

## TEAM PHOENIX- DATAFEST 2020

### Introduction

Team Phoenix was tasked with exploring the societal impacts of COVID-19 beyond health outcomes. We decided to investigate whether there were surges in certain searches during the UK lockdown. While UK lockdowns began on March 23rd, we chose to study the March 1st - May 25th period, hypothesising that many people would have begun to change their search preferences 2-3 weeks before in anticipation. We limited the search period to May 25th, the day George Floyd died, so that results wouldn't be skewed by the BLM movement & protest news. Google Trends provides data on the relative search volumes (RSV) of topics and queries over time and across geographical areas. We thus used this to analyse changing public interests during the pandemic.

### Why we chose the categories

We identified 16 buzzwords to look into for across the categories of entertainment, skills, companies, business/marketing and technology to provide a sufficient representation of large UK sectors and general concepts. Each of the categories was chosen for a set of key reasons, to give us an overall analysis of the UK economy today and the relevant socio-economic impacts:

- **Entertainment** - Many people and families, with increased leisure time are looking for ways to entertain themselves. We wanted to explore what entertainment people were seeking and how those interests evolved across the lockdown period.
- **Skills** - COVID-19 sparked economic fear across the country, with many fearing that jobs offer would be rescinded and companies moving to remote work models. We theorised people would thus focus on upskilling in spare time.
- **Companies** - With the economic downturn in stock markets like the LSE, many businesses began to suffer. We were curious about interests in the biggest brands, and the changes in consumer preferences and platform usage.
- **Business/marketing** - Business is always evolving and new buzzwords appear every few years, dictating how changing organisation models and changing preferences affect various companies. We tested common buzzwords from past years to identify COVID-related evolution and to see whether new business structures or concepts were appearing.
- **Tech** - We theorised that interest in top tech ideas would rise as firms undertook COVID-driven digital adoption/digitisation. We thus evaluated leading technologies as search terms, like IoT, AR, VR, Blockchain etc.

### How we analysed the categories

To analyse the categories, we looked at the search patterns, identifying reasons for increases/decreases by looking at significant news for that buzzword in the given time period via filters. Adjusting for unnecessary 'noise' in the news, we identified the most popular articles, news posts and social media activity on the days around peak numbers of searches, to pinpoint relevant events.

### The Back End

Dash, an interactive dashboard API by Plotly, was used in order to visualize the various trends, as well as their respective analyses and present these in an easily accessible way.

### Results and Opportunities

Across our selected categories we identified several core insights to support and disprove our hypothesis. Main observations:

- 1) In entertainment, we saw an increase across most entertainment platforms, in particular social media and streaming services, especially in late March / early April. As we assumed, many people were looking to find new ways to occupy their time.
- 2) Similar to the above point, in skills, we observed an increase in the selected buzzwords. Search terms like "how to make a mask" and "volunteering" saw significant growth as these were the most COVID-19 related 'skills' buzzwords.
- 3) In companies, each result was different, completely depending on what was happening with that individual company during the period. For example, Amazon saw a large increase but that is attributed to the move of shopping online.
- 4) Searches in the business/marketing reflected a shift away from older consumers to the younger ones, with decreased interest in 'Millennials' or older marketing styles. While many concepts reflected no noticeable change, 'Value investing' saw a consistent increase, suggesting recently high retail investor interest.
- 5) In tech, we saw a lot of volatility as some technologies were put aside (like ideas around Web 2.0) and attention switched to new concepts like Blockchain. Other particular notable changes were the high correlation of spikes around conference times and mega-tech-company announcements, which caused peaks in searches for AR, VR and Robotics.

Ultimately we believe our tool, bringing together our analysis with Google Trend Analytics is incredibly useful for businesses to understand current buzzwords and consumer interests. By understanding what people are interested in, and how these interests have evolved over time, distressed multinationals and SMEs alike stand to benefit from reduced research costs on behavioural analysis. We hope that by dissecting google trends data and visualising interests in core topics we can thus play a part in giving a

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snapshot of how multiple industries and the people within them have evolved. This can then prove helpful both for future predictive analytics as well for shaping core business development decisions. Sources: [Trends](#), [Source Analysis and Other Sources](#)