# LUISS

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## TITOLO

***The influence of online ratings and reviews on the social learning process***

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# CHAPTER 1

## Web 2.0 revolution

### 1.1 Brief introduction

In 1991, when Berners Lee (chief researcher at CERN *European Organization for Nuclear Research*) created the first website, the world was going not to be the same anymore (**The birth of the web, CERN**). It started to fulfil the increasing need of exchanging informations and new findings in a quick way, regardless of any kind of physical distance. This was the first Web 1.0 revolution, also called the internet of "static contents" in which websites were just like pages of a book. The main purpose was the supply of informations and data with no interaction at all. The following steps of the Web development were addressed to the creation of a way in which users could interact with contents and make it no more static but dynamic. In the years around 1997-2000 forums and blogs became very popular and the real revolution was represented by the creation of communities, social networks and wiki (Wikipedia is an example: users can find, add or modify informations on it). This is the actual dynamic web also called web 2.0 where users can interact, share or use the contents in a million ways. However, this is not the endpoint because nowadays no more borders exist to limit the development and Web 3.0 is on its way to bring new features defined as "the internet of things".

### 1.2  The impact on population and the economic involvement

Even if we currently are in the so-called recession era, there still exist some sectors that are continuously developing and represent an opportunity to create richness. Whit no doubt, the Internet is one of these. Money can flow from blogs, advertisements, services, c2c websites (consumer to consumer: some examples are eBay, Subito.it, Kijij) or from the enormous world of the so called e-commerce. It comes straightforward that the more access to Internet is available to the world population, the more money will flow through its means. With approximately 3.5 billion of active internet users, 500,000 computers, 4.5 million smartphones and 800,000 tablet sold every day, the internet is becoming available to an always increasing portion of the world population. Moreover, a recent research by Google and the Boston

Consulting group stated that the impact of the web economy was equal to around 4.3% of the total Italian GDP.

## 1.3 User-generated contents

All the economic, social and public structures of the Internet developed through these last 25 years are supported by the most important new feature brought by the Web 2.0: users interaction with user-generated contents or interactive platforms. UCG (User-Generated Content) is represented by the new role of final users in the process of creating or modifying informations or contents (video, blogs, images, reports) for different purposes: scientific, historical, cultural, commercial, environmental, communicational and many more. Commercial media's growing reliance on user-generated content has led to some controversy in the publishing world. The phenomenon of UGC contains a revolutionary philosophy according to which every content created and sent online by professionals, specialized journalists or web workers, is accompanied (and even substituted in some cases) by a counter production by unpaid free users. This comes in the form of comments, wikis, reviews, forum and communities or even proper websites with contents. The surprising point is that sometimes UGCs are considered to be more efficient and precise in conveying real informations. Some organizations monitor user-generated content carefully for profanities, lies and attacks on other contributors while many others let users check their content.

# CHAPTER 2

## The influence of UGC (User-Generated Contents)

### 2.1 The world of reviews, comments and blogs (online word of mouth)

The UGC phenomenon has led to the creation of a revolutionary way of exchanging informations also thanks to personal experiences. There is a nice story that could help understand the potential power of the word-of-mouth through the internet: On September 12, 2004, an anonymous consumer disclosed in his online journal that the ubiquitous, U-shaped Kryptonite lock could be easily opened with a ballpoint pen. Within days, this news was found almost in every blog (online platforms where people can write and share their personal experiences like in a diary) and Internet forums. This online worldwide scandal forced Kryptonite to announce a free exchange program on September 22 (just 10 days after the publishing date on a private blog!) for any lock sold with that issue (see references: informations found in the paper *Do Online Reviews Matter? - an Empirical Investigation of Panel Data*, 2005 by **Duan, Wenjing and Gu, Bin and Whinston, Andrew B**) The Kryptonite experience demonstrates the sharing power of online word-of-mouth. This episode was just the starting point of a great revolution. With the help of the Internet, informations are no longer controlled by news media or large businesses but everyone can use the web to share their thoughts with millions of other Internet users. As a consequence, consumers can now easily and freely access information and exchange opinions on companies, products, and services on an unprecedented scale in real time. This whole process means that nowadays everyone who uses the internet to share or find any kind of information can influence or be influenced by everyone else's decisions.

### 2.2 Reviews and online ratings as means of exogenous marketing

Web based customer review systems are one of the most powerful channels to generate online word-of-mouth. With the popularity of online word-of-mouth activities, an increasing number of businesses have started to offer online word-of-mouth services given also that the web revolution has offered the chance to sensibly increase sales. We can identify two main online

aggregators: the so-called "open source" are the ones that offer to everyone the chance to review a product or a service, and the "closed source" are the ones that offer the chance to review to verified costumers only (**Loginova, Mantovani,** 2015). Amazon.com, Booking.com, Expedia.com are just 3 of the hundreds of platforms that offer extensive customer review systems. As an intuition, the whole web word-of-mouth system has an incredible economic potential (both positive and negative) if correctly interpreted and exploited. A real example of the incredible impact of online word-of-mouth used as an exogenous marketing tool is the big success of *The Blair Witch Project* (1999). The movie was initially seen as a teenagers-limited phenomenon with a production budget of $60,000. Then, thanks to the large-scale discussions in the online environment generated also by the curiosity created after the worldwide sharing of the topic, the movie eventually became a huge box office success ($248 million of total revenues). This effect of a good marketing result is defined as exogenous because no direct involvement by the movie creators was possible. Then, as a consequence, the success was the real effect of a great costumers' satisfaction achieved through a large scale diffusion.

# CHAPTER 3

## Consumer's attitude

### 3.1  The purchasing decision process

The purchasing process involves all the actions undertaken by individuals, groups, and organizations when selecting, buying, using or disposing of goods, services, ideas, or experiences to satisfy their needs and wants (broad definition). The web 2.0 revolution has introduced new stages in this already consolidated process. The main one is the information gathering step in which the potential new consumer tries to exploit all the available means (forums, reviews, comments, blogs) to get as many informations as possible on the good or service taken into consideration. In the online environment however, the degree of trust is always very weak because recommendations (positive or negative) are from total strangers. Unlike the case of word-of-mouth from interpersonal sources, the online user cannot use source similarity, expertise and personal trust to determine the credibility when looking for information in Internet forums or similar sources. Thus consumers draw inferences and take decisions based on their web activities on the online environment populated by sources with a low degree of reliability (**Duan Wenjing,** (2006), *The Power of Consumer-to-Consumer Community (Network) on the Internet: Consumer Decision-Making, Product Sales, and Product Diffusion*). Moreover, the online shopping instruments facilitate comparison of goods or services by consumers, and there exist many specialized websites with softwares that compare goods and services basing on their price. As a consequence, a common problem that consumers face while shopping online is choosing between a well-known firm that is considered to be expensive but reliable, and a cheaper alternative whose reliability is unknown to the consumer (**Duan,** 2006). So, evidence from many researches underlined that consumers whose decision to opt for a firm is driven by their common habit with that brand are less likely to search for information (however, it is very likely that informations will reach them indirectly) with respect to those who decide to buy from a retailer just because of a lower price. It is at this stage that online word-of-mouth plays a key role in influencing the potential consumers.

## 3.2 The post-purchase behaviour towards reviews

Research on online word-of-mouth effects provide some evidences that a satisfied customer may tell some other people about his positive experience with a company, but a dissatisfied one will tell everyone he meets (**Chatterjee, Patrali**, 2001). Then, while the first situation could have a positive but limited effect, the second case has a huge probability of negatively affecting the performance (and consequently the economic situation with decreased sales and revenues) of the firm producing that good or offering that service. As a consequence, consumers who choose unfamiliar companies are more likely to attribute responsibility for a negative experience to those compared to consumers who decided for a familiar and more famous company. Moreover, evidence from a personal questionnaire submitted to a random sample revealed that 2/5 of the new TripAdvisor subscriptions come from dissatisfied consumers who want to share their negative experience in order not to let anyone else get the same experience or to "punish" in some way the company. Also, another result from the same questionnaire evidenced that when looking for informations, potential consumers give more attention to negative comments with respect to positive ones. This stands to reinforce the idea that negative reviews and comments produced as a post-purchase behaviour have a strong impact for future decisions by potential new consumers and for performances of the existing companies.

## 3.3 Assessing the degree of satisfaction: the 5-stars rating and the bimodal distribution

Right after the purchasing process, the consumer's satisfaction is the major concern for companies or other institutions that offer goods and services for commercial purposes. In particular, the activities are oriented to obtain and sustain the repurchase process as the main goal to achieve. However, it is strongly influenced by explicit and public evaluations of product or service performance, quality, and value. All these characteristics are mostly perceived and evaluated "post experience" also through the use of online word-of-mouth. The following step regarding the sharing of the personal experience is performed by specialized websites like TripAdvisor, Booking.com, Yelp, Amazon, Netflix or iTunes that are always trying to increase the amount of contributions on their platforms also by directly asking consumers (that either looked for informations, booked a service or bought a good) to leave a new review or a comment. Then, all the previously mentioned websites have a system of automatically

adjusting questions to obtain the biggest possible amount of contributions. Their softwares then proceed with a normalization that usually converts all the impressions in a 5-stars rating: this is the final result that will be offered as a first clue to new potential consumers. Although very simple and immediate, this way of rating goods and services hides many issues regarding the reliability, accuracy, comparability and quality of informations. First of all, the graph below illustrates the main problem with the 5-star rating scale: most of the ratings are distributed to the 1 and 5 star ratings creating a bimodal distribution (having two peaks of data, which usually indicates having two different groups) that diverges from the main purpose of the rating systems of giving a unique and standardized value to indicate the level of a good or service according to public contributions. This happens because most people will only comment or review if they really liked or disliked something. The additional options of giving 2, 3, and 4 stars are viewed as unnecessary (**Berger, J.,** 2014).   After learning this, for example YouTube moved to a thumbs up or down rating system. However, removing all other options might be a bit much. Having a third, middle (the "undecided" preference) option in between could better balance things out. Then, the comparability issue is another main concern when evaluating 5-stars ratings. The point is that with 5-stars rating systems in almost every case the ratings are averaged. This creates two big problems: first, the higher the average stars, the higher the ranking of the object will be (the higher is the potential economic benefit he can get from this increased visibility). For example: Restaurant 1 has 20 ratings, 18 of which are 5 stars and 2 are 1 star. Average rating of 4.6 stars. Restaurant 2 has 200 ratings, 170 of which are 5 stars and 30 of which are 1 star. Average rating of 4.4 stars. As a consequence, Restaurant 1 will be listed above Restaurant 2 because it has a higher average. However, Restaurant 1 has significantly fewer ratings and doesn't necessarily deserve to be ranked above Restaurant 2.

The second problem is about averages that can be misleading and distract from important details within specific ratings. Sometimes, just 1 review is really describing particulars about the real feature of the product and others are just referring to peripheral qualities. This is a common externality due to public contributions by many different online users. So, if things go this way, it will be hard to do fair comparisons among objects, goods or services in this biased ranking. To reconcile these contradictory findings, more interest must be put into the way individual reviews are evaluated by each consumer: this means taking into account initial beliefs about the product formed on the basis of summary rating statistics. In the end, some researches conducted by **PeopleClaim** on May 2013 have stated that on average, 4 people over five consider TripAdvisor reviews as extremely helpful and valuable and 7 people over 10 declared that they feel very comfortable when taking decision after having looked for

informations on TripAdvisor. These aspects will be studied more in depth in the following chapters.

*The Bimodal distribution of the ratings 1-5*
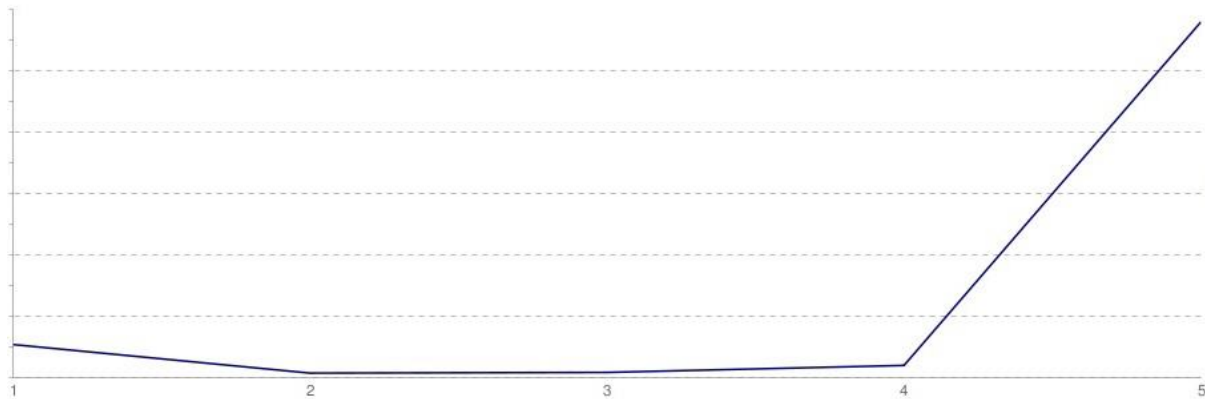


## 3.4 The quality of reviews

Thus even when a bimodal distribution of rates values is not considered as a problem, in the case of a 5-point scale the results are likely to be concentrated in only 2 or 3 meaningful data points. This is problematic because it minimizes differentiation and affects the accuracy and overall quality of the informations. In many cases, a 5-star rating system where most of the ratings are either 1 or 2 and 4 or 5 is actually no better than just a thumbs-up/thumbs-down rating system. The reason behind this separation comes from the fact that 1 and 2-stars ratings are considered as very negative and 4 or 5-stars are considered as very positive. However, given that 5-point scales are now very widespread with respect to any other kind of rating, they are probably here to stay for long and we are forced to make the best use of them we can. Having said this, websites and other web aggregators of comments and reviews have developed some strategies to "clean" informations in order to offer a better experience. First, they recognized that they had to provide web contributors with incentives, so that they will respond with meaningful ratings. Then, some better evaluations can be done also by requesting detailed ratings: when a person spends some time to write text or answer questions, and knows that his name could be attached to it, he generally puts more effort in evaluating and giving his rating (e-net data research resulted in 85% accuracy degree with respect to 46% accuracy without names). Second, they recognized the need to provide means for a 5-point scale to become more

meaningful by encouraging contributors to use not only the top/bottom half of the scale (that is the main cause for the previously explained bimodal distribution) when positively / negatively impressed, but to use the whole scale in a precise and analytic manner. One method to accomplish this is to make ratings "distinct" and encourage standards so that an "average" rating is 2 or 3 and no more 4 (**Duan, Wenjing and Gu, Bin and Whinston, Andrew B,** 2005). One last strategy to obtain a higher quality of informations is to subordinate the possibility for web users to write a review or to leave a rating (thus becoming web contributors) only if they really had the direct and real experience connected to the purchase of a good or service. This can be performed by sending personal links to costumers or to create a built-in platform in the private members' area in the website. Some already existing platforms that use this kind of rewarding systems are Amazon, iTunes or Booking.com and Expedia.

## 3.5  The utility of consumers

Having taken into consideration all the strengths and weaknesses of the online rating systems, an online questionnaire (questions are shown on the table at the end of this paragraph) was submitted to a random sample of people through some online platforms (Facebook, google+, forumweb.it) with a google form and in public areas with answers on a paper sheet. This division was operated in order to avoid the bias of receiving all the data from the online environments and from people who are supposed to be the best candidates of being users or even contributors in the field of this research. The purpose of the questionnaire was to assess to some extent the utility that people get from using website and online reviews and comments aggregators. In this case the concept of utility is closely connected to user's experience after the purchase of a good or a service. Then, as a consequence, the utilities of web users are influenced by web contributors. So, the definition of utility in this case regards the desire of satisfaction when looking for informations coming from online word of mouth. However, the outcome varies a lot because of the different approaches towards reviews and comments. Results from the questionnaire will be evaluated in the following paragraphs.

## Qual è il tuo sesso?

- ◯ Maschio
- ◯ Femmina

## A quale categoria d'età appartieni? *

- ◯ <20
- ◯ 21-30
- ◯ 31-40
- ◯ 41-50
- ◯ 60+

## Possiedi uno smartphone, tablet, pc?

- ☐ Smartphone
- ☐ Tablet
- ☐ Pc

## Quali tra questi siti con recensioni online conosci?

- ☐ Booking.com
- ☐ Trivago
- ☐ Hotels.com
- ☐ Tripadvisor
- ☐ Expedia
- ☐ Venere.com
- ☐ Amazon
- ☐ Ebay

## Quali utilizzi maggiormente? *

- ☐ Booking.com
- ☐ Trivago
- ☐ Hotels.com
- ☐ Tripadvisor
- ☐ Expedia
- ☐ Venere.com
- ☐ Amazon
- ☐ Ebay

## Con che frequenza? (scala da 1 a 5: indicare 1 per "mai", 5 per "sempre", quando prendo in considerazione un servizio)

| | 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|---|
| Mai | ◯ | ◯ | ◯ | ◯ | ◯ | Sempre |

## Su quali recensioni ti concentri maggiormente? *

- ◯ A caso
- ◯ Pessime
- ◯ Ottime

## Quanto pensi che le recensioni online possano aiutarti ad estrapolare le informazioni reali riguardo ad un qualsiasi servizio recensito? (scala da 1 a 5: indicare 1 per "per niente", 5 per "quasi certamente")

| | 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|---|
| Per niente | ◯ | ◯ | ◯ | ◯ | ◯ | Quasi certamente |

## In che misura una recensione ottima ti fa scegliere il servizio preso in considerazione? (scala da 1 a 5: indicare 1 per "per nulla", 5 per "quasi certamente")

| | 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|---|
| Per nulla | ◯ | ◯ | ◯ | ◯ | ◯ | Quasi certamente |

## In che misura una recensione pessima ti fa scartare il servizio preso in considerazione? (scala da 1 a 5: indicare 1 per "per nulla", 5 per "quasi certamente")

| | 1 | 2 | 3 | 4 | 5 | |
|---|---|---|---|---|---|---|
| Per nulla | ◯ | ◯ | ◯ | ◯ | ◯ | Quasi certamente |

# CHAPTER 4

## From utility to social learning

### 4.1 Approaches of consumers: focus on negative vs. positive reviews

In the online word-of-mouth literature, some researches have consistently shown that negative reviews have a greater impact on product sales than positive ones. However, at consumers' level, whether negative or positive reviews are perceived to be more helpful is still uncertain. One of the purposes of the questionnaire was exactly this one: understanding the approach of consumers' (real or potential) towards the use of positive or negative reviews. So, one question was directly asking "on which kind of reviews are you more concentrated when evaluating a product or a service?". The possible answers were: I choose randomly, I give more attention to positive ones, I give more attention to negative ones. In a total sample of 360 respondents, 58.3% of them have declared to randomly choose among reviews while a considerable 33.3% looks just for negative ones. This evidence partially neglects the effect of a very important externality of the online environment of word-of-mouth: the possibility of investing (directly by giving rewards or incentives to costumers or indirectly by influencing the online choice) on false good reviews since it will be limited to the remaining 8.3%. This number is still very big however, if compared to the economic impact of the size of the market for goods and service that dominates the online ratings. Nevertheless, empirical studies have found that negative ratings hurt sales to a greater extent than positive ratings do in diverse product categories. This "negativity" effect can be also explained from an evolutionary standpoint according to which humans are more alert to risks in the environment because such risks have been more critical to our survival (**Vaish** et al. 2008). This is also described as a phenomenon termed as positive–negative asymmetry in the broader literature (**Baumeister** et al. 2001).

### 4.2 The learning process

Given that comments and reviews are structured in a way that creates a sequential flow of informations that users can also find in concatenate series (with direct questions and answers as well), the degree of learning of consumer X will be affected by all the previous consumers

until X-1 and will be totally independent (this is not valid if viewed from the perspective of consumer X+1) from the future experience of consumers X+1 to X+1+n. The interesting focus is on way customers only observe the sample mean of past reviews, and on the extent to which they can understand the true quality of the product based on the feedback they observe. In order to build a simple model regarding the assessment process of the product quality it can be shown that when N is large and the interest is concentrated on a small number of goods or services the true quality Q will be subject to an upward or downward error equal to ε, where $\hat{Q}$ is the quality perceived by the costumer:

$$Q = \hat{Q} + \varepsilon$$

This error is in expectation equal to zero and does not depend on any of the features concerning the quality:

$$E[\varepsilon_N] = 0; \text{cov}(Q, \varepsilon_N) = 0.$$

So, at the beginning of the process, each customer is endowed with a signal (represented by the instant clue when noticing the average rating), that is a random variable depending on the unknown quality of the available options. The choice of one of the two options (purchasing/not purchasing) is based on this signal which is private information, and on the observed behaviour of the previous customers (represented by the existing reviews and comments).

## 4.3 The buying model

Then, the model describing the purchasing decision will be also based on income constraints. Again if a consumer perceives that the expected quality is $\hat{Q}$, her individual preference for the other attributes is Θ and the price is p, then the consumer purchases the product if her expected net utility is non-negative:

$$if \quad \Theta + \hat{Q} - p \geq 0$$

We assume that the no-purchase option produces zero utility. The heterogeneity in preferences is captured by consumers' types that are private information. Buyers then have the choice of submitting a review of their experience that will then be normalized in the 5-star and will reflect the positivity or negativity of the resulting value of the model. The review is based on the true quality of the product plus the effect of the random degree of satisfaction perceived upon consumption of the product. For this reason, reviews or comments are only partially informative due to the heterogeneity in preferences that cannot be distinguished from each other and the fluctuations in the experienced satisfaction about the product. Each subsequent consumer observes the ordered sequence of reviews. Furthermore, the model will always give a value (either positive or negative) describing the net utility derived from buying the product, irrespective of whether the intrinsic quality $Q$ is high or low and of the personal experience of consumers. In the paper by **Scarsini, Ifrach and Maglaras** (*Bayesian Social Learning from Consumer Reviews,* 2013) it is also shown that it is possible that social learning does not take place, even asymptotically. This is due to the fact that at some point they stop buying. The reason for this is that their type distribution is bounded above, so when the probability that the quality is high goes below a certain level (subjective evaluation preferences), nobody has an incentive to keep buying.

## 4.4 The word-of-mouth based model

The model presented above, even if describing the decision process in connection with price, subjective quality perceived $\hat{Q}$, individual preference for other attributes $\Theta$ and error $\varepsilon$, doesn't take into account the revolutionary feature described so far: the online fast flow of informations. It is shown that a potential new consumer, at the moment of taking the decision, has an amount of informations available equal to $I_{N-1}$ that is represented by all the contributions submitted so far by previous purchasers. So, in order to get the most out of them, the agent must now modulate its expectation of quality given that he has $I_{N-1}$ now available:

$$E[Q|I_{N-1}]$$

Also, a potential new buyer will see the average rating $\bar{X}_N$ as first clue in website with comments or reviews. In particular, that value is the result from the following equations:

$$Q_N + \varepsilon_N + \Theta_N = X_N$$

$$\bar{X}_N = \frac{1}{N} \sum_{n=1}^{N} X_N$$

However, at time t before the actual purchase takes place an agent has available only $\bar{X}_{N-1}$ (that is the average rating relative to the previous $N - 1$ reviews from previous buyers). Then, according to the adjustment just presented, the new buying model will still take into account the other attributes $\Theta$ and the price p:

$$p \leq \Theta + E[Q|I_{N-1}]$$

This new equation is now fully describing the phenomenon based on the online word of mouth. The fact that the perceived quality is depending on informations available will put downward pressure to the critical level of price (i.e. the point at which the utility coming from the purchase and use of the good or service equals the price of it). This happens because a potential customer will now have some insights about the good taken into consideration and will form its own prediction of the maximum price she is willing to pay. Competition among producers or service providers will increase as a consequence and market as a whole will benefit because prices will decrease and there are chances for product differentiation to increase.

# CHAPTER 5

## Evidences from managing the image on TripAdvisor

### 5.1 The largest online network of consumers

TripAdvisor.com is an American travel website company that provides reviews of travel-related content. It also includes interactive travel forums and claims to be the largest travel site in the world, with more than 60 million members and over 170 million reviews and opinions of hotels, restaurants, attractions and other travel-related businesses. Hotels, restaurants and many activities and attractions regard almost 500,000 companies worldwide (**TripAdvisor**, 2009). In 2007, the site was named one of the Top 25 Travel Milestones by USA Today, being cited as having been instrumental in changing the way in which consumers research and plan travel (**Wikipedia, Peter O' Connor,** 2010). When adding their own reviews on a restaurant for example, users are asked to rate each experience on a five-point scale (from excellent to poor), and to consider issues such as environment, quality of food, and service levels. Reviewers are also asked if they would recommend the experience to a friend, whether they were eating alone, as a couple or with family or friends, and whether they feel that the experience is suitable for different types of occasions (e.g., a romantic dinner, a family celebration with children, etc.). Lastly, reviewers are can upload photos or video to support their review if they want to. All data entered by users is checked by TripAdvisor's staff to insure that it conforms to content rules. Hotels, restaurants and owners of each listed activity have the opportunity to post a management response to post right below each review.

### 5.2 False reviews and fake accounts

The problem with authenticity of reviews and comments is one of the key issues faced by TripAdvisor. As a consequence, there is a widespread suspect among owners of commercial activities that many reviews are not genuine or written by competitors to decrease a restaurant's rating. In particular, that is evident when there are scores that differ largely from the average, mentioning competitors' properties as better ones and having written in the past about only one hotel or visited the site just once. TripAdvisor is also trying to minimize the problem by posting

warnings that fake reviews will not be ignored and that hotels or restaurants attempting to manipulate their ratings will be penalized in their rankings and will have a default notice posted on their online profiles indicating that they have tried to cheat by posting fake reviews. The power of the mass that characterizes Web 2.0 sites enters this argument as the main actor: fortunately, when the number of reviews grows, the impact of fake reviews falls as they are counteracted by the effect of true consumer-generated content. However, TripAdvisor has been the reason for many controversies regarding the posting of anonymous reviews any hotel, restaurant or activity. TripAdvisor has declared that reviews are not posted to the website instantly, but are previously verified by a software that takes into consideration IP address, email address and geographical differences between servers and users, in order to limit in some way that phenomenon. The website also allows the community of users and owners to report suspicious content, which is then assessed by a team of quality assurance specialists, and TripAdvisor will inform the owner or manager of a TripAdvisor-listed establishment whenever a review is posted on their listing.

## 5.3 Managing the image of a restaurant

Given such great potential (positive or negative) influence, it would come natural that restaurants and hotels would spend time managing their image on such sites with comments and reviews. In fact, even if a restaurant cannot modify or remove any negative reviews, websites such as TripAdvisor offer a "right to reply" feature where owners or other people in charge of customer care can attach their own answer to each comment or review. This is because it is known that there always exist two separate views of an experience. Working this way, every user has the chance to judge the whole situation on its own. Yet, the study conducted in the paper by **Peter O'Connor** (*Managing a Hotel's image on TripAdvisor,* 2010) shows that this facility is used very rarely (in this study, less than 0.5% of reviews had a management response attached). This is particularly worrying because online word-of-mouth cannot be controlled for its nature but it should be managed and must not be ignored. A possible consequence is that the market positioning of a restaurant could change as a result of online dialogs or comments of customers. From this point on, there can be non-negligible effects on revenues as well. It is shown in a paper by **Luca** (2011) that the impact of reviews on rated services or products has been reported to be significant, in some cases attributing 5-9% increase in revenue to an increase in one star on Yelp. To cope with this, hotels need to be more

proactive, continuously engaging in dialogue with the customer, to protect their brand image. Having taken all this into account, I personally engaged in managing the image of a restaurant in the centre of Rome. In a 3-months period the number of total reviews (written both in Italian and in other languages) rose from 599 to 658. From that point on, 378 reviews (both old and new ones) had a customized reply and the overall ranking of the restaurant with respect to the city rose by 1%: from 1251/9063 and a 13.8% (ranking position over total number of restaurant in Rome) to 1189/9240 and a 12.8%. This was just the result of showing to TripAdvisor's users that the Restaurant taken into consideration was taking care of its public image and of its customers' experiences. Moreover, the 5-star average rating had an increase from 3.62 to 3.66. This was calculated on the basis of the grades of each review (from 1-star poor opinion to 5-stars excellent opinion). This result is quite remarkable if compared to the time and efforts that required: a few minutes to answer dozens of reviews coming in every week. Also, the cost of monitoring reviews is negligible (it is enough to have an internet connection and a TripAdvisor account that works also on the smartphone mobile application) with respect to the cost of losing potential customers because of the uncontrolled presence of negative reviews regarding the profile of the restaurants. There have been also evidences of customers who wrote a review explaining that they chose the restaurant because of the good reviews they read on the online platform of TripAdvisor. In the end, the possibility of customizing each review gave the chance of building a customer-owner relationship on the base of good experiences and positive comments.

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