

## 4 Shaping consumers' online voices

### Algorithmic apparatus or evaluation culture?

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#### Introduction

The rapid development of Internet applications and devices has greatly reduced the costs of coordinating and participating in many social and cultural activities. Over the last 15 years or so, there has emerged, through both corporate or individual initiatives, numerous large collectives producing information available to all. Beyond the paradigmatic example of Wikipedia, online video platforms, blog networks, and consumer reviews sites have together built rich data resources, based on free contributions and organized by site administrators and algorithms. These web-based platforms gather heterogeneous contributions from users, which are reconfigured through the operations of selection and aggregation, then sorted and shaped in order to make it meaningful information for their audience. Several terms have been used to describe this mechanism: “collective intelligence” (Surowiecki 2005), “wealth of networks” (Benkler 2006), and “wikinomics” (Tapscott and Williams 2005). The analyses of these authors highlight the ability of such forums to create greater value from scattered individual contributions. They emphasize the efficiency of algorithms and the coordination of technical systems that enable the aggregation of subjective and local contributions into a larger whole that is relevant for users. Overall, these systems and the mathematical formulas that support them, whether simple or complex (based on rankings, averages, recommendations, etc.), are able to build valuable assets from myriad heterogeneous elements produced.

Online consumer reviews (OCRs) are a good illustration of this phenomenon. First popularized by Amazon in the late 1990s, they have since become ubiquitous on the web. They are typically comprised of a combination of a rating (often out of five, and symbolized by stars) and a written review. A product's overall evaluation is summarized by the average rating and the first few lines of some reviews, which the user can freely navigate. OCRs are now present on a variety of sites, particularly those platforms that specialize in collecting opinions (TripAdvisor, Yelp, LaFourchette) and e-commerce sites. They cover a wide variety of goods and services, from hotels and restaurants to funeral homes, as well as books, vacuum cleaners, schools, and everything in between. By bringing together a unified representation of scattered consumer voices, the

consumer rating and review system has clearly formed a large part of our collective digital intelligence. Indeed, the creators of these sites themselves often invoke democratic legitimacy by presenting themselves as the voice of ordinary consumers. As with democratic elections, every consumer is allowed one vote, and all opinions are presumed equal. For example, the CEO of TripAdvisor has stated:

Online travel reviews have hugely changed the way the travellers can plan their holidays—they add an independent view of where to go and stay giving another level of assurance that their hard earned travel Euro is spent wisely. [...] That's the positive power of Internet democracy in action.

(Kaufer 2011)

A further claim to legitimacy is the strong consumer appetite for these services, as a majority of Internet users say they use them regularly; this has translated into tangible effects in many markets. Indeed, several marketing science and econometric studies have demonstrated a significant impact of OCRs on economic activity in sectors such as hotels, restaurants, and cultural consumption (see references below in the section “The uses of ratings and reviews”).

While it has received a lot of media commentary, the practice of rating and reviewing has received very little empirical research. The few that exist, mainly in sociology and organization studies, are schematically divided into two categories. The first investigates the motivations of those who frequently contribute comprehensive reviews, emphasizing the importance of recognition, skill development, and gratification: according to these studies, OCRs appear primarily to be the work of semi-professional evaluators (Pinch and Kessler 2010), somewhat leaving ordinary contributors on the margins. A second category insists instead on the heterogeneity of scattered, subjective contributions, stressing the decisive role played by algorithms in constructing meaningful assessments, overall scores, and rankings (Orlikowski and Scott 2014). These analyses support the perspective of broader reflections on collective intelligence, highlighting the crucial role of algorithmic synthesis, and calculations more generally, in the aggregation of subjectivities; they suggest that contributors are largely isolated, guided by an irreducible subjectivity, and, statistically speaking, independent.

Recently, web-based platforms such as OCR websites have gained the attention of scholars for their capacity to organize information and make sense of users' contributions. By aggregating and sorting contributions through proprietary and often undisclosed algorithms, these websites have a great ability to shape culture (Striphas 2015). Through their algorithms, they are in a position to redistribute valuations and preferences within many cultural and information industries, in ways that cannot be democratically discussed or disputed (Gillespie 2010; Morris 2015). Though these analyses raise a crucial point—our ability to discuss what's valuable in our cultures—they tend to presume that the effect of the algorithm is complete and undisputed. From a Foucauldian perspective, they stress the power of web platforms to organize users' information, and consider

the algorithm as the result of an explicit strategy; conversely, users are mainly seen as passive subjects. In this chapter, we try to qualify this perspective by underlining the role of users in shaping algorithmic valuation. As stated by Oudshoorn and Pinch (2003), “users matter” in the shaping of technologies; in our case their actions shape these platforms in at least two ways. First, they interpret the information provided by the platforms, select and weigh it in a way that is not completely scripted by the site. These interpretations are based on their experience, and they have good reasons to adhere (or not) to the site’s valuation standards. Second, users shape the platform through their contributions, by choosing whether or not to follow its guidelines, and by anticipating the effect of their actions. As a consequence, the ‘algorithmic’ valuation is co-produced by the site and its users through a relationship that cannot be interpreted as pure passivity and alienation. Following MacKenzie (2011, 2014), the set of interpreting schemes and practices developed by users around the website can be called an “evaluation culture.”

In this chapter, we follow this user-centered perspective by highlighting the collective practices and reflexivity of ordinary contributors. We show that the authors of such opinions do not give free rein to their subjectivity, but write in consideration of a specific target audience and/or website. There exist common assumptions and norms concerning the proper format and content of an opinion, as well as standards governing what makes a contribution helpful, as well as a rating relevant. All of these standards can be described as part of evaluation culture as described by MacKenzie; as well, the development of a new assessment tool is necessarily accompanied by the emergence of more or less coherent methods of interpretation, reading practices, and the manipulation of instruments. Rather than contributors primarily seeking recognition or consumers governed by their subjectivity, it is the figure of a common user who is reflexive, knowledgeable, and accustomed to these services that we want to highlight here. In order to do this, we rely on a survey of contributors to the restaurant rating website LaFourchette ([www.lafourchette.com](http://www.lafourchette.com)), supplemented by contextual data from the web, as well as a survey of a representative sample of consumers.

The first part of this chapter presents a brief literature review, centered on empirical findings concerning the use of ratings and reviews. The second part is devoted to the presentation of LaFourchette, and the methodology used in this study. The third part focuses on the motivations of users who contribute to the site, particularly through their practices of reading the ratings and giving advice to consumers: participation is primarily motivated by a satisfactory reading experience, and influenced by a certain understanding of the collective work done by website users. The fourth section describes the standards that form the evaluation culture of the site in terms of form and content, and attempts to sketch in broad terms the figure of the contributor ‘socialized’ to these types of sites.

## Ratings and reviews, their uses and academic research

### *The uses of ratings and reviews*

Consumer reviews are now a standardized tool, ubiquitous on the web and fully integrated into the lives of Internet consumers. The format, introduced by Amazon in the late 1990s, allows users to express themselves through a combination of a rating system and written text (Beauvisage *et al.* 2013). Reviews and ratings are found on most e-commerce sites, and also on websites dedicated specifically to the assessment of goods and services by consumers. In the field of tourism, for example, TripAdvisor collects reviews and opinions on hotels and restaurants around the world, and had approximately 25 million unique monthly visitors in the U.S. in 2015, and the same number in Europe. Such sites exist for a wide variety of markets, such as shops and local services (Yelp, with 83 million unique visitors in the U.S. in 2015), restaurants (Zagat, Urban Spoon, LaFourchette), consumer goods (Ciao), and so forth.

A great deal of converging data demonstrates the increasing incorporation of online reviews and ratings into the everyday consumption practices of Internet users. Our survey among a representative sample of French Internet users shows that 87 percent of them pay attention to reviews, and 89 percent say they are useful; 72 percent of them have contributed an online review or opinion, and 18 percent say they do it often (Beauvisage and Beuscart 2015; see “Methodology for the study of LaFourchette” below). Despite the likely over-reporting bias, the steady growth in the positive response rate to these questions shows the increasing popularity of this practice. Another indication is provided by the effect of ratings, as measured by econometric investigations seeking to evaluate the impact of online reviews on sales: overall positive effects were observed for book sales (Chevalier and Mayzlin 2006), cinema tickets (Liu 2006), and restaurant sales (Luca 2011).

This expansion of review websites can generally be understood in two distinct ways as part of the recent democratization of evaluation (Mellet *et al.* 2014). On one hand, these sites greatly extend the scope of evaluated goods and services, and thus the number and type of consumers who are reached. For example, in the case of restaurants in the French market, the *Michelin Guide* lists about 4,000 restaurants, mostly upscale and classy; for its part, TripAdvisor provides assessments of 32,000 establishments, 60 percent of them with meals available for €30 or less. On the other hand, review websites allow all consumers to offer their opinions, popularizing the process initiated in the late 1970s by guides such as Zagat, which began collecting consumer opinions via written questionnaires. By 2012, for example, TripAdvisor had collected 338,000 reviews of restaurants across France, collected from 178,000 distinct users.

### *Academic research*

Relatively little empirical work has been conducted on the contributors of these sites, or the meanings they ascribe to their assessment activities. The pioneering

work of Pinch and Kessler (2010) on the most active Amazon contributors shows that they are mostly male, have an above-average education, and are often engaged in activities related to knowledge-production. In terms of motivation, the collected responses (by questionnaire) highlight several dimensions: personal development opportunities (writing skill, expertise in a certain area), recognition from other members on the site, and the material and symbolic rewards offered by the site. Other, more recent studies have confirmed these findings: King *et al.* (2014), in a survey of marketing studies on this topic, place self-esteem (self-enhancement) and the search for recognition as the strongest motivations for writing OCRs. From the same perspective, Dupuy-Salle (2014) shows that recognition issues are strongly correlated to membership among the elite contributors of film reviews sites. While convergent, however, these results cover only a very small minority of overall OCR contributors.

A second approach common in recent research focuses more on the content of the written reviews and opinions. Beaudouin and Pasquier (2014) observed that online opinions of films vary between two poles: some opinions strive to resemble professional criticism, to construct an objective and argumentative discourse, while others are characterized more by the expression of subjective experience, often written in the first person. Other research is more interested in examining how speakers assert their qualifications when reviewing goods and services. Jurafsky *et al.* (2014) note that reviewers demonstrate their competency in about 25 percent of online reviews for consumer goods (e.g., “I cook a lot of duck,” “I’m on my second child,” etc.). Other research examines how the quality of goods is evaluated. Cardon (2014), in a textual analysis of opinions on French hotels on TripAdvisor, found a strong focus on certain attributes (e.g., the quality and quantity of breakfast) at the expense of evaluations of more traditional criteria in the industry. Finally, some studies suggest that opinions generally vary according to the type of good being evaluated—they are typically longer for expensive products (Vásquez 2014)—and often depend on the rating given: for hotels, reviews tend to be more fact-based when they are less favorable (Cardon 2014).

### **Methodology for the study of LaFourchette**

In this chapter we rely on interviews with contributors to the site [www.lafourchette.com](http://www.lafourchette.com). This qualitative material is supplemented by contextual data from the web, and by the results of a survey of a representative sample of Internet users.<sup>1</sup>

Launched in 2007 in France, LaFourchette is a restaurant review website (and mobile app) characteristic of the second generation of platforms dedicated to local goods and services that appeared between 2000 and 2008 (TripAdvisor, Yelp, Qype, Tellmewhere, etc.). Unlike the online city guides of the first generation, created in the 1990s (e.g., Citysearch in the U.S., Cityvox in France), these newer platforms are characterized by the lack of a strong, central editorial authority, by the participation of Internet users (as both consumers and merchants) to enrich the content and inclusively evaluate places and goods, and

by the *a posteriori* algorithmic moderation of the results (Mellet *et al.* 2014). Thus, these websites put the participation of users at the heart of their activity—and of their business model, which, in one way or another, is based on the monetization of content and traffic generated by users. And they try hard to encourage and organize it. First, OCR platforms have developed specific tools in order to foster participation. The most common incentive apparatuses mobilize social features, such as user profile pages, badge systems to reward the most prolific contributors, internal communication tools, etc. These devices tend to single out contributors and give greater weight to the reviews of the most prolific authors (Mellet *et al.* 2014). Second, OCR websites try to shape the contributions in order to make them relevant to the audience and to the industry they address. As market intermediaries, they design tools in order to favor appropriate matches, by encouraging contributors to respect specific formats. Through their forms and input fields, they encourage users to follow existing shared criteria of valuation.

While the presence of certain features on the site, and its acquisition in 2014 by TripAdvisor, strongly root LaFourchette in a typical participatory online model, some uses of the site are quite specific, as we shall see below. LaFourchette is essentially a software platform with an incorporated reservation system used by about 4,200 French restaurants (as measured in July 2012). Users can navigate through the pages of those restaurants and make reservations; they can take advantage of rebates from certain restaurants, who in return receive greater visibility on the platform; and once they have eaten at the restaurant, users are invited by e-mail to give a review and a rating. This invitation to contribute is the principal incentive mechanism we observed, since at the time of the survey contributions were not encouraged by rewards nor elaborate badges—except the inconspicuous ‘gourmet’ status obtained after the second review, and ‘gastronome’ after the tenth review. Furthermore, the evaluation form on LaFourchette is similar to that found on other sites. Contributors are first invited to rate three criteria from 1 to 10: food, service, and setting. The individual score given to the restaurant is produced from the (publicly displayed) weighting of the three ratings. Then, contributors are invited to write in a free text field. There are no explicit instructions or recommendations, and no apparent limit: “it is almost unlimited in size,” a LaFourchette manager reported to us.

More than 642,000 ratings were posted on the site as of July 2012, an average of 153 per restaurant. While the vast majority of the 292,000 contributors have reviewed only occasionally—87.5 percent have left three reviews or fewer—a significant number of users are more active: 13 percent of contributors have left four reviews or more and account for half of all posted reviews; among them, 2.8 percent of contributors have posted ten reviews or more, and there are about 3,000 users (0.1 percent of all contributors) who have left more than 50. In this chapter, we are most interested in these regular contributors.

Overall, we interviewed 33 people who responded positively to a request sent by LaFourchette to a random sample of 100 users, consisting of 21 very active contributors (with over 50 reviews posted on the site) and 12 somewhat active contributors (10–15 reviews). Most were also contributors or visitors to

TripAdvisor, so they were asked about their use of this website as well. The interviews lasted 30–90 minutes and were conducted face-to-face (24) or online by video link (9) in November 2013. They were transcribed and fully encoded using the QDA Miner qualitative data analysis software. The sample includes 14 women and 19 men, mostly from Paris (14) and the greater Paris region (13). On average they are 48 years old, and have a high level of education—22 have four or more years of university education. They often visit restaurants, and attend on average one or two per week (up to eight per week). They dine at restaurants in a personal context (as a couple, or with family and friends), and one-third of them visit restaurants in a business context. Overall, they have contributed to LaFourchette for over a year and a half, between ten and 194 reviews each.

### Contributing to a collective goal

The first key issue for us in interpreting rating and review systems is the meaning given to this activity by the contributors. While our investigation uncovered some of the reasons discussed in previous work on highly active contributors (pleasure, great interest in the subject), other motivations were also found, including the explicit desire to contribute to a collective goal that is considered useful and helpful. We focus first on their experiences as readers, before analyzing the scope of their motivations for contributing.

#### *Experience as readers of online reviews*

All the users surveyed expressed having had an excellent experience with LaFourchette. Although this finding may be magnified by selection bias (individuals who enjoy the website are more likely to talk at length with sociologists about it), all users without exception voiced satisfaction with the site. The LaFourchette website (and by extension, TripAdvisor) is seen as a highly reliable tool for choosing a restaurant, regardless of the context or requirements. Those who once used traditional guides abandoned them in favor of online sources; the most gourmet among them continue to consult the *Michelin*, but only for high cuisine. For those who frequent restaurants less often, LaFourchette is their first choice. In general, the guiding idea of the site is that of “discovery without risk”: through users’ accounts, the site maps a broad range of possibilities, all while minimizing unpleasant surprises:

I must admit that La Fourchette allowed me to change my address book a little, that is to say, to include addresses ... of restaurants where I would never have gone before.

(E26)

It’s true that this type of application has changed us as consumers ... now I would not eat at just any restaurant at random.

(E11)

These positive experiences are based on a number of reading patterns common among most users. To get an idea of a restaurant, they combine the information available on the site (rating, reviews, photos, menus, etc.), but never limit their impression to just the rating. They read the reviews, at least the ten shown on the first page, and often visit multiple pages. But while they make their choice by combining these criteria, it seems to be strongly influenced by a good average rating as a primary criterion. For example, two-thirds of respondents reported a score below which they would not consider a restaurant: most often 8/10, 7.5 for some, and 8.5 for others. Recall that the average scores are high on these sites: the median rating is 4/5 on TripAdvisor, and 8/10 on LaFourchette; most users generally do not consider restaurants ranked eight or lower, and thus limit their choices to the best rated restaurants. Relying on these typical and common patterns of judgment, most users consider the experience of recommended choice offered by these sites as reliable and rewarding.

Interestingly, this account contrasts sharply with journalistic writings devoted to the topic of online reviews, which focus mainly on the issue of “false information” and fraud.<sup>2</sup> At no time during the course of the interviews did interviewees express distrust with regards to fake reviews. When asked about it, they recognized that some opinions can sometimes seem dubious, but that this never tainted the reliability of their judgment, given that the reviews are relatively convergent and numerous (at least 20 for some users, up to 50 for others). This is especially true for LaFourchette, where reviews are connected to a reservation in the restaurant, and traced by the site; but it is also true, though less unanimous, of TripAdvisor, whose assessments are considered reliable since there are so many contributors. The quantitative survey (Beauvisage and Beuscart 2015) produced a similar result: while 90 percent of Internet users admit to having seen one (or more) fake review(s), 76 percent believe that “this does not prevent them from getting a good idea” of the restaurant’s quality. The dominant narrative is thus that LaFourchette and TripAdvisor offer a satisfying experience and highly reliable judgments.

#### *Contributing to the collective*

Writing a review can be done relatively quickly, with users on average devoting between five and ten minutes to the activity, usually the same day or the day after their experience. From this perspective, the reminder e-mail prompting them to give their opinion following their meal is an efficient means for getting users to write: several interviewees mentioned it as a reason for contributing.

When discussing their motivations, some contributors (7 out of 33) described the pleasure they take in writing reviews. Several themes emerged: their opinions will extend and deepen the experience of dining out; for those who love to write, choosing the right words is pleasant in itself; and more broadly, it is enjoyable for many to offer advice. For example, here are some excerpts from LaFourchette contributors, which highlight the pleasures of writing and expressing their interest in a cultural field:

“I like it a lot. I really like to share, it makes me happy” (E33); “I really like it, I offer opinions all the time” (E25); “We do it for fun, otherwise we wouldn’t do it at all” (E1); “I take great pleasure in reviewing” (E10); “Yes, it’s a pleasure” (E15); “It’s entertaining” (E20).

Compared to the existing research, however, this aspect of pleasure is relatively minor in our investigation. One of the other dominant motives in the existing literature, the search for recognition, is also completely absent in our study. This is explained in part by LaFourchette’s site design, which at the time of the investigation offered no features characteristic of social networking websites: links among ‘friends’ or ‘followers,’ comment threads, likes, favorites, and so forth. But it is also based on the aggregated choices of users, who reflect the site’s main uses: none of the users surveyed had completed a user profile, uploaded a profile photo, etc.; further navigation throughout the site confirms that completed profiles are exceptions to the rule. Even though they post many reviews, LaFourchette users thus do not contribute in order to increase the visible activity of a profile, or as a source of recognition. Also, when asked about their sense of belonging to a “specific community” of LaFourchette members,<sup>3</sup> most respondents answered in the negative. None of them had any social relationships with other contributors, and most wished not to have them.<sup>4</sup>

The term “community” is a bit much ... I’m glad to be part of the site and enjoy contributing, yes, without reservation. I feel absolutely no pressure. I think there’s a real interest in the site, so I’d say I participate gladly. But to say that I’m part of a community ... no, I don’t really have that impression. That’s a bit strong of a term, in fact.

(E2)

Instead, the dominant motivation appears to be an anonymous and meaningful contribution to the public good. Users emphasized their need to maintain an overall reciprocal system: they offer their opinions to contribute to a system from which they benefit. The coding of the interviews revealed a wide variety of expressions of collective participation: “it’s part of the game” (E2), “I want to return the favor” (E4), “I want to fulfill my contract” (E10), “it’s a give-and-take” (E28, E30), “it’s win-win” (E10), “it’s only fair” (E26), “it helps” (E12), “it is my duty to inform people” (E27), etc. The primary motivation for writing a review, in our survey, appears to be a feeling of responsibility, a moral obligation to contribute to the collective good, and a refusal to take advantage of the system.

To clarify the logic underlying users’ motivations to contribute, the interviews oriented the discussion towards the target audiences of the posted reviews: in most cases, it is above all other users who were identified. Among the components of the socio-technical assemblage built around these sites—linking together a website, restaurateurs, search algorithms, and other users/evaluators—it is by far the users who are mentioned as the primary recipients of

their contributions, and those to whom they were also indebted: “When I write, it is mostly for consumers” (E3), “for people like me who go to restaurants. Because I think that it can be useful to someone” (E5), “from the moment when I started to enjoy reading peoples’ opinions, I also began offering my own” (E32), “I think it’s worth it to read the views of others, and I guess mine as well” (E14), etc. To summarize:

So, first, I’m a reader of reviews, and I think a part of my purchases are based on the advice I received. Since I attach importance to this activity, it also seems important to me that I leave my own opinions.

(E12)

In addition, some users address their opinions directly to the restaurant-owners. On one hand, this is done to thank the establishment and its staff for a good experience: “if I am satisfied, I leave a comment to keep encouraging them in the right direction” (E17). On the other hand, these consumers also feel that their role on review sites is to help restaurant owners—possibly in spite of their efforts—through criticism, which they insist is always “constructive.” To contribute is thus also to participate in improving the restaurant experience, in addition to guiding consumers:

I always take care to comment with a constructive purpose in mind. I am not a mean or abusive critic who contributes nothing. With constructive criticism, I feel I can help improve the service.

(E15)

For them, I think it’s important, because it can make things better, or it can help show them that there are some good qualities, or flaws too. So by rating and reviewing them, I think you can perhaps help them be aware of and remedy the problems.

(E25)

This analysis of the motivations for contributing thus outlines a discrepancy with the literature on online participation. Rather than contributors participating in a group in order to refine their skills, gain recognition, or receive material and symbolic rewards, our survey suggests that they are satisfied with their anonymity—none claimed to take any steps that would allow them to be recognized—and participate primarily in order to contribute to the collective good. They write in anticipation that their reviews will be read by other members of a socio-technical collective that they themselves deem useful. These users are thus more self-reflexive and moral than assumed by much of the academic literature, and especially by the media.

### A shared definition of a 'good review'

The second key element of this investigation, further supporting the figure sketched above of a reflexive user contributing to the group, is the widely shared definition of what constitutes a good review. This definition outlines the contours of an 'evaluation culture' common to regular users of the site, which can be understood as a set of representations and practices surrounding the best way to read and participate in the collective.

#### *The proper format*

The majority of users agreed on the fact that the best review is a short review. Contrary to the image of egocentric individuals recounting their personal experience in detail, the proper length of a review was estimated to be between three and five lines: it must "cut to the chase" (E1), "be synthetic" (E25) and "summarize" (E26). "Four or five lines maximum, it's not a novel," said E9. Some regular contributors to the site believe that their opinions have shortened over time and as they use the site more often. Longer explanations are justified only if they emphasize a point particularly relevant to the establishment, whether positive or negative. It is justified when "highlighting some thing that you really liked, such as an item on the menu" (E1), or a contextual element, such as "the bathroom was completely vintage, it was really extraordinary"; likewise, many suggest expanding on a review "when the experience was very bad" (E30). Even in these cases, elaborations should take only one or two additional lines: "If everyone starts to write ten lines, it's over" (E27).

As previously indicated, the standard format of reviews is based on users' previous experience reading them, which they feel are typical of those reading their own opinions. When seeking restaurants, users generally browse 10–20 opinions—in addition to accessing other available information—reading quickly, diagonally, seeking to identify similarities, patterns, and salient features. Respondents stated that it is best when there are numerous opinions, especially those that directly match their criteria; in addition, they will often isolate negative opinions to assess their significance within the overall pattern. Generally speaking, since there are usually fewer of them, negative opinions are considered to be related to specific situations or atypical customers ("grumpy customers, I don't pay much attention to them," said E10), unless the criticism concerns hygiene:

I try to look at two or three bad reviews and ask: "Okay, what's happening here? Is this an isolated occurrence? Was the server cranky and thus poorly reviewed?" Off days can happen sometimes, and then everything goes wrong in the kitchen.

(E13)

If I see something that keeps coming up in restaurant reviews that concerns hygiene or cleanliness, then it's a no-go.

(E1)

We can thus define the best review format based on contributors' reading practices. Reviews are intended to be quickly scanned to confirm an emerging evaluation or add a new element to it. What is sought is thus not the subjective evaluation of a specific consumer, but a contribution to an evaluation formed from previously read reviews: either a confirmation of a salient point, or a critical nuance. In this context, "it's annoying to see reviews that are ten kilometers long" (E11): the best reviews are short, get to the point, and do not go on too long when they add an original element to the evaluation.

Note that some interviewees (four out of 33 in our sample) significantly deviate from this predominant standard. They recognize that "sometimes reviews are a bit long but it does not bother me, as long as there's space" (E21), they claim to "write essays" (E28). Two of them in particular are users with a strong relationship with writing: one is a writer, and the other "is known in her family for her incisive style" (E21). These users may circumvent the conventions of the format because of the high value they place on their writing; or perhaps their attachment to creativity predisposes them more to think of the website as a forum for subjective expression, while most users reject this vision and those practices associated with it.

#### *Evaluation criteria*

Users also strongly agree on what constitute good evaluation criteria, which comprise a second key element of the culture built around review sites. As we noted above, these criteria are strongly guided here by LaFourchette, which invites reviewers to separate their scores into three main components, which are then aggregated into a total score: food, setting, and service, optionally complemented by an appreciation of the value for money. When questioned on the criteria they usually assess in their written opinions, users spontaneously mentioned these three dimensions, which they consider an appropriate and meaningful way to account for the restaurant experience.

I speak of three points on LaFourchette. The food is what counts above all, followed by service and value.

(E3)

Yes, yes, these are the elements that interest me in a restaurant: the setting, reception, kitchen, and service. These are four elements that I systematically give an opinion about, almost exclusively.

(E16)

I try to address reception, price, and quality of food in a systematic way.

(E17)

Here, the prescriptive role of the platform appears quite explicit. Users are clearly guided by the strategic choices of the site's managers, embedded in the

user interface. That said, this framing is perceived as such, fully accepted and even endorsed by users, who use it as a prominent and conventional cognitive marker to write their assessments when they could just as easily express their free-form subjectivity in the open field.

With regards to the quality of the food, assessments are typically simple and conventional. Consistent with the length requirements, accounts of the meal do not take the form of food criticism, descriptions of flavors, or subjective feelings of taste. Rather, they tend to simply verify that the food lives up to its promises, based on simple, widely shared criteria: the freshness and quality of the food and the absence of major technical faults (in preparation or seasoning, for example), with possible mentions of portion size, taste, and overall satisfaction.

For me, the first criterion will be the quality of what I eat. Not the quantity, but quality. As I mentioned, when I go to a restaurant, I expect the food to be fresh.

(E5)

We always insist on mentioning when there is good food with fresh produce and well-prepared meals.

(E32)

Restaurant review sites, and LaFourchette in particular, are not devoted to amateur gastronomic criticism, at least in the sense of offering elaborate, subjective accounts of unique aesthetic experiences. Among our respondents, the great majority make no claims for their qualifications or skills; and those who do claim to have gastronomic experience believe that these sites are not the place for such criticism: “I do not blog,” states one respondent (E1). Reviews, however, are largely centered on the food, though they offer them in a more general, less subjective way. Evaluations of the freshness of the food, cooking methods, and portion size do, of course, require some skill and are subject to individual variations, but far less than subjective assessments of flavor combinations, for example. Again, the effectiveness of review sites in general is based not on the relevance of highly refined evaluations, but rather on the accumulation of conventional, converging assessments.

The most active contributor in our sample (281 ratings and 194 reviews) exhibits a deep familiarity with gastronomic culture and much experience in the foodie world. An avid reader of gourmet guides and blogs, he displays a virtuosic ability to describe food and restaurants. However, on LaFourchette he fully adopts the conventional assessment standard of brief reviews:

Rather than go into all the details, to say, “yes, I have eaten such-and-such a dish which was excellent. By contrast, this other one was very bad...” this doesn’t do much. I think we should be a little more concise. [...] In the beginning, as I mentioned, I was perhaps a little more expansive in my opinions. I used to write maybe five or six lines, and sometimes, when

exaggerating, up to ten. Today I stick to about three lines. That is to say, over time, and as I read more and more comments ... [...] I do not do analysis, [I’m not] like Gilles Pudlowski, or François Simon.<sup>5</sup>

(E30)

In addition to the aforementioned evaluation criteria (food, service, setting), which are prescribed by the platform, contributors often add another one, to which they attach great importance: “reception” (i.e., how they as customers are greeted). This term is found in 26 (of 33) interviews, without being referred to by the site itself, nor proposed by the interviewers. This suggests it is an essential quality for restaurant reviewers, and probably more specific to amateur assessments. Separate from service, reception means “the friendliness of the people” (E6), “people who smile, and those who naturally want to please you” (E5); as summarized well by E28, good reception is “when, as soon as you enter, you feel welcomed as if you’re friends of friends.” Conversely, poor reception is too formal, instrumental, and a little cold.

The welcome in particular is very important... It’s the first impression you get of the restaurant. If we arrive and they’re cold, there’s no “hello,” not even “Do you have a reservation?” it’s just “sit down over there!”... When it’s not warm, we may even leave discreetly. For me, this “hello” is very important, the smile is very important.

(E33)

In summary, when selecting evaluation criteria, contributors are guided to a certain extent by the criteria put forward by the website. Indeed, they base their assessments on traditional criteria—service, food, setting—that guide professional evaluations (Blank 2007) and are included in the scoring criteria of the website. However, these amateur reviews clearly stand out from professional assessments in general, and from the explicit prescriptions of LaFourchette in particular, in several ways: the evaluation of the food remains relatively procedural, focusing on quality and the absence of major technical errors; and the description of service is coupled with an assessment of the reception, i.e., the ability of a restaurant to put ordinary customers at ease and treat them kindly, as expected.

### *Evaluation culture*

Contributors to LaFourchette, and to a lesser extent TripAdvisor, share a consistent set of practices of reading and writing online reviews. They offer short, summary opinions capable of being quickly and easily read and understood by many others. Assessments are based on shared criteria that are suggested by the site and taken into account by users; they typically also consider the reception, a dimension more specific to amateur evaluations. This criticism is explicitly not based on refined tastes, nor on virtuosic gastronomic experience; as often as not,

it is procedural, verifying that restaurants meet the basic expectations in terms of quality of food, service, etc. This is consistent with the practice of reading online reviews, which tend to build an evaluation of a restaurant by weighing the accumulation of a large number of opinions, discounting or dismissing those that are too subjective—both positive and negative—to arrive at cumulative appraisal of key criteria. These judgments are thus socialized, in the sense that they are somewhat determined by their anticipated use by other consumers; they meet a set of conventions considered to be collectively relevant.

This description is far removed from the common notion of isolated consumers freely expressing subjective feelings (whether joy or frustration) on the site, which then derives meaning from the mere accumulation of these disjointed voices. Existing descriptions often insist on the unregulated nature of online evaluations:

Valuations—which have traditionally been produced by a small number of recognized experts, critics, media, and authorities using formal, standardized and often institutionalized criteria grounded in professional knowledge and industry experience—are now also (and increasingly) being produced online by large numbers of anonymous and distributed consumers using informal, variable, and individual criteria grounded in personal opinions and experiences.

(Orlikowski and Scott 2014, 868)

Amateur assessments are described by Orlikowski and Scott as based on unstable and personal criteria—“personalized and often contradictory assessments,” “volatile assessments of a distributed and disembodied crowd”—and taking erratic formats: “Reviews vary in length from a sentence to a short essay,” and appear in “various styles.” For these scholars, it is ultimately only the site and the algorithm that deserves credit for producing meaning: TripAdvisor’s ranking algorithm “expresses the unregulated and anonymous opinions of many consumers.”

On the contrary, we suggest that at least part of the effectiveness of this phenomenon is the ability of users to build a coherent pattern of use that regulates their evaluation behavior to work towards a collective aim. The site is built around an “evaluation culture” (MacKenzie 2011), which guides users on how to read and write evaluations. MacKenzie has identified several criteria for qualifying a set of cultural representations that guide evaluations, which are partially met here. In particular, the user evaluations share a common ‘ontology,’ or a definition of what fundamentally gives value to a restaurant. As well, contributors go through a ‘socialization’ process within the socio-technical system, and they learn to recognize and replicate the best practices: reviews are reduced in length over time, are more to the point, and give only the most useful information. However, this occurs only indirectly, through the imitation of other users, since there is no direct interaction among the site’s members.

This socialization into evaluation culture is of course uneven across individuals. We noted in our sample some minor deviations regarding the format or

the intended audience of the reviews. Above all, infrequent contributors (those with one or two reviews, excluded from our sample) do not generally adhere to the dominant uses of the site. An exploratory survey of these contributors suggests that they are primarily guided by a desire to express a strong sense of satisfaction or anger, which brings them more in line with the portrait of typical contributors described in the existing literature (Pharabod 2015). Overall, through repeated use of the site, contributors realize and integrate conventions of evaluation culture.

Review sites ultimately rely on the balance between two components. On one hand, a minority of regular users is familiar with the culture of evaluation as we have described it; on LaFourchette, users who have posted five or more reviews represent 13 percent of contributors and are responsible for just over half of all opinions. On the other hand, a majority of occasional visitors exhibit less consistent contributions, which are more like the “unregulated opinions” mentioned in the literature: in our case, 66 percent of contributors have written only one review. It seems that through their practice, users become accustomed to the standards and good practices of decentralized evaluation, learning to control the expression of their subjective opinions for the collective good.

## Conclusion

Our research allows for an enriched understanding of how distributed evaluation sites function, as they grow in importance across many industries. Besides the two ideal contributor types previously identified by the literature—intensive participation of an ‘elite’ group driven by the quest for recognition, and the isolated expression of ‘unregulated opinions’—we highlight a third: regular contributors who are part of a coherent evaluation culture, shaping their participation according to a collective aim. These users (approximately 10–15 percent of all contributors) comprise the heart of review sites, not only because they produce a majority of the evaluations, but also because they maintain standards and good practices, and habituate new contributors through their example.

This analysis also allows us to comprehend the operation of collective intelligence produced by this type of platform. The production of meaning and intelligence is not only based on the aggregation algorithm, on the ability of formulas and site design to collect disparate contributions by extracting their unique and singular meanings. Rather, much of this work is actually conducted by the users themselves, through reflexive feedback loops between their reading and writing practices, deduced from the good practices that are inherent in this shared culture. Contributors to these sites assume the codified role of evaluator and adjust their contributions accordingly. Though their participation is partly prescribed by the site, it is perceived and accepted as such, because the framing is viewed as relevant for the readers. This participation also overflows the framing, by adding specific qualities such as “warm reception.” In this sense, though users’ contributions generate economic value for the platform (Scholz 2013), writing a review is not considered as ‘labor’ by users, but as a contribution to a

system they find very useful. The algorithmic culture of these sites is thus both a guide to reading and interpreting the reviews and rankings they produce, and a set of practices that contribute to the overall effectiveness of the evaluation process.

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### Notes

- 1 The usage data for [www.lafourchette.com](http://www.lafourchette.com) and [www.tripadvisor.fr](http://www.tripadvisor.fr) (number of restaurants listed, number of contributors and reviews) were extracted using ad hoc tools in July 2012 (cf. Mellet *et al.* 2014). The extraction and processing of the data was conducted by Thomas Beauvisage. We also rely on a questionnaire survey conducted by Orange Labs and Médiamétrie in November 2013 of a representative sample of French Internet users (n=2,500). This quantitative survey focused on both consulting and writing online reviews and ratings (Beauvisage and Beuscart 2015).
- 2 For an exploration of cheating on review sites, see Reagle (2015).
- 3 The term “community” is systematically used by managers of review sites, and LaFourchette is no exception. References to “the LaFourchette community” are everywhere on the site. Note, however, that some platforms, such as Yelp or TripAdvisor, have implemented active strategies to build and manage visible social interactions among contributors: customizable profile pages, badges, communication tools internal to the site, the organization of events in physical locations, etc. (Mellet *et al.* 2014).
- 4 One interviewee proved to be an exception: an intensive user of both TripAdvisor and LaFourchette, he is very attentive to the management of his profile on the latter site, and does not hesitate to use it in his negotiations with restaurants and hotels.
- 5 Pudlowski and Simon are two of the best-known food critics in France.

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## 5 Deconstructing the algorithm

### Four types of digital information calculations

*Dominique Cardon*

Algorithmic calculations currently play a central role in organizing digital information, and in making it visible. Faced with the deluge of disordered and disparate data collected on the web, algorithms form the basis of all the tools used to guide the attention of Internet users (Citton 2014). In turn, rankings, social media buttons, counters, recommendations, maps, and clouds of keywords impose their order on the mass of digital information. For many observers, algorithms have replaced various human editors (journalists, librarians, critics, experts, etc.) to prioritize content that deserves to be highlighted and brought to public attention. Algorithms have thus come to serve as the new “gatekeepers” of public digital space (Zittrain 2006). It is therefore common that criticisms of algorithms reproduce, in a new context, the accusations often leveled at mass media in general: that they reflect the economic interests of the owners, distort markets, ignore the margins, are sensational, conformist, vulgar, etc. It is as if the calculation techniques of the web reflect only the interests of those who program them. But this simple manner of critiquing the power of algorithms neglects the strictly technical dimension of these new gatekeepers, as they make transparent the economic forces that extend throughout the new economy of the web. In this chapter,<sup>1</sup> we argue that we cannot view the new computational techniques of the web as merely reflections of the interests of their owners. Extending the philosophical approach of Gilbert Simondon, we want to explore the technical and statistical properties of these computational tools, focusing particularly on the ways in which they require us to think differently about the production of power and hegemony on the web, and the ways it shapes and orients information online.

The various calculation techniques implemented on the web exhibit great differences that are often effaced by the unifying effect of algorithms. Indeed, there exists a huge variety of ordering and classifying procedures: the search rankings of Google, the reputation metrics of social media, techniques of collaborative filtering, the ‘programmatic’ advertising of ‘real-time bidding’ (RTB), and the multiple ‘machine learning’ techniques that are becoming increasingly widespread in the calculations used by ‘big data.’ We would also like to clarify the different web calculation techniques in order to describe the digital worlds they give rise to, each according to their own individual logic. Designers delegate