

E+ ADSEE

JobMarket Signalling 2. Keywords In Context (KWIC)

Overview

After **EDA** and cleaning up the data we will need to evaluate the meaning of the Job advertisement. We need to search for signals in the wording.

A well established method is **KWIC**.

R has facilities to perform KWIC and we show you how.

There is a PDF handout showing you how to perform KWIC via the Orange3 drag and drop tool.

Big data can slow you down. It is often better to take a **random sample** and write your code and visualizations first.

R and Orange3 are useful in combination as you can select a small dataset via R and then explore in Orange3. Later, R can be used for processing Bigger datasets

Naming conventions are important for consistently readable code.

Packages used in the KWIC notebook

Base R

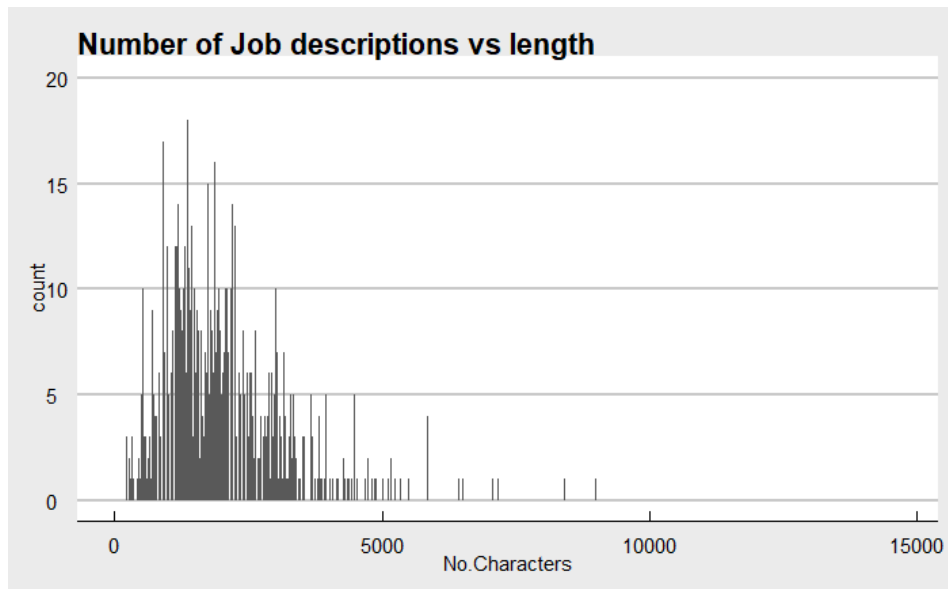
- Sample function: For almost random sampling of your dataset

Packages

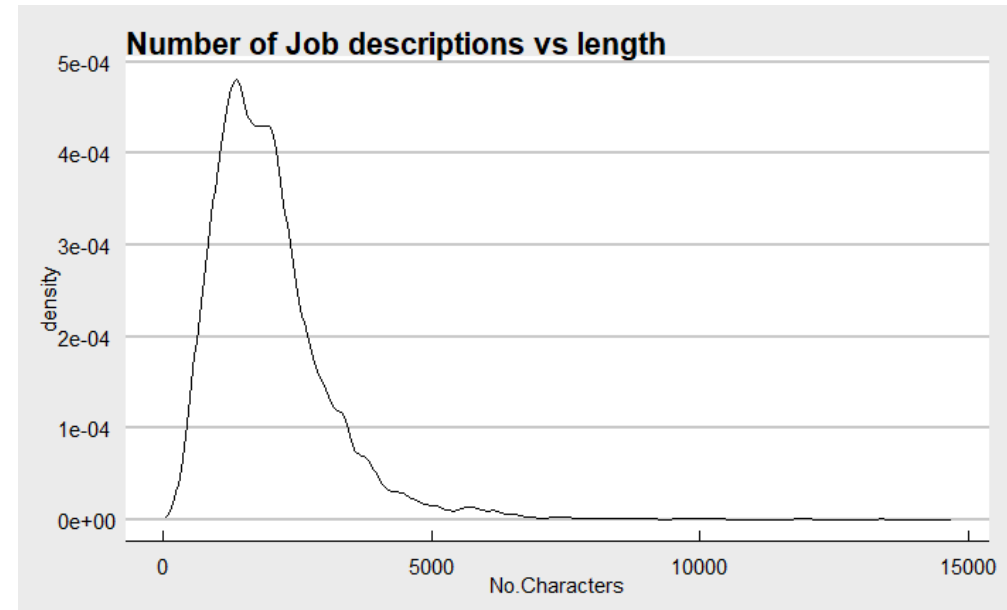
- GGLOT2 and GGTHEMES for efficient graph generation
- TidyR for tokenising and tidying text
- Quanteda for KWIC functions

Visualize, visualize, visualize

Do not assume that any data you are given is clean.
Trust but verify.



With little effort you can customize your visualizations



When thinking about signals, the word length, language complexity, formatting of an advert may be a signal. Why would anyone write an 8000 word job advert or a 50 word?

Read an advert

Which errors/difficulties do you see from the ASIS data?

Most issues are cleaned up when tokenised.

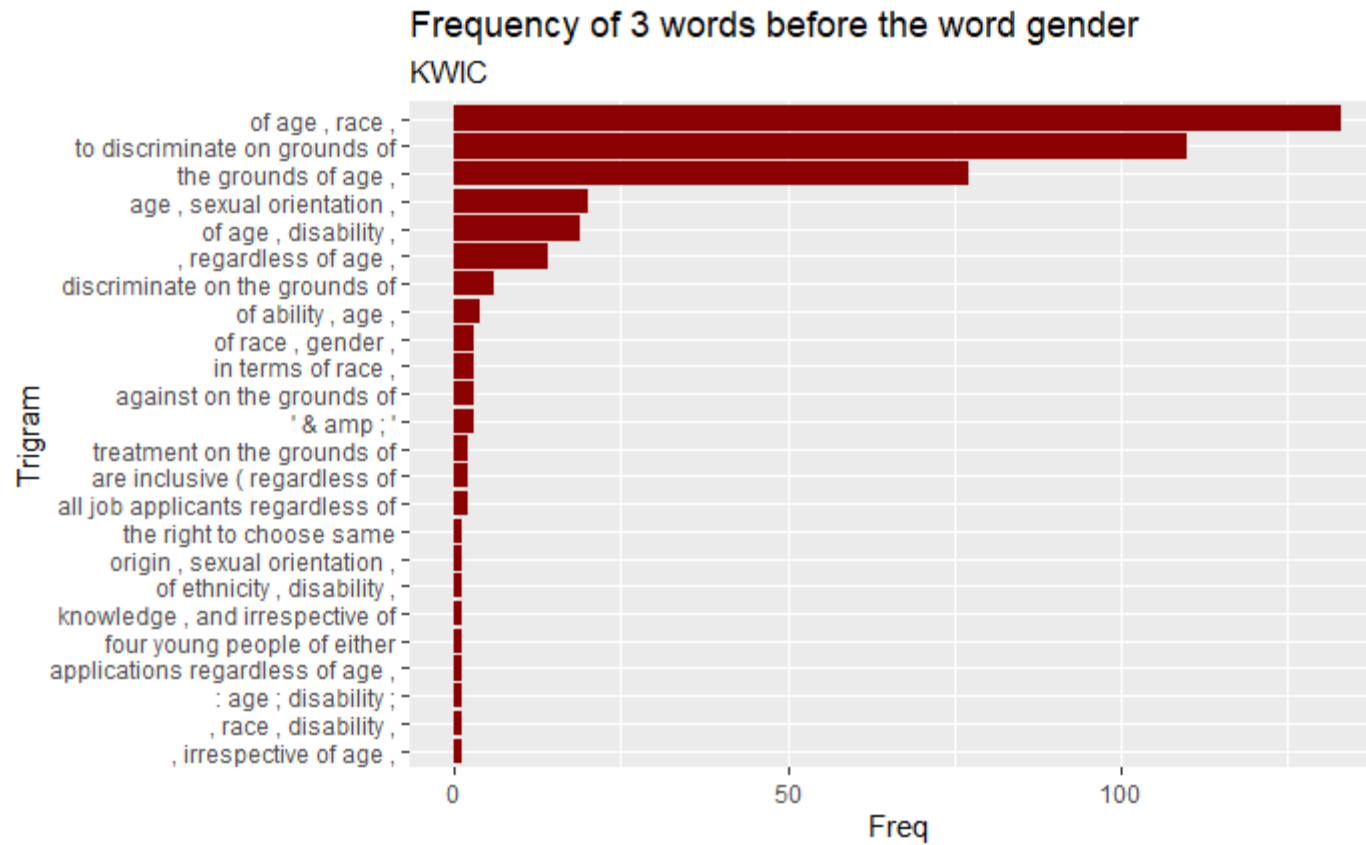
"Job Description: New Business Development Manager Sector: Retail Overview: An experienced new business development candidate is required to win and close contracts in the UK market. In this role the candidate will be required to drive the professional services into Retail companies. The candidate needs to know the UK Retail sector intimately, having worked in the region for a number of years Through this experience of the Retail sector, the candidate will have a good base of clients that know him/her well The candidate needs to have experience of selling professional services into the Retail Sector Will be able to demonstrate growth in assigned accounts The candidate will need to have a good network as this is key for this role This is a hunting role - the candidate needs to the ability to identify and close orders in a professional manner Ability to recognise client pains and translate these into a service Ability to turn hunt accounts into large long-term revenue streams Strong planning and sales pipeline development experience Ability to create and develop value propositions for the client Create powerful ROI models and messages to the clients Understand the various Outsourcing models for both on-shore and off-shore Able to provide excellent references for past sales success. Candidate Profile: Experience of selling: 3 - 5 years – Professional services on-site, off-shore, Outsourcing of projects and or Managed Services. Domain Knowledge: UK Retail Market Communication Skills/Profile: Excellent verbal, written and presentation capabilities Reports To: Country Head, UK Appearance: presence, smart and must have gravitas Approach: Candidate must have a can do attitude and high levels of energy to succeed. Educational background: Degree level minimal UK Base: resident and or/permit to work in the EU Salary range: Negotiable, OTE up to £120k + depending on candidate, plus other benefits The successful candidate will have the opportunity to develop a long-term career with the organisation internationally."

KWIC

Shows the word used in context. Displays a certain number of words (known as a window) before and after the word you are interested. In this case the word Financial with a window of 3.

[text1, 14]	Centre is a		Financial		Services Retailer who
[text1, 35]	of the Axxess		Financial		Group.&
[text1, 190]	proven retail and		financial		services experience and

Visualizing KWIC (Pre words)



Resources

- KWIC via Quanteda: <https://quanteda.io/reference/kwic.html>
- General introduction for the curious:
https://bookdown.org/ansellbr/WEHI_tidyR_course_book/welcome-to-r.html

EXTRA's

- Consider working through Chapter 1 to build your foundation understanding of R studio and R.
- Consider Chapter 2 to start practicing visualizations