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Project 1 - Data Mining, Knowledge Discovery

MAT 259A

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History of iPhone in Data

The creation of iPhone has become a watershed of modern society dividing interconnected Internet world from the past days without such portable computing device to empower our life in this unexpected way. Since the first generation of iPhone released in 2007, developers from IT industry and media who focus on cutting-edge technologies began to publish some publications about iPhone, iPad and their operating system, iOS. The database of SPL just stores all of these relevant data about iPhone, iPad and iOS with multi-dimension introduction to describe the popularity of these products in technology industry and the publics.

Every year from 2007 to 2013, Apple released their newest generation of iPhone device, and form 2014 to today, they are applying the strategy of multiple products lines, releasing more than one device per year to attract people with different levels of budget and demands. iPhone gradually become one of the signs of Internet social world today for its achievement to spread the idea of touch screen and fluent "FaceTime" video chat. And the operating system of iPhone, iOS, always updates with the release of new generation of iPhones. iOS also supports other mobile devices like iPad (January 2010) and iPod (September 2007). It caused an upsurge in IT industry and consumers group. And here are some data from SPL to show the trends and popularity of publications about iPhone and iOS.
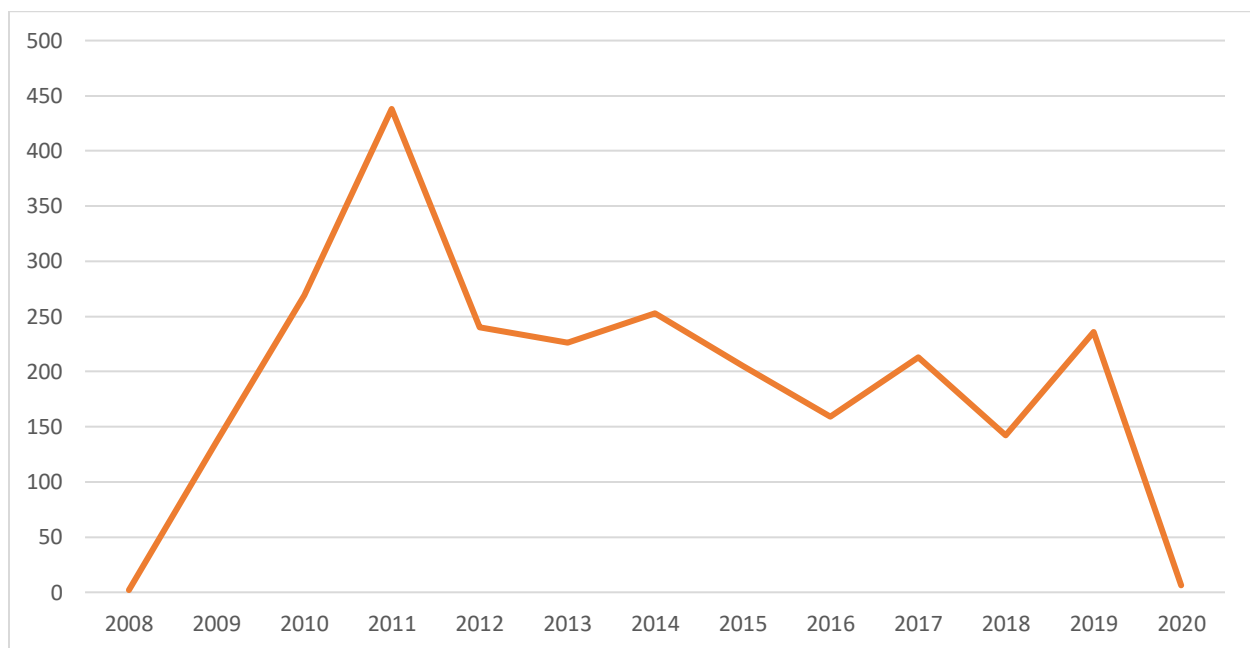
First, we can see the bibnumber about keyword "iPhone" each year to roughly understand the number of publications about iPhone each year. It can show how do media interested in iPhone at that year. And here we can get these data to show the trend of popularity of iPhone.

```sql
SELECT
    YEAR(cout) AS years, COUNT(bibnumber) AS Counts
FROM
    spl_2016.outraw
WHERE
    title LIKE '% iPhone %'
GROUP BY years
ORDER BY years ASC
```
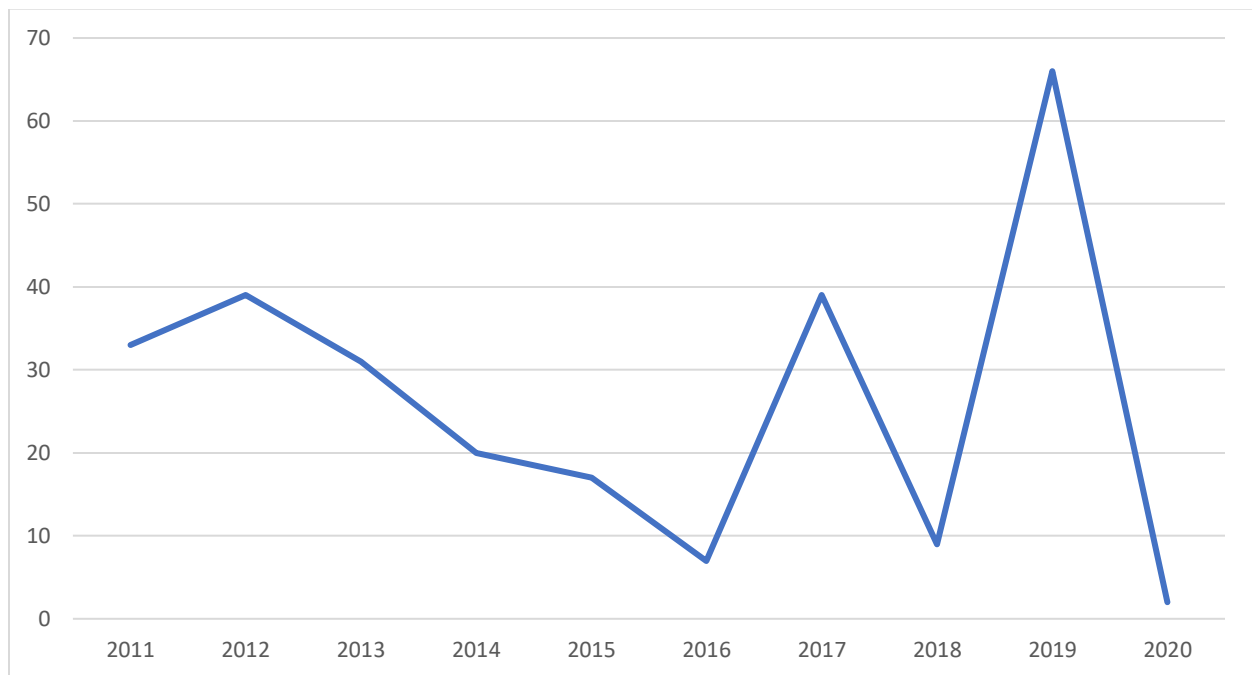
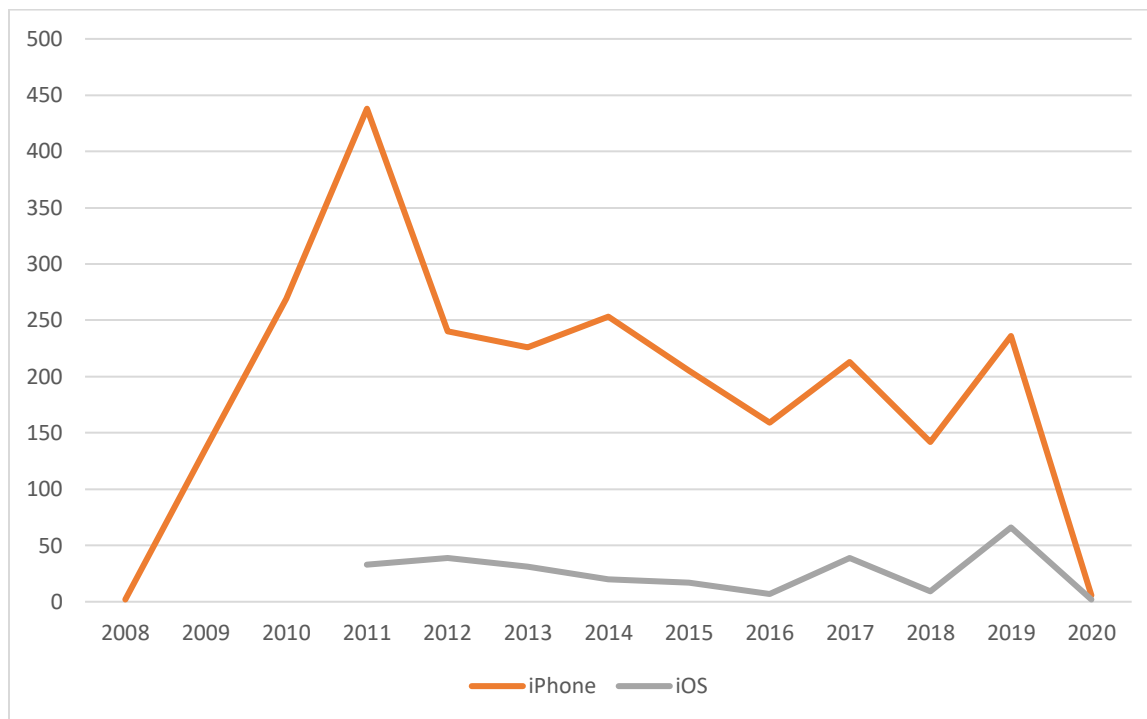| # years	Counts
2008	2
2009	136
2010	269
2011	438
2012	240
2013	226
2014	253
2015	205
2016	159
2017	213
2018	142
2019	236
2020	6

Then we can see the popularity of iOS with same method. Here are the code and data.

```sql
SELECT
    YEAR(cout) AS years, COUNT(bibnumber) AS Counts
FROM
    spl_2016.outraw
WHERE
    title LIKE '% iOS %'
GROUP BY years
ORDER BY years ASC
```
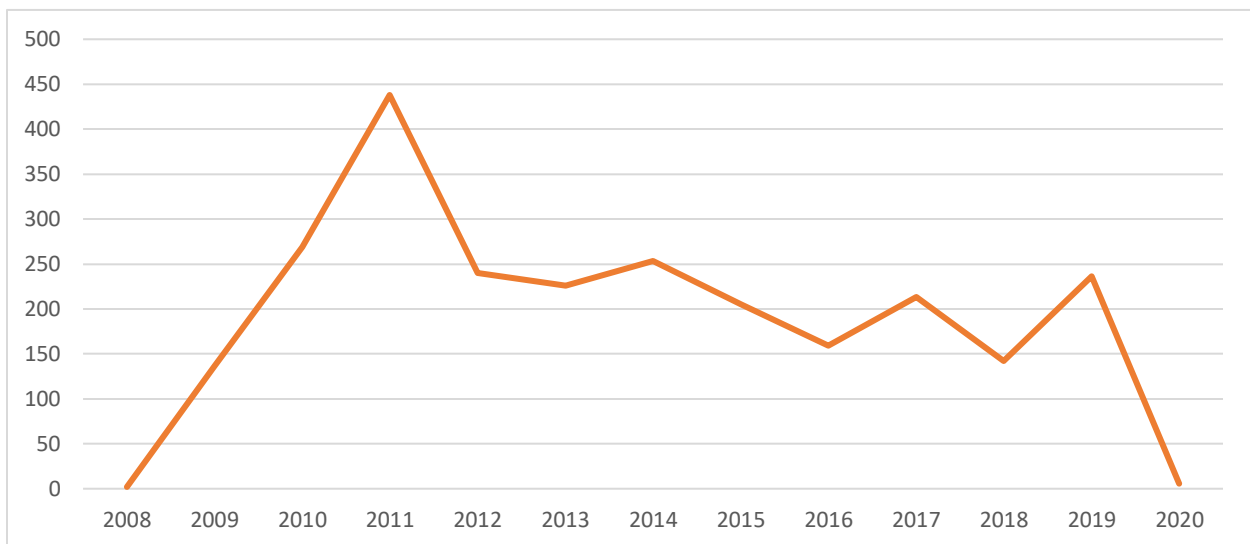
# years	Counts
2011	33
2012	39
2013	31
2014	20
2015	17
2016	7
2017	39
2018	9
2019	66
2020	2

Though there are not much data about the publications about iOS, which is relatively professional to the publics, we can still see the same trend of the popularity of iPhone and iOS. There was not much material about iOS until 2011. In 2011, Apple released the final version of Xcode 4.0 which was made available for free to all registered members of the $99 per year iOS Developer program. It began the age of iOS development for all programmers. That is the reason that iOS publications showed up in library.

Comparing to the real sale data of iPhone device, we can find something interesting here. The trend of global sales measured by the annual growth rate is quite close to the line of publication numbers of iPhones each year. However, there are always a slightly delay of the change of sales. When there was not too much media give too much focus on iPhone in 2012, the downturn of sales of iPhone showed up a year later in 2013.

In 2011, Apple released the most classic and the most popular iPhone in the history, and it is the last work of Steve Jobs, iPhone 4s. It shocked the market with its unique voice assistant Siri and the best smartphone camera. That is the reason that media would praise iPhone in 2011. However, in 2016, iPhone 7 and iPhone 7 Plus had no great upgrade comparing with iPhone 6 last year, the word of mouths of iPhone began to break.