# Building an engaging email marketing campaign using R

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#### Jeremy Horne

Freelance data strategist and scientist

**R** lover

Mad cricket fan

**Beer connoisseur** 



2016 – Real time media campaigns in R

2018 – Unlocking CRM value with R

2019 - Building a data science team around R

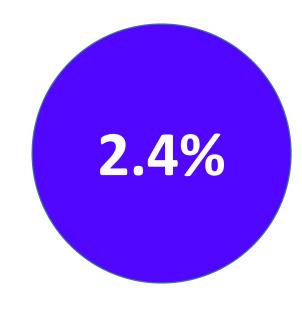




#### Email marketing is cheap - but hard!

Less than a penny

17.5%



To send an email in the UK

Average email open rate in the UK

Average email click rate in the UK

For every 1,000 emails sent, only 24 will be clicked on



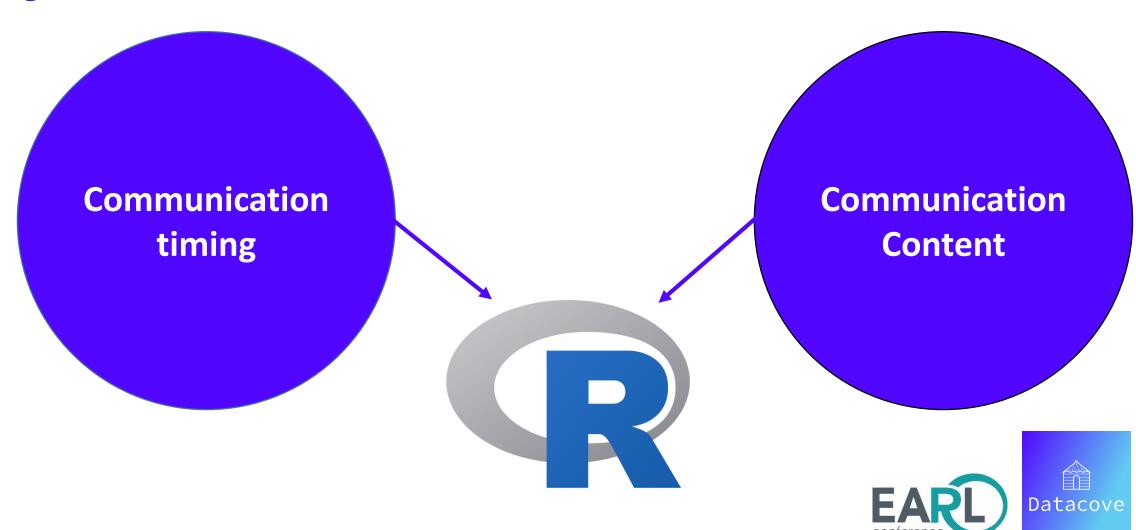


# How can I make my emails more engaging?





### Start by thinking about what you can control





### There are two ways we can optimise communication timing

Time of day



Day of week







#### How does R help with this?

Connect to your database

e.g. Salesforce CRM – salesforcer can help with this - or httr & jsonlite to connect to other APIs

Extract all email sends / opens / clicks

Need the time and date for each email send – and a 'measure' of if each was opened or clicked

Standardise time zones!

Don't assume a single time zone – check and convert accordingly!

Summarise by hour / weekday

Look at click and open rates using **tidyverse** – which hours work best? Which need more testing?

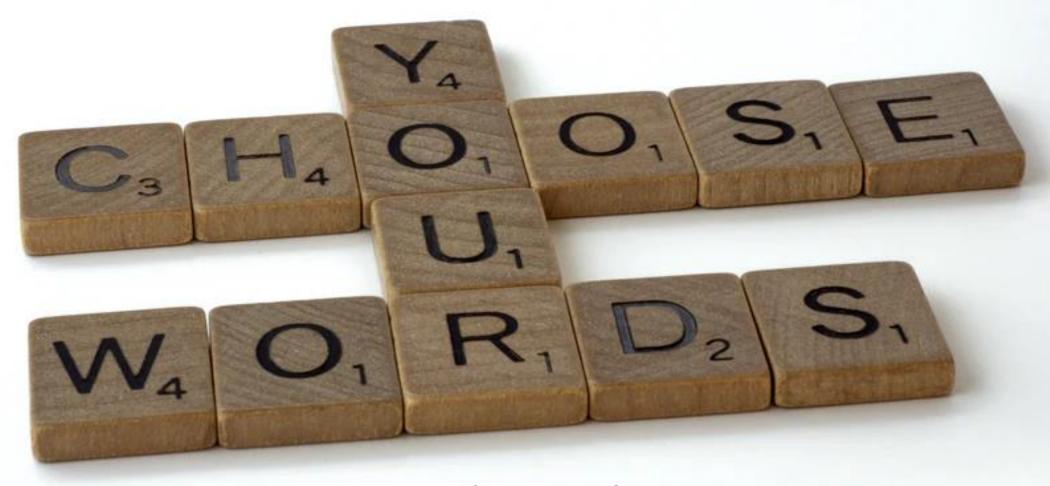




## # TEAMMONDAY 3-6 pm







Communication Content

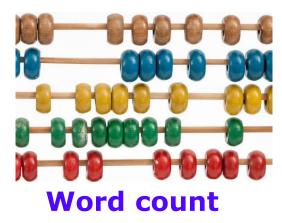




### There's a lot to think about with content



**Specific phrases** 





**Brand positioning** 



**External links** 



**Tone / Emotion** 





### Package options for text analytics



sentimentr
(sorry no hex)

Whole sentences

**Example 1** 

"I am happy"

tidytext



sentimentr



**Example 2** 

"I am not happy"

tidytext

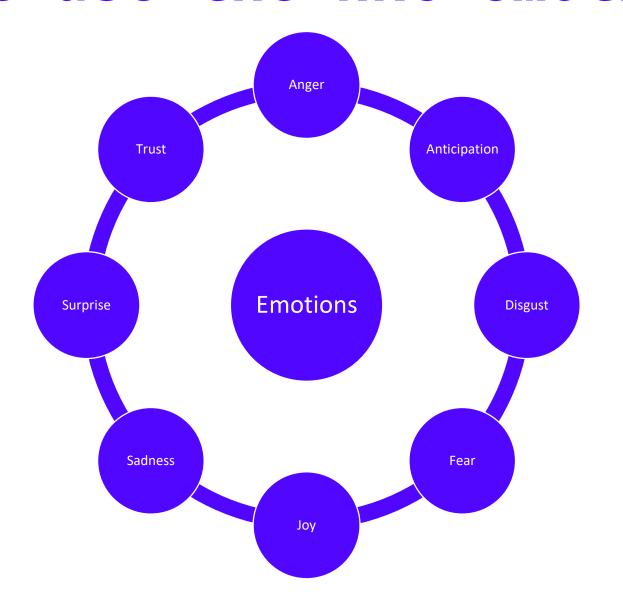


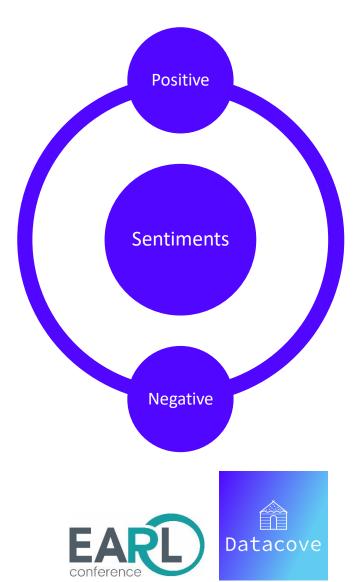
sentimentr





#### We use the NRC emotion lexicon





### Applying this to email marketing

Phrase 1:

"We can help you manage..."

Phrase 2:

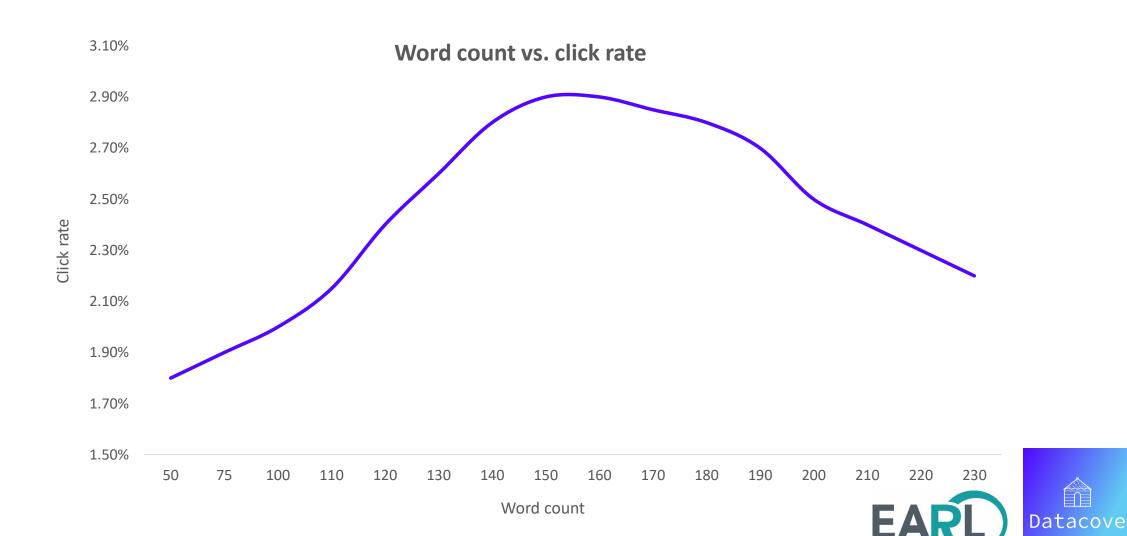
"Don't worry..."

Which phrase got better engagement?

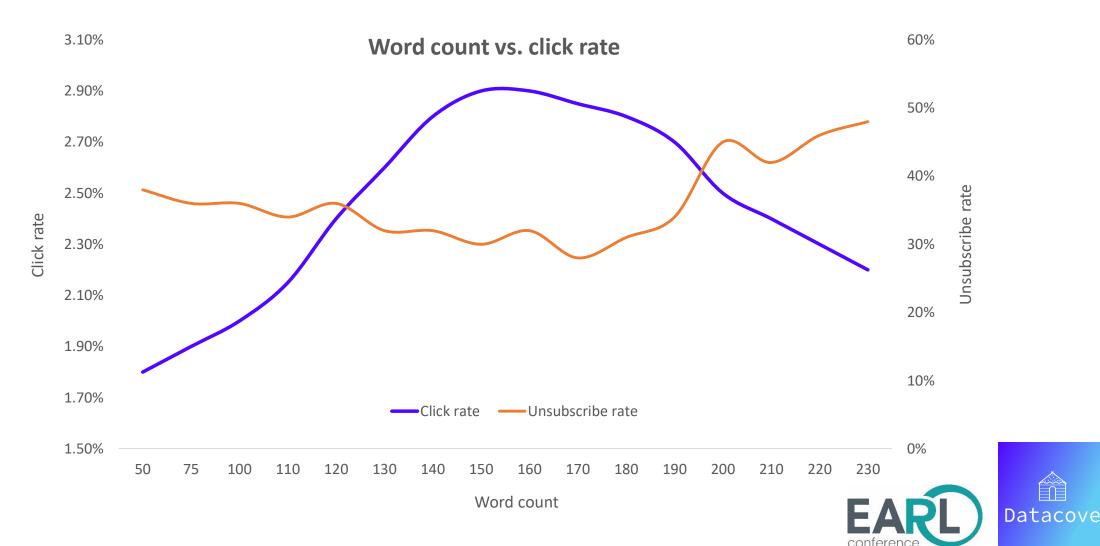
"We can help you manage" emails received more than twice as many clicks as "Don't worry" emails



#### Word count is also a fine art



### And you must also consider the unsubscribe rate



## Positioning the brand







## Personalising the content



#### Each customer gets 10 emails























#### But on average, they only click on one of these























### Can we predict which one so we can optimise the journey?























### Can we predict which one so we can optimise the journey?























### Can we predict which one so we can optimise the journey?













### The emails can be split into two categories



**Informative** 



**Supportive** 





### 90%

### Of email clicks predicted correctly

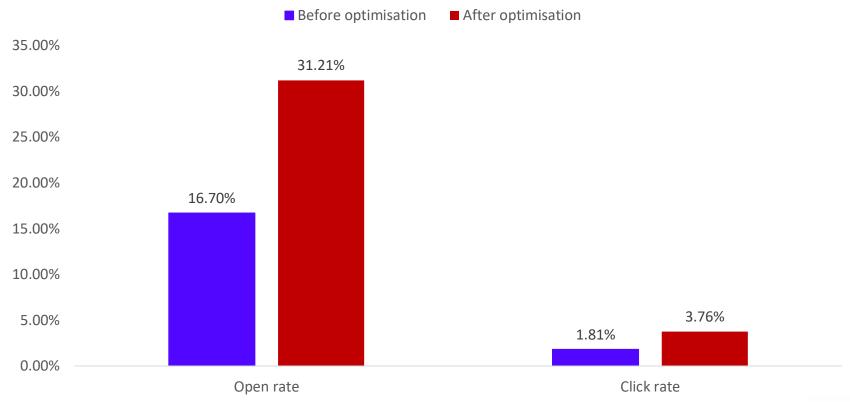


### Results



### Engagement increased by over 100%!

**Example:** Open and click rates before and after optimisation







#### Summary



### There's a lot to look at to create an amazing email

- ➤ When to send it?
  - > Best performing days
  - > Best performing times
- >The text
  - > Emotion / sentiment
  - > Specific phrases
  - > Word count
- ➤ Positioning your brand
  - > Focus on the product
  - > One product at a time
- Personalising the content





#### Need some help?

I've just gone freelance – and can help with:

- Customer database strategy
- Customer analytics
- > Email marketing optimisation
- Reporting automation
- R training / business coaching

...and other bespoke data science projects!





#### Find and follow me on social media!



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#### Thank you!

Questions?



