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The Hong-Kong controversies and impacts on foreign companies' reputation

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1. Introduction

In recent year, the Hong Kong events have had large visibility around the world and the political and social outcomes of the retrocession are still not fixed. What can be less hidden, is how the Chinese government is also trying to contain the movement outside of the Chinese territory.

Chinese companies have always been under pressure from the government to adapt to the ideas and ideals they have been given. However, firms from outside the country also need to adapt to these guidelines in order to be allowed to operate in the market (Wang and Mark 2015; Zittrain and Edelman 2003).

A widely known example of the past were the adaptations of Google to fit their search engine into the Chinese market (O'Rourke et al. 2007).

This results in several challenges for foreign companies. On one hand, they have to comply with the Chinese restrictions and avoid all sensitive areas. On the other hand, implementing freedom restrictions to preserve market interests can harm a company's reputation towards its western consumers. A tradeoff has then to be decided, and longer-run consequences of any position are to measure.

Two research questions were selected for this purpose:
- What causes companies to take steps towards their own censorship?
- How do customers react to the steps taken by companies that give in to pressure?

The former is to be evaluated primarily theoretically, with the help of existing literature.

In order to answer the second question, data analyses will be carried out to measure the reactions of the customers.

Finally, theory and data will be combined to provide information about the behavior of companies and customers and their interaction.

Two main examples guided us in the choice of our subject. There was a geolocation and a news app on the app store in Hong Kong that rebels used to track the movements of the Hong Kong police forces. Apple made the choice of deleting this application from the App store. By this move, they took a public position in the crisis that has been very commented in the media. In the same period, on the social platform of the Blizzard video games, an award-winning player also made public his political views on the crisis by making some pro-democratic statements

about Hong Kong during an interview held by Blizzard. This player was banned from the platform by the gaming company, and the journalists that held the interview fired. This player also lost his price in the meantime. This event brought a lot of boycott calls from some users, and illustrates how the freedom of speech about sensitive political issues in China can be contained, even outside China and by a private non-Chinese firm.

The processes are both new in nature and timing, and no major research results are yet available.

Nevertheless, we gathered meaningful event results to observe and evaluate for the future, as an expansion of Chinese influence to the rest of the world is to be expected and the opinions of people outside China could be at risk.

2. Theoretical foundation

To be able to take a closer look at the problem, one first has to deal with the circumstances. China has undergone more massive cultural, social and economic restructuring than any other country in the last 50 years.

Its foreign policy demonstrated China's desire for power and domination, as well as for the wish of control over its citizens, which would be unthinkable in our Western liberal world on that scale.

Nevertheless, the Chinese market is particularly important for digital companies. The increase in the population's prosperity is accompanied by a desire for luxury products. Coupled with the sheer size of the population, China has a rapidly growing market for digital goods that is already significantly large.

To give a picture of the overall problem, the scope of this work is unfortunately insufficient. Rather, it is intended to show by way of example how customers react to the actions of such a pressurized company, in this case the American game software producer Blizzard, for example. In addition to the damage to their image, these companies also have to fear direct consequences. In this case, for example, the loss of the sponsor Mitsubishi for the tournaments organized by vol Blizzard and thus the loss of investments as well as damage to business relations [1].

The reputation of companies today is more fluid than ever. With globally networked, directly available reviews and opinions from individuals, companies are under enormous pressure to maintain their reputation. If they act in the wrong way, they risk losing their reputation, often

in the form of short-lived but devastating shitstorms and subsequent economic disruption (Melewar and Navalekar 2002; Grigore et al. 2017).

The consequences of economic pressure on expressions of opinion have already been analyzed in classical media, such as newspapers, prior to the era of global changes affecting society as a whole. Richards and Murphy (1996) describe in their article examples like the consideration of a newspaper to publish an article against the will of several major sponsors. Similar to the examples chosen here, the conflict is expressed here, which weighs more heavily. The loss of the sponsors and their money or honesty and credibility. They focus strongly on the concept of economic censorship, which is also to be analyzed and classified in this work (Richards and Murphy 1996).

This is also associated with a new level of corporate social responsibility. Companies are not only committed to their own success but also accountable for their actions through increased social valuation. The concept of corporate social responsibility is not new here, but has been discussed in the field of business ethics for some time (Theofilou et al. 2017; Bassen et al. 2005).

However, digital changes have made it much more visible to customers. It is more vulnerable to short-lived changes and is an essential part of corporate identity. Customers no longer base their purchasing decisions on the pure product value in connection with their expenditures, but also on the image of the company and its social interaction (Walsh et al. 2006; Taddeo and Floridi 2017; Grigore et al. 2017).

3. Methodology

We decided to first tackle the Blizzard case in a case study approach. We want to see the actual consequences of the position of Blizzard company by retrieving a large amount of data from social networks.

First of all, our concern is to choose which social network will be the most relevant for our study. Reddit seems a great source for monitoring public opinion. It is one of the most popular platforms for discussion with more than 300 million users. Second, it has a clear structure that allows us to conduct discussions on related topics in one place. It consists of sub-domains, called subreddits, where users discuss a particular topic. Each user can create a new submission or contribute to the existing one by writing a comment. It is important to mention that the creators and moderators of the companies' subreddit are usually the company's employees.

Second, we chose the time duration of our study and the case we wanted to tackle. The Blizzard case took place on the 7th of October 2019. Because we want to have a full picture of how discussion evolved in the longer run, we collected all the submissions from Blizzard subreddit from May 2019 to January 2020 using pushshift.io API. We started our analysis by investigating the main patterns of the users and moderators' behavior in the subreddit before, during and after the case.

Then, we wanted to have an idea of the impact of the event. To do so, we computed the number of submissions and comments that had been registered in this subreddit weekly from May 2019 to January 2020, and daily between the 9th of September 2019 and the 15th of October 2019. We looked up at the evolution of the scores, the length of the posts at this same period. We also did some qualitative analysis, by retrieving the longest post, the most commented post or the post with the high score, before and after the event. Another study was the evolution of the number of removed posts, to have an idea of the impact of the moderation on the subreddit. We enrich this study with the number of posts without any text with just a title.

As the last study of this case, we wanted to find a metric that could quantify the opinion of a person, given the text of his/her post. After some investigations, we decided to use Microsoft azure's opinion analysis tool [2]. We submitted all the titles and text-bodies we have to map the evolution of the opinion analysis of the Redditors through time.

After the study of this case, we found interesting to compare it with another case, to have an idea of how generalizable were our findings. On the 9th of October 2019, the company removed a police-tracking app from the app store. This app was widely used during the Hong Kong protests. We retrieved posts and comments from the 1st of May to the 30th of January. We studied the impact with two scopes: one with a closer look (2 weeks before and 2 weeks after the crisis), and one with a wider view (from the 1st of May to the end of January) to compare long and short-term effects. We then applied the same methodology we used for the Blizzard case to study this case.

Finally, we decided to corroborate the comparison of the cases' impact on Reddit with a comparison of the two firms in terms of audiences and the ability to draw regular attention in the media.

Technically speaking, we started using the request library of Python to retrieve the data from Reddit. Overall, over 40.000 posts were colltected this way. We coded a few useful functions for our study in the python file Dates_data_method. Then we created two CSV databases

(Apple_case_db.csv and blizz_case_db.csv) that we generated with the notebook Create_database.ipynb. With this notebook, we could dig a little bit in the data. Then our general results are presented in the two notebooks Blizzard_case DataAnalysis.csv and Apple_case DataAnalysis.csv. Finally, the folder Praw_code_and_files contain some first analysis we had done with the PRAW library for Python, that we then changed for the request library to be able to locate the data in terms of time. When it comes to Microsoft Azure's tool, very little information is given by Microsoft on how it works, but we expect it to be trained on a very large amount of data using deep learning.

4. Results

4.A. The Blizzard Case

On October 6, 2019, player Ng Wai Chung - player name Blitzchung - was interviewed after his game in a stream of the Hearthstone Grandmasters, a Blizzard Entertainment sponsored esports tournament of the Hearthstone game. Blitzchung wore a mask similar to the one worn by the protesters in the Hong Kong Riots and said "Liberate Hong Kong, the revolution of our times," a slogan also used there [3].

In response, the stream was terminated shortly thereafter, the prize money - approximately $4000 USD at the time of the tournament - was withdrawn and the player was banned from other events of the "Hearthstone Grandmasters" for one year. Also, the casters of the interview, the moderators "Virtual " and "Mr. Yee" were released from their contracts. In an interview with "pcgamer.com", Virtual said that he didn't know anything about the events in advance and that the casters had therefore ducked under their desks to keep their distance from the content. He would also not have received an explanation for the termination of the casters [4]. The incident is now also known as "Blitzchung controversy" and has received its own Wikipedia article. In order to simplify the context and to focus on the reactions to the company, this study refers to the "Blizzard Case" [5, 6].

4.A.1 Qualitative analysis

In this investigation were contributions from the subreddit "reddit.com/r/blizzard". This selection is made because it is the official subreddit of Blizzard. Since reactions are to be observed directly to the behavior of users on the company, this is the most obvious source on Reddit. Mixing of different posts and reactions leads to unequal user groups and numbers on different subreddits, due to the construction of Reddit, was created to avoid falsification and redundancies. Related subreddits are those of the games developed by Blizzard, including the game "HearthStone", for which the incident took place.
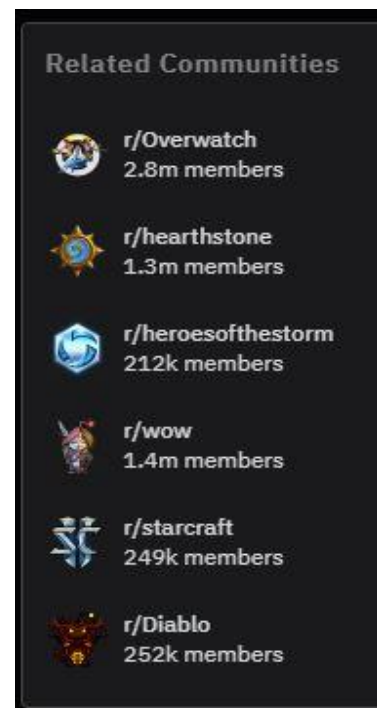
Figure1: Related Subreddits of /r/ Blizzard [7]

Figure 2: reddit.com/r/Blizzard moderators team (14th of March 2020) [8]

The sub is maintained by various "moderators" who represent selected users of the subreddit. It is not directly recognizable how exactly these were selected. They are not directly identifiable as Blizzard employees and do not bear official Blizzard titles, as can be seen in the screenshot.

However, there are users who can be identified as Blizzard employees. They are not part of the moderation team. How they are in contact with the moderators cannot be determined exactly without internal knowledge. This lies in further research, which cannot be carried out here.

Depending on their permissions, moderators may, among other things, appoint and remove new moderators ("full permissions"), ban users or prevent them from posting ("access"), edit chat rooms ("chat config"), manage and delete messages from chats ("chat operator") or handle posts, for instance, delete them ("posts") [9].
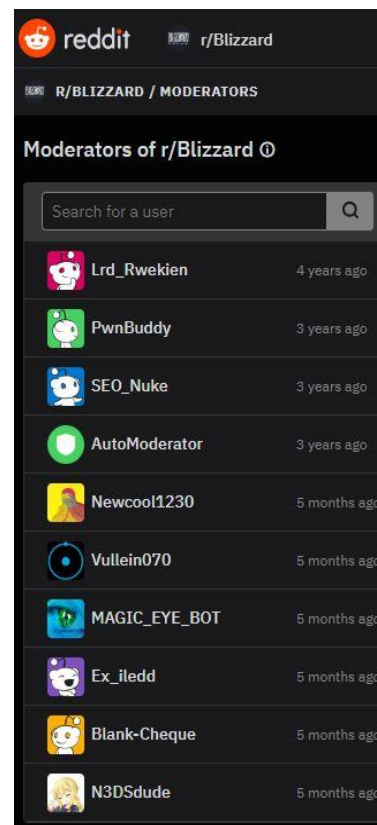
It is noticeable how many moderators were assigned at the same time, after the events.

When it comes to remarkable posts analysis before and after the event, as could have been expected, the posts before the case do not mention Hong Kong. The longest post is a post of a self-described 'Blizzard-Fan' that gives a very detailed concept of a Blizzard-Character inspired Unity game he is developing [10]. The post with the best score looks like being a comment on a Blizzard character [11]. These posts look very positive towards Blizzard games.

This qualitative study brought us to a major discovery: the Reddit moderators try to constrain the number of submissions about Hong Kong, by asking the Redditors to comment to this topic only under their specific post to give their opinion, rather than to post their own submission. All submissions that would refer to the Blizzard case promise to be removed. This post is, without any surprise, the one with the biggest number of comments after the case [12]. The longest post is a very detailed critique of the behavior of Reddit. The post with the highest score was an image that has been deleted by his author.

We can here have an idea of the negative opinion the Blizzard case provoked.

4.A.2 Study of the number of comments and submissions

As we see in Figure 3, the number of submissions is very high on the day of the event and decreases after. First obvious reason is the interest in the case decrease with time. Also, a lot of the users followed the moderator's advice and started to write their opinions only to the specifically dedicated thread.
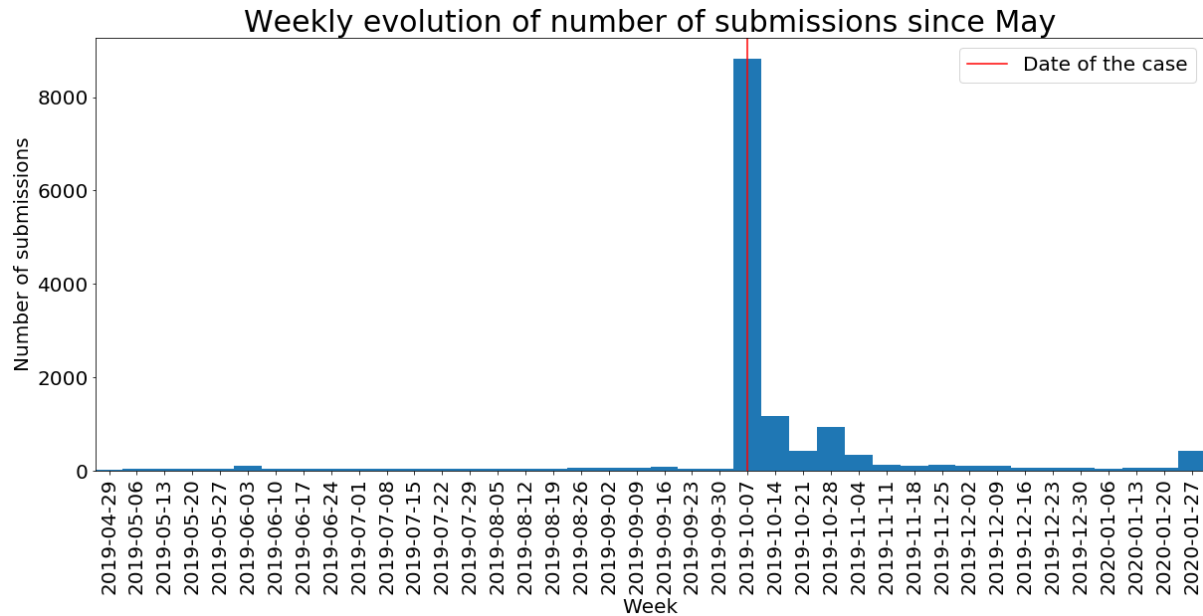
Figure 3: Weekly evolution of the number of submissions since May 2019

The number of comments can also describe users' interest in the subreddit. Figure 4 shows some increase in the average number of comments per post after the case. However, as we can see in Figure 5, the median of the number of comments per post drops to zero after the case and then restores after two months. Figure 6 depicts the daily situation near the case date.

This indicates that the distribution of comments per post is not uniform. After the case, there are some posts with a lot of comments, but most of the posts do not have comments at all. An example of the posts with a great number of comments could be a post from moderators. Large numbers of posts with little or no comments and a great increase in a total number of comments can indicate that users did not want to discuss the Hong Kong case with each other, they are just creating thousands of posts to insult Blizzard.
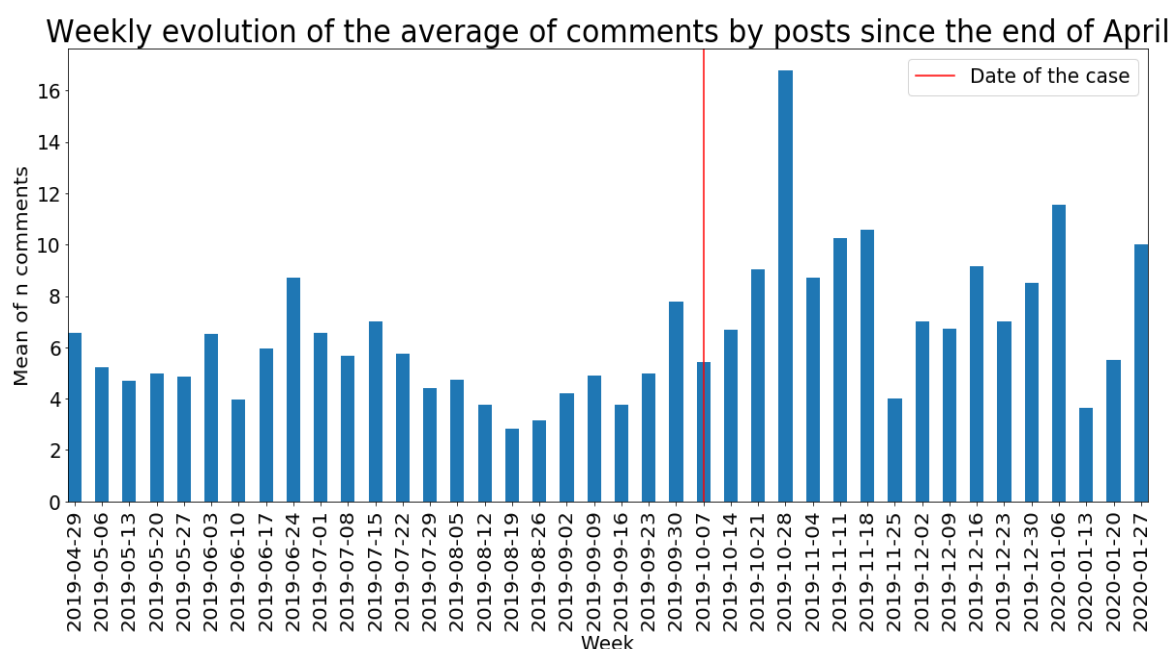
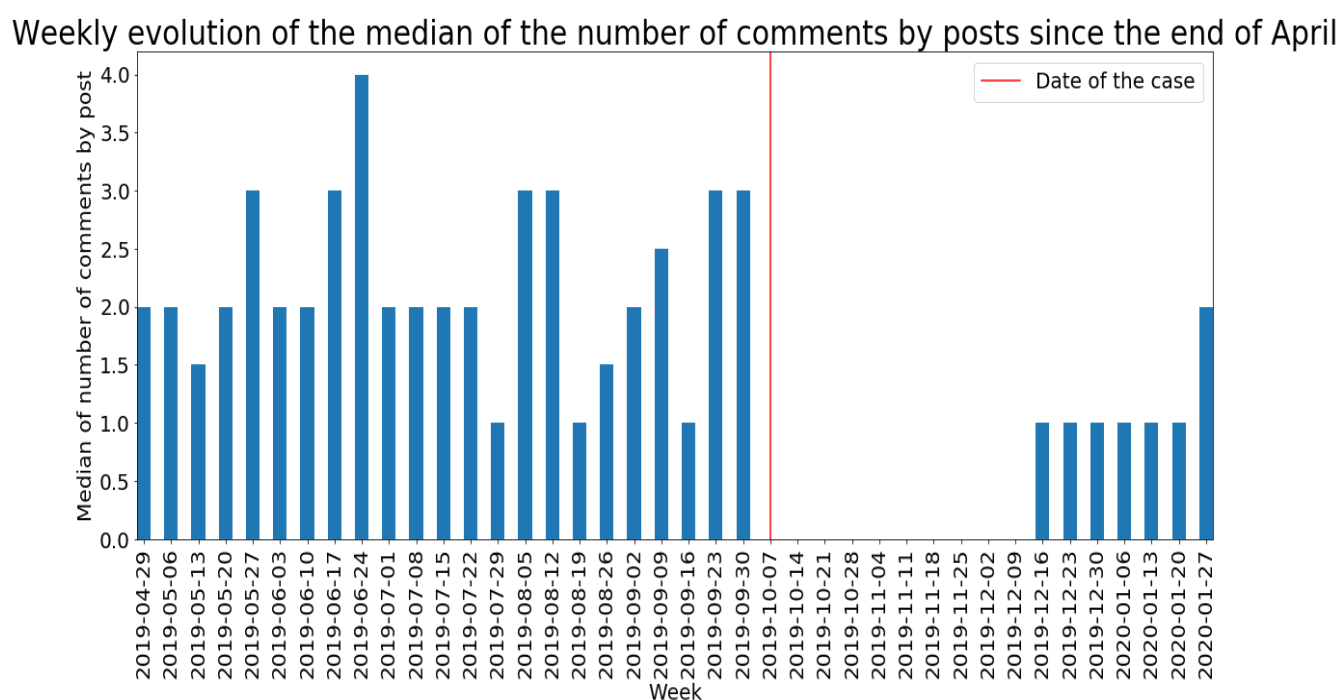*Figure 4: Weekly evolution of the average of comments by posts since the end of April 2019*

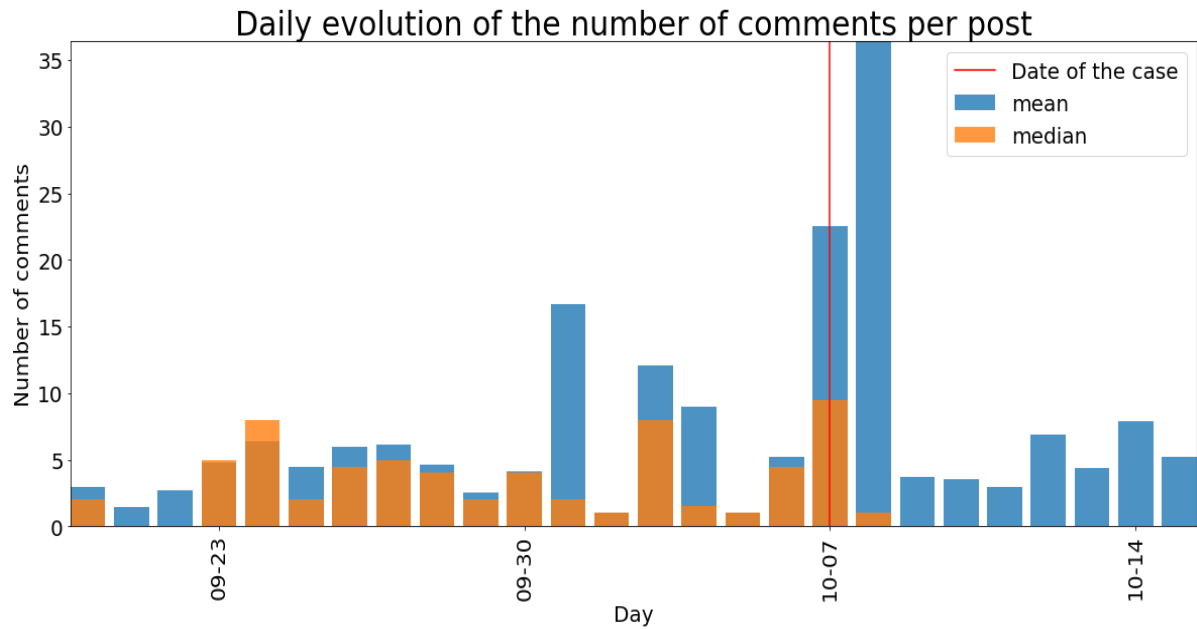*Figure 5: Weekly evolution of the average of comments by posts since the end of April 2019*

Figure 6: Daily evolution of the number of comments per post

4.A.3 Study of the length of the posts

The number of posts increases after the case, we may wonder whether users then started to write longer posts. As we can see in Figure 7, the length of the post decreased. This could be due to the insults the users started to write when mentioning Blizzard, that is why they did not try to write much. Or, another theory is that the moderators started to remove the content of the most controversial posts. Figure 8 confirms this last hypothesis. Indeed, the number of removed posts rose dramatically at the same time, while the length of the posts began to decrease. In addition, we discovered that posts, where the content is not removed, are pictures. This is an interesting discovery because it could indicate that moderators set some automated rules on the post content. Posts with pictures are harder to analyze automatically, that is why they have a longer life expectancy in the thread.
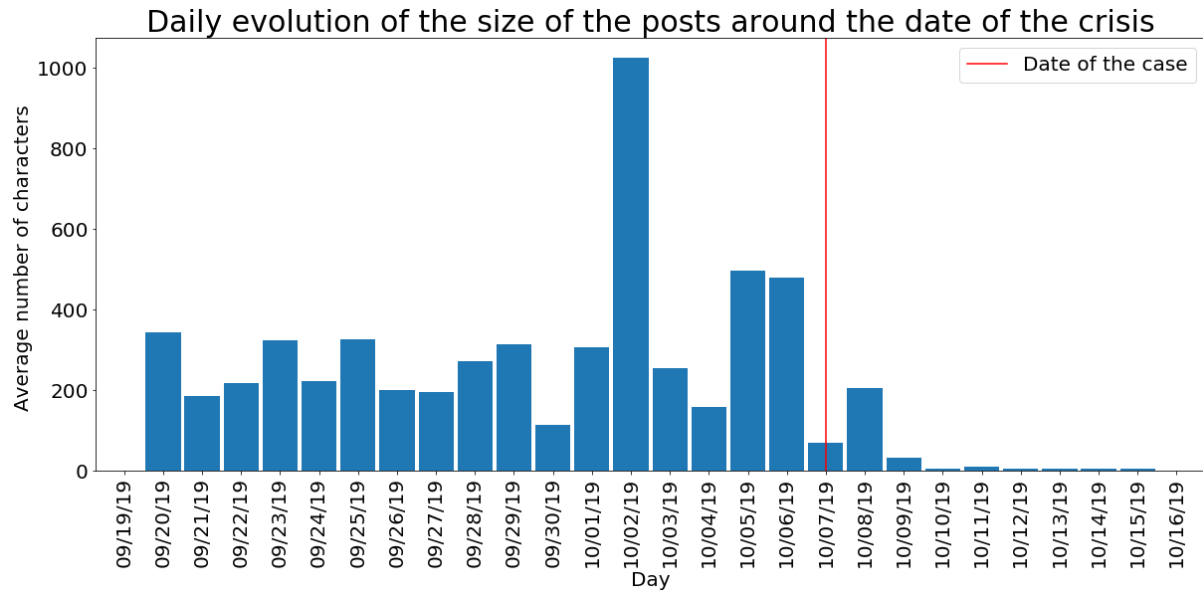
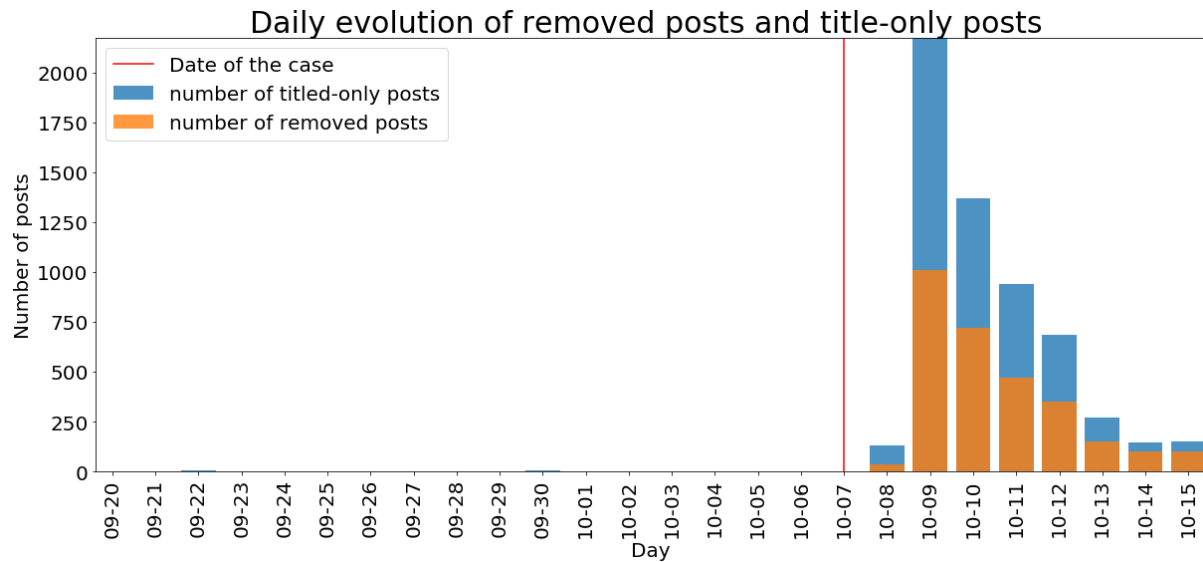*Figure 7: Daily evolution of the size of the posts around the date of the crisis*

Figure 8: Daily evolution of the size of the posts around the date of the crisis

4.A.4 Evolution of the average of the score

Score is another indicator of users' engagement in the subreddit. Figure 9 reflects the average score. The outlier with the biggest score is the post from the moderators. Overall, we can notice a greater agreement among users after the case date.
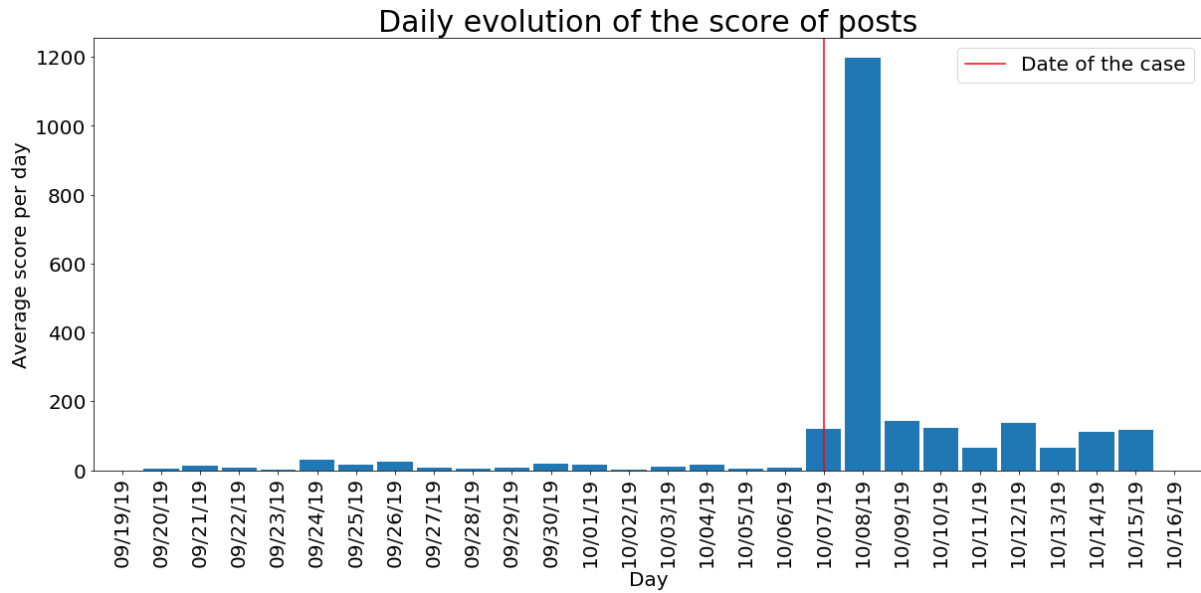
Figure 9: Daily evolution of the size of the posts around the date of the crisis

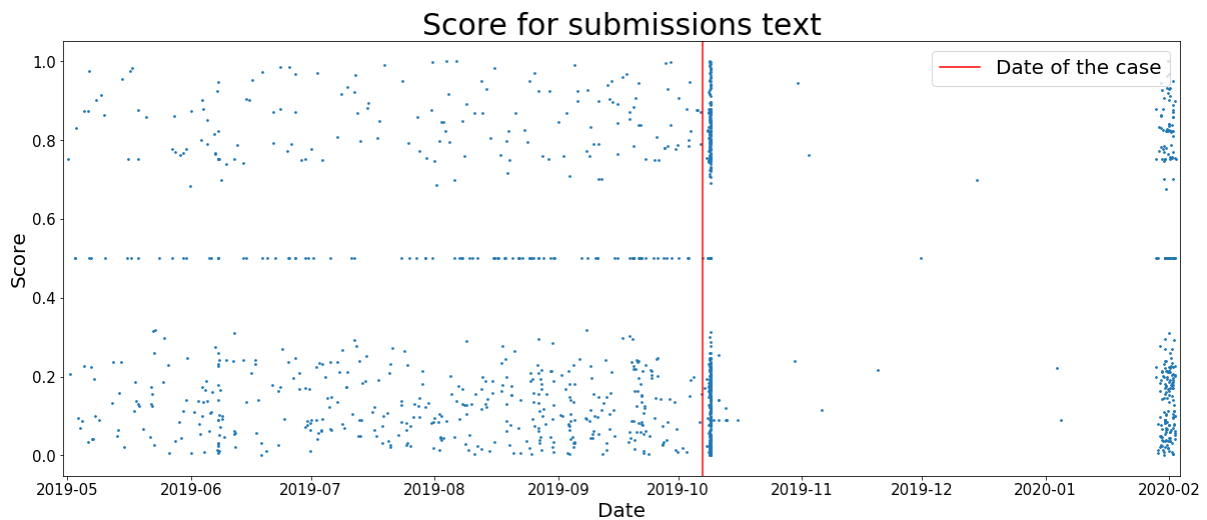**4.A.5 Opinion analysis of the text of the submissions**

Figure 10: Score for submissions text

During the qualitative analysis we discovered that after the case the Blizzard subreddit moderators started removing the posts and users started to post pictures. That is why a lot of posts do not contain any text.

In Figure 8 there are opinion scores computed from Microsoft Azure's tool for texts of the submissions, which were not empty. Before and after the event more submissions are negative.

```
Name                      mean     std    N
----------------------    -------  -----  ---
TEXT before the case      0.35     0.32   686
TEXT after the case       0.42     0.33   530
TITLE before the case     0.42     0.31   686
TITLE after the case      0.48     0.34   530


p-value for texts mean    0.00053
p-value for titles mean   0.0023
```

Table 1: Value of scores

The mean scores for submissions and titles are both better after the case with a p-value less than 0.01. This is an unexpected discovery, as the scores are better after the case both for texts and titles.

There are several reasons for this result. First, before the case, there are a lot of complaints about bugs in Blizzard.

Second, the score increases mainly for the long texts and if we consider the short text, the mean score even decreases (Table 2). Short texts after the case are mainly insults, and long texts are calls to the other users of Blizzard and discourse about the freedom of speech, which does not have that negative sound.

	mean	std
Before the case		
Length of the 50 best texts	300	258
Length of the 50 worst texts	568	463
Score for the 100 longest texts	0.27	0.38
Score for the 100 shortest texts	0.49	0.49
After the case		
Length of the 50 best texts	275	333
Length of the 50 worst texts	139	332
Score for the 100 longest texts	0.44	0.26
Score for the 100 shortest texts	0.39	0.36

Table 2: Analysis of shortest and longest post.

4.A.6 Retrospective look at the Subreddit

In order to get an impression of the long-term consequences, a conference was held on 14th of March 2020 the top posts of last year's subreddit were reviewed again. From the top 34 posts visible here of the last year every single post is related to the Blitzchung incident or Hong Kong Riots in general. This continues even further than those posts shown. The long-lasting impact is immense.
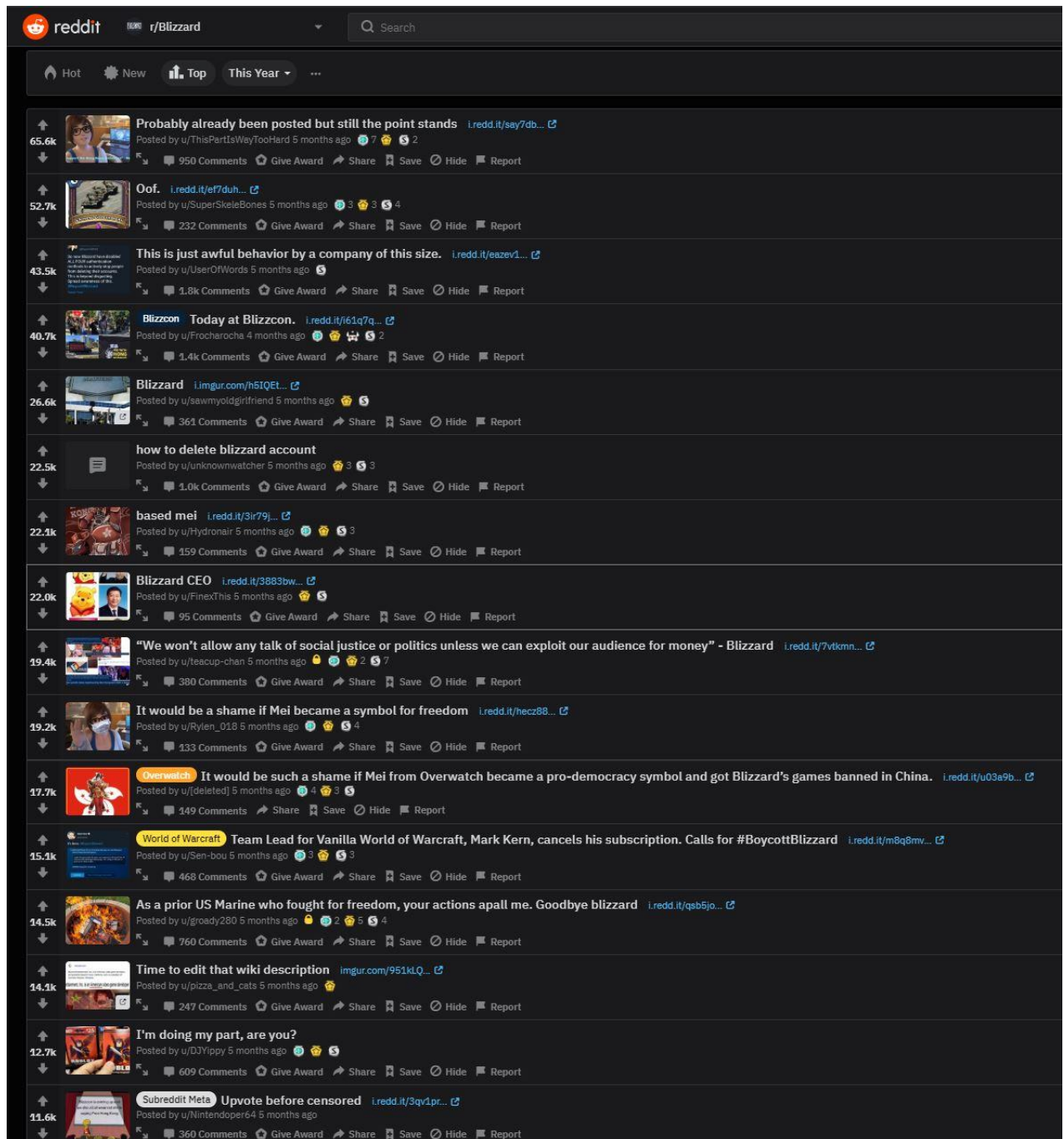

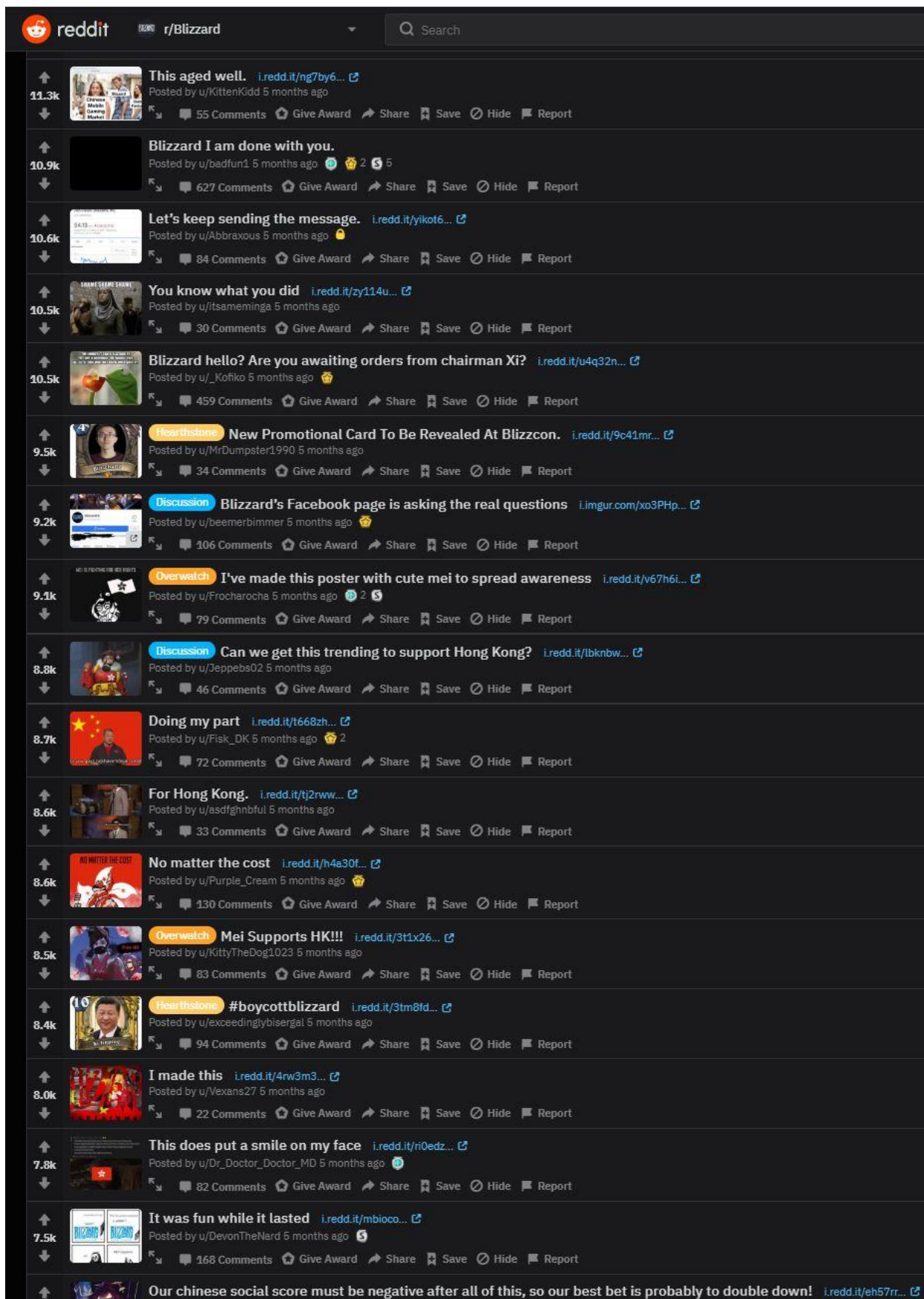*Figure 11.1: Top posts of the last year of /r/Blizzard - 1*

Figure 11.2: Top posts of the last year of /r/Blizzard - 2

4.B. The Apple case

4.B.1 Qualitative analysis

In all the most commented, longest, with best score posts before and after the crisis from May to October, there is no mention of Hong Kong. The posts are all reviews of the Apple's products. The most commented post before the event is a mega thread for the Apple's World Wide Developer Conference (WWDC). It aims at containing the number of posts related to the event by converting them into comments [13]. After the event, the most commented and the post with the highest score is a post about a user giving its iPhone to someone in the comments [14]. On a monthly basis, we then cannot see the influence of the Apple tracking app removal event on users' opinions with such qualitative analysis. A shorter run approach was then decided to have a more precise idea of the event influence.

As can be seen, in the corresponding subreddit at the time of the events about Hong Kong there was only one post at the top of the list dealing with the topic:
https://www.reddit.com/r/apple/comments/dfxxpz/boycottapple_trending_as_apple_removes_quartz [15].
Therefore, reference is made here solely to this post. The post is about sharing this link: https://mspoweruser.com/boycottapple-trending-as-apple-removes-quartz-news-and-hkmap-apps-from-app-store/[16]. The page "mspoweruser.com" is a technical blog. It is not to be considered as a news site or scientific source. Nor does it contain brief information about parts of the website team and not a complete imprint. It is, therefore, to be viewed critically as a source and not to be evaluated absolutely neutrally and truthfully, as this cannot be guaranteed, but information correctness can only be assumed.

The article deals with the removal of two apps from the Apple App Store on the 9th of October 2019. These are the apps "Quartz News" and "HKMap.live".

In the beginning, however, a reference to the Hong Kong protests themselves is given, as well as a cross-reference to the Blizzard case also discussed here:

"If you have been following the news for the last couple of weeks, you must be familiar with the ongoing Hong Kong protests. The protest has been going on since March of 2019 and has now involved tech companies as well. Just days after Blizzard caught fire for removing an esports player for saying "Liberate Hong Kong," "Revolution of our age!" during a live stream, Apple is now under attack for removing two apps connected to the Hong Kong movement." [mspoweruser.com, 16]

The service "HKmap.live" was used by numerous protesters to track and evade the movements and actions of the Hong Kong police. The removal happened after the Chinese authorities asked Apple [17].

The removal of the app "HKmap" was also reported by renowned news sites, such as the BBC [18], The Guardian [19], and the New York Times [20].

The Tech blog "The Verge" [19] reports about an internal mail from Tim Cook, Apple's CEO, which sheds light on the background. According to this mail, the Chinese authorities of the Hong Kong Cybersecurity and Technology Crime Bureau are said to have pointed out to Apple that users of the app used it to spread violence against police officers and civilians in areas without acute police protection.

The Google.de search for "apple hkmap removal" yields about 72,600 hits (February 24, 2020, 09:46 CET)
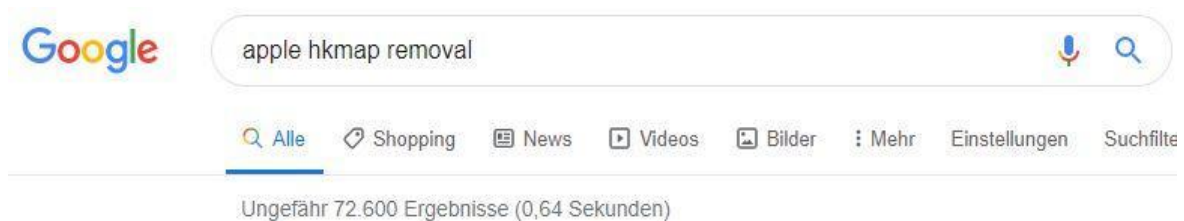
As a result, the website reports that the call for a boycott of Apple is experiencing a peak afterward. A search on Google Trends confirms this peak.
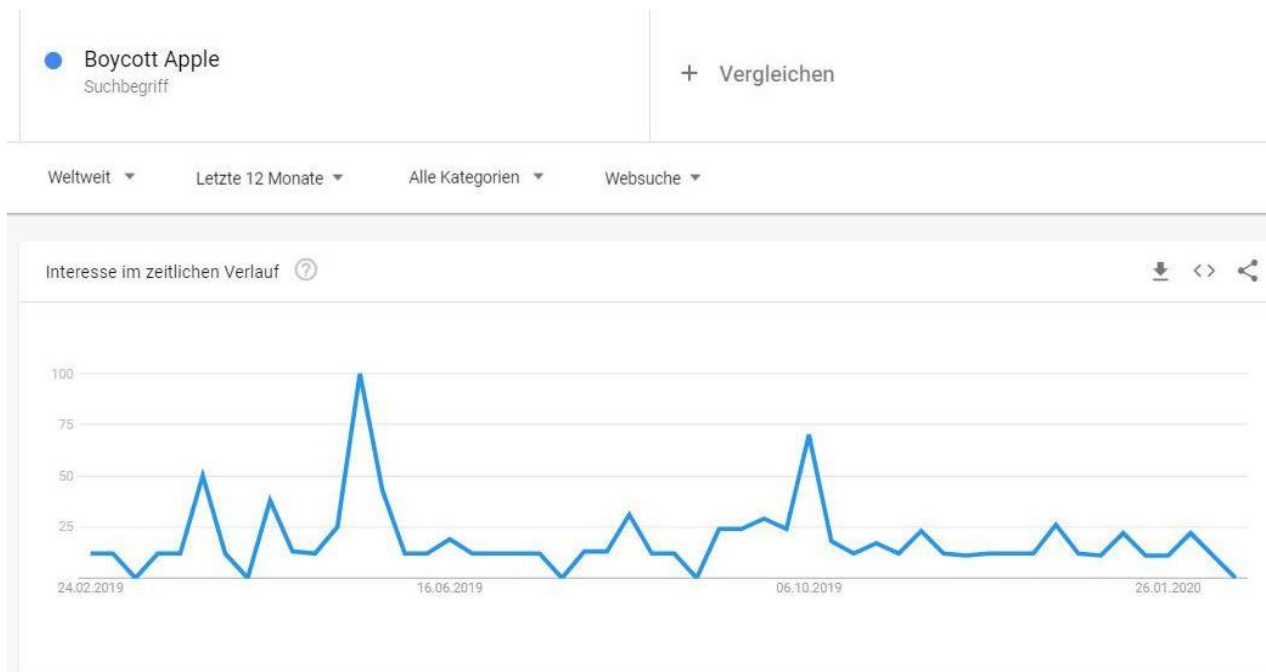
Figure 12: Google trends search on "boycott apple" [21]

In the case of the deletion of the Quartz news app, it is reported that the app contained content and information that is illegal in China. This is done by accessing it via the Quartz VPN network, which can also be used to retrieve information censored in China [22].

The CEO of Quartz sees himself as a defender against censorship by China [23].

Both events are often referred to in the same context as the Blizzard incident, which underlines the importance of these events and the selection for analysis here [24].

We will look at the most voted comments and their most voted responses below, as these seem to be the most popular due to the large number of upvotes. All numbers and upvotes are from 24.02.2020, approx. 11:00 a.m. CET [15].
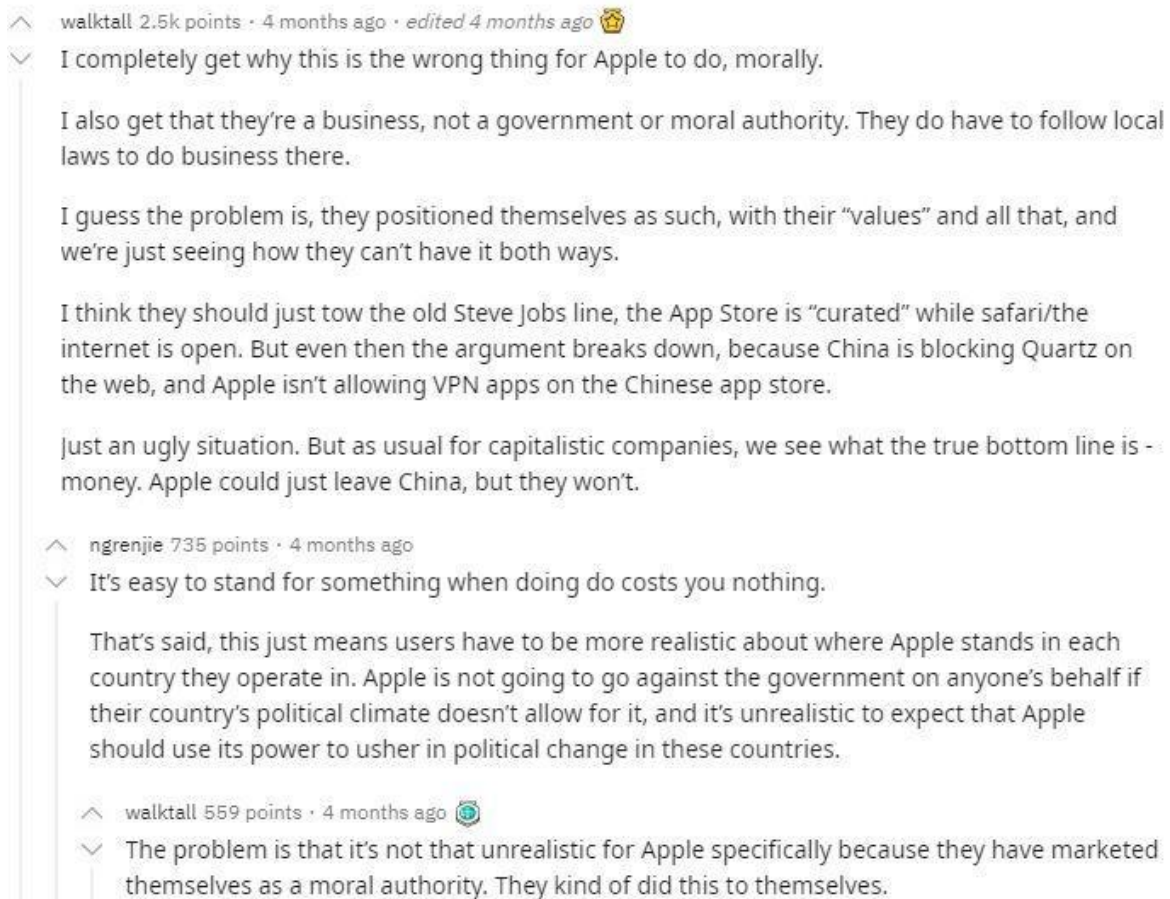
Figure 13: Google trends search on "boycott apple" – Reddit comment and replies with most upvotes [15]

The most popular comment is the one above. It looks at the situation with a combination of moral and economic considerations. It is noticeable that this comment, like most of them, evaluates Apple's behavior negatively. However, the economic dependence is also directly represented, in this case by: "Just an ugly situation. But as usual for capitalistic companies, we see what the true bottom line is - money. Apple could just leave China, but they won't.

The entire corporate role of Apple is also taken up. The first answer of the commentary describes that they do not try to interfere with geopolitical issues in order to avoid conflicts. However, this argumentation negates the commentary that follows, which portrays Apple as marketing itself in a morally correct manner.
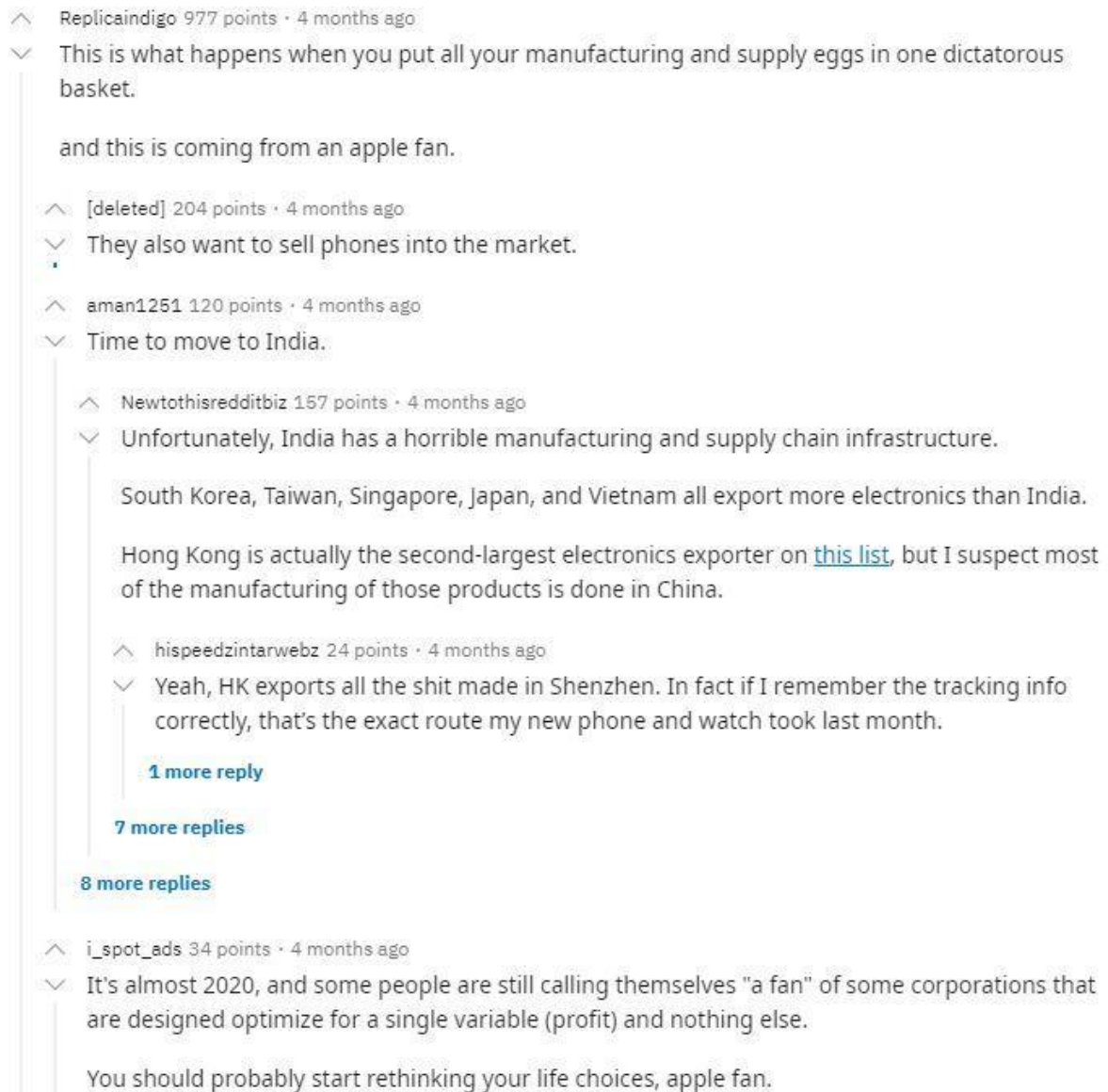
Figure 14: Apple Case - 2nd highest voted comment [15]

These responses attempt to determine why the problem exists in the first place. The user "Replicaindigo", whose comment has the two most upvotes of the thread, assigns this relatively clearly. On the one hand, the massive dependency is shown in his comment, which Apple is subject to in his opinion. On the other hand, he directly questions the moral integrity of the Chinese government.

Furthermore, alternative possibilities are considered, such as moving to India.

The original commentary is underpinned with "and this is coming from an Apple fan", which in turn is also attacked. The user "i_spot_adds" generally accuses corporations of only profit as their goal and condemns deviations from this opinion.

The third highest comment refers to the removal of the Taiwanese flag, but without evaluation.

Figure 15: Apple Case – 3rd highest voted comment [15]

The following highest one takes up the boycott but in an ironic way. By "sent from my iPhone" he accuses the general public of being condemned at the same time, but still not including this in his consumer's decisions. Various reasons would have to be evaluated separately here. Conceivable would be laziness and the quality of the products, as well as the social status gain.

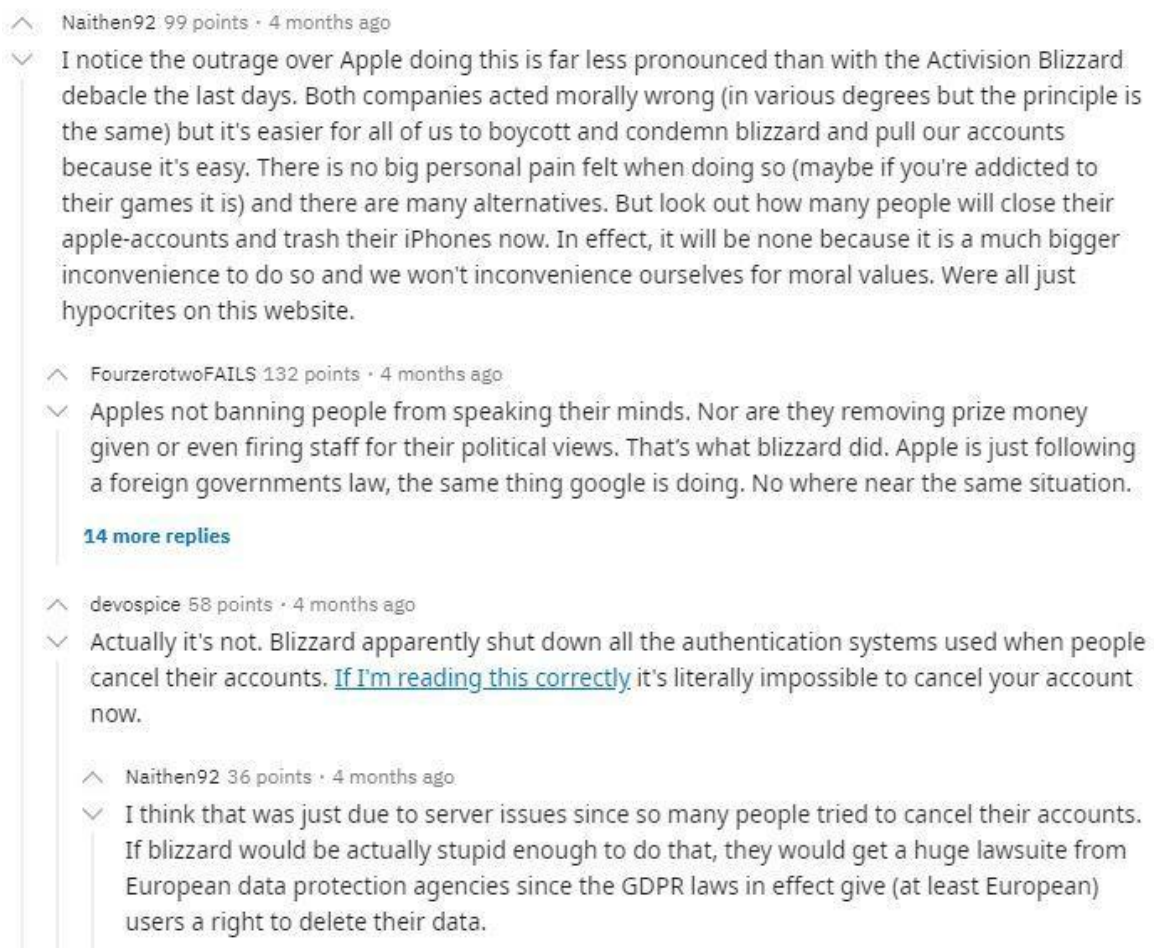*Figure 16: Apple Case – 4th highest voted comment* [15]

Figure 17: Apple Case – 5th highest voted comment [15]

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In the fifth most popular commentary, the connection with the Blizzard case is pointed out once again. It is assumed that the consequences for Apple are generally much less severe. As mentioned before, only the post under review here was actually one of the most popular ones in the mentioned period of time. This is critical in the context of the Hong Kong events, in contrast to the Blizzard case, where many posts were widely spread.

It also points out the numerous consequences that Blizzard itself has imposed. Apple, on the other hand, has only removed the apps from its store.

Finally, the 6th most highly rated comment is worth being considered. It is generally very interesting, as it critically deals with the entire Hong Kong conflict and evaluates such a negative report positively to the extent that people outside of this region also get to hear about it and feel the consequences.
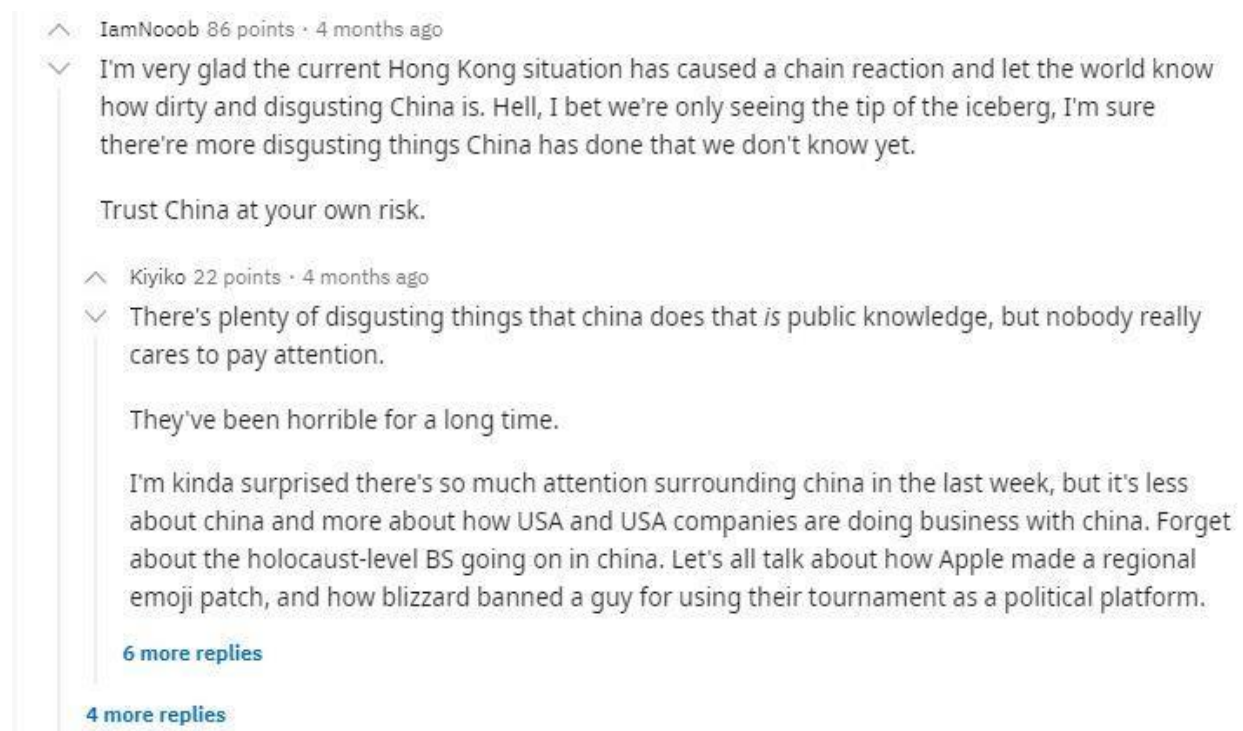

IamNooob 86 points · 4 months ago

I'm very glad the current Hong Kong situation has caused a chain reaction and let the world know how dirty and disgusting China is. Hell, I bet we're only seeing the tip of the iceberg, I'm sure there're more disgusting things China has done that we don't know yet.

Trust China at your own risk.

Kiyiko 22 points · 4 months ago

There's plenty of disgusting things that china does that *is* public knowledge, but nobody really cares to pay attention.

They've been horrible for a long time.

I'm kinda surprised there's so much attention surrounding china in the last week, but it's less about china and more about how USA and USA companies are doing business with china. Forget about the holocaust-level BS going on in china. Let's all talk about how Apple made a regional emoji patch, and how blizzard banned a guy for using their tournament as a political platform.

6 more replies

4 more replies

Figure 18: Apple Case – 6th highest voted comment [15]

It is evident that the reactions are generally medium to strong negative. Of the highest-rated comments and answers, none of the people who replied were defending Apple. This is unusual due to Apple's high brand loyalty, which is also attacked in the second comment considered. The effects are rated strongly negative, but, as explained, not as strongly negative as in the case of Blizzard, which had to struggle with a real shitstorm.

4.B.2.Study on the length, number of comments and average score

In terms of quantitative analysis, the impact of this event on Apple's reputation on Reddit is way weaker than it has been on Blizzard's.

In terms of the number of submissions and comments (figures 19,20,21), we could not have guessed when the event was without knowing the date in advance.
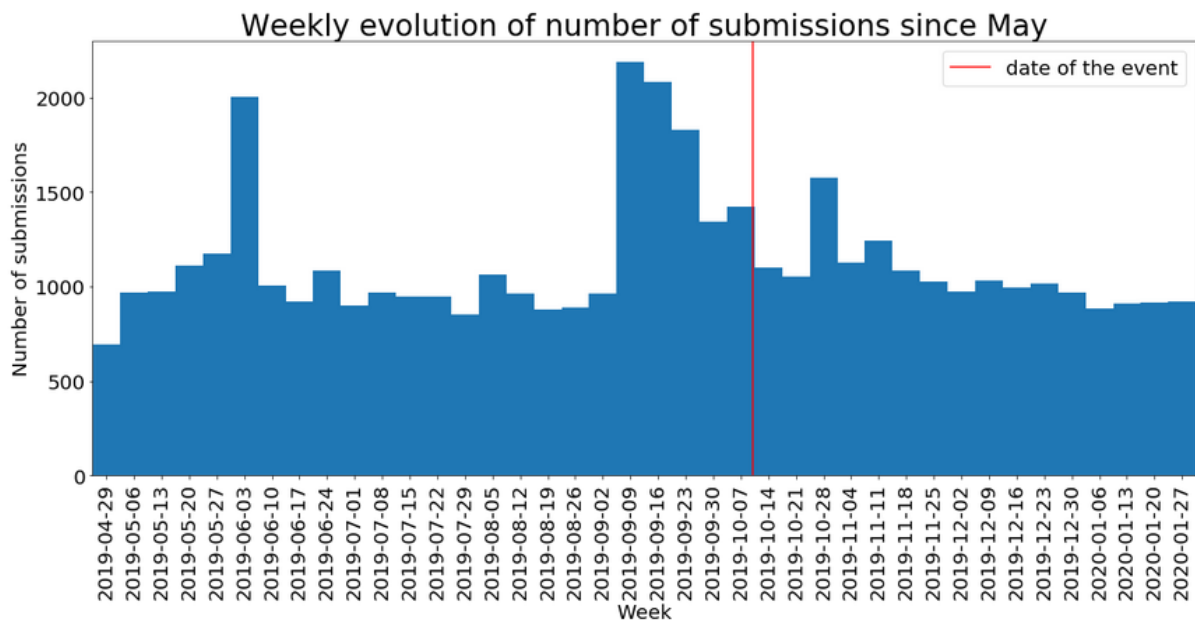

Figure 19: Weekly evolution of the number of submissions on a month-long view
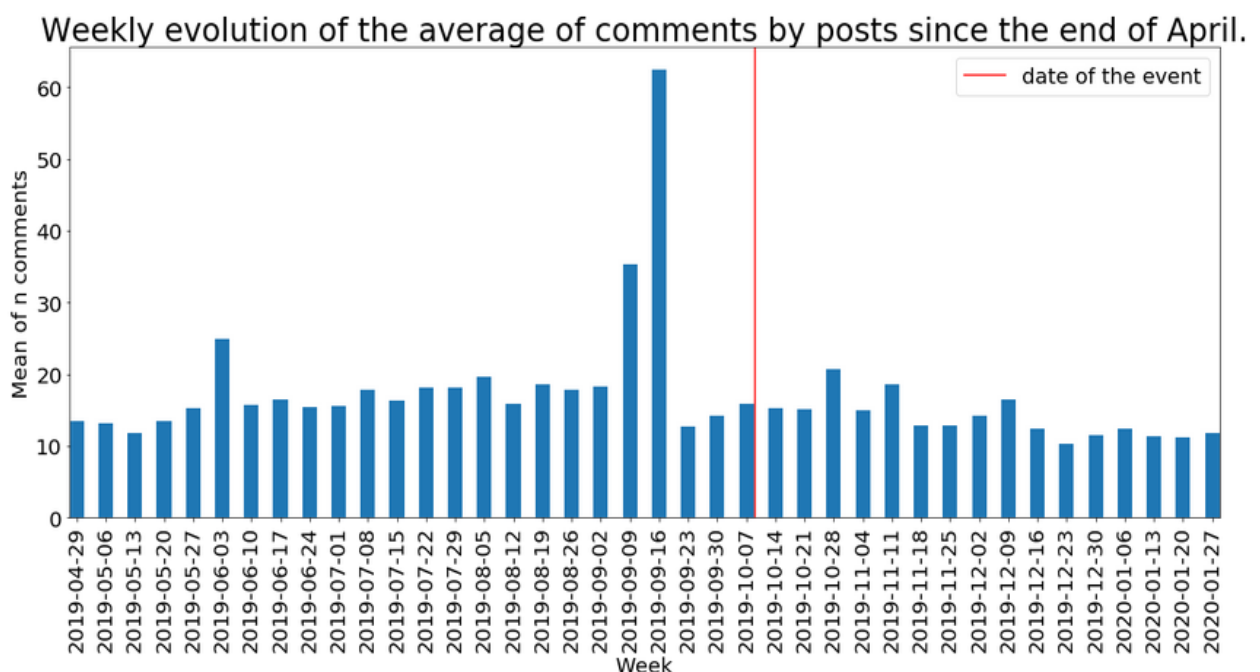

Figure 20: Weekly evolution of the number of submissions per posts on a month-long view
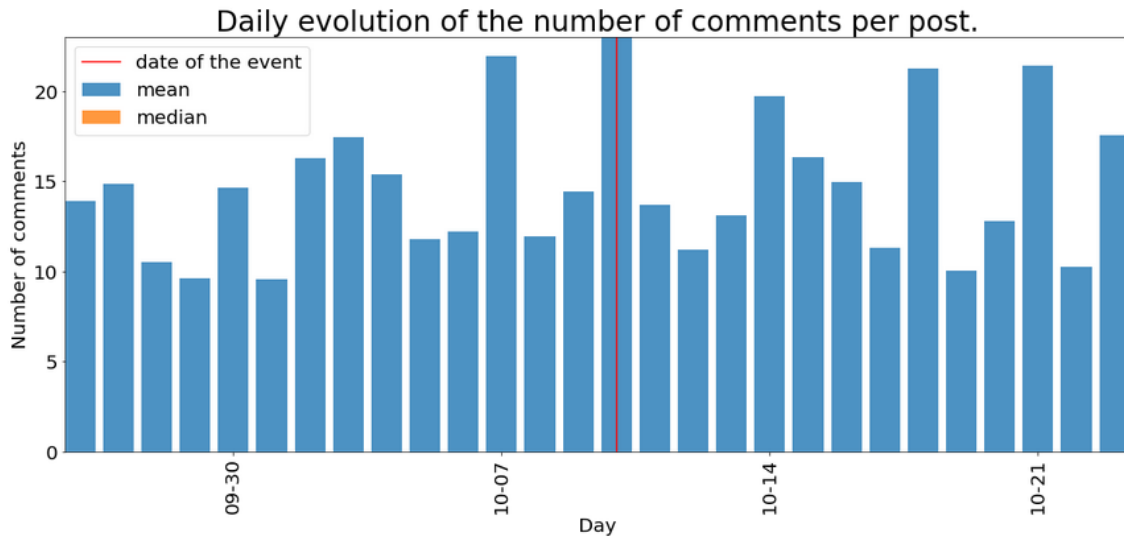
Figure 21: Daily evolution of the number of comments per post near the event

The length of posts is slightly more important after the event, but anything can be concluded from this (Figure 22).
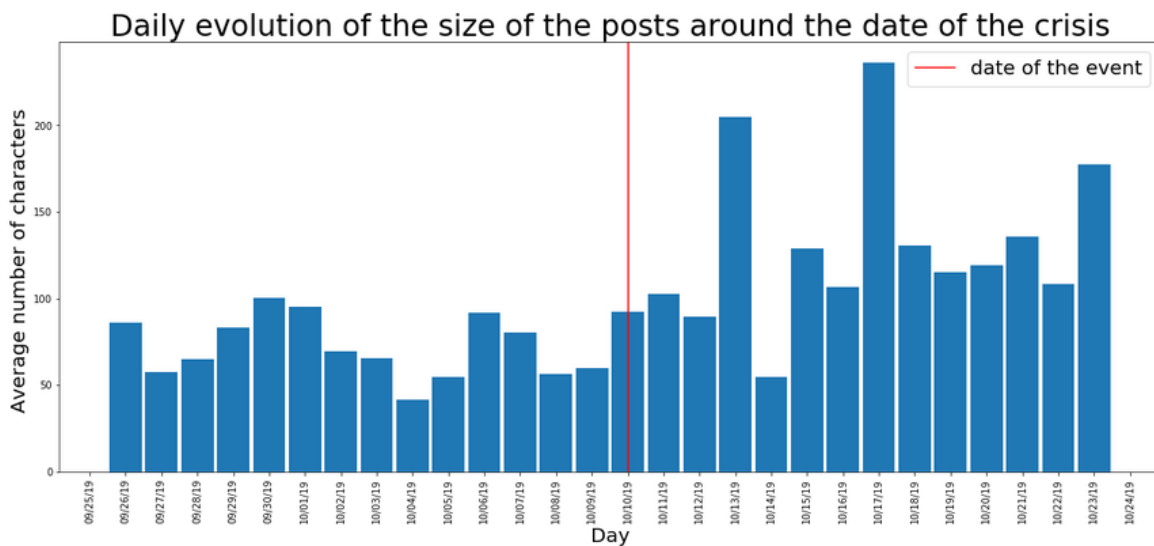

Figure 22: Daily evolution of the length of posts near the event date

As in the qualitative analysis, the score is the only metric showing a little bit of a result: the scores are high on the day just after the event day, showing an engagement from the people (Figure 23). However, this influence in the score is rapidly eclipsed by another high score on the 21st of October.
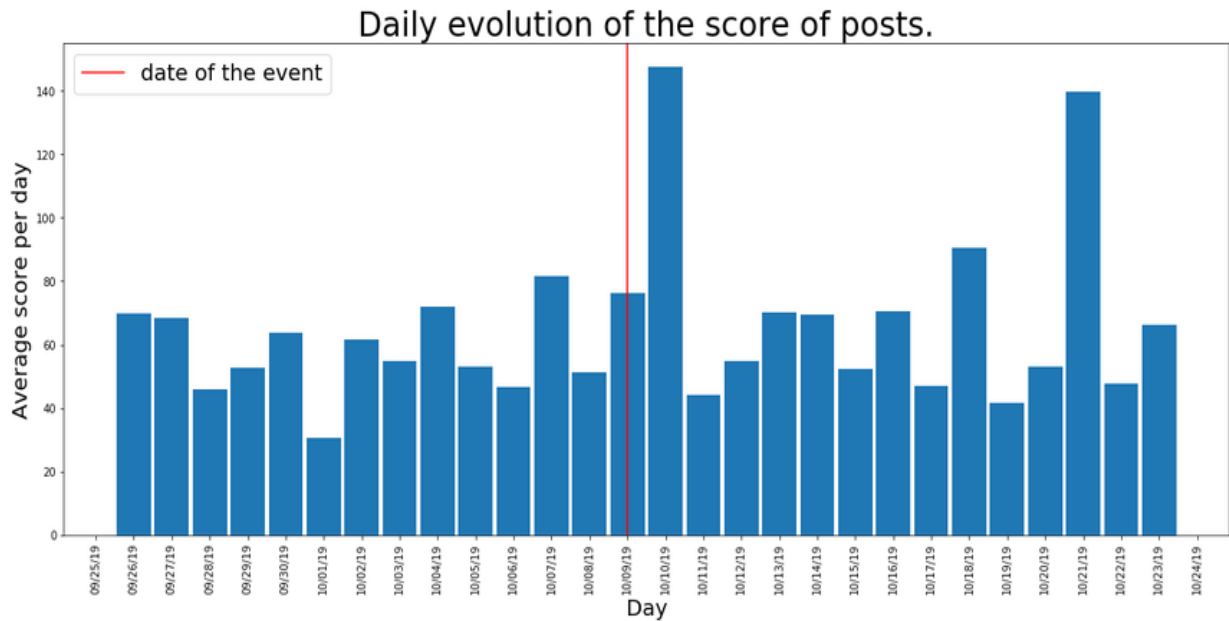
Figure 23: Daily evolution of the score of the posts around the event.

These metrics show that the apple event had actually a very little influence on the reputation of the firm, an explanation is that October is historically a big month of release for Apple. Indeed, the firm always announces the new iPhone on the second Tuesday of September, and in 2019 the new iPads and Macs were announced at the end of October.

4.B.3.Opinion Analysis

As could have been expected, the difference of the opinion scores before and after the event are not statistically meaningful.

```
Name                     mean      std    N
---------------------    -------   -----  ----
TEXT before the case     0.47      0.32   4045
TEXT after the case      0.46      0.32   3905
TITLE before the case    0.5       0.26   4045
TITLE after the case     0.49      0.27   3905

p-value for texts mean   0.12939
p-value for titles mean  0.14544
```

Table 3: Value of scores

We then can wonder what was the scope of the case, and if it was even mentioned more than once (of qualitative analysis). We implemented a very simple idea: count the numbers of submission with the words of interest.

It is important to notice that there are only 24 submissions, which contain words 'China', 'Hong' or 'Censor', which is about 0.006 of all submission after the event. For the Blizzard case, the share is 0.31 after the event.

The users complain a lot about their Air pods not working, not really about Apple's position in the crisis.

The qualitative analysis of best and worst scores shows that there is almost no public reaction to the case

4.C. Comparison of the two cases

Interestingly, the two cases had a very different impact on the companies' reputations on the Reddit platform. We can state for sure that the Apple case had a very limited impact on community discussion, whereas the Blizzard case focused all the attention of the users on the event. We then wanted to draw hypotheses about the reasons why these cases had such polarized impacts.

Our first explanation is that the two cases are genuinely different in terms of circumstances and the company's motivation. Blizzard punished an E-sport legitimate winner and took away his prize, because of his public expression of political opinion. This is a clear attempt to constrain freedom of speech. Moreover, the victim is an individual, to whom empathy can be felt. Meanwhile, Apple removed an app from the App store. Apple removes apps on a regular basis, and it does not tackle any clearly identified person. It is important to notice, that Apple justifies the decision as a matter of public security, making it less controversial than an attempt to freedom of speech.

Then, we want to look at the difference between the audiences of the two firms. To do so, we used Google Trends and Facebook Analytics (all data and screenshots of this section are from the 24th of February 2020).

Figure 24: Top Google queries for users that searched for "Blizzard" [21]

Figure 25: Top Google queries for users that searched for Apple [21]

From figures 24 and 25, we can see that the queries for people interested in Blizzard are mostly games and Hong-Kong related topics, whereas the ones for Apple are more diverse.

Facebook Analytics shows which pages the specific community likes (Figure 26, Figure 27). These results again confirm that games are playing a huge role in the lives of people interested in Blizzard. On the opposite, Apple's community does not focus much of their attention on the sole company, because they have a lot of other interests.

Thus, we have one potential explanation, why results for cases are varied. The gaming world is significant for Blizzard lovers, and each news related to it is raising more attention from the gaming community. At the same time, the Apple community does not concentrate that much on all of the events, which are related to Apple and could miss the event related to Hong Kong as well.

Figure 26: Interests of Blizzard's Facebook Community [25]

Figure 27: Interests of the Apple's Facebook community [25]

Finally, we find it interesting to look at the global influence of both firms on the web (Figure 28), to understand to what extent is the Honk Kong event in the spotlight compared to other news about the companies. Indeed, with the release of the new iPhone in mid-September and the release of all of the new components a month later, Apple is in the spotlight in October each year. On the contrary, Blizzard appears in the news quite rarely and the small peak is related exactly to the Hong Kong case.

Figure 28: Mentions of the companies in news, according to Google trends [21]

5. Limitations and future research

5.A. Technical limitations

Despite the fact that Microsoft Azure can detect insults and positive feedback, it has some limitations. Indeed, it showed poor results when detecting jokes and irony, giving them neutral or high scores. Also, it can't detect text on images, and images accounted for a huge portion of the Blizzard posts. Finally, the tendency of subreddit moderators to remove unwanted posts also constrains our picture.

Figure 29: Incorrectly classified post [26]

For example, in Figure 29 is presented a post, which has a joke in the title and the picture as a content. This post clearly criticizes the attitudes of Blizzard in the event and denounces the hypocrisy of the Chinese policies and the firm.

So, the above results about the opinion of the Redditors of the Blizzard case are, in our opinion, probably nicer than the reality.

5.B. Case study limitations

Unfortunately, the approach to the topic is connected with other numerous limitations. There is only a small part of the topic itself, which is why some case studies were chosen.

However, many parts of the course chain of an example can't be viewed. Internal processes and motivations of the Chinese government are under lock and key and can only be assumed from the outside. Such a view would also go beyond the scope of the actual work here. Nor is it possible to foresee how precisely decisions are made within the companies. Although many motives, such as economic pressure, are presumably and some of them have been proven in the literature (Richards and Murphy 1996), the exact decisions cannot be taken from a perspective outside the management level of such a company.

Furthermore, it is not possible to consider all effects. Attempts to determine concrete economic consequences, such as those caused by fluctuations in the share prices of companies on the stock exchange, have been omitted. This is due to the fact that these are subject to far more than just a single event as a cause, further internal and external causes as well as entire fluctuations of a business area or the global economy can only be recorded with difficulty. A direct economic impact of such events, such as the examples shown here, is therefore almost impossible to prove, especially not in the context of such research.

Thus, more precise motives as well as serious effects of the company can only be guessed at and cannot be proven. Only individual components, such as the qualitative and quantitative analysis made here, can be determined.

5.C. Methodology limitations

We have investigated only two cases, which can give us an opportunity to understand deeply each one of them. However, this analysis cannot give us a general answer to the research questions, i.e. what is happening with companies, and which one puts censorship on its platforms.

Reddit has provided many interesting results to us, but each platform has its specific audience. So the attitude of the community on one platform does not precisely reflect the attitude of the whole population.

Finally, reputation is a complex phenomenon and a single number cannot portray its full potential without a significant loss of information.

Removed posts can also not be analyzed in a later attempt. The same goes for pictures, which content cannot be quantitatively evaluated. Only the comments and statistics of picture posts have been computed in this study.

Microsoft Azure's tool, which has been used for sentiment analysis also has its own weaknesses, as seen. It cannot differentiate between ironically meant and truthfully positive posts. Also, posts that encourage people to e.g. withstand and protest at a company, are being evaluated as positive posts because of their wording. Although the tool provides useful results, these data are not reliable without portraying the context. Problems with the automatic evaluation, especially with negative comments, have been seen before (Dhaoui et al. 2017).

In this study, only the final steps of a long chain of events and influences were considered i.e. the reactions of users on a specific platform. Reactions outside of this platform would have to be investigated further, with more resources than those available here. Also, large parts of the

chain, such as the motivation and decisions of the Chinese government on certain conditions, the communication to the companies and internal corporate communication cannot be considered without getting inside information. This was also not possible due to a lack of resources and the deliberate focus on the two cases and their reactions to Reddit.

6. Conclusion

In the beginning the following research questions were proposed:
- What causes companies to take steps towards their own censorship?
- How do customers react to the steps taken by companies that give in to pressure?

To answer the first question, the existing literature was used. It turned out that there are numerous reasons why companies resort to self-censorship.
On the one hand, companies are required to operate at maximum efficiency. This economic pressure means that they have to sacrifice some of their integrity in order to operate in markets. Especially, in markets with limited access (such as the Chinese market), this is critical and can lead to the need to meet government requirements, even against one's own will.

However, they must also pay attention to their reputation, which has become much more fragile, especially in the digital age. Their significantly higher degree of corporate social responsibility makes them not only economic but also social actors.

Companies are forced to weigh up the pros and cons. How much of their own freedom do they have to give up in order to achieve economic success? They must also consider what negative effects, for example through customer reactions, could happen, which in turn would have economic consequences and losses for the company. Globally active companies are thus on a fine line between maintaining their reputation, their own strength of will, the influence of customers and other systems and partners.

A substantially higher portion of this work deals however with the answer of the second question since this is based on own determined data, which make own evaluations possible off existing knowledge conditions.

It was shown that in different cases the reactions to critical events by third parties can be quite different. Thus, both events were considered under their reactions to Reddit, which increases the comparability. Although they are drastic events, the reactions are quantitatively as well as qualitatively very different.

It can be assumed that the nature of the incidents plays a decisive role. While Apple carried out impersonal censorship of its App Store that did not directly affect individuals, in the case of Blizzard the incident was of a personal nature against individuals and their political opinions. It was also perceived as unfair and the reaction as exaggerated, which is why many people might identify with Blitzchung.

While in the case of the reaction to Blizzard's behavior, the reactions are strongly negative and there are a large number of posts on the topic (many of which are deleted) the reaction in Apple's subreddit is much more reserved.

While the Blizzard case is a so-called Shitstorm, the reactions to Apple are negative but constructive. Instead of numerous, short, hateful and insulting posts like the former, the users of Apple Subreddit are having a constructive debate. It has also been shown that the impact in terms of number and attention in the form of upvotes and top votes is far less severe than in the case of reactions to Blizzard's behavior.

Blizzard's reputation has been damaged in the longer run. The attitude towards the company by users seems to be strongly negative and critical even over a longer period of time. Looking back, it is noticeable that last year's Top Posts (Figures 11.1&11.2) are still strongly influenced by the events of October.

In the case of Apple, the reactions to the behavior were also negative. In contrast, the choice of language in particular, but also the number of posts was much less serious. It also seems to have done less damage to the company's reputation.

Common to both cases, methodically and due to the available resources, was that only the reactions could be followed. Internal decisions within the company remain just as questionable as the pressure that the Chinese government exerted on the companies in whatever form.

It can also be concluded, that to prevent economic censorship or prevent companies from doing so, a public reaction is not sufficient as a standalone.

There would be potential for further research here. However, researching the background requires significantly more resources, as well as internal information from corporate decisions and politics, than was the case in this study.

Further investigation of cases in similar variants to those presented here, in order to increase comparability and knowledge, would also be conceivable. To investigate the field of corporate censorship, especially when looking at digital content, seems to be far from being developed and will provide the potential for a variety of business, political, sociological, ethical and psychological studies in the future.

Equally exciting is the question of what conclusion the events surrounding Hong Kong will come to and how far the influence of totalitarian systems will affect the global digital structure and political landscape.

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