



## CAPGEMINI x ACCOR

### Data Project

---

Application of NLP techniques to the Bokaan 39  
hotel business case

Capgemini 

X



Louis Bertolotti, Hugo Ehlinger, Khoulood El Alami,  
Aya Errajraji, Maxime Redstone Leclerc

Accor faces multiple challenges that could be overcome thanks to an in-depth analysis of customers' post-Covid behavior...



## AS-IS / TO-BE ANALYSIS OF ACCOR'S ONLINE PRESENCE



### SECTOR

### AS-IS

### TO-BE

TARGETED  
CLIENTS

#### Wealthy Customers

- + Higher margins
- + Word of mouth reputation
- Lack of **price segmentation**
- Highly dependent on City's **financial activity**



#### Maintain

- High standing of the main restaurant offering

#### Improve

- Get inspired from French Michelin-star restaurants that also have a "brasserie" extension to expand price segmentation, using **price** and **reviews** data from the Tripadvisor scraping

Accor faces multiple challenges which could be overcome thanks to an in-depth analysis of customers post-Covid behavior...



## AS-IS / TO-BE ANALYSIS OF ACCOR'S ONLINE PRESENCE



### SECTOR

### AS-IS

### TO-BE

LOCATION  
DEPENDENCE

#### On-site dining only

- + Delivers a unique experience linked to the site
- Highly vulnerable to **Covid-19 lockdowns** and general restrictions
- Lack of flexibility due to limited target market → additional clients are **lost** and **food stock losses** cannot be hedged by selling on **online platforms**



#### Maintain

- A more limited on-site dining to account for a weakened restauration market

#### Improve

- Potentially launch a **delivery** and **click&collect** services based on the **NLP sentiment analysis** of the reviews
- Rebrand the **rooftop** for future events respecting Covid-19 health restrictions

Accor faces multiple challenges which could be overcome thanks to an in-depth analysis of customers post-Covid behavior...



## AS-IS / TO-BE ANALYSIS OF ACCOR'S ONLINE PRESENCE



### SECTOR

### AS-IS

### TO-BE

### ONLINE PRESENCE

#### **Strong social media presence but limited website**

- + High number of Instagram followers
- Website UX/UI is quite outdated and **lacks readability**
- Instagram campaigns do not appear to **target a precise clientele**



#### Maintain

- The Instagram presence

#### Improve

- Improve the **responsiveness and design** of the website
- Expand Instagram campaigns by leveraging the tastes of **top Tripadvisor “influencers”**



... which will be performed with the help of state-of-the-art NLP techniques



## DATA PIPELINE AND TOOLS WHICH WILL BE USED TO PERFORM THE ANALYSIS



### Data Collection



Scrapy



- Data collection using a Scrapy spider
- 3 tables are generated in JSON format: restaurants, users & reviews

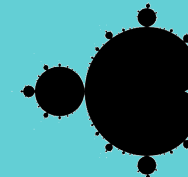
### ETL



pandas

- ETL operations in pandas to preprocess the data
- Cleaning and lemmatizing user reviews using NLTK

### Modeling



TextBlob

- NLP tokenization using Hugging Face
- Sentiment analysis using Text Blob or the integrated Hugging Face module

### Business Implementation



Power BI

- Presentation of the most meaningful business insights
- Update of the current market state by analysing competitors