can be used to judge marketing effectiveness from a campaign, i.e. by measuring the responses to the campaign itself.

Conclusion

Warwick Analytics and their software PrediCX was able to generate actionable insight potentially worth millions of pounds per month of opportunity for O2 within a few hours of work. By operationalising this and applying it across the other channels, O2 can focus on the actions with certainty which drive profitability and customer satisfaction.