UNIVERSITAT ROVIRA I VIRGILI

CRITICAL PR IN FOOD COMMUNICATION AND SOCIAL MEDIA. THE CASE OF EUROPEAN FOOD SAFETY AND PROMOTION AUTHORITIES

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DOCTORAL THESIS
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When eating fruit, remember who planted the tree;
when drinking water, remember who dug the well –
Vietnamese Proverb

Food is symbolic of love when words are
inadequate – Alan D. Wolfelt

Agraïments, acknowledgements, agradecimientos

Si m'està permès, aquesta secció serà trilingüe. El motiu és senzill. Crec que per donar les gràcies de cor només es pot fer en aquella llengua amb què a un li és més natural de comunicar-se amb els qui va dirigida.

Aquesta tesi tracta d'aliments, de compartir significats i de crear-ne de nous. Doncs bé, malgrat el doctorat acostuma a ser una tasca feixuga i molt solitària, puc ben assegurar que aquest treball s'ha realitzat a foc lent mitjançant l'intercanvi d'opinions amb gent molt diversa i, per fortuna, al voltant de taules ben parades.

D'entrada, he d'agrair a la meva tutora de tesi, la Sunsi Huertas, qui va confiar en mi des del primer moment i em va proposar encetar la meva carrera acadèmica dins del món de les relacions públiques estudiant les teories de Grunig a Espanya. Recordo que vam celebrar la fi d'aquell projecte i l'inici d'un altre sobre marques de territori amb un bon plat de *pescaíto frito* malagueny al davant. Amb el temps, ella mateixa em va animar a endinsar-me en la variant crítica de les relacions públiques al costat d'una de les millors, la Dra. Jacquie L'Etang.

En segon lloc, vull donar les gràcies al Jordi Farré, qui em va introduir en el famós projecte de FoodRisC. Això equival a que comptin amb tu per a formar part d'un equip que competeix a la Champions dels projectes! Gràcies per orientar-me i donar-me la oportunitat d'assistir a workshops, reunions de projecte, congressos internacionals i fins i tot finançament per la meva estada de recerca a Edimburg. Sense cap dubte, tot plegat m'ha ajudat a créixer com a investigadora. De totes aquestes trobades amb els partners de FoodRisC em quedo amb el sopar en un restaurant italià de Stuttgart on fèiem broma pel risc de tastar una amanida amb olives genèticament modificades enmig de tota la crisi del cogombre.

Com als esmentats, també vull agrair el suport de totes les persones que formen part del Departament d'Estudis de Comunicació de la URV, que dia a dia han vist els meus progressos i m'han donat consells valuosíssims per encarar la vida acadèmica. Vull donar les gràcies especialment a la Núria Araüna per tenir la paciència de llegir-se i rellegir-se tota la meva tesi, per la meticulositat de les seves aportacions i per oferir-me sempre un te i unes galetetes abans de posar-nos a treballar. A la Mònica Lores per ser la meva companya en tot aquest procés. Juntes hem viscut i sobreviscut als Skypes de FoodRisC, a les transcripcions inacabables i als coding frameworks de l'NVivo. És un luxe poder treballar amb algú que encara qualsevol tasca amb un somriure als llavis i un grapat d'ametlles a les mans. Des d'aquí l'animo amb la seva tesi i dir-li que compti amb mi per a acabar-la. A la Marta Montagut per tenir la paciència d'escoltar els meus bloquejos

emocionals i fer-me trobar el nord en moments difícils. Val a dir que malgrat formar part d'un projecte sobre bons hàbits alimentaris, les millors estones les hem passades recorrent els Vienes i Panishops del Camp. Al Jan Gonzalo per a animar-me cada dia i instruir-me sobre el metamodel, els estudis culturals i deixar-me lectures i articles relacionades. Amb ell, directament passem a la beguda. On es posi una bona cervesa, que es tregui tota la resta. A la Iolanda Tortajada per donar-me ànims i oferir-se a comprar pomes per berenar quan em veu treballar al despatx fins tard. Al Bernat López i l'Enric Castelló pels seus consells per a navegants i ser els encarregats de recollir tot el departament amb el seu *call for coffees* diari. A l'Arantxa Capdevila per la seva saviesa i per portar-me *Welsh cakes* de Cardiff. Al Jordi Prades i la Helle Kettner per ser la pera llimonera. A l'Àngels Galtés per ser l'ànima del 3.21, el despatx amb el millor ambient i pastetes del departament, i per ajudar a fer fàcil tota aquella paperassa que no ho és.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

*Never work before breakfast; if you have to work before
breakfast, eat your breakfast first* – Josh Billings

*Cooking is 80 percent confidence, a skill best
acquired starting when the apron strings wrap around you
twice* – Barbara Kingsolver

1. INTRODUCTION

The way people consume media, seek information and communicate with others has dramatically changed in the last decade, but most especially since the irruption of social media (Demetrious 2011). This fact has led to a democratisation of the communicative process which has affected, among other things, how public health communicators relate to consumers.

In January 2013, for instance, it was discovered that mass-produced beef burgers, lasagnes and bolognese sauces sold in Europe were contaminated with horsemeat as a result of food fraud (EFSA 2013; Walsh 2013). The discovery was made in the UK and Ireland where horsemeat is not traditionally eaten as it is considered taboo for cultural reasons (Abbots and Coles 2013). Although there was no real harm to humans, the public outcry online escalated the issue from food scandal to food crime (Lawrence 2013). Social media platforms like Facebook and Twitter were inundated with comments and posts by dismayed, concerned and scared citizens (Lanyon 2013), who clamoured for solutions to food chain managers, such as retailers, governments and the European Food Safety Authority (EFSA). In turn, food safety/promotion authorities in the UK and Ireland were obliged, for the first time, to use social media platforms to their full potential to communicate with consumers, the media and industry in real time (Scott-Thomas 2013). As a result, the horsemeat scandal led not only to a product recall but also to a social, political, media and legislative debate across the European Union (EU). Public authorities realised that they not only had to deal with food safety as in previous food crisis situations, but also with consumers' emotions (*Ibid.* 2013).

The popularity of social media has meant that health authorities have to interact with citizens online. In fact, official statistics show that six out of ten Europeans go online when looking for health-related information and information to improve lifestyle choices, especially in relation to nutrition and physical activity (EC 2014). Although most respondents (90 percent of online users) were satisfied with health-related information found on the Internet, they also checked the information obtained and often discussed it with their physicians, friends and relatives (*Ibid.* 2014).

Food information experts are now aware that the social media are a low-cost way to disseminate their message and offer an opportunity to engage more with consumers (Thackeray et al. 2012; Chapman et al. 2014).

To date, much research into food communication has focused on identifying the necessary elements in effective food risk communication (Rollin et al. 2011; Lofstedt 2006), with trust identified as a crucial feature of sources of information (Frewer et al. 1996; Poppe and Kjærnes 2003). A less studied area is the contributions made by key actors involved in effective food communications. What studies do exist primarily focus on offline communication strategies; for instance, Carslaw (2008) discussed the role of the media in communicating food risk from a journalists' point of view, McCarthy and Brennan (2009) studied problems as perceived by food communicators and Cope et al. (2010) analysed consumer perceptions. However, as stated by

Barnett et al. (2011: 3): "Very little work has been done examining the implications of the explosion of new media and web technologies for food risk/benefit communication."

The EU-funded FoodRisC project[1] was designed to develop understanding of how social media platforms could assist food communicators in effectively disseminating food risks and benefits. Its findings to date have greatly contributed to enhancing the state-of-the-art in the food communication field. FoodRisC has laid the foundations for the study of food communicator use of social media channels in normal and crisis situations (Shan et al. 2015; Gaspar et al. 2014; Rutsaert et al. 2014; Lozano and Lores 2013; Panagiotopoulos et al. 2013; Rutsaert, Regan et al. 2013; Farré, et al. 2012; Gaspar et al. 2012; Lozano and Lores 2012). A number of studies have compared social media potentials with traditional media (Friel and Wills 2014; Shan et al. 2014). Other studies have analysed key food chain actors' understanding of social media (Regan, Raats et al. 2014), consumer perceptions of information seeking behaviours (Kuttschreuter et al. 2014; Rutsaert, Pieniak et al. 2013; Lores and Lozano 2012), consumer perceptions about novel foods (Verbeke et al. 2015; Marcu et al. 2014) and consumer balancing of conflicting food risk and benefit messages (Rutsaert et al. 2015; Regan, McConnon et al. 2014). The role of food journalism in the digital era has also been explored (Prades et al. 2014; Farré et al. 2013). Finally, some reflections have raised concerns about the institutionalisation of food meanings, especially in relation to health communication (Farré and Barnett 2013).

This thesis was partly developed under the auspices of the collaborative FoodRisC project titled *Food Risk Communication – Perceptions and Communication of Food Risks/Benefits across Europe: Development of Effective Communication Strategies,* funded by the Seventh Framework Programme of the European Commission (FP7-KBBE-2009-3, grant agreement number 245124). The three-and-a-half year project (June 2010 to September 2013), led by Professor Patrick Wall at University College Dublin (Ireland), was participated in by 14 partners from research institutes and small/medium enterprises from nine European countries.

The main goals of the FoodRisC project were as follows: to describe key configurations of food risk and benefit relationships and the implications for communicators; to explore the potential of social media for communicating food risks and benefits and provide guidance on how risk communicators can best use these media; to characterise the ways in which consumers attain, interpret and utilise information to help target populations and tailor messages; and, finally, to propose a strategy and communication toolkit[2] for the effective communication of coherent messages across EU member states (CORDIS 2012).

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[1] www.foodrisc.org
[2] Resource centre for food risk/benefit communication generated from the results of the FoodRisC project: http://resourcecentre.foodrisc.org/

The project was divided into six different work packages (WPs):

- WP1: Identifying the parameters of current food risk/benefit communication models in Europe.

- WP2: Media involvement in communication in the food chain: traditional and new media.

- WP3: Characterising consumers and their responses to the communication of food risk/benefit information.

- WP4: Role of information seeking in food risk/benefit communication.

- WP5: Role of deliberation in developing food risk/benefit communication strategies.

- WP6: Development of common approaches and tools for optimal food risk/benefit communication in Europe.

The author of this doctoral thesis actively participated in data collection, analysis and results dissemination for WP1, which focused on identifying and studying diverse consumer groups, food communication stakeholders (including media producers, consumer agencies, food trade bodies, food producers and non-governmental organisations) and food information experts. Communication channels, strategies and sources of information were documented, along with perceptions regarding food information obtained from both traditional media and social media.

The aim of the research was to gain insights into how social media strategies could assist official European food safety/promotion authorities[3] in communicating and strengthening relationships with consumers. The thesis documents research into the opinions and perspectives of food information experts in relation to the adoption of social media in their communication strategies and also assesses — from an analysis of websites and official social media profiles — how digital platforms are currently being used by these organisations.

The contribution of the research documented in this thesis is threefold. First, as part of the FoodRisC project, it helps extend knowledge of online communication strategies as used in the food communication field. Second, framed as it is in a critical public relations theory perspective, it follows a different path from the normative approach that has historically dominated public relations research in that it explores theories and concepts from other sciences like anthropology, social theory and media studies. As a consequence, social media platforms are not merely viewed as symmetrical two-way communication tools between organisations and potential audiences but as platforms where meanings can be visibly negotiated between and among actors. Finally and more generally, this research contributes to the as-yet small body of research focused on public relations from a critical perspective.

This doctoral thesis is divided into five main chapters. This first chapter outlines the main purposes and significance of the research and highlights the importance of the contributions of the FoodRisC project.

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[3] Food information experts — responsible for evaluating, managing and communicating food risks and benefits — belong to bodies that refer to themselves as "food authorities", "food agencies", "public health institutions" and also research institutions and even ministries. In this thesis, these bodies will be referred to collectively as "food safety/promotion authorities".

Chapter 2 describes the theoretical framework. It reviews predominant public relations theories and their hermeticism and argues for borrowing theories from other social science fields to broaden the scope of academic public relations research. The focus is on the adoption of theories of culture to explain how meanings are produced, circulated and negotiated between actors in the communication process, namely, producers, cultural intermediaries and creative audiences. Indeed, the inclusion of creative audiences brings us within the digital sphere, with special reference to Web 2.0 platforms and philosophies. The fact that social media have become the setting where meanings are constantly created and shared among users has opened up new communication opportunities for organisations in terms of addressing messages directly to target audiences, receiving instant feedback and creating closer relationships with publics. However, there is also the risk of losing control over the message.

Chapter 2 then goes on to discuss the communication of food issues and the many meanings linked to food, highlighting the discursive battle faced by public authorities in this communicative context. Food communication institutionalisation is described with a brief discussion of the creation of the EFSA and analogue national food agencies. Next outlined is how the mass media have traditionally been used as a necessary partner to disseminate food safety and health discourses. However, the fact that this relationship has in certain ways been conflictive has led to the emerging social media being viewed as providing the means for public information experts to bring their discourses to consumers. The chapter ends with a discussion of the challenges of reconciling novel social media logics with public food authority logics.

Chapter 3 describes and defines two research questions and five hypotheses. The research methodology combines qualitative and quantitative techniques in a thematic analysis of 30 interviews with European food information experts and an online content analysis of 30 national food authority websites and 57 social media platforms for 28 EU member states.

Chapter 4, which describes the main research findings and analyses them in relation to the literature, launches a discussion about how social media are perceived and used by European food safety/promotion authorities. The interviews identify the general communication objectives and barriers that help clarify the communicative context. The thematic analysis shapes interviewee conceptualisations of social media and their perceived advantages and limitations for the communication strategies of these organisations. The online content analysis focuses on characterising food agency websites and social media platforms in terms of content, connectivity, interactivity, intended publics, information sources, level of engagement with users and the aims of published content.

Finally, Chapter 5 considers and responds to each of the two research questions and five hypotheses in turn, demonstrating that social media represent an opportunity to develop and strengthen relationships with consumers and the media. Yet the thesis findings indicate that most food safety/promotion authorities have implemented social media from a technical perspective and fail to take full advantage of their full potential. Furthermore, the implementation of social media platforms by these authorities highlights historical identity problems. All supplementary thesis materials are included in the appendices.

Probably one of the most private things in the world is an egg
until it is broken – MSK Fisher

The most remarkable thing about my mother is that for 30 years she
served the family nothing but leftovers. The original meal has never
been found – Calvin Trillin

The shared meal elevates eating from a mechanical process of fuelling
the body to a ritual of family and community, from the mere animal
biology to an act of culture – Michael Pollan

2. THEORETICAL FRAMEWORK

2.1. From the dominant paradigm to the sociocultural turn

In the last thirty years, public relations research has been portrayed as a discipline that builds and manages good relationships between organisations and their publics through dialogue or "mutual understanding". James Grunig, one of the most prolific and quoted academics in public relations theory, established this description of the field with the publication of his symmetrical models and excellence theory (Grunig and Hunt 1984; J.E. Grunig 1992). In the words of Botan and Hazleton (2006: 6), "a leading body of work has developed around Symmetry/Excellence Theory, which has probably done more to develop public relations theory and scholarship than any other single school of thought". As a consequence, Grunig's studies have deeply influenced public relations theory research and perspectives and have become the dominant or functional paradigm almost since their emergence in the 1980s (Sallot et al. 2003; Ihlen and Verhoeven 2012; Theunissen and Wan Noordin 2012).

Grunig and Hunt's theory of symmetrical models was presented in *Managing Public Relations* (1984). These authors related the evolution of the profession in the USA with four categorised practices they called "press agentry", "public information", "two-way asymmetrical communication" and "two-way symmetrical communication". The first two of these models describe communications that only flow from the organisation to its publics, with press agentry disseminating its information and aiming to persuade the audience, and with public information spreading reliable and objective information with the purpose of educating the publics (Grunig and Grunig 1992: 287-288). The last two models describe communications that "flow both to and from the publics" (Grunig and Hunt 1984: 23). However, two-way asymmetric communication is regarded as weak in ethical and social responsibility terms, as it is rooted in persuasive communications. Two-way symmetric communication, meanwhile, is associated with the generation of dialogue and discussion that may lead to change in the perspectives of publics and organisations (Grunig and Grunig 1992: 288-290). This fourth model is seen as preferable in public relations and as "excellent" practice because it is the most democratic model. In fact, excellence theory suggests that excellent public relations is facilitated by and is also the consequence of organic, participative cultures and structures, dialogue, equality and job satisfaction (Grunig et al. 2006).

In the 2000s, Grunig et al. (2002) tried to demonstrate the validity of the theory of symmetrical models by testing it on organisations in Canada, the UK and the USA and to gauge the level of evolution of public relations practice in these countries. This application of this excellence study inspired several scholars to replicate it in their own countries and to compare their results with those of the original study. To cite some examples, see Grunig, et al. (1998) for Slovenia; van Gorp and Pauwels (2007) for Belgium; Huertas, et al. (2010) for Spain and Oksiutycz and Enombo (2011) for Gabon.

Several authors (Rybalko and Seltzer 2010; Briones et al. 2011; DiStaso et al. 2011) have defended their interpretation of the irruption of the Internet and, more specifically, the social media, as the application of the fourth Grunigian model (two-way symmetric communication). They argue that the Internet is forcing practitioners to dialogue and engage their publics in conversations, and as consequence, public relations has evolved from persuasive communication to dialogic communication. Nevertheless, Theunissen and Wan Noordin (2012) note that there is still an illusion of message control when practitioners use social media. Therefore, there is no genuinely true dialogue: "The suggestion that there has been progression in public relations practice and thinking has not been proven beyond all doubt, and yet it is uncritically accepted as *fait accompli*" (*Ibid.* 2012: 6).

Despite extensive work based on the dominant paradigm, since the 1990s the field has encountered competing theoretical perspectives known as "critical public relations" in which this thesis is based from its theories. However, critical public relations approaches have been largely considered as "perspectives from the margins", "peripheral visions" of public relations (Ihlen and Verhoeven 2012: 159) as even as "fringe public relations" (Coombs and Holladay 2012). In 1996, Magda Pieczka (cited in L'Etang 2008: 253) was one of the first scholars to define the public relations research context as the scenario for a "paradigm struggle". In her opinion, the dominant paradigm, which represented not just a discourse "but a way of thinking" (*Ibid.*: 253), was constraining the evolution of research in the field. According to Brown (2006), in the last thirty years public relations research has been deeply influenced and limited by systems theories: "The scholarly concept of public relations has been flawed by intellectual fissures and biased by teleological agendas" (p. 206).

Furthermore, as Lee Edwards (2012) points out, when a dominant paradigm is established the "variety and openness [of research] may be jeopardized" (p. 10). This occurs because the definitions and concepts of the main paradigm circulate with more frequency than other perspectives; also, there is little interaction between the dominant and the minority groups because the former do not have the will to "make space for, or connect with, different views" (*Ibid.* 2012: 10-11). In fact, critical public relations academics declare that they have encountered difficulties with publishing their work, especially in US journals (Coombs and Holladay 2012: 880). Nonetheless, these critical views have gained prominence in recent years (Ihlen and Verhoeven 2012) threatening the hegemony of Grunig's paradigm.

The disagreement between the two perspectives partly derives from philosophical beliefs related to the supposed universality of public relations, power and interests, dialogic communication and the nature of knowledge. The following paragraphs explain these points.

2.1.1. The supposed universality of public relations

Some authors (Curtin and Gaither 2007; L'Etang 2008) have criticised the fact that Grunig's models of public relations have led to the widespread assumption that the profession was invented in the USA at the beginning of the twentieth century and was exported to the rest of the world as a result of globalisation. As Hodges (2006) asserts: "Such approaches often lead practitioners to believe that what is known about public relations in one country is applicable across all countries" (p. 80). In other words, this assumption fails to take into account that territories have different sociocultural and political backgrounds and that public relations practice may, as a consequence, have developed in different ways and even under different labels such as "information" or "propaganda". As Curtin and Gaither (2007: 14) point out: "Many ongoing efforts to grapple with definitions of public relations fail because they are limited by Western notions of democracy and capitalism, forcing a foreign frame onto indigenous cultural

constructs". Consequently, the Grunigian models may not have been practiced in other territories. Not practising the two-way symmetrical model does not mean that territories were unaware of it or that it would not suit their sociocultural reality or at least not in the way that Grunig states it. Hodges (2006: 81) critiques the fact that most of the approaches that rely on "global theories"[4] to compare public relations practices internationally tend to judge any differences in terms of "right" or "wrong" scales following cultural ethnocentric standards. She also points out that there is limited empirical knowledge about the nature of the public relations profession worldwide. Authors like Kent and Taylor (2007) go further in considering that traditional scholars have invested too much effort in trying to demonstrate whether or not a region conforms to part of the systems theory, rather than in understanding the practice of public relations in each country. They further encourage other scholars to research and propose new theories and models based on comparative research to better describe and measure international practices in the field:

> One theory will never explain the practice of public relations in every country but an assortment of heuristics, models, theories, topologies, and examples of practice will allow professionals and academics to more effectively conduct and teach international public relations. (*Ibid.*: 19).

Apart from this, a number of public relations books and textbooks (Cutlip et al. 2006; Wilcox et al. 2007; Ewen 1996) explain how the profession has moved away from its dubious unethical origins to focus more on a concern for ethics and social interests, from the Grunigian press agentry model to two-way symmetric communications. However, critical public relations scholars claim that it is evident that the public relations profession has "for the most part been looking out for the interests of powerful major corporations" (Ihlen and Verhoeven 2009: 325) rather than for the public interest, given that it is a profession that specialises in defending clients' reputations and profits. For these authors, public relations has established itself "as a business response to criticism, either from the media or from public interest groups" (Ihlen and Verhoeven 2012: 161).

2.1.2. Power and interests

Coombs and Holladay (2012: 881) declare that critical public relations scholars openly recognise that public relations is about persuasion rather than dialogue on equal terms between an organisation and its publics. According to the observations of Edwards and Hodges (2011), public relations theory has traditionally considered "the profession as an organisational function first and foremost" (p. 1) rather than as a communications process. Other authors (McKie and Munshi 2005; Hodges and McGrath 2011) claim that public relations has always defended organisations' mercantile interests. In this regard, Lee Edwards (2007, cited in Ihlen 2009: 69) declares that public relations should drop its "façade of disinterestedness", claim for more self-reflection and accept that interests are closely linked to power.

The concept of power in this context was first tackled in *Excellence in public relations and communication management* (JE Grunig 1992); however, the power described in here is not the exercised by organisations — which often have unlimited resources — towards their publics. Instead, Grunig and White (1992: 47) understand publics and organisations to be equally empowered once publics gain power after they organise themselves into activist groups. In the *Excellence* book (JE Grunig 1992), the term "power" is reserved for defining whether or not the

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[4] In this article, Hodges (2006) refers to "global theories", to the application of Grunig's four models of public relations and to the four hierarchical roles of Dozier and Broom (1995) applied to different regional realities.

public relations department should form part of or participate in the decisions of the "dominant coalition"; understanding by dominant coalition those actors in an organisation that take strategic decisions that concern the whole organisation and that may also influence their publics (LA Grunig 1992). Consequently, as Coombs and Holladay (2012: 883) express it: "The discussion of power centers on the public relations department and its connection to the C-suite [CEO's office], not the relationship between publics and the organization".

Nonetheless, critical perspectives consider that public relations practitioners exert power through communication. Coombs and Holladay (2012) explain how public relations professionals create discourses that present and justify their world view that are then accepted or refuted by the publics. "When publics accept the practitioner's view of the world, hegemony is created and publics cede power to the organizations" (*Ibid.*: 881). As a consequence, organisations may persuade publics and impact on their behaviours — persuade, but not control. For critical scholars, in fact, persuasion is a defining element in public relations. However, Coombs and Holladay also note that publics can use power to change their relationships with organisations. Bardhan (2010) goes further and asserts that the power or resistance of public relations practices may lead to social transformation.

In the article *Rethinking power in public relations*, Lee Edwards (2006), using the framework of Pierre Bourdieu to describe power dynamics in society, points how Bourdieu identified professionals for whom language is the crux of their work as "symbolic producers". This concept embraces public relations practitioners as well as journalists and politicians. Symbolic producers are responsible for change and maintenance, for making interests more visible or occluding them with distorted meanings and for legitimising arbitrary power relations building hegemony. "From this perspective, public relations exercises symbolic violence on target audiences through creating this misrepresentation in communications that masks the real organizational interest in the activity" (*Ibid.*: 230). However, Edwards further develops her argument to make clear that public relations is not entirely responsible for occluding organisational interests, given that the profession depends on them. "They [public relations practitioners] do this in the context of social structures that also help to determine dominant relations and their activities are constrained as well as facilitated by these structures" (Edwards 2006: 230). Thus, public relations professionals interpret culture for organisational management and represent organisational views to relevant publics.

2.1.3. Dialogic communication

Critical public relations theorists also disagree with the dominant paradigm in relation to the meaning of dialogue. As previously mentioned, Grunigian theories argue that the fourth communication model reflects a balance in the relationship between the organisation and its publics, since it seeks mutual understanding through a dialogue in which both parts learn from each other. "With the two-way symmetrical model, practitioners use research and dialogue to bring about symbiotic changes in the ideas, attitudes and behaviours of both their organizations and publics" (Grunig 2001, cited in Pieczka 2011: 109). The underlying assumption is that the decisions of the organisation will lead to harmony within its environment and society. However, mutual understanding implies shared control of the situation between the two actors, and this leads to relinquished power over the result or outcome. It is here that the two-way symmetrical model and the corresponding practices clash, since dominant coalitions are not likely to give up control — yet this is a requirement for dialogue. Pieczka (2011) concurs when stating that relational outcomes are focused on individual attitudes towards organisations, but not the other way round:

> Dialogue implies mutuality, but relationship measurement so far seems to find it hard to deal with mutuality: the line of inquiry tends to look at the relationship as the predictor of the public's, not the organization's behaviour, and the mutuality of the bond is thus underplayed (Pieczka 2011: 118).

Hodges and McGrath (2011: 91) alert to the fact that there has been some ambiguity in the use of the term "dialogue", sometimes interpreted as "consultation" or even "debate". Kent and Taylor (2002: 24) observe that the public relations advocacy function is evident when dialogue is equated with these concepts. Thus, despite the good intentions of organisations in terms of establishing true dialogue, dialogic approaches do not imply ethical behaviour: "If one partner subverts the dialogic process through manipulation, disconfirmation, or exclusion, then the end result will not be dialogic". Theunissen and Wan Noordin (2012) agree with Kent and Taylor (2002) when they state that public relations has traditionally linked "control" and "balance" with dialogue. However, as seems evident, dialectic encounters may not lead to predictable and desirable outcomes for any of the participants, as dialogue is an ongoing communication product. When the real reason for an organisation engaging in dialogue with its publics is persuasion; "risk to and the vulnerability of stakeholders increases, raising ethical concerns" (*Ibid.*: 7).

L'Etang (2008: 24) also agrees with this last point and considers that "although PR is seen as managing relationships, they may not be suitably prioritized" as there exists some discrepancy between the idealistic values proclaimed by the normative dialogic models — listening, dialoguing and engaging with publics — and the mechanistic methodology applied. Similarly, Ströh (2007: 210) emphatically argues that publics "want to be part of strategy formulation" rather than be analysed as groups that are afterwards communicated to. Consequently, organisations who wish to establish good relationships with their publics must be opened to change. This is a matter of attitude that organisations must carefully take into consideration.

As mentioned before, dominant public relations scholars have interpreted the emergence of the Internet and social media as an opportunity to establish a participative dialogue between publics and organisations (as reflected in the fourth Grunigian model). However, Theunissen and Wan Noordin (2012) warn that dialogue is an abstract and complex concept that should not be reduced to simple two-way conversation. These authors also regret the fact that the consequences of misinterpreting this concept have limited the expansion of research into dialogic theories:

> The systems model as it has been applied in public relations thinking encourages a linear and mechanistic view of such a multifarious and dynamic communication process. By equating dialogue to the two-way symmetrical model, public relations theorists are effectively doing a disservice to the complexity of human and organizational communication, and have moved no closer to developing a concrete dialogic theory of public relations. (Theunissen and Wan Noordin 2012: 12).

Furthermore, when Grunig and Hunt developed their theories in the mid-1980s, there was little conception regarding the digital environment. Their models thus indirectly assume that organisations may establish linear top-down communications between organisations and individuals (and vice versa in the case of two-way models), but other types of communications that are a reality nowadays, are not reflected. The Internet and, most especially, the social media have affected the linearity, directions and scope of communications. Nowadays, publics can communicate with organisations, but also with other individuals in multiple directions and from many-to-many audiences at any time (Lozano 2009: 7). Therefore, the idea that social media

platforms have finally reproduced the Grunig two-way symmetrical model needs to be reconsidered.

2.1.4. The nature of knowledge

Critical public relations scholars consider that public relations is a social and cultural practice whereas more functional thinkers consider it to be a managerial process, with the Grunigian perspective focusing only on one aspect: the organisation. Public relations, however, constructs and is constructed by social formations and their cultural formations and lays claim to a sociocultural turn in the field. In the words of Edwards and Hodges:

> Public relations moves from being understood as a functional process enacted in the organisational context to being a contingent, socio-cultural activity that forms part of the communicative process by which society constructs its symbolic and material "reality". (Edwards and Hodges 2011: 3)

For these authors, public relations helps construct and transmit the meanings and identities that form our culture. This perspective, which represents a radical break from the dominant public relations paradigm, views public relations practitioners as "cultural intermediaries" (Bourdieu 1984; du Gay et al. 1997; Hodges 2006; Curtin and Gaither 2007; Edwards and Hodges 2011). This concept will be explained at length in upcoming sections.

Several scholars (Ihlen and van Ruler 2007; Bentele and Wehmeier 2007; Ihlen, et al. 2009; Edwards and Hodges 2011b) have claimed and demonstrated that public relations research can take a different path from the normative approach that has historically dominated the public relations field. They have observed that public relations has already taken ideas from disciplines that are geared to solving managerial problems, for example, psychology, marketing and management. However, public relations should open up research and inquiry into theories from other social science disciplines, for example, philosophy, anthropology, political science, social theory and media studies (L'Etang 2011). Sociologically oriented perspectives focus on the relationship between public relations and the societies in which communication is produced by and within social systems (Ihlen and van Ruler 2007). Research in new theoretical fields may also inspire future public relations theory building. Alternative perspectives on public relations are beginning to be explored; indeed, in the words of Jacquie L'Etang (2008: 13): "This makes it a very exciting time to be studying public relations".

As mentioned in the introduction (Chapter 1), this thesis is concerned with the potential of the Internet and, more specifically, of the social media platforms. According to Wales (cited in Breakenridge 2008: 223), the Internet can be defined as a "giant conversation" with hundreds of thousands global dialogues occurring every minute. Since conversation is shaped by and leads to the creation of cultural meanings, it seems necessary to explore cultural studies theories and apply them to public relations. Therefore, the following section deals with the relationship between cultural studies and cultural intermediaries.

Food is a central activity of mankind and one of the single most significant trademarks of a culture – Mark Kurlansky

Tomatoes and oregano make it Italian; wine and tarragon make it French. Sour cream makes it Russian; lemon and cinnamon make it Greek. Soy sauce makes it Chinese; garlic makes it good – Alice May Brock

2.2. Cultural studies and cultural intermediaries: the circuit of culture

In 1948, Harold Lasswell theorised about the transmission of communications. His classic "who says what to whom in what channel with what effect" model helped to graphically identify the actors and elements necessary for any communication process (Lasswell 1948). From this definition of communication, one can conclude that the primary goal of the Lasswell's "linear transmission model" is persuasive communications. The model also assumes that audiences[5] are passive recipients of communication and also — since any kind of feedback loop or the intentions of the communicator are ignored — that the communication is always understood and accepted by the audience.

Although Lasswell's model may seem outdated, this one-way conception of the media is still prevalent in much research to this day. "Its influence is clear in controversies about media effects and dangerous viewing, about censorship and standards" (Meikle and Young 2012: 106). For years, audiences have been seen as passive recipients; however, as "producers of meaning", they should also be viewed as both active and creative in negotiating the messages. This last idea is extensively developed in the cultural studies theories of the Birmingham school set up in the 1960s.

Cultural studies understand culture to be "the production and circulation of meaning" (du Gay et al. 1997: 13), hence, culture is constructed by social practices. We make sense of things by the way we represent them, or "re-present" them, which is basically through language. By language, these scholars refer to any system of representation that uses a set of signs and symbols to present concepts and ideas and to share meanings with others (du Gay et al. 1997). In this sense, the anthropologist Clifford Geertz (cited in Edwards and Hodges 2011: 3) described culture as a "historically transmitted pattern of meanings" that allow human beings to communicate and transform our knowledge. Thus, neither reception nor production of a message are independent variables.

Drawing on these broad perspectives of culture, the Birmingham school developed the "circuit of culture model" (du Gay et al. 1997), which understands consumption practices to be both economic and cultural phenomena. Thus, a communication process develops around any product, service or brand by means of which meaning is created, shaped, modified and recreated.[6] Meaning is constantly produced and transformed through the interactions of the

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[5] In media studies the concept of "audience" has a similar meaning to "public" or "consumer" as used in the public relations field.

[6] du Gay et al. (1997) explain that there are five discursive "moments" in the circuit of culture, namely, production, consumption, representation, identity and regulation. Although these moments are discussed separately in their book, *Doing cultural studies. The story of the Sony Walkman,* they must be understood as a whole. Each moment is connected with the other moments through a series of articulations through which meaning emerges. Furthermore, the moments are not correlative. Thus, the process of creating meanings may start or end in any of the aforementioned phases and may go back and forth several times between two or more steps.

several moments of the circuit, rather than being a final outcome of those interactions. In the circuit of culture, three main actors intervene: producers, consumers and cultural intermediaries.

To exemplify the circuit of culture model, researchers at the Birmingham school (du Gay et al. 1997) used the case[7] of the Sony Walkman launch. Sony identified a need in the market, made the product and tried to sell it. However, the novel product had first to be presented to consumers. Therefore, an identity had to be created for the product based on the several meanings that producers attributed to it. But at the same time, those meanings had to be shared with those coined by consumers. It was thus discovered that consumers not only considered the Sony Walkman to be a device for listening privately to music outdoors; it was also a brand that satisfied their need for social differentiation, since it gave them a certain status as cosmopolitan, sporty, modern, young people. As pointed out by Baudrillard (1998), meaning does not lie in the object itself but in the social practices associated with it. Thus, du Gay et al. (1997) argued that, in order to appeal and engage with the consumer, individual meanings had to be acquired and adapted to the original meaning. It is the cultural intermediaries — the third actors — who are responsible for producing, sustaining and regulating such meanings between producers and consumers (du Gay et al. 1997).

The concept of "cultural intermediaries", attributed to Pierre Bourdieu, refers to the knowledge-intensive and service-oriented industries that provide a cultural bridge between production and consumption (Bourdieu 1984). These industries have come to be seen as increasingly central to economic and cultural life due to the power and influence they command (Nixon and du Gay 2002). Cultural intermediaries include public relations practitioners, advertisers, graphic designers, management consultants and other groups of people that attach meanings and lifestyles to products and services with which publics may identify: "They can be defined as people involved in the provision of *symbolic* goods and services" (du Gay et al. 1997: 62, original emphasis). All these new meanings, generated and circulated, become part of the fabric of society.

Despite consumers playing a key role in the creation of meanings, some authors go further and consider that cultural intermediaries are so intimately involved that they should be seen as "channels through which the circuit of culture is generated and unfolds" (Edwards and Hodges 2011: 5). As can be seen, this cultural perspective represents a radical break from the traditional view of public relations analysed above.

The creation of meanings may be seen as an exercise in symbolic power (Thompson 1995) that constructs and circulates our reality. One should be aware that symbolic power is not only exercised during the creation of meanings but also in the reception and reinterpretation of those meanings. As Meikle and Young (2012) remark, it is an error to consider audiences as "the more or less helpless victims of the exercise of symbolic power" (p.109), as audiences also interpret and create new meanings even if they operate within the constraints imposed by other actors. In fact, these authors highlight that the word "consumption is an inadequate metaphor for what we [audiences] do with media texts" (*Ibid.*: 109). Audiences receive, "consume", reinterpret and share meanings. Therefore, media texts are not consumed or absorbed; they remain alive, ready for new interpretations.

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[7] Other research based on the circuit of culture model include case studies with the brands Napster (Taylor et al. 2002), New Coke (Curtin and Gaither 2007) and Starbucks (Han and Zhang 2009) and with the mobile phone as a cultural commodity (Huang 2011).

At this point, the words of James Carey, pronounced in 1989, describing how the role of audiences was perceived in the media environment sound completely dated: "Some get to speak and some to listen, some to write and some to read, some to film and some to view" (Carey 2009: 67). They seem even more antiquated when we consider the role of audiences on the Internet, most especially with the arrival of Web 2.0, whereby audiences are more present than ever before and turn into active audiences. In my opinion, the Internet space is an abstract and real-time circuit of culture where meanings can be created, shared, reinterpreted and exchanged.

The following section discusses this revolution in the digital space and how audiences and also cultural intermediaries have changed their communication strategies.

*Secrets, especially with cooking, are best shared so
that the cuisine lives on* – Bo Songvisava

*I hate the notion of a secret recipe. Recipes are by
nature derivative and meant to be shared – that is how they
improve, are changed, how new ideas are formed. To stop a
recipe in its tracks, to label it "secret" just seems mean* –
Molly Wizenberg

2.3. Social media: where meaning is shared

As well as creating and adapting meanings, audiences also influence usage and adaptation to the medium. Manuel Castells (2001) observed that: "It is a proven lesson from the history of technology that users[8] are key producers of the technology, by adapting it to their uses and values, and ultimately transforming the technology itself" (p. 28). In fact, any medium is constantly reinvented as it is taken up by new people who adapt it to new contexts and even find new uses for it. In the words of Meikle and Young: "*the development of media technologies is an ongoing process, not an event*" (2012: 33, original emphasis). Thus, the transformation of any technology cannot be attributed to one person but to the sum of collaborations of thousands of users.

In the case of the Internet, it is widely known that it was created in the late 1960s with military aims. Its progenitor was the US Defence Department-funded ARPANET project, whose main goal was to mobilise research resources to build technological military superiority over the Soviet Union in the wake of the launch of the first Sputnik. ARPANET was designed to allow scientists from important American universities to overcome the difficulties of running programs on remote computers (Castells 2001: 10). Nevertheless, in the 1990s, when the Internet network was created, nobody could have foretold that it would turn into the medium that we know today, offering endless economic, communication, information and socialising opportunities. This transformation is reflected in the following extract:

> The Internet is what happened when a lot of computers started communicating. The computer and the Internet were designed, but the ways people used them were not designed into either technology, nor were the most world-shifting uses of these tools anticipated by their designers or vendors. Word processing and virtual communities, eBay and e-commerce, Google and weblogs and reputation systems *emerged*. (Rheingold 2002: 182, original emphasis)

At the same time, Rheingold's remark reminds us that if users have reshaped the medium, then today we cannot know what the Internet will be like and how it will be used in the future or even in a near future.

Nonetheless, what we do know is that the Internet and especially Web 2.0 has changed our understanding of, and the relationships between, consumers, producers and cultural intermediaries. As Demetrious (2011: 118) highlights: "Technologically transformative, seductively narcissistic and detraditionalised, the Internet in its many forms has colonised social and economic life in the twenty-first century".

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[8] To clarify, in this thesis the word "users" will refer to the publics using the Internet — independently of their level of involvement in the channel — ranging from viewers and surfers to engaged participants.

2.3.1. Web 2.0 and the participative culture

In the second wave of internet usage, Web 2.0, which began to gain prominence in 2004, supposed the democratisation of the communicative process. According to Tewksbury and Rittenberg (2012), knowledge has historically been under the jurisdiction of socioeconomic and powerful elites, given that the costs of mass media production limited the chances of ordinary people to be heard further that among their close contacts and in their social circles. However, the emergence of Web 2.0 offered people the opportunity to participate in the communicative process and express their ideas freely, by creating, editing and sharing their own online contents. During the Web 1.0 era, information was provider-generated and users could only surf from one website to another; in the Web 2.0 era, users can generate content collaboratively. In other words, Web 2.0 allows consumers to participate in the circuit of culture, where their contributions potentially have an impact beyond what was previously possible. As Giustini (2006: 1283) points out: "[nowadays] information is continually requested, consumed, and reinterpreted [by users]".

The participation of audiences in the circuit of culture was publicly recognised in December 2006 when *Time* magazine named the new active Internet audience as its Person of the Year, with a cover showing a picture of a computer screen with a mirror and the headline: "You. Yes you. You control the Information Age. Welcome to your world". The corresponding leading article defined Web 2.0 as a "tool for bringing together the small contributions of millions of people and making them matter" (Grossman 2006). In this sense, the social media humanised the digital communicative environment. Sherman Hu, creator and producer of Wordpress Tutorials, concurs: "Unlike other media, […] social media platforms finally 'put some skin on' your audience" (cited in Holzner 2009: 75).

From a scholarly perspective, this communicative revolution has marked a shift in power from technocrats to ordinary users (Brown 2009: 2). Some authors (Meikle and Young 2012: 57) consider that this reallocation of symbolic power to audiences makes the public sphere more democratic and, at the same time, is a public demand to defend the right to speak and be heard. Nevertheless, we should not be too enthusiastic with complete freedom of expression from a global audience as this may bring unwanted consequences. In the words of Grossman (2006): "Web 2.0 harnesses the stupidity of crowds as well as its wisdom".

In short, Web 2.0 introduced a conversational platform, as kind of "social medium" where online communities could create, edit and share their own information, knowledge and opinions (Holzner 2009; Safko and Brake 2009; Fischer and Reuber 2011). According to Kaplan and Haenlein (2010: 61), the social media can be defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content". This definition implies that content is freely and actively created, and not passively consumed, by users. The social media have therefore turned a single mass passive audience into millions of different active audiences whose discourses become visible on equal terms within the scope of the Internet (Auger 2013). In order to emphasise the importance of interactivity among users, some scholars even refer to the social media as "the people's web" (Fournier and Avery 2011).

Although Facebook, Twitter and YouTube are the best known social media platforms, there are hundreds of Web 2.0 applications, including social networks like Google+, Hyves, Renren and Tuenti, professional networks like LinkedIn, blogs and microblogs like Wordpress and Posterous, online encyclopaedias like Wikipedia, virtual communities like Second Life, recommendation websites like TripAdvisor and Criticker and platforms for sharing pictures, music, videos and

other content like Flickr, Instagram, SoundCloud, Vimeo, Tumblr, Pinterest and Slideshare. Hereafter, when I refer to the concept "social media", I mean all the existing Web 2.0 online platforms that allow user-generated content.

2.3.2. The birth of "prosumers"

In the digital world, the roles of producer and consumer collide. For this reason, several authors have defined this "new" creative audience as one of "prosumers" (Ritzer and Jurgenson 2010). This concept refers to audiences who produce and at the same time consume content — and meanings — rather than focus on one (production) or the other (consumption). Now the line between being a source or a consumer of information is blurred. Other scholars like Meikle and Young (2012) go further and understand that social media do not only focus on a generation of "read-and-write" publics, but have converted passive audiences into creative audiences in the full sense of the term:

> We [audiences] can now also *access* more kinds of material (a "read-more" culture), we can *organize* media content in new ways for ourselves and others (a "read-tag" culture), we can *remix*, remake and reimagine digital media texts (a "read-mix" culture), we can *collaborate* on all of the above (a "read-and-write-together" culture) and we can *distribute* or *share* what we've found or made (a "read-share" culture). (Meikle and Young 2012: 104, original emphasis).

Therefore, co-creative content and its dissemination among known and trusted sources would point to social media as possibly being good platforms for influence (Hanna et al. 2011; Berthon et al. 2012). For Mark Zuckerberg, founder and CEO of Facebook, the role and power of creative audiences in the new circuit of culture is essential: "In the next hundred years information won't be just pushed out to people, it will be shared among the millions of connections people have" (cited in Holzner 2009: 5). The statement of this social media magnate encouraged organisations and traditional cultural intermediaries to become involved in these connections.

The following paragraphs focus on the communicative opportunities and challenges faced by organisations that use social media.

2.3.3. New communicative opportunities for organisations

Before the advancement of technology, public relations practitioners relied heavily on third-party influencers such as "gatekeepers" or journalists to circulate their meanings — the well-known tasks associated with "media relations" — and so win their publics. Social media, however, since they are now able to contact directly with consumers, question the cultural role and power of journalists as cultural intermediaries. The marketing strategist Meerman Scott (2009: 11) describes this situation as a democratisation of public relations: "The Internet has made public relations public again, after years of almost exclusive focus on media."

From an academic point of view, many authors recognise that this new context has changed the definition, understanding and practice of public relations. They consider the social media tools to be an ideal way to reach consumers and to track their surfing habits and purchasing patterns (Ihator cited in Curtin and Gaither 2007: 146). Once again, we find examples of normative public relations theories that focus exclusively on the possible benefits of the social media platforms for organisations.

Some dialogic scholars go further and consider the social media not to be merely market research in motion, but emphasise that they may help practitioners enhance interest in their

organisations (Briones et al. 2011; Men and Tsai 2012) and strengthen relationships with online publics: "Social media represent powerful tools for enhancing public participation, favouring the establishment of relationships based on dialogue and interactions" (Agostino 2013: 232).

Being heard by a big audience as well as the opportunity to know better and interact with their publics at a low cost are some of the features that have led several organisations to participate in the circuit of culture through online media with the creation of a blog, a channel or a profile on a social media. But, as Kaplan and Haenlein (2010: 67) highlight social media is not only relevant for large global companies, it is also indicated for small and medium sized enterprises as well as for non-profit and institutional organisations because all them can make their voices visible and can engage with their audiences in the digital space.

However, not all organisations have the same perspectives on the social media. And this view directly influences the type of strategy used to communicate with audiences. Kent and Taylor (1998) introduced the subject of online relationship development and, obviously, their study theorised regarding Web 1.0 websites and many other scholars subsequently advocated implementing strategies to cultivate online relationships with publics (e.g. Kelleher and Miller 2006). The existing literature describes three essential strategies for online relationship cultivation known as "disclosure", "information dissemination" and "interactivity and involvement" (Men and Tsai 2012).

The first strategy refers to "the willingness of the organization to engage in direct and open conversation with publics" (*Ibid.*: 724). Organisations should consequently be transparent and include basic information for their online publics, such as a description of the organisation, its history, its mission and goals, official logos and hyperlinks to the official website. Despite the stated intention, this strategy is monologic and does not allow for any type of feedback from publics. The second strategy focuses more on the usefulness of information for the publics, rather than from the perspective of the organisation. Therefore, the organisation will include announcements, promotions about their products, photos, videos, press releases and campaign summaries as well as links to external news items and media coverage (Waters et al. 2009). This second strategy sees publics as informed partners. Finally, the third strategy considers interactivity with publics as a key element in the cultivation of online relationships (Jo and Kim 2003).

In the author of this thesis opinion, this three-way classification of kinds of relationship cultivation is unclear and may be outdated for social media relationships as it is too focused on websites 1.0 and non-creative users (e.g. Kent and Taylor 1998). I prefer the differentiation of perspective of Tsabar (2009), who classifies organisations according to their understanding of social media: those who feel obliged to use social media to keep up with the new communication trend, and those that understand the social media to be the means to achieve a new and more engaged reality with their publics. This conceptualisation of the social media — as a technological trend or as a medium to interact with publics — will greatly affect strategies for the cultivation of relationships and the contents of the platforms (Lozano 2011). I will refer to these communicative strategies as "information dissemination" and "participation and relationship building".

Information dissemination organisations understand social media as a cost-effective platform to disseminate their messages and so their aims will be promotion and information. This may be reflected in the creation of a profile of the organisation and the provision of information in popular social networking, microblogging, video or photo sharing sites. The participation and relationship building organisations see social media as a platform for making contact with,

listening and dialoguing with users, while allowing them to lead the communication. Their aim will be the creation and circulation of meanings from and to users. Such organisations will set up profiles on large Web 2.0 platforms — or even create their own platforms — and will encourage users to actively participate in them, sharing their opinions, experiences, doubts and recommendations. And, at the same time, these organisations may also use and include the opinions and new meanings created by users in their own particular platforms into their social media tools.

Eddie Smith (cited in Holzner 2009: 17) reflects this difference in social media conceptualisation and strategies with the following remark: "[Audiences who] have been weaned on digital media […] are very savvy when it comes to understanding whether they are being talked to or talked with in the online world".

2.3.4. New communicative challenges for organisations

Although the social media open up new communicative opportunities, some organisations feel threatened regarding the inclusion of social media tools in their websites and participation in these platforms. The main reason is that they are not prepared for the shift in power and message control from the organisation to creative audiences. However, these organisations must understand that controversy is the nature of social media (Lozano 2009: 16) and that "muckraking has become a mainstream sport" (Fournier and Avery 2011: 198). In the words of Beal and Strauss (2008): "If companies, professionals, or just about anyone doesn't reveal their weaknesses for the world to see online, someone else will" (p. 8). It seems that nowadays there is no way to ignore online (possibly false) information and criticism. In fact, several authors (Beal and Strauss 2008; Thompson 2007) agree that the best way for organisations to combat online criticism is by using social media viral tools. This means fighting disinformation with information.

But criticism and false information are not the only threats implied by using the social media. As Distaso et al. (2011) observe, there are also internal concerns for organisations that participate in the social media such as "intellectual property leakages, criticism of management or the company, and embarrassing employee behavior that can damage a brand" (p. 326).

Faced with these risks, it is reasonable for some organisations not to feel comfortable in setting up social media platforms for their organisations. Nonetheless, they are merely confronting the same fears and doubts that appeared when other new technologies such as telegraphs and telephones were introduced (Breakenridge 2008; Meerman Scott 2009; Safko and Brake 2009).

Apart from the aforementioned challenges, some scholars have highlighted that a vision of users as passive audiences, poor understanding of Web 2.0 rules and inexperience in using online platforms may lead to poor or inappropriate use of social media tools. Kent (2008), for example, warned public relations practitioners to "not get trampled by the blogging [and other social media platforms] stampede until scholars, researchers, and especially professionals actually understand them better" (p. 39). This scholar also warned that social media platforms may only be useful to an organisation if it has people trained in online dialogic communications and the necessary resources to maintain the platforms. "Not having enough staff or time is a barrier for many nonprofits and corporations. […] Without staff consistently and strategically managing social media it is difficult, if not impossible, for organizations to ensure the commitment that improves organisation-public relationships" (Briones et al. 2011: 41).

Other scholars have pointed to the inexperience of public relations practitioners as a threat in terms of taking full profit of the opportunities provided by the social media, especially in

cultivating relationships: "Organizations are only limited in how they use Twitter by the imaginations of their communicators" (Lovejoy et al. 2012: 317). Linke and Zerfass (2013) are more pessimistic and declare that "looking behind the social media boom, it becomes clear that only a minority of organizations have the skills, strategies or structures which are necessary for long-term social media success" (*Ibid*: 272).

Rybalko and Seltzer (2010) concluded that some public relations practitioners do not benefit from all the advantages of social media tools because they are not able to set up environments where the circuit of culture moves freely from and to users:

> A hammer, a saw, and a screwdriver are all tools for building a house; it is up to the experienced carpenter to determine which tool to apply in a given situation and to wield it with skill and precision to build a sturdy, long-lasting structure. Similarly, at the end of the day, websites, blogs, Facebook, Twitter, etc. are all simply tools capable of performing a particular job, some better suited to that job than others. However, it up [sic] to the experienced public relations practitioner to determine which tool is best capable of building sturdy, long-lasting relationships with stakeholders and to use this tool with skill and precision. When it comes to social media tools and dialogue, public relations practitioners have correctly selected a hammer for driving home a nail, but they are still basically holding the hammer by its head and not its handle. These tools merely create spaces where the opportunity for dialogic communication exists; it is up to the practitioner to use these tools in such a way so that they actually allow their organization to engage in dialogic communication (Rybalko and Seltzer 2010: 341).

In short, Rybalko and Seltzer (2010) imply that public relations practitioners fail to "socialise" in the "social" media — despite the apparent redundancy. The main purpose of social media platforms is to share meanings, not to act as commercial platforms. Traditional marketing and advertising techniques do not work in the Web 2.0 arena. As we have seen, the Web 2.0 philosophy invites users to talk, to hold global conversations that help construct and cultivate the relationships that form the foundation of public relations (Men and Tsai 2012; Lovejoy et al. 2012). As Holzner (2009) points out: "If you want to survive and thrive in this world, you have to provide content, not just ad copy" (p.1). Kelleher and Miller (2006) concluded, furthermore, that users preferred those organisations that communicated online in a human and candid manner (e.g., inviting people to a conversation) rather than those communicating with a traditional corporate voice.

Consequently, organisations that would like to succeed online should provide useful, interesting and relevant content for their users and let them lead the communication. The creation and negotiation of meanings seems to be one of the most important issues in the construction of online communities (Laroche et al. 2013: 77). Some authors insist that organisations need to stop trying to shout their message over everyone else (Meerman Scott 2009) and instead start opening conversations with users. "Above all, remember that control is in the hands of the members, so put their needs first, build trust, and become an active part of […] community" recommends the web strategist Jeremiah Owyang (cited in Holzner 2009: 85).

Public relations practitioners should also understand that the social media are not a fad. This is how users communicate nowadays and how they will do so in the future — maybe with another kind of platform — but the old times when elites could control messages will not return. Users are now aware that they have been empowered, that their contributions can be heard and shared and that they are a key element in the online circuit of culture. Organisations

consequently need to learn to socialise and deal with creative audiences. This is how the "convergent media"[9] function nowadays.

2.3.5. Research into social media usage

Although the potential contribution of the social media to corporate communications has received a great deal of attention, the impact of these platforms on public institutions and nonprofit organisations in particular has been little investigated (Waters et al. 2009; Agostino 2013). This thesis deals with public organisations, specifically bodies specialising in assessing and communicating food safety/promotion issues and their online strategies.

Having discussed some of the features and communicative changes introduced to society by the Internet and especially the social media, the discussion focuses in the communication of food.

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[9] Meikle and Young (2012) use the term convergent media to refer to media content, industries, technologies and practices that are both digital and networked.

I am not a glutton, I am an explorer of food – Erma Bombeck

Popcorn for breakfast! Why not? It's a grain. It's like grits, but with high self-esteem – James Patterson

Not all chemicals are bad. Without chemicals such as hydrogen and oxygen, for example, there would be no way to make water, a vital ingredient in beer – Dave Barry

2.4. Food meanings

Food is a basic nourishing necessity as well as a pleasure. It is a fundamental right of all humans but also has economic value for countries. A feast may celebrate the cultural identity of a group as well as express gratitude and joy. A healthy diet may serve as preventive medication but may also be considered a lifestyle. Food has multiple meanings, given that it is individually consumed but collectively shared. Riesman et al. (1950), for example, reflected on some of these meanings when describing how American Puritans and non-Puritans of the nineteenth century showed off their status in the food served to guests: "what was put on display was a choice cut of meat, an elegant table, and good solid cooking" (p. 142). As Jackson (2010: 161) observes: "Food […] has enormous revelatory value both in terms of its potential to carry messages about identity and meaning but also to reveal the structural dynamics of society and the operation of specific relations of power".

In October 2013, the *Catalan Journal of Communication & Cultural Studies* dedicated a special issue to this research field entitled *Communication and Food for Health Benefits: Negotiating Meanings in Networked Times.* The editorial suggested that the Birmingham school circuit of culture is also present when communicating food, with Farré and Barnett (2013), in particular, discussing the lively debate among food chain actors to attribute meanings to food: "Whether in terms of producing, consuming or regulating or as a form of representation and identity, food issues are at the crossroads of institutions, companies, agencies, publics, audiences and consumers and are integral to the circuit of culture" (p. 150).

The emergence of the social media has, not surprisingly, multiplied the number of visible sources of information, discourses and meanings related to food. Lively discussions around new food trends — labelled as *organic ecological*, *molecular*, *slowcal* (slow and local), *food telling* (food with message), *supersense* (multisensory experience), *eatertaintment* (food and entertainment), *egofood* (expressing identity through food), *myhealth* (personalised care and healthy eating) or *here and now* (food intake adapted to the modern way of living) — exemplify this explosion of food meanings (Azti-Tecnalia, cited in Prades et al. 2014).

From risk communication theories, communication acts as a mechanism in which the different actors involved in the construction of meanings dialectically compete to impose their own perspectives and definitions. Their objective is achieving acceptance and support by the public (Farré and Gonzalo 2011). This competition may have unwanted consequences for some of the actors involved:

> For example, a risk such as the BSE [bovine spongiform encephalopathy] crisis is a very negative issue for, among others, the meat industry […], whilst for groups concerned with animal welfare and the consumption of meat, e.g. the vegetarian society, it could be seen as a positive issue as highlights concerns about modern farming. Problems could then arise if communicators from the latter group used BSE as a weapon to emphasise the wider concerns they had about modern farming, which would undoubtedly put further pressure on the meat industry (Smillie and Blisset 2010: 116).

Research into risk communication has traditionally considered journalism as the main generator of public opinion. However, Farré and Gonzalo (2011) argue that it is only one of the communities that generates opinions. Nonetheless, the media and, concretely, journalism may reproduce the ideas of other actors given particular economic contexts and sociopolitical interests.

This is the case of the food field. According to Farré, Prades and Gonzalo (2013), the food chain has been "mediatised", with dialectic and political tensions arising between different actors who have intensified and reinforced their communication strategies to target the consumer. Today, a vast range of interests — public administrators, politicians, scientists, public relations researchers, marketing and brand publicity experts, advertising agencies, media companies, nutritionists, dieticians, advocates of organic products, supermarkets, farmer markets, fast food restaurants and supporters of the slow food movement — need or want to inform and convince consumers about food-related issues (*Ibid.*: 166-167).

This new discursive battleground has been elegantly depicted by journalist Michael Pollan in his book *In defense of food: an eater's manifesto*:

> The sheer novelty and glamour of the Western diet, with its seventeen thousand new food products every year and the marketing power — thirty-two billion dollars a year — used to sell us those products, has overwhelmed the force of tradition and left us where we now find ourselves: relying on science and journalism and government and marketing to help us decide what to eat (Pollan 2008: 133).

To sum up, the ongoing negotiation of meanings among food chain actors should be understood as the result of symbolic communication processes. It should also be noted that the multiplication of food meanings in circulation is influencing and being influenced by institutional sensemaking (Farré and Barnett 2013).

The next section explores the historic and communicative reasons why institutions wish to become communication leaders and why they have started to consider the social media as a means for transmitting their messages.

*Don't eat anything your great-great grandmother
wouldn't recognize as food* – Michael Pollan

*We may find in the long run that tinned food is a
deadlier weapon than the machine-gun* – George Orwell

*The history of government regulation of food safety
is one of government watchdogs chasing the horse after it's
out of the barn* – David A. Kassler (FDA Commissioner)

2.5. Food communication institutionalisation in Europe

2.5.1. Food chain developments in recent decades

Food communication has changed dramatically in recent decades in Europe. Changes in lifestyles, the emergence of food globalisation, the arrival of new food technologies (nanotechnology, genetically modified (GM) foods, nutragenomics and nutraceuticals), the increase in diet-related diseases (heart disease, obesity and diabetes) and a succession of food scares have led to a growing public distrust of authorities.

In the 1970s, largely due to the increase in the numbers of women working outside the home, some segments of European society adopted new food habits. Dining out in restaurants or eating in school and work canteens were convenient alternatives to home cooking. Even people eating at home had less time to prepare food and so often resorted to frozen or pre-prepared foods. "Instant mashed potatoes or canned soup became increasingly popular, offering a quick and easy solution to busy lives" (EC 2007: 18).

Modern life not only disrupted traditional home-based family eating patterns, it also changed shopping habits, which came to be dictated by time savings and convenience. Thus, daily visits to the local shop became weekly drives to the supermarket. This practice also led to new businesses such as fast food restaurants. In fact, the first such restaurant in Europe — called Quick — opened in Belgium in 1971 in a supermarket car park (*Ibid.*: 21). In the same year, the first McDonald's opened in the Netherlands and in West Germany (James 2009).

The globalisation of food was evident in European markets by the 1980s (EC 2007: 27). This development was positive as it meant a greater variety of available food (such as tropical fruits and spices) from exotic countries and led to cross-cultural exchanges. However, it also had a negative impact on national economies because imported products were often cheaper than national products. This globalisation, however, also raised concerns in the public domain about food safety issues such as food contamination and the entry of illegal substances to the EU (Lozano and Lores 2013).

The 1980s also saw the rise of new food philosophies and lifestyles. The proliferation of fast food chains — by 1988, for instance, McDonald's was operating in 17 countries across Europe (McDonald's 2014) — led to the development of unhealthy lifestyles. Food globalisation is considered symbolic of cultural globalisation, and for many years, the golden arches fast food chain has symbolised the cultural colonisation of the "American way of life".

Then the slow food movement took hold in Italy in 1987, as a response to the fast food philosophy. It soon took on board more political arguments about food chain problems and began to encourage consumers to take critical responsibility for their purchasing decisions, in

defence of their own pleasure and the consumption of local products (Farré et al. 2013). Consequently, not only lifestyles but new identities and subcultures were created around food consumption.

In the 1990s, advances in food technologies raised further questions for the European consumer. On the one hand, the food industry, seeing a competitive advantage in promoting foods on the basis that they met guidelines for a healthy diet, started to develop and commercialise certain essential nutrients in foodstuffs such breakfast cereals fortified with additional vitamins and minerals (EC 2007: 31). However, some of the health-related claims made in advertising were misleading. For example, Campbell's soup was criticised for its spurious scientific claims:

> Campbell's soup advertising suggested that soups may help reduce the risk cancer and are a good source of calcium. Critics pointed out that the calcium comes largely from the milk that the consumer adds in preparing the soup. Moreover, critics contended that the product has high sodium levels, which were not disclosed, and which made health claims inappropriate (Novelli 1990: 80).

On the other hand, novel food sources became possible with scientific developments (Rollin et al. 2011). The Flavr Savr tomato, the first GM food, was developed in 1994 and sold in Europe during the summer of 1996. Meanwhile, Dolly the sheep was the first mammal to be cloned from an adult somatic cell in 1996. Such advances stimulated much debate and controversy in the public.[10]

However, the turning point for food-related communication was undoubtedly 1996, when the "mad cow disease" — bovine spongiform encephalopathy (BSE) — crisis broke out in Europe. Its consequences in social, political and economic terms were profound. According to Lozano and Lores (2013):

> The lack of consensus among scientists, the slow reaction of the politicians and the spread of the disease beyond UK boundaries led citizens to think that institutions had lost control of the situation and were unable to respond to the raised uncertainties (p. 286).

Since then, other food incidents have unfolded, rapidly drawing media attention, e.g., the dioxins case in Belgium in 1999. Not surprisingly, consumer trust in the safety of the EU food supply fell considerably (Cope et al. 2010; Lofstedt et al. 2011; Lozano and Lores 2012). In fact, these meat-related scandals have led to a rise in vegetarianism across Europe (EC 2007: 31).

2.5.2. European food safety institutionalisation and communication

In this context of distrust, institutions were obliged to rethink policies (Houghton et al. 2008) and, from the start of the new century, the EU began to make real progress with the creation of a food safety legislative infrastructure. In 2000, the European Commission published the White Paper on Food Safety (EC 2000), setting out an innovative from-farm-to-fork EU food safety policy. Consumer protection no longer ended at the retail level but covered all the steps in the food chain, from the farm right down to the consumer.

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[10] The European media played a very important role in instilling terror in the population by publishing articles with faulty arguments against GM foods. The media referred to GM food as "Frankenstein foods", using Mary Shelley's character to symbolise everything that seems bad or frightening about science. *The Economist* (1999) published an article to denounce such unethical journalistic practices.

In 2002, the EU's General Food Law entered into force (EC 2002), aimed at the reduction, elimination or avoidance of risk to health. It thus introduced a new scientific approach to risk analysis, broken down into three interrelated steps, namely risk assessment, risk management and risk communication, defined as follows:

> Risk assessment is defined as the process of evaluation, including the identification of the attendant uncertainties, of the likelihood and severity of an adverse effect(s)/event(s) occurring to humans, food producing animals or the environment. Risk management is defined as the process of weighing policy alternatives in the light of the result of the risk assessment(s) and other relevant evaluations.[…] Risk communication is defined as the interactive exchange of information and opinions throughout the risk analysis process (Cope et al. 2010: 349).

The European Commission also created an independent scientific body, called the European Food Safety Authority (EFSA), to be responsible for the evaluation and communication of food safety issues. Also were created analogue national food safety/promotion authorities in each member state, whose mission was to make consumer protection paramount (EC 2002). The main purpose of these bodies was, when communicating with the general public, to "provide objective, reliable and easily understandable information" (*Ibid*.: 5). The underlying assumption is that consumers would be able to make balanced judgements if provided with up-to-date and reliable information about food.

Food safety/promotion authorities are also responsible for managing and communicating food-related issues both at normal times and in crisis situations. Thus, at normal times, official bodies would respond to food concerns (food contamination, novel foods, dietary dysfunctions, etc.), promote healthy eating habits and provide appropriate information to segments of population with special food needs (people with diabetes or coeliac disease, pregnant women, elderly people, etc.). As for crisis situations, Gaspar et al. (2014) define these as "one or more *perceived threatening events that go beyond what is 'normal' or expected, demanding non-routine organizational and individual responses*" (p. 240, original emphasis). Such situations would include food alarms, food recalls and food crises that require immediate, updated and objective information in order to reduce or eliminate a food risk to the general public (Lozano and Lores 2012: 62). Although these situations are infrequent, examples from recent years include the Irish dioxin crisis in 2008, the enterohaemorrhagic *Escherichia coli* (EHEC) outbreak in Germany in 2011 and the EU horsemeat scandal of 2013.

The importance of the EFSA is undeniable. It "has become the point of reference and the prime definer in the organization of food system in Europe, with a high level of innovation and authority" (Farré and Barnett 2013: 154). However, regarding consumer confidence, merely providing independent and transparent scientific advice is no guarantee of a recovery of public trust (Jensen and Sandøe 2002). Wales et al. (2006) indicate that the organisational re-configuration that has taken place in recent years in Europe and the mandatory nature of risk communication should be viewed as an "institutional staging-post in the historical development of trust in food" (p. 194).

Verbeke (2005) remarks that offering more information does not necessarily mean better informed consumers. Authorities should not take it for granted that audiences will pay them due attention just because they claim to be a reliable source of information; in other words, being an authority does not imply being an opinion leader. In this context, some authors (Cope et al. 2010; Barnett et al. 2011) urge the EFSA and national food safety/promotion authorities to optimise their communication strategies.

There is an extensive literature regarding food risk communication to consumers that would indicate that this is a highly complex field and, therefore, that a single set of recommendations is not sufficient to suit all situations. Some of the factors that may influence good communication practices include trust in the source of information, consistency of scientific messages, interaction with audiences and how messages are developed and disseminated in terms of language, style and chosen channels to reach target audiences (see van Dijk et al. 2008; McCarthy and Brennan 2009; Smillie and Blisset 2010; Cope et al. 2010; Rollin et al. 2011). Much research focuses on the media as key actors for the appropriate dissemination of food safety communication, although, as will be seen below, the relationship between food authorities and the media is sometimes conflictive.

2.5.3. The mass media: ally or enemy?

In the early 1990s, institutional and public health communicators considered the mass media to be an essential component in successful promotion of institutional campaigns designed to change health risk behaviours (Arkin 1990). The most attractive feature of the mass media is their ability to simultaneously reach large and diverse audiences. Back in 1987, for instance, Ulene commented on the potential influence of television for health education in the USA: "A story covered by the three morning shows will reach 10 million [American] homes and almost 17 million people" (cited in Arkin 1990: 219).

Despite health communicator expectations, health education has never been a priority for media editors (Atkin and Arkin 1990). Indeed, the relationship was unbalanced as public health communicators needed the media more than the media needed public health communicators. The main problem lay in the conflicting priorities of these two communities. Reduced to the simplest terms, public health communicators wanted to improve health and address societal concerns through media endorsement, whereas the media were more interested in finding "hard" news — like food scandals, for instance. Another crucial factor is that advertising has traditionally been the most important source of funding for the media, which are also often in the investment portfolios of food corporations. This dependency often means that there is a vested interest in food advertising and a disincentive to the provision of factual information on the hazards associated with the overconsumption of certain foodstuffs.

According to Stuyck (1990), this lopsided relationship caused frustration among public health communicators, especially in view of the time, energy and financial investment required for the development of media strategies. "This can manifest itself in several ways: public announcements that air at odd hours or too infrequently for real impact, newspaper stories that "deserved" better play, and interviews that took place but never see the light day" (*Ibid.:* 73). Some authors concluded that the mass media represented a paradox:

> On the one hand, they seem to be a substantial part of the problem — a barrier that reinforces a narrow health perspective that health promotion must overcome. Yet on the other hand the mass media represent an opportunity of the greatest magnitude (Wallack 1990: 154).

This sort of clash between the public health and mass media communities continues to be a reality. Speaking at a conference in November 2007, Nicola Carslaw, a broadcast consultant and consulting editor for the BBC, explained that the role of the journalist was to look at the evidences, put them to the test, filter out the most relevant aspects of the findings and rewrite them in understandable language for wider audiences. She recognised that the "filtering" step could result in lurid headlines but she defended the media's need to capture audience attention for financial reasons: "No scare, no story. The principle driver steering this is commercial.

Newspapers have to sell; there is no point writing a story if no one is going to read it" (Carslaw 2008: 15). Carslaw further commented that this media logic could lead to controversies with scientists and public health communicators for having misinterpreted their message.

McCarthy and Brennan (2009) examined barriers faced by food safety experts in Ireland when communicating with the mass media. They also conceded that food safety was not a priority of the media and that it was difficult to garner the media's interest in their agenda. These authors highlighted the fact that many experts considered that journalists tended to communicate misleading information or pick up negative stories. "Print and TV media, in particular, in some cases put a slant on food risk messages to maximise impact" (*Ibid*.: 552).

Apart from the lack of message control, food safety communicators feel deceived when food safety issues reported in the media are not adequately documented by scientific evidence. Farré et al. (2012: 382) indicates that governments and public institutions have a responsibility to provide sufficient and accurate evidence-based information. However, the media have no obligation to cite scientific sources. This may lead to confusion among the public, especially when official and non-official discourses contradict each other. Confusing information is, indeed, the order of the day in the media. As Farré, Prades and Gonzalo (2013: 165) observe: "The media no longer help reduce social complexity, rather they tend to increase it".

To add to the mass media paradox, food safety communicators also see the media community as responsible for creating unnecessary public alarm (Houghton et al. 2008; Cope et al. 2010). Nevertheless, food risk communication studies indicate that consumers value the media as an important source of information about food safety and claim that consumers are "able to discriminate between media amplification of risk and problematic food safety issues" (Cope et al. 2010: 353).

As a result of the constant conflicts between the interests of public health institutions and journalists, public health communicators have explored other communication strategies to promote their messages, including advertising campaigns and entertainment, especially in television and film (Arkin 1990). In the opinion of Wallack (1990), these communication strategies respond to classic misunderstandings that media messages directly influence audience and effect changes in behaviour and that health professionals consider consumers to be largely ignorant in these matters:

> The underlying assumption is that people adopt risky behaviors because they do not fully understand the consequences of such acts – they just don't know better. If people really knew the effects of a poor diet [...], then they would not behave in such irresponsible ways. Ignorance is the problem, and the solution is information packaged in just the right way (Wallack 1990: 155).

Although advertising campaigns may offer a solution to complete control over information, successful media planning and strategy implementation may lead to budgetary problems, as public health institutions normally have limited resources.

Public health communicators have also tried to introduce their messages in entertainment media. But, as has already been mentioned (Chapter 2.4.), food has multiple meanings and the inclusion of food scenes may characterise and reproduce certain stereotypes:

> Although depicted as a seemingly natural function, food scenes in film not only signify social class, identity, and nationality, but also provide insights into the complex ways in which food and eating are entangled with other aspects of social/cultural development (Ferry 2003: 1).

Therefore, public health communicators have also encountered difficulties in convincing media producers and scriptwriters to pick up health promotion and risky behaviour stories and fit them into the plots and characters of series and movies (Montgomery 1990).

Since advertising, publicity and entertainment are one-way communication strategies, there is no possibility for establishing a direct relationship with consumers or of knowing what their opinions and concerns are.

The following extract describes the communication practices of the UK Food Standards Agency in promoting food safety before the emergence of the social media:

> Before the use of digital media, the FSA's [Food Standards Agency's] campaigns to influence eating habits and promote food safety were located within costly media advertisements with limited feedback and targeting options. Also, the agency was not able to discuss and engage with consumers on a more regular or routine basis. Helplines were in place for queries such as helping the public address food labelling and hygiene issues to the appropriate authority (which is not always the FSA). Mobile phone messages and mainstream media were used to issue warnings about product recalls and allergies, sometimes as a matter of urgency (Panagiotopoulos et al. 2013: 315).

Nonetheless, the scientific evidence would indicate that behavioural change is not necessarily or easily brought about by the mass media (whether in publicity, advertising or entertainment): "Information is necessary but not sufficient for creating meaningful change" (Wallack 1990: 155). In fact, some authors (McCarthy and Brennan 2009: 550) have demonstrated that the possession of food safety knowledge does not guarantee that the public will engage in consistent behaviours in relation to best practice guidelines.

In short, the main communication goals of food safety/promotion authorities can be summed up in four points:

1. To provide reliable and accurate information to a large population at a low cost.

2. To control the dissemination of messages in order to preserve their evidence-based content while not alarming citizens unnecessarily through lurid headlines.

3. To open up new communication channels with consumers that enable feedback as well as communications adapted to key consumer concerns.

4. To maintain a more direct and closer relationship with different publics in order to regain their trust in public institutions.

Risk communication theories previously understood communication as a tool to bridge the divide between scientific experts and lay people. The public was considered as a passive receiver of risk information that had to be "informed" or "educated", but without questioning expert guidelines (Farré and Gonzalo 2011). However, this perspective of the public resulted in communication campaigns with limited success, as they were not based on genuine consumer concerns or information needs. Scholars therefore began to realise that risk communication should involve inclusive dialogue and an exchange of information among all actors (Grabill and Simmons 1998). According to Rollin et al. (2011: 103): "Increased communication and early involvement of end users may contribute significantly to an increased transparency of the decision-making process and a higher level of trust in public authorities". In a way, these theories are reminiscent of the dominant paradigm theories of public relations.

At this point, the interest of food safety/promotion authorities in exploring the potential of the social media for improving the communication of food risks and benefits might seem evident. But are social media the definitive communication solution?

2.5.4. Social media in food safety/promotion communication

Thackeray et al. (2012), observing that public health institutions have a timid presence in the social media, urged them to become more active. "Public health agency use of social media is in the early adoption stages. Because social media use is becoming so pervasive, it seems prudent for SHDs [state health departments] to strategically consider how to use them to their advantage" (*Ibid*.: 6). Regan, Raats et al. (2014), in their study of the opinions of Irish food stakeholders regarding social media inclusion in communication strategies, observed that, although public bodies positively appreciated the potential, especially in crisis situations, they were reluctant to use these media due to concerns regarding their reputation, that is, they feared negative interactions or public criticisms.

This tardy adoption of social media is clearly a problem for food safety/promotion authorities, as it leaves them one step behind societal and corporate communities.

Regarding societal communities, the emergence of the social media has helped to give voice to the discourses of creative audiences. Communication related to food has, like other fields, also been affected by this technological advance. Social media have transformed how users receive, understand, create and share meanings. As the food blogger Allué (2013) points out, nowadays anyone with a minimum level of knowledge and minimal resources can publish on the Internet, especially as most tools for posting information on blogs or social networks are free. Rutsaert et al. (2014) observed that communities with like-minded individuals create their own subcultures and identities, with food in particular, playing a key role. In an ethnographic paper, Cronin and McCarthy (2011) explored how the consumption of junk food and the sharing of information about this food during videogame sessions contributed to a sense of community among young gamers. This example reinforces the results of earlier research into sources of food-related information, which indicates that the public tends to not only rely on official sources but also on peers and relatives — who now account for much online social contact (Pieniak et al. 2007; Paek et al. 2011). This proliferation of trusted sources of information implies that food safety/promotion authorities find it difficult to stand out from the crowd and be heard as a relevant source of information.

As for corporate communities, food corporations — especially those with questionably "healthy" products — early on perceived the social media as the perfect platform to promote their products through eye-catching videos, games, etc (Freeman and Chapman 2008), given the poor regulation of Internet content. As Rutsaert, Regan et al. (2013) observed, the nature of these platforms is such that messages are effortlessly and rapidly spread through the direct involvement of users.

To cite an example, the chocolate brand Cadbury very assiduously uses the social media to disseminate marketing campaigns.[11] In a recent initiative, named #FreeTheJoy, uploaded to the Internet was a clip titled "Yes Sir, I WILL boogie in the Office", in which a logistics manager, in a setting reminiscent of the popular TV series *The Office* (original UK version, 2001-2003), mouths

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[11] Cadbury soon realised that uploading entertaining videos on video-sharing platforms was an easy and inexpensive way to advertise to large global audiences. In fact, the popular "Cadbury Gorilla" (August 2007) and "Cadbury Eyebrows" (January 2009) clips had already received over 7.7 and 10.9 million hits, respectively, on YouTube by January 2015 (YouTube 2007 and 2009).

the words to Baccara's song (*Yes Sir, I Can Boogie*) while waiting for his call to be taken. This advertisement (also released on television) received almost one million views in just one month on YouTube, which meant that this clip was one of the most viewed and shared advertisements in January 2014 (YouTube 2014). Cadbury subsequently uploaded other videos with celebrities that went viral, for instance, with TV presenter Nick Hewer performing lip-syncs of the same song or actor James Corden performing Estelle's *Free*, which received over 2.5 million hits in 10 days (YouTube 2014b and 2014c). These clips have shaken up the Internet, with many viewers uploading their own lip-sync parodies. Cadbury possibly did not expect such runaway success, but it took full advantage by following up with a website (www.freethejoy.co.uk) where users could create and share their personalised lip-sync extravaganzas. Fundamentally, Cadbury's intention was and is to involve users in the dissemination of its marketing campaigns. In this case, online visitors demonstrated that when something moved them, they were more than willing to voice and share opinions with the rest of the world. It could be said that the consumers have appropriated the discourses of the company, modifying their meaning in creating parodies of the clips that they shared them on the Internet — with little concern for the health consequences of an overconsumption of chocolate.

Despite being late adopters, food safety/promotion authorities like the EFSA are now incorporating social media into their communication strategies, as can be observed from its leaflet *When food is cooking up a storm. Proven recipes for risk communications* (EFSA 2012). The EFSA distinguishes between three types of social media tools — social networks, blogs and microblogs — and underlines the fact that social media tools have diverse communication objectives and can and should, therefore, be used for different purposes. Table 1 summarises use differences for various kinds of social media according to the EFSA.

Table 1. Different uses of social media in risk communication.

	They are appropriate platforms for…
Social networks	1. Rapidly informing and engaging with interested parties. 2. Simple, narrow messages that need to reach a broad range of consumers. 3. Can be very effective due to online community discussions to use as a catalyst for behavioural change. 4. Can support outreach to new audiences.
Blogs	1. Informing and engaging with interested parties about all types of risks. 2. Sharing reflective opinion pieces that provide situational overviews. 3. Sending messages that remain pertinent over time.
Microblogs	1. Sending fast, topic-related alerts to interested subscribers. 2. Driving subscribers to online content where there is more information and greater context. 3. Enabling dissemination of the original message as accurately as possible, given the ease of forwarding function.

Source: Author, compiled from EFSA (2012).

Although, the EFSA demonstrates its willingness to engage in social media in the above-mentioned leaflet, it does not offer any example from the seven case studies it documents where these platforms have been specifically applied. One can conclude from the above guidelines that the EFSA itself — despite understanding that social media can help to engage publics — resists the shift in message control; it views the social media as channels to inform and disseminate its discourses, not as channels for monitoring user conversations, dialoguing with consumers and enhancing trust in public institutions. In a way, the EFSA endeavours to retain symbolic authority by issuing scientifically grounded information to users, while ignoring the concerns and opinions expressed by consumers themselves. Indeed, some studies suggest that the adoption of social media profiles by public health organisations does not ensure

acceptance of the interactive and engagement capabilities of these platforms (Thackeray et al. 2012).

Rutsaert, Regan et al. (2013) consider that the social media not only offer the possibility of sending information to users but also of learning about consumer opinions and checking understanding. "Monitoring online conversations makes it possible to detect upcoming issues at an early stage of technology or product development, and to monitor ongoing debates on hot topics" (*Ibid*.: 87). Therefore, the opportunity to observe key discussions combined with the high reach and rapid dissemination of information converts social media into a valuable communication channel, and especially in times of food crisis. Gaspar et al. (2014) concluded that Twitter, for instance, could be a useful tool for food safety authorities as it can reveal how consumers are coping with food hazards and therefore can be fed communications aimed at resolving conflictive information and reducing risk perceptions. Nonetheless, other authors remind us that in times of crisis, the number of messages circulating in the Internet is greatly multiplied, so "authoritative voices might have difficulty being heard against the noise of the many-to-many communication model made possible by social media" (Freberg 2012: 416).

Social media also seem to be an ideal platform for round-the-clock information where speed prevails over quality of information (Lores and Lozano 2012). Yet this may represent a threat as an industry could be needlessly and unfairly damaged if a risk is communicated before scientific evidence becomes available. This was the case with the 2011 EHEC outbreak in Germany when health authorities first pointed the finger at Spanish cucumbers as the origin of the food poisoning outbreak when, in fact, the origin was fenugreek seeds imported from Egypt (Gaspar et al. 2014). Wrongly laying the blame on Spanish cucumbers had enormous social and economic repercussions for Spanish vegetables exports. Consequently, some authors are of the opinion that the potential offered by online communications may represent "a risk as well as a benefit" (McGloin and Eslami 2014: 7).

Another characteristic of social media is that the shelf life of the message is very short. Shan et al. (2014) determined that coverage of a food crisis in social media lasts no longer than in traditional media. The reason is that the immediacy of a news item prevails over follow-up. These authors suggest — given that their findings indicate that the highest coverage level was reached once traditional media had already peaked — that traditional media help stimulate social media coverage. Nonetheless, it should be borne in mind that the study by Shan et al. (2014) was based on coverage of the Irish dioxin crisis of 2008, so the agenda-setting relationship with influential media may have changed by now. These authors suggest that authorities should consider communication strategies based on traditional and social media "more like a communication system than two communication channels" (Shan et al. 2014: 923).

It should be noted that social media, as well as traditional media, may escalate food crisis situations and create situations of "potentially unwarranted panic and hysteria" (Rutsaert, Regan et al. 2013: 88) by socially amplifying the risk. Other scholars consider that communicators should seek a balance in terms of message frequency when communicating risk, as they may cause a total loss of trust or even public indifference to communications:

> Regular food safety crisis messages that turn out to be unnecessary could further the public's skepticism. Appearing to "cry wolf" could jeopardize public safety when a true crisis emerges. These results also sound a cautionary note to professionals developing crisis management plans. The possibility that unconfirmed information will carry the same weight as official, confirmed information leaves organizations quite vulnerable to rumor and misunderstanding (Freberg 2012: 420-421).

Any public relations manual will insist that trust cannot be created during crisis situations, only through constant, transparent and fluid relationships built on during normal times. Travers (2012: 172) — for a medical setting — exemplifies this for the social media context: "If your patients and staff know that they can receive reliable up-to-date information on your Facebook site, then they will think to check there for information".

Nonetheless, a study by van Velsen et al. (2012) concluded that social networks and microblogs played a marginal role in information provision to citizens in times of crisis. These authors observed that consumers turned not to official sources (in this case, health authorities) but to the traditional media, often through social media. Wikipedia, furthermore, was also often widely consulted by consumers. The research concludes that social media like Facebook and Twitter can be very valuable for informing journalists, who then pass on information to consumers. These authors suggest, therefore, turning press releases into tweets or including tweeting as part of a conventional media strategy.

Another aspect of social media that is much discussed is audience. This represents another paradox, as social media ensure message dissemination to a wide audience (whether interested or not in the topic). This may seem to render social media an appealing platform for reaching "echo boomers" (generally defined as having been born in the 1980s and 1990s), which is acknowledged to be a population group difficult to reach through traditional media (Freberg 2012). On the other hand, the posting of messages even to interested consumers is no guarantee that they will pay attention or engage with the message (Rutsaert, Pieniak et al. 2013). Once again, it is evident that communicators who assume that merely posting messages will have a direct impact on user behaviour still think in line with Lasswell's theories and so neglect creative audiences.

To attract people and reduce communication efforts and resources, discourses need to be accommodated to the different target audience segments and content needs to be adapted to the platforms used. For instance, the Belgian Fédération Wallonie-Bruxelles created a blog in 2006[12] to give nutritional advice to teenagers and resolve their dietary doubts. Another example is the YouTube playlist called Food Safety Coaching,[13] set up in 2012 by the UK Food Standards Agency, which contains short educational videos with practical tips and food hygiene advice for food retailers. A third example is the US Food and Drug Administration, which opened a Flickr account[14] in 2009 addressed to the population in general, aimed at informing people about recalled products and including product details, warnings and links to safety alerts. Finally, the French Institut National de Prévention et d'Éducation pour la Santé recently launched a website with interesting articles on healthy food-and-exercise lifestyles addressed to lay people, but especially to parents responsible for shopping, cooking and feeding their families. The website includes a healthy recipe bank[15] and culinary tips from users — with all content approved by a nutritionist before publication. The recipe bank is linked to an application that designs personalised healthy weekly menus taking into account the number of people, cooking and preparation time and ingredients to be avoided. Its latest innovation is menus adapted to food allergies and intolerances and to cultural food restrictions.

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[12] www.mangerbouger.be/-Le-Blog-
[13] www.youtube.com/playlist?list=PL43290765924EDEAE
[14] www.flickr.com/photos/fdaphotos/sets/72157639317944704
[15] www.mangerbouger.fr/lemag/?page=recherche&mgbgtype=recette

In a recent qualitative study about food communication, managers revealed that to truly engage with key audiences "a certain degree of content redesign [of social media platforms] was necessary to match each medium's informal, social, and entertainment characteristics" (Shan et al. 2015: 106).

Kuttschreuter et al. (2014) surveyed 1,264 social media-adept consumers in eight European countries[16] to uncover information seeking trends regarding food risks, concluding that a large proportion of the consumers surveyed were not familiar with or had little intention to use social media for this purpose. These channels could therefore not be considered as replacing traditional channels of communication. However, a secondary conclusion was that younger participants would be inclined to adopt social media as a complementary channel.

It is evident that population groups such as the elderly people and people from lower socioeconomic strata may be digitally illiterate or have limited or no access to social media. Food safety/promotion communicators need to be aware, therefore, that using only online communications will not be effective in reaching all affected publics:

> In many of its initiatives, the FSA seeks to reach people with below average socioeconomic status as they are more likely to have less healthy eating habits. Studies with the British population show that socioeconomic status is associated with higher content creation in social networking sites than online means such as blogs. Therefore, initiatives that focus on eating habits could be targeted accordingly (Panagiotopoulos et al. 2013: 319).

For these reasons, several authors (including Regan, Raats et al. 2014 and Barnett et al. 2011) recommend food safety/promotion communicators to embrace social media strategies as complementary to traditional media channels and other stakeholder networks.

Finally, appropriate involvement in social media requires investment of effort, trained professionals, resources and time to create and update interesting contents, reply to user doubts, monitor their interests and encourage their participation and engagement (Chapman et al. 2014; Rutsaert, Regan et al. 2013; Lozano and Lores 2013). To ensure success these four elements need to be carefully considered before any social media platform is set up.

As can be seen from the literature review, the communication of food risks and benefits through the social media presents similar challenges to those previously posed by the traditional mass media and, in fact, reproduces very similar problems:

1. The opportunity to provide information to large populations through social media does not guarantee the attention of users.

2. In a medium where hundreds of thousands discourses take place at the same time it is practically impossible to control the dissemination of messages. In fact, authorities only have control over their messages before posting. After posting, creative audiences can appropriate messages, adapt meanings and share their own versions of the message. Therefore, monitoring of the feelings of users may be possible, but not message control. Furthermore, in crisis situations, the number of discourses are multiplied, as speed prevails over quality. Thus, social amplification of risk and the spread of rumours may falsely escalate the risk and damage stakeholder reputations.

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[16] Belgium, Germany, Ireland, Italy, the Netherlands, Portugal, Spain and the UK.

3. Being open to interactivity implies being prepared to invest time, effort and resources in encouraging participation and engagement in social media platforms.

4. Alternative communication strategies need to be studied to recover the trust of population segments without access to social media, assuming, of course, that consumers are willing to become engaged with public institutions.

The literature demonstrates that the social media are considered an excellent solution to the communications problems of food safety/promotion authorities. However, the reality is that some of these problems persist or are even magnified in the digital sphere.

The aims of the research documented in this thesis were as follows: (1) to explore the opinions of European food safety/promotion authorities and other key food information experts regarding how social media platforms could help communicate food risks and benefits to consumers; and (2) to evaluate how social media platforms are currently being used by European food safety/promotion authorities and, in particular, to assess whether they are being used effectively to disseminate information, enhance consumer participation and build relationships.

The next section gives a detailed description of the research questions and hypotheses of this thesis and explains the research methods used in this study.

You cannot get an influence from the cuisine of a country if
you don't understand it. You've got to study it – Ferran Adrià

Ask not what you can do for your country. Ask what's
for lunch – Orson Welles

3. METHODOLOGY

3.1. Research questions and hypotheses

Effective communication of food risks and benefits presents several challenges to food safety/promotion authorities. These include the duty of providing reliable scientific information to a large population in a timely manner. As a consequence, food safety/promotion authorities have seen traditional mass media as partners or even as megaphones for transmitting their messages. However, traditional media operate under a different communicative logic and so do not prioritise this collaboration. In addition, a single set of recommendations will not suit all situations or consumer information needs.

Food safety/promotion authorities see, in the new Web 2.0 platforms, a means of adapting their discourses and making direct connection with consumers. The social media seem to meet these needs for open dialogue and feedback cycles. Nonetheless, as highlighted in the literature review, the social media have also brought an explosion in the number of discourses, which affects the visibility of food safety/promotion messages and leaves them vulnerable to the loss of control.

The aims of the research documented in this thesis (see the concluding paragraphs of Chapter 2) can be reflected in two research questions:

➢ **RQ1.** How do European food safety/promotion authorities and other key food information experts perceive social media as a tool to communicate their scientific discourses to consumers?

➢ **RQ2.** How are official European food safety/promotion authorities using social media platforms to communicate with consumers and strengthen relationships with them?

Accordingly, the following five hypotheses were generated after the literature review:

➢ *H1a. Social media are perceived as a digital space in which to post discourses rather than interact with consumers.*

➢ *H1b. Social media are considered to be a definitive "communication solution", yet drawbacks are underestimated, mainly the need to make a committed investment in trained professionals, time and financial resources.*

➢ *H1c. Fear of losing control over the message is a key threat in the implementation of social media strategies.*

➢ *H2a. A minority of European food safety/ promotion authorities are using social media platforms.*

➢ *H2b. Most European food safety/promotion authority social media platforms disseminate official information from a top-down perspective.*

3.1.1. *Triangulation*

According to Burns (2000: 419), triangulation or cross-examination occurs when two or more data collection methods are used for the same research. Triangulation thus helps avoid information bias and distortion by allowing results to be double-checked.

In order to acquire a broad vision of online communications by official food safety/promotion authorities with consumers, qualitative and quantitative approaches were used in this research to contrast the hypotheses and answer the research questions: (1) thematic analysis of in-depth interviews with European food information experts aimed at characterising the aims and strategies of communications with consumers through social media; and (2) online content analysis of websites and social media platforms to identify trends in food safety/promotion communications and in the promotion of healthy diets to consumers.

*Cooking is an observation-based process that you can't do if
you're so completely focused on a recipe* – Alton Brown

*Recipes tell you nothing. Learning
techniques is the key* – Tom Colicchio

3.2. Research methods

The two research techniques (thematic analysis of interviews and online content analysis) tackled two distinct elements of communication: the opinions and perspectives of information experts and messages as they were actually transmitted. Data were thus collected in two steps.

First explored and characterised were the perspectives and opinions of food chain actors regarding food risks and benefits and the implications for communication. Due to the exploratory nature of the study, a qualitative approach was undertaken, based on one-to-one in-depth interviews, held during December 2010 and April 2011, with consumers, experts and stakeholders in six EU countries[17] (part of Work Package 1 of the FoodRisC project). Given the focus of the thesis only the perspectives and opinions of food information experts were studied.

In the second step quantitative techniques were applied during May 2014 to online content analysis of websites and social media platforms.

3.2.1. Thematic analysis of interviews

Interviewing responded to RQ1 as it involved exploring the perceptions of European information experts in five European countries[18] about their role in communicating food risks and benefits to consumers and about their opinions on the use of social media and their potential application to food safety/promotion information. Organisational aspects of communications departments were also analysed.

The original FoodRisC study covered four broad topics, namely, food risk/benefit conceptualisation, communication routes, barriers to effective communication and use of social media. However, in order to respond to the three hypotheses of RQ1, the focus of this thesis will be the last two topics, namely, barriers to effective communication and social media use.

The interview protocol (Table 2) was based on open-ended questions so that interviewees could fully explain their reasoning. The interviewer was allowed to include additional questions or cover topics in greater depth, as appropriate, depending on the background of the interviewee.

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[17] Belgium, Ireland, Italy, Latvia, the Netherlands and Spain.
[18] Belgium, Ireland, Italy, the Netherlands and Spain.

Table 2. Interview protocol for European information experts.

TOPIC: BARRIERS TO EFFECTIVE COMMUNICATION	
Objectives	**Questions**
Communication objectives	In general, what are your communication objectives?
Communication barriers	What are the barriers to getting the message of your organisation to your target(s) and specifically to reach your communication objectives?
Areas for improvement	In general, what would be optimal risk and benefit communication for your organisation? What are the barriers to the implementation of optimal communication?
TOPIC: SOCIAL MEDIA	
Objectives	**Questions**
Understanding and perception of the term social media	What is your overall opinion of the social media?
NOTE: After the first question, give a definition of social media and examples to explain what we are talking about.	
Use of social media and possible barriers or motivators to using social media	To what extent does your organisation use the social media and which tools are used? What platforms do you use? With what purpose (searching, spreading communication, communicate…)?
Organisation policy	What is your organisation's policy towards the use of social media for employees?
Strengths of social media	What are in your opinion the general strengths of social media? Why do you believe this is a strength?
Weaknesses of social media	What are in your opinion the general weaknesses of social media? Why do you believe this is a weakness?
Demand for food information on social media	To what extent could social media be used as a means for providing information about food risks and benefits? Would you use a different approach for benefits than for risks? Or maybe a different one for normal times than crisis times?
Use of social media and possible barriers or motivators to using social media	Would your organisation use social media to provide and/or collect information on food risks and benefits? Why?
Understanding check	Which social media platforms did you have in mind during your answers?

Source: FoodRisC (2011).

The sample was designed after identifying the main organisations responsible for food safety/promotion management in each participating country at regional, national and European levels. As a result, 30 in-depth semi-structured interviews were conducted with food information experts across Europe. The sample included experts from food safety/promotion authorities, scientific research institutes and government officials and policy makers (Table 3). Since it was observed that directors tended to have scientific backgrounds and relied on their communications department to deliver messages to consumers, two individuals from each institution were interviewed: one with a scientific-political role and one with a communications role. Whenever possible, EFSA Focal Point members for each country were also interviewed.

Each interview, lasting 60 minutes on average, was audio-recorded and transcribed verbatim in the original language (Dutch, English, Italian, Catalan/Spanish). Before implementing the interviews, two or three pilots were run in each country to ensure that questions were understood and that their order was appropriate.

Table 3. Food information experts interviewed per country.

Experts and roles	Belgium	Ireland	Italy	Netherlands	Spain	Total participants
Food safety/promotion authority: Scientific role		2	3		1	6
Food safety/promotion authority: Comms. Role	2	3	2	1	2	10
Scientific research institute: Scientific role	1	2		1	1	5
Scientific research institute: Comms. Role	1				1	2
Government body: Scientific role			1		1	2
Government body: Comms. Role			1		1	2
EFSA focal point member		1	1	1		3
Total participants	**4**	**8**	**8**	**3**	**7**	**30**

Source: FoodRisC (2011).

The data were qualitatively analysed by inductive thematic analysis (Guest et al. 2012; Fereday and Muir-Cochrane 2006). For the 23 interviews conducted in Ireland, Italy and Spain, the author of this thesis had direct access to raw data and could analyse and code them. Due to language limitations, the seven interviews for Belgium and the Netherlands were analysed using secondary data provided in a FoodRisC deliverable (2011). These data were also coded to answer RQ1 and the corresponding hypotheses, thus deepening qualitative perceptions of the different food information experts regarding communications in social media.

The analysis proceeded in two stages. The researcher first analysed an initial sample of seven transcripts using the line-by-line technique, which helped identify codes and build up a preliminary coding framework. This coding framework was then applied to the remaining transcripts, but was continually revised in a constant-comparison approach so as to merge similar codes and include new ones as appropriate. Finally, codes were grouped in the coding framework under three different themes, as follows:

1. **Communication contextualisation.** This theme helped understand the communicative framework governing communication objectives and limitations in the food information organisations. This theme had two subthemes:
    a. Main communication objectives
    b. Perceived barriers to communication.

2. **Social media conceptualisation.** This theme focused on descriptions and perceptions of what social media meant to the organisation and arguments for adopting or declining to use social media strategies in general. This theme helped answer H1a.

3. **Social media in practice.** This theme focused on the positive and negative aspects of the adoption of social media by the organisations of the food information experts, yielding more details regarding H1a and helping resolve H1b and H1c. This theme had two subthemes:

    a. Perceived advantages

    b. Perceived drawbacks.

The sum of the codes emerging in these three themes helped respond to RQ1.

3.2.2. Online content analysis

Content analysis is widely used in public relations to collect data (Pavlik 1990). Broom and Dozier (1990) define content analysis as an objective, systematic and quantitative analysis of any particular text — including newspaper articles, websites and social media platforms. As a quantitative method, content analysis results do not suggest solutions; however, they can help identify trends and point out potential threats and opportunities.

Responding to RQ2 of this thesis, content analysis enabled trends to be identified in online message delivery by official European food safety/promotion authorities. According to the literature review, one of the aims of official food authorities is to inform consumers in both normal situations (i.e., by promoting healthy eating and habits) and in crisis situations. This analysis helped to assess whether food safety/promotion authorities were using social media platforms and for what purposes.

A. Units of analysis

The units of analysis — described by Davies and Mosdell (2006: 99) as specific parts of a text or images that are analysed as having relevant information — were websites and social media platforms of official European food safety/promotion authorities. The goal was to gather detailed information on the way each country delivered information to citizens and to observe how relationships between these organisations and consumers were constructed.

The sample included 30 official websites[19] (Table 4) and 57 social media platforms (Table 5) belonging to the 28 national food safety/promotion authorities of the EU member states. Despite its small size, the sample was very representative of the entire universe at a national level. Some countries also had regional agencies, although in terms of strategies, these work closely with their national corollaries (furthermore, regional agencies are not mandatory under European law).

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[19] Two websites each for the Czech Republic and the Netherlands.

Table 4. European food agency websites and social media platforms by country.

COUNTRY	ORGANISATION	WEBSITE	LINKED SM PLATFORMS
Austria	AGES — Agency for Health and Food Safety	www.ages.at	Yes
Belgium	AFSCA-FAVV — Federal Agency of Food Chain Safety	www.favv-afsca.fgov.be	Yes
Bulgaria	Bulgarian Food Safety Agency	www.babh.government.bg	No
Croatia	Croatian Food Safety Agency	www.hah.hr	No
Cyprus	Ministry of Health, State Laboratory	www.moh.gov.cy	No
Czech Republic	Food Safety Department of the Ministry of Agriculture	www.bezpecnostpotravin.cz and www.viscojis.cz	Yes
Denmark	The National Food Institute, Technical University of Denmark	www.food.dtu.dk	Yes
Estonia	Ministry of Agriculture — Food and Veterinary Department	www.agri.ee	Yes
Finland	EVIRA — Finnish Food Safety Authority	www.evira.fi	Yes
France	ANSES — Agency for Food, Environment and Occupational Health Safety	www.anses.fr	Yes
Germany	Federal Institute for Risk Assessment	www.bfr.bund.de	No
Greece	EFET — Hellenic Food Authority	www.efet.gr	No
Hungary	Hungarian National Food Chain Safety Office	www.mebih.gov.hu	No
Ireland	Food Safety Authority of Ireland	www.fsai.ie	Yes
Italy	ISS — National Institute of Health	www.salute.gov.it	Yes
Latvia	BIOR — Institute of Food Safety, Animal Health and Environment	www.bior.gov.lv	No
Lithuania	State Food and Veterinary Service	www.vmvt.lt	Yes
Luxembourg	Ministry of Health	www.ms.public.lu/fr/	No
Malta	Food Safety Commission	https://ehealth.gov.mt	No
Poland	Chief Health Inspectorate	www.gis.gov.pl	Yes
Portugal	Portuguese Economy and Food Safety Authority	www.asae.pt	No
Romania	Romanian Veterinary and Food Safety Authority	www.ansvsa.ro	Yes
Slovak Republic	Ministry of Agriculture	www.mpsr.sk	Yes
Slovenia	Ministry of agriculture, forestry and food	www.arhiv.mkgp.gov.si	No
Spain	AECOSAN — Spanish Consumption, Food Safety and Nutrition Agency	www.aesan.msssi.gob.es	Yes
Sweden	National Food Administration	www.slv.se	Yes
Netherlands	Dutch Food and Consumer Product Safety Authority	www.vwa.nl and www.voedingscentrum.nl	Yes
United Kingdom	Food Standards Agency	www.food.gov.uk	Yes

Source: Author.

The reason for studying both websites and social media platforms was because some food safety/promotion authorities used external social media platforms such as Facebook and Twitter, whereas others had social media applications embedded in their websites. Furthermore, checking the official website first also helped identify less widely used social media applications, such as LinkedIn[20] or Issuu.[21]

Table 5. European food agency social media platforms by country.

COUNTRY	ORGANISATION	LINKED SM PLATFORMS
Austria	AGES — Agency for Health and Food Safety	Yes, 7 platforms: - www.facebook.com/agesnews - www.facebook.com/AGES.Produktwarnungen - www.twitter.com/agesnews - www.youtube.com/agesnews - www.slideshare.net/agesnews - www.issuu.com/agesnews - www.flickr.com/agesnews
Belgium	AFSCA-FAVV — Federal Agency of Food Chain Safety	Yes, 4 platforms: - www.facebook.com/AgenceAlimentaire - www.facebook.com/Voedselagentschap - www.twitter.com/AFSCA_Conso - www.twitter.com/FAVV_Consument
Czech Republic	Food Safety Department of the Ministry of Agriculture	Yes, 2 platforms: - www.facebook.com/bezpecnostpotravin.cz - www.twitter.com/bezpecnostp
Denmark	The National Food Institute, Technical University of Denmark	Yes, 1 platform: - www.linkedin.com/company/national-food-institute
Estonia	Ministry of Agriculture — Food and Veterinary Department	Yes, 2 platforms: - www.slideshare.net/pollumajandusministeerium - www.flickr.com/pollumajandusministeerium
Finland	EVIRA — Finnish Food Safety Authority	Yes, 6 platforms: - www.facebook.com/elintarviketurvallisuusvirastoevira - www.twitter.com/Evira_News - www.twitter.com/Evira_uutiset - www.twitter.com/Evira_nyheter - www.youtube.com/user/EviraFinland - www.flickr.com/elintarviketurvallisuusvirasto_evira
France	ANSES — Agency for Food, Environment and Occupational Health Safety	Yes, 1 platform: - www.twitter.com/Anses_fr

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[20] LinkedIn (2014) is a business-oriented social network that was launched in May 2003 and has over 300 million users in over 200 countries.

[21] Issuu (2013) — pronounced "issue" — is a platform that allow users to create and share their own digital publications.

Ireland	Food Safety Authority of Ireland	Yes, 3 platforms: - www.facebook.com/FSAI - www.twitter.com/FSAIinfo - www.youtube.com/user/fsaiTV
Italy	ISS — National Institute of Health	Yes, 1 platform: - www.youtube.com/user/MinisteroSalute
Lithuania	State Food and Veterinary Service	Yes, 1 platform: - www.facebook.com/pages/Valstybin%C4%97-maisto-ir-veterinarijos-tarnyba/223424494525547
Poland	Chief Health Inspectorate	Yes, 3 platforms: - www.facebook.com/GlownyInspektoratSanitarny - www.twitter.com/GIS_gov - www.youtube.com/user/GlownyInspektoratSan
Romania	Romanian Veterinary and Food Safety Authority	Yes, 1 platform: - www.facebook.com/pages/Autoritatea-Nationala-Sanitara-Veterinara-si-pentru-Siguranta-Alimentelor/1427113577503329?fref=ts
Slovak Republic	Ministry of Agriculture	Yes, 1 platform: - www.facebook.com/minagri.sr
Spain	AECOSAN — Spanish Consumption, Food Safety and Nutrition Agency	Yes, 2 platforms: - www.twitter.com/sanidadgob - www.youtube.com/user/ministeriosyps
Sweden	National Food Administration	Yes, 6 platforms: - www.facebook.com/livsmedelsverket - www.facebook.com/kostradgravidaammande - www.twitter.com/Livsmedelsverk - www.twitter.com/maltiden - www.youtube.com/user/Livsmedelsverket - www.maltidsbloggen.blogspot.se
Netherlands	Dutch Food and Consumer Product Safety Authority	Yes, 7 platforms: - www.facebook.com/voedingscentrum - www.facebook.com/Hoezo50kilo - www.twitter.com/voedingscentrum - www.twitter.com/hoezo50kilo - www.twitter.com/GezondeBrigade - www.youtube.com/user/Voedingscentrum - www.linkedin.com/company/voedingscentrum

United Kingdom	Food Standards Agency	Yes, 9 platforms: - www.facebook.com/FoodStandardsAgency - www.facebook.com/FoodStandardsAgencyScotland - www.facebook.com/AsiantaethSafonauBwyd - www.facebook.com/FSAInNI - www.facebook.com/FoodHygieneRatingScheme - www.facebook.com/FoodHygieneInformationScheme - www.twitter.com/foodgov - www.youtube.com/user/FoodStandardsAgency - www.pinterest.com/foodgov

Source: Author.

Data collection was concentrated in the three weeks between 1 and 21 May 2014. The social media platforms were accessed through the official websites of the food safety/promotion authorities in each country on the logical assumption that the websites would have links to their own social media platforms. In some cases, food safety/promotion bodies did not use any kind of Web 2.0 application at all, whereas others used as many as nine different platforms.

The depth of the analysis of the websites was determined by website type. The intention was to gather maximum information on communications addressed to consumers regarding food safety and healthy dietary habits. However, some of the authorities were attached to ministerial departments and so covered a wider range of issues — including agriculture, veterinary, welfare and the economy — with food-related information limited to a small section of the website or a linked webpage. In other cases, authorities had two websites, with one giving a general organisational overview of the body and another providing information to consumers; in such cases, both websites were included as they both contained information relevant to the objectives of this research.

For social media profiling purposes (sources of information and aims of the platforms), the last 20 posts in each of the 57 social media platforms were analysed. Although the sample potentially had 1,140 posts (57 profiles x 20 posts), not all the profiles had as many as 20 posts, so the final sample consisted of 1,066 posts.

B. Units of measurement

Units of measurement are defined by Davies and Mosdell (2006: 100) as the data sought within the unit of analysis. Since the focus of this study was the use of social media (Web 2.0 platforms) rather than websites (Web 1.0 platforms), the analysis of social media items was more developed.[22] The online content analysis covered nine generic areas:

1. **Website characterisation.** Information was collected regarding coverage of food-related issues addressed to lay consumers according to topic. Websites were categorised under four different labels:

   ➢ Ministry website. Topics include health, agriculture, veterinary, etc, with food safety assigned a tab or a small section of the website.

   ➢ Food safety/promotion authority website. Topics include roles and relationship with EFSA, with a tab or small section assigned to consumer information such as food recalls, hygiene, hazards, nutrition, etc.

   ➢ Research body (scientific foundation or institute) website. Topics are diverse, covering a wide range of food issues.

   ➢ Consumer website. Topics exclusively cover food safety issues and food benefits and risks.

2. **Website content.** The range of topics related to food safety, the promotion of healthy diets and the prevention of food crisis was analysed. Topics included the latest food recalls, hygiene tips, laws and reports, food hazards, nutritional reminders, novel foods, specific information for pregnant women, the elderly, people with food intolerances and allergies, etc.

3. **Website connectivity.** Websites were assessed for links to the EFSA website, social media platforms, websites of other national food safety/promotion authorities and websites of other relevant organisations and food campaigns.

4. **Website interactivity.** Analysed was how users could express their opinions, whether these opinions were visible to other users and whether social media platforms were included or linked from the website.

5. **Website linkages and identification in social media.** Analysed were the types of social media applications and languages used by the food authority, date of creation and identification details of the food authority (the presence or absence of a logotype and/or of a short explanation and description of its mission and vision).

6. **Social media publics**. Analysed were types of publics that information was addressed to (lay consumers, young people, pregnant women, enterprises, scientists, etc) and the number of registered "members", "likers", "subscribers" or "followers".

7. **Social media information sources**. Studied were the sources of information for the posted content (the food safety agency itself, EFSA, scientific media, bloggers, general media, etc).

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[22] See Appendix 1 for a copy of the online content analysis coding sheet.

8. **Social media interactivity and engagement.** Efforts to foster participation and develop interactivity with users were identified and analysed, examining latest updates and post density, user possibilities for posting texts, pictures, videos, etc, and food safety/promotion authority responses if any. Facebook pages, Twitter accounts and YouTube channels were assessed using the Fanpage Karma[23] analytical tool to measure post interactions, levels of engagement, etc.

9. **Social media content and aims**. Pseudo-qualitative questions were used to analyse aims for posted content (whether food recall, food hazard information, campaign promotion, insights to the authority, health advice, science dissemination, etc) and to assess the existence of content other than information on food safety and promotion.

Note that the purpose of the pseudo-qualitative questions regarding discussions, pictures and videos was not to analyse content as a discursive device but to identify topic. Theme analysis, according to Deacon et al. (1999), aims to simply identify certain ideas in the text and allocate them into predetermined categories.

All the collected data were analysed with the SPSS statistical software widely used in social sciences.

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[23] www.fanpagekarma.com

*The fact is that it takes more than ingredients and technique
to cook a good meal. A good cook puts something of himself
into the preparation – Pearl Bailey*

*A recipe has no soul. You, as the cook, must bring the soul to
the recipe – Thomas Keller*

4. FINDINGS AND DISCUSSION

4.1. Interview results

Interviews with the European information experts — addressing RQ1 of this thesis —were thematically analysed in order to assess how European food safety/promotion authorities perceived social media platforms as a means for communicating with consumers.

The results of 30 interviews with European information experts were organised according to three primary themes: communication contextualisation, social media conceptualisation and social media in practice. The aim was to respond to the three RQ1 hypotheses regarding perceptions of communication objectives in general and, more specifically, of social media strategies and tactics. Thematic mapping aided interpretation of the themes.

4.1.1. Communication contextualisation

A. Main communication objectives

According to the existing literature, information experts understand that their function is to protect the consumers' health. Therefore, their communication aim is to provide reliable and accurate information to consumers so that they can take informed decisions regarding food. Their primary responsibility is to prioritise consumer health and interests at normal times (on a day-to-day basis) and in crisis situations (food alarms of whatever kind). Interviewees were convinced that informing the public on a regular basis helped them build trust with consumers and the media, as can be deduced from the following excerpts:

> It's our mission to get consumer's confidence in the food that they eat and to protect the public health. So, yes I mean we develop three-year strategies and then there are specific pieces of information that we want to get out but overall that's what it is that you have confidence in the food that you eat (Ireland, food safety authority 3).

> When a problem arises, consumers need to know that there is somebody to trust in; […] especially they have to trust in that authority. Any initiative that we carry out during the year constructs something, confidence. We must feed it during peaceful times (Spain, food safety authority 2).

> If we get the chance, we are not always getting it, we try to nuance discussions from our scientific background. And you try to do this by composing a good network with the media. With the result that if they want to broadcast something that deals with our topic, they immediately find their way to us for information (Belgium, research institute 1).

Some interviewees revealed the importance of not only protecting the consumer but also the reputation of their country's food and of their institution as a trusted authority:

> That [protection of consumer health] would be the key and we would say secondary to that the protection of economic risks and reputational risks with respect to food, […] for the organisation and for the country as a whole (Ireland, food safety authority 2).

Participants emphasised the idea that building trust with their publics was only achieved through open and transparent communications and by not concealing information. Furthermore, some interviewees suggested that they had to be sensitive to their publics, most especially during crisis situations:

> To be open and transparent and to be clear and to think of them [consumers], try and put your feet into their shoes and be sensitive to them because sometimes things are tricky (Ireland, food safety authority 1).

> We need to be, you know, on top of the story, we need to be out there giving the factual information and just stating it as it is, letting consumers know whether there is a risk or there's no risk and if there is a risk this is what you should be doing to protect yourself and your family (Ireland, food safety authority 2).

> Speak clearly, that means not to give the impression of getting around or ignoring the problems. To make it understood that an expert eats, drinks, is worried for their children, is exactly like a citizen, doesn't live in a glass bubble, to be transparent in what you say, like that I say there is not a risk for this, this and this and, I say again, when you talk about risks, to be credible means also to give alternatives (Italy, food safety authority 3).

In terms of communicated content, most information experts agreed that communication at normal times could be focused on promoting food benefits, although content also had to be linked to the strategies and policies of the food authority:

> We inform the consumer on healthy and sustainable food products. But, since last year, we included promotion. We have started to play a more persuasive role. This is in line with what will be coming on sustainability from the Health Council of the Netherlands (Netherlands, food safety authority 1).

> When we have something that the citizen may perceive as an improvement, then it is the appropriate moment to include health messages because you are offering something valuable. And, of course, it should be out of a crisis situation. For example, last year, we ran a campaign to reduce the consumption of salt. We informed the public that the bread they ate had less salt because we had signed an agreement with industry. This is something valuable in line with our strategies. Giving nutritional lessons without being linked to our policies may have an unnecessary impact in the industry (Spain, food safety authority 1, abbreviated).

Apart from building trust and strong relationships, some experts considered that communication during normal times should also be aimed at educating consumers in health and food hygiene issues. They indicated that consumers were often unaware that how they stored and cooked food may also influence risk:

> Consumers don't consider cooking chicken as a risk so they've kind of put that to the side because other things have gained in value in relation to risk, […] and kind of getting people to wake up and believe that these are things that affect them (Ireland, food safety authority 3).

> We think that it is very important to work daily, not only when there are food alerts and immediate perils. It should be constant communication. […] We have seen that in issues related to food safety and public health, there is still much work to do. Even though administrations and industry work to guarantee safety, the consumer has also a lot to do. Epidemiological studies tell

us that the origin or propagation of 50 percent of cases [of contamination] originate at consumer's kitchen. Thus, the consumer does not have enough information or has it but does not apply it or is not properly aware. […] we know we must work to improve health problems related to food (Spain, food safety authority 3).

It can be concluded that European food information experts understand their main objective to be the protection of consumer health, so their communications are focused on providing relevant and objective information to the consumer on food issues. According to the interviewees, the provision of this kind of information in both normal and crisis times helps position them as trusted sources of information. Relevant and transparent information during normal times would be content that educated consumers, such as nutritional reminders and hygiene tips, whereas important information in times of crisis would be content related to food hazards and food risks.

Figure 1. Main objective and communication objectives as indicated by food information experts.
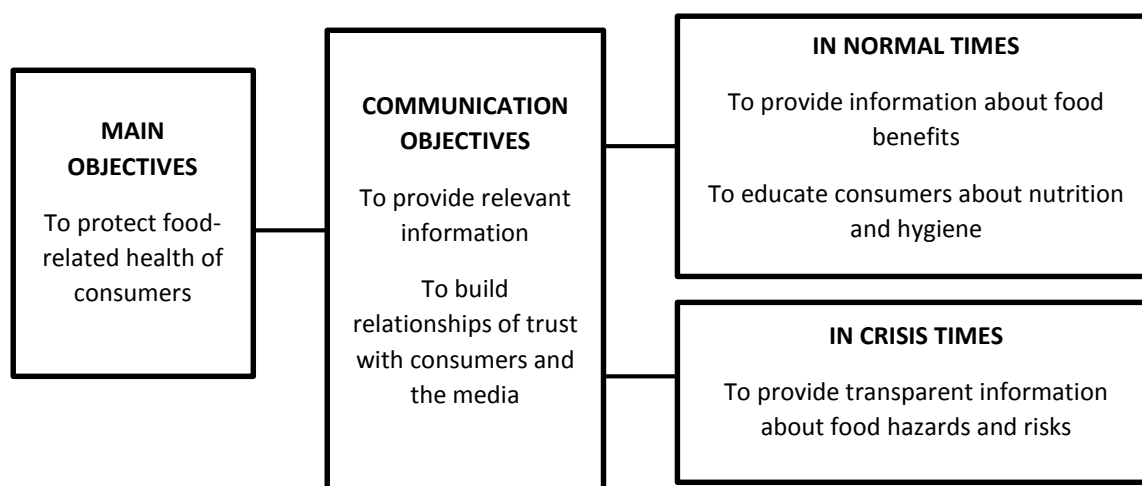
Source: Author.

B. Perceived barriers to communication

As was evident from the literature review, the relationship with traditional media was perceived in paradoxical terms. Interviewees commented on their wish to receive more media coverage; however, their press releases, especially those focused on the benefits of foods or launching health promotion campaigns, were felt to be of little interest to journalists. Participants complained about the role of journalists in setting agendas and their tendency to focus on bad news:

One of the barriers would be through traditional media that if you send out your press release, for example, that it's not picked up, so your barrier is your middle man, it's your journalist (Ireland, food promotion authority 1).

If you want to appear in the media, it is not as easy as calling a journalist and telling him/her that I want to talk about healthy food or oily fish. But, if the following day there is a mercury problem with oily fish, all the media will immediately come here. I think it would be a good idea that the media could reserve some spaces for public information that may be very interesting to the people (Spain, food safety authority 2, abbreviated).

> Lack of interest by newspapers in the communication of positive aspects, for example. This is really one of the obstacle that we have (Italy, food safety authority 4).

Interviewees also raised a second communication problem; they would pay to get their message out through advertising — except that their budgets did not admit this possibility. Note, incidentally, how none of the interviewees questioned the effectiveness of advertising campaigns on consumer behaviour:

> We do not have money to carry informative campaigns on television, radio … There is no money. That's why we are saying: "We need to explore new ways". And now we are starting with this — social media. And we are trying to turn it into something serious (Spain, government body 1).

> We don't have any budget for advertising. And we used to have, we used to do the odd campaign. I think that's a weakness with us as an agency at the moment because advertising you pay for it to get in there… if they [consumers] are kind of half seeing that your subliminal messages… […] I think that is something for us as an agency that we are missing at the moment (Ireland, food safety authority 1).

Another barrier to effective communication of food benefits was the existence of a large number of private sector information sources that promoted usually dubious food claims. Interviewees perceived this information as misleading and confusing for consumers:

> There is much publicity about healthy food that… is mostly false, they are advertising claims. Therefore, food information in circulation is very sensationalist and is not addressed to consumers' understanding. It doesn't have a social and pedagogical function. It is targeted to increase sales (Spain, research institute 1).

> Today consumers seek food information not only in risk situations. The food industry is bombarding them with communications linked to health like "this may help your heart" and so… today's consumer cannot have a balanced opinion about the risks and benefits of food (Spain, food safety authority 2).

Finally, another barrier to communication that emerged from the interviews was the difficulty in communicating scientific language to lay consumers:

> Some of the stuff is so technical, but that would be the number one thing. I'm not a scientist so, if I can't understand the press release either as a journalist, either as a consumer (Ireland, food safety authority 1).

> It is very hard to communicate in an appropriate language which is understandable to consumers and still maintains scientific detail (Italy, government body 2).

It is noteworthy that none of the interviewees posed a lack of consumer interest as a barrier to receiving food safety and food promotion information. In fact, most of the participants were of the opinion that lay consumers were keen to obtain information about food in general, i.e., without distinguishing between food risks and benefits.

Figure 2. Barriers to communication as perceived by food information experts.
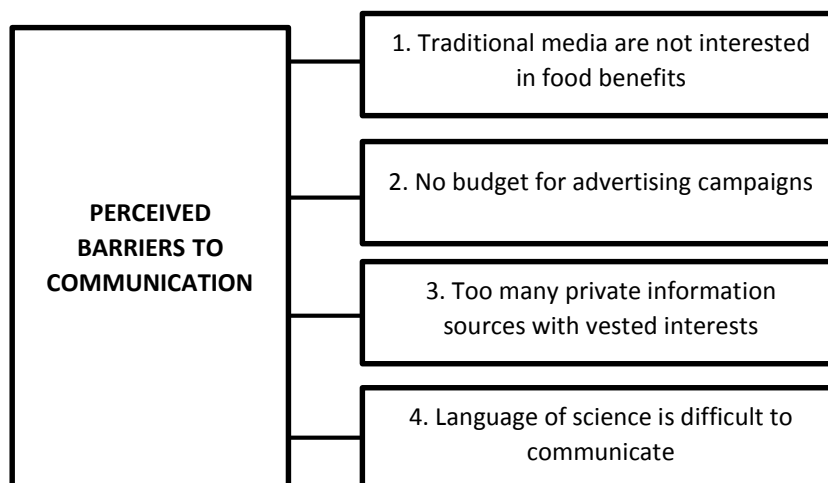
Source: Author.

4.1.2. Social media conceptualisation

Analysis of food information experts' understanding of, and reasons for participating in, social media revealed several arguments in favour of and against the use of social media (Figure 3).

The first theme was coded under the title "social media are here to stay", i.e., these new platforms were becoming part of the media landscape and so could no longer be ignored by food safety/promotion authorities. Thus, although some of the experts were not truly convinced, they still kept an open mind, as the next excerpts exemplify:

> We have to embrace [Web 2.0] because it's here and it's here to stay and it's going to keep growing and it's something that we want to keep on our thing (Ireland, food safety authority 1).

> [Social media] are a component that you can criticise as much as you want and are sometimes annoying, I don't argue on it, but now they are indispensable in our communication scenario. By now they simply exist, we can't do without them (Italy, food safety authority 3).

> We are planning to make incursions into these media in the current year. We do not have any experience with them but we will work with them. […] Logically, more and more people are using them and it is a place where we must be (Spain, food safety authority 2).

Another theme reflected the need for food safety/promotion authorities to be present in the social media in order to disseminate their scientific discourses and so counteract rumour-mongering about food:

> You have to be out there in the social media because if you don't somebody else will. Failure to communicate creates a vacuum for the poison (Ireland, food promotion authority 2).

> I think it is very important to be on social networks. […] There are so many different people in there and the fact that we will be there means that we would be able to include a scientific point of view to the comments that will may come up. We will be able to give our scientific perspective and it is very positive (Spain, food safety authority 2).

> Social networks… we are now going crazy with these things… serve to spread any information from anyone […] but to be credible it must have a scientific basis and come from a scientific context (Italy, food safety authority 3, abbreviated).

Yet another perspective fell under what Tsabar (2009) described as organisations feeling obliged to use social media to keep up with the times. A small number of interviewees supported their arguments on this basis:

> From a communication perspective, it's allowing us to drop things like newsletters which are very old immediately […] that's been thrown off the agenda for this year and we'll get messages out via Twitter, because of the need to be seen on it (Ireland, food safety authority 3).

One of the most widely given reasons for a presence in social media was the possibility of accessing a potentially massive audience. European food information experts understood social media to be where consumers are to be located nowadays, irrespective of whether the social media are used for information or for entertainment purposes. Moreover, the social media are very much used by people under 40 years old (EC 2012) — a population segment that was viewed as difficult to reach by other means:

> It's very accessible, it's reaching out to an audience that perhaps uses the conventional mainstream media less and less and it's, well, it's got a very high usage by certain groups (Ireland, food promotion authority 2).

> What does the last Eurobarometer say? Who are the most trusted food information sources? It says doctors and friends and relatives, and where are they? It is said that friends are in the social networks. So, we could influence population to have a healthier diet through these social networks (Spain, food safety authority 1).

However, one interviewee indicated a lack of interest, just yet, in a presence in the social media because — no matter how large the population of social media users was — their own particular target audience was presently not using social media. Despite this fact, the organisation was open to adopting it in future:

> I suppose, it's something we haven't really come to a view on yet. […] We have had great difficulty trying to coax farmers to get involved in terms of online applications in terms of interaction with us through our website and that's taken a huge amount of time and effort to get where we are today […] I mean people are going to go down that route and I think that's currently the way of the future. You can't just remain stuck in our traditional way of communicating so we're going to have to do it (Ireland, research institute 1, abbreviated).

The combination of a large audience and the speed of communications, however, meant that social media represented an excellent platform for communications in food alarm and food crisis situations:

> Now, I can imagine that in the case of a crisis, when something really serious is happening, that one receives attention there really quickly. That if you want to reach a lot of people very quickly, really very quickly, that's possible by mobile phone or through SMS, but also through Twitter, to ensure that people will react very quickly and, for instance, not buy certain products anymore, or treat them differently, that could be a good strategy (Netherlands, food safety authority).

> Social media are useful in a crisis, not to explain something, but to reach many people or give a simple message (Belgium, food safety authority).

Most of the participants appreciated this as a strong argument for adopting social media in their organisations. A few interviewees confessed that, although they did not see the point in having social media during normal times, they saw such platforms as indispensable in non-routine situations:

> I mean that's why I'm glad we are set up on Facebook so we are kind of ready there [for crisis situations], […] it's a must now, I think you couldn't avoid it (Ireland, food safety authority 1).

> On a day-to-day basis, you know, for us it probably wouldn't be such a major issue but in a time of crisis I think it would be extremely important (Ireland, food safety authority 2).

It can be concluded, thus, that most of the interviewees were in favour of the idea of developing a social media presence. However, they also commented that their opinions were not always shared by the whole organisation. Some mentioned that there was a widespread belief that social media should be used for entertainment and personal reasons, not for/by institutions or industries. This conceptualisation of social media may provoke tensions in the organisations when there is little consensus about a social media presence or its purposes:

> I find that hard is that we are doing some great things on Facebook but yet half the office in here think Facebook is awful. Then we have another half of the office, they are active ones in their personal lives but they don't want anything or anyone almost in here to know, they don't want their personal life to cross with their work life at all. So that's a tricky one (Ireland, food safety authority 1).

> I think that these online social tools substitute chats among friends. So, in a medium where you interact as friends… What interest does it have that experts go into social media? Yes, it has, but then, we are talking about a symposium, like how people go to their cultural centre, so you can have it in social media… But the problem now is that we mix everything. We tend to mix the symposium in the cultural centre with the chats among friends. I find social media interesting but I don't think it was aimed at this. It was aimed to relate among friends, but the private sector and administrations have seen it as a way to influence people (Spain, food safety authority 1, abbreviated).

Some of the participants even commented that, since their organisations were convinced that social media focused on entertainment, access was banned to all employees in the workplace. Some had eased this restriction, however, by allowing access at certain times or to certain employees:

> We're actually not allowed to use Facebook or Twitter within the workplace. It's blocked from any sort of internet […] I do think that we may have to change in that because I think there's, it's a fantastic resource (Ireland, research institute 1).

> Well, I had to fight so originally at the start: "no, no, no you can't have Facebook", because if we've Facebook everybody is going to sit on it all day long. So it was a bit of a struggle at the start but then we implemented in May where actually all staff now can have access to Facebook and Twitter out of working hours but the social media team has full access (Ireland, food safety authority 1).

> We consider social media a great opportunity but we cannot use them. For instance, our minister set up a Facebook page to give citizens the opportunity to communicate with us, but, the whole public administration is not allowed to have access to Facebook in the workplace. We cannot reply to those questions! Isn't that a big contradiction? (Italy, food safety authority 2).

> There are certain places like YouTube and Facebook to which access is completely banned. This is something we should get an authorisation for, to enable access soon (Spain, food safety authority 1).

Finally, in some cases the real reason why food safety/promotion authorities were tardy adopters of social media was because administrations were too conservative to embrace the changes required straightaway. This reason — documented in the literature — was also mentioned in the interviews, with a number of food information experts describing their organisations as having a wait-and-see attitude regarding other institutions going online, planning to learn from their successes and failures. The following excerpts illustrate these ideas:

> We are not active in social media right now but we are not blind to its existence. For the moment we are observing it to see what it means and if we have to invest in it. We are looking with great interest at some other projects that are using it (Belgium, food safety authority 2).

> Government departments tend to be slow enough in reacting but we have considered the whole idea of using Twitter… although the department also tend to be a little bit conservative (Ireland, research institute 2).

Figure 3. Social media conceptualisations and arguments for/against their use as perceived by food information experts.
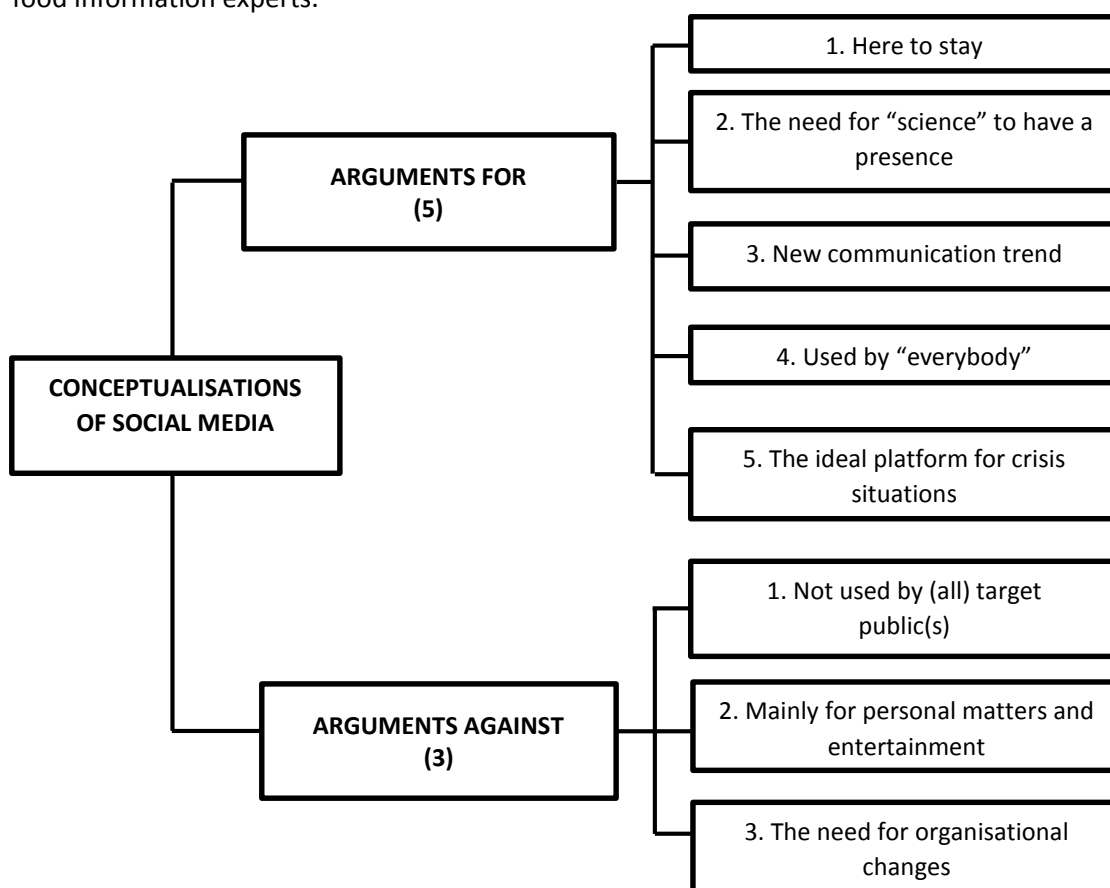
Source: Author.

4.1.3. Social media in practice

A. Perceived advantages

In terms of the advantages of social media, food information experts underlined several characteristics that could be used to advantage by food safety/promotion authorities (Figure 4)

All the participants referred to the immediacy of social media and the possibility of content going viral. Some of them particularly appreciated the Web 2.0 sharing culture:

> The immediacy is incredible. It's real time. Social media responds to the need to know when there isn't any certainty (Italy, government body 2).

> The speed of it is phenomenal, I like the thing of that kind of peer-to-peer discussion (Ireland, food safety authority 1).

Some interviewees stressed the idea that consumers could help organisations to disseminate messages by sharing information with their acquaintances:

> If you want to get out a message about something that's good, they [consumers] will then go and tell their friends […] if you are taking it from a serious source, basically you are getting people to do it themselves, so they are actually doing the work for you (Ireland, food safety authority 1 abbreviated).

> The possibility that a message can go viral is great — of course, if one has good content. For example, to promote campaigns to prevent obesity or bad habits through Facebook, it can be very useful (Italy, food safety authority 5).

One interviewee was surprised that the organisation's social media platform was mainly followed, not by consumers, but by food industry professionals, and was also pleased about being a key source of information for these professionals, as they too would have followers, whether other professionals or consumers:

> The odd thing is, we are primarily followed by professionals. […] I have a 1,000 followers now, but they are mostly journalists, dieticians etc. But at least one knows, how it [information] comes across to them what we communicate (Netherlands, food safety authority).

Another perceived advantage of using social media instead of traditional media was that agencies could voice their messages directly rather than through journalists. Thus, there was no danger of being ignored just because their news could be considered "soft" from a media framework perspective:

> When we send out messages and imagery through social media we feel that it's hitting more of a wider audience. So you are not only hitting media journalists and key opinion formers you are also hitting the consumer, the everyday shopper, so you've got a much wider audience and you are the voice of your own information (Ireland, food promotion authority 1).

> When we have a good message to go out it's not going to sell newspapers and certainly it won't and generally doesn't appear in the conventional media so using social media for good messages it's a way of getting if you like to call the benefits out there as well as the risks and our conventional media generally want the nasty story because the stronger the headline the more papers they sell, so you know that's a real positive (Ireland, food safety authority 2).

Some food information experts also underlined that social media were more effective in targeting audiences than advertising campaigns in traditional media for two reasons, namely, target audiences could be better segmented and interested consumers could play an active role in seeking for information of interest:

> Thus, once you have nailed down your target group, social media can be very effective. If one compares that with a TV campaign, a TV campaign is like shooting a very large shower of bullets, and if one aims at pregnant women, one hopes one hits some of them. But with this [social media], when they are pregnant they are looking for "pregnant" and they find you. That can be the benefit of social media (Netherlands, food safety authority).

The possibility to monitor the feelings and opinions of audiences and receive instant feedback was also considered an advantage of social media:

> Mostly to see consumers impressions about certain issues, of how they move with respect to information (Italy, food safety authority 2).

> We have the need to assess how our communication is perceived and how much this communication has been spread. […] Therefore, they [social media] indicate to us in a short time how a community has perceived, digested and forgot the message sent. So I see them [social media] as an evaluation tool (Italy, EFSA focal point).

> Sometimes we ask opinions of people, say, for example, on a Facebook page, what would you like to see at x event next year, or what did you like about the event or what did you dislike about the event, and then we would collate the information and feed it back into planning for the following year (Ireland, food promotion authority 1).

However, from the extracts immediately above, it is evident that the perspective was rather passive in regard to really knowing consumer opinions. Both quotes refer to the possibility of observing positions and listening to opinions — in order to change or adapt the discourses of the organisations in the future. Topics thus seem to be closed, i.e., the organisation proposed the topic to start a conversation with audiences, but did not appear open to receiving queries from consumers.

For instance, one interviewee — from a government body in Spain — expressed the desire that people could use the social media channels established by the authority as a platform to report bad practices in the food industry:

> We would love that the citizen would interact with us by reporting things like: "I am in this supermarket and I've seen that they sell products which seem to have the expiry date deleted." We would like to receive this kind of information (Spain, government body 1).

Apart from this, some interviewees mentioned that they used different platforms for different communication objectives. This meant that experts could adapt their messages (content and language) to their potential audiences:

> It depends on the target that you would like to address. For example, Facebook is for talks with consumers in general, LinkedIn is purely focused on businesses and professionals of food industry (Spain, research institute 1).

> On our Facebook, we were focusing a bit too much on the industry as industry food business people, we are now kind of talking to them as consumers (Ireland, food safety authority 1).

A few interviewees observed how some platforms were more open to negativity than others — a fact which made the former especially useful in food crisis situations:

> I think Twitter is more open to receiving risky and negative information than Facebook. Facebook is far more consumer-orientated whereas Twitter has a good balance of both consumer and trade audiences (Ireland, food promotion authority 1).

Some information experts pointed to how messages could be adapted in real time to emphasise certain aspects or to change scientific terms into more understandable language for consumers:

> An upside of social media is that you have an immediate response from the publics, so you can adapt your message in real time in relation to the reactions of the public. You can use more suitable terminology (Spain, food safety authority 2).

Already discussed in the conceptualisation of social media was the idea that social media can be very useful in food crisis situations, given the possibility of accessing vast number of users and of spreading content rapidly. Some experts went further, indicating that it was their obligation to offer information through these channels during crisis situations, firstly, because it was their job to offer prompt and accurate information in the interest of avoiding panic and, secondly, because — as confirmed by official statistics (EC 2012) — the Internet has become the medium where most consumers seek breaking news:

> It would be very valuable, if we did have some form of a crisis, to get out information, factual information quickly because that's where people now go for information, so you could dampen down a crisis to bring some type of sanity to it (Ireland, food safety authority 2).

> Social media can be useful when managing a crisis because you can disseminate precautions and protocols that should be followed in an immediate way. It could be consulted by consumers (Italy, food safety authority 1).

Although social media were perceived as a very useful platform for crisis situations, most interviewees also recognised that they should be considered as an additional channel rather than as a substitute for current channels, given that their target audience was very broad and that older sectors of population may be digitally illiterate and/or may not use online media:

> Not everybody has access so we need to be using other forms of media and that's why I say it needs to be part of an overall strategy (Ireland, food safety authority 3).

> Figures say that population under 40 years old do not read newspapers but they are in the social media. So, we need to multiply our tactics. Different media, different targets. […] We need to work in both places, to work in parallel, we cannot abandon any of them (Spain, food safety authority 1).

> Since we are in Italy, there is a part of the population — the most vulnerable segment — that we do not reach by the web. It's a big part (Italy, food safety authority 3, abbreviated).

Finally, another perceived strength of using social media — although only mentioned by one interviewee — was related to technological advances: social media are nowadays very frequently accessed from mobile phones, meaning that consumers carry the possibilities of direct access to food safety/promotion authorities in their pockets:

> You know, most people, you have just to tap into your phone, whereas in the olden days when you only had a website you had to be at a computer (Ireland, food safety authority 1).

Figure 4. Perceived advantages of using social media for food safety and promotion.
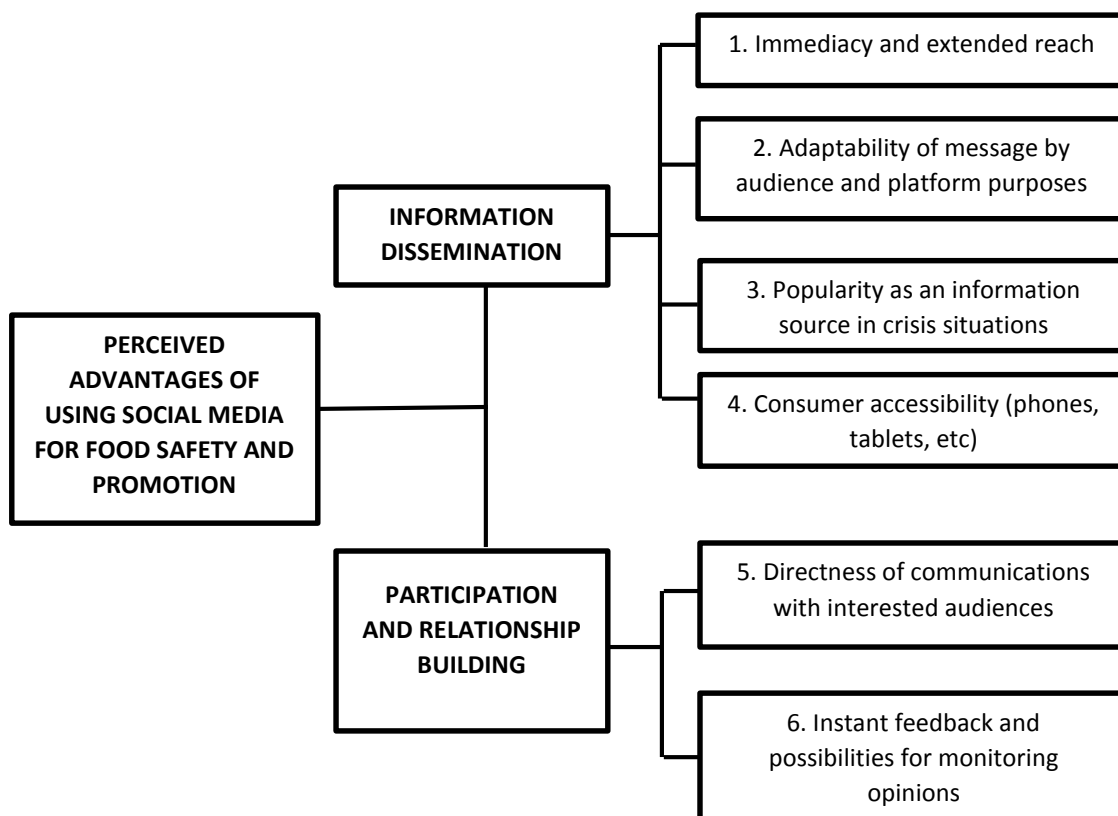
Source: Author.

B. Perceived drawbacks

The interviewed food information experts identified several drawbacks to the integration of social media in their organisations (Figure 5).

As already discussed in the literature review, use of social media implies a loss of control in that there is a shift in message control from organisations to users, who can freely opine and cast a different light on an organisation's content. Thus, from the authority point of view, users may convert objective information into lurid and sensational commenting.

To avoid this, information had to be monitored and corrected if necessary. Therefore, food information experts tended to be of the opinion that they needed to play a moderating role regarding food-related content:

> The weaknesses I suppose are that it provides a platform to the most extreme views and objectivity can be easily lost and rumour can build and I think that's all the more reason why it's important to actually monitor it, to ensure that your message is not being distorted or that any issues that are relevant to your business that you are conscious of them as soon as they happen (Ireland, food promotion authority 2).

> I think that they [social media] allow information to spread very quickly but in an uncontrolled way. The impact that it has is very powerful. It should be invigilated (Spain, government body 1).

> In this sense, anyone can start a discussion and say what they think which can be incorrect from a scientific point of view […] that statement may cause great harm. Information should be verified. […] Any message brings buzz which in my opinion is perceived as much chatter […] So, the original message gets further away from the primary source, and therefore, the final message is somehow lost, diluted, changed (Italy, government body 1, abbreviated).

A minority of the interviewees expressed their fear of receiving negative feedback from users through their platforms, with some others commenting that such users should be blocked and their content deleted if possible:

> On your Facebook page you can control it because it's your page you know and they write on it, post on it, you can delete a comment if you don't like what it is, you've control. I think on Twitter its game on and you know the fact that you can follow wherever you want, they can follow you, you can't block in and out I think it's kind of wild, the same goes with blogs […] Social media have to be willing to open up to the negativity and I think a lot of us don't like that. […] In the social media world you have to be willing to take the punches in public (Ireland, food safety authority 1, abbreviated).

Another drawback mentioned was the fear of transmitting messages that got lost in the noise. In a medium where there are as many sources of information as users, it was very difficult to stand out from the crowd and be perceived as a key source:

> If you are sending out a message through the social media, a barrier could be that it's lost in conversation, there's too much other buzz going on (Ireland, food promotion authority 1).

> We are one player among a huge number of other health promotion and food safety players […] I suppose one of the things […] you need to be is that trusted organisation […] but in order to be known we need to push and punch harder than others (Ireland, food safety authority 3, abbreviated).

A few experts also expressed their concern that, if they were not perceived as a trusted source, their message would not be taken seriously and misinformation could continue to circulate as the prevalent opinion. Thus, their attempt to include scientifically grounded information in a social media debate may fail:

> I think the biggest threat is the misinformation and if there's a weight of misinformation out there, if 90 percent of everything on Facebook is misinformation, and you come out and say well there's no risk or the risk is x or y, you may find yourself ridiculed by whoever, and you are continuously trying to put out whatever the factual message is and it mightn't really get there (Ireland, food safety authority 2).

Some interviewees were also worried about the large number of contradictory messages circulating in social media platforms, with repercussions in terms of misinformed consumers and possibly even of users reverting to traditional media as primary sources of information:

> One and all can put on there what they want, it's a bit a jungle. […] There is overload, also in our theme. And I notice that people are dropping out. Because of the overload and contradictory information. Consumers search for simple messages, which is provided by traditional media (Belgium, food safety authority 1, abbreviated).

Some interviewees also mentioned that they found it difficult to acquire a loyal audience interested in subscribing to their organisation's content, possibly because there was little investment in online advertising by their organisation:

> We find it hard trying to find other people to try and like our page because we have no advertising budget, so that's tricky (Ireland, food safety authority 1).

These experts did not question whether the reason for few consumers being interested was their content and whether this content could be improved or better promoted with more frequent updates. Only one interviewee (from Belgium) was aware of the inability to successfully reach out to certain groups. Although they may be an objective public for food safety/promotion authorities, they retain the freedom to choose to subscribe (or not) to particular social media platforms:

> One of our major target groups are the underprivileged and socially weak. I do not think we will reach them through Facebook. I do not think that people who are not interested will follow a group about food safety. We hit against the same boundaries as traditional media (Belgium, food safety authority).

Experts who felt more confident in the inclusion of social media in the communication strategies of the organisation fully appreciated that message shelf life was very short. This fact obliged them to look for platforms, like Facebook or Blogger, where the shelf life was better suited to their needs. Other interviewees indicated that they overcame this problem by trying to lengthen the shelf life through networking with opinion leaders, bloggers and celebrities that reposted the authority's content in their platforms. They thus ensured that their message would keep circulating and so reach a wider audience:

> The reach is wide, the shelf life is tiny I think. Twitter it boggles me, I can't. We aren't on Twitter because, I just think, what would we be tweeting about all the time? (Ireland, food safety authority 1).

> We need to be creative about how we can get messages out again and again and use other people to push the messages out for us. We have an advisory board who are happy to go in there and push messages for us, we have actors who are involved in our campaigns who have said that they will either go on as their personas or they will go on as their own person to help us to push those messages out because the message goes up and it falls down immediately. Once there's a conversation around it, and that's the bit that we need to watch, that conversation, and try and bring it back to the core message if possible without finger wagging or boring people with it, so it's very challenging (Ireland, food safety authority 3).

Some interviewees confessed that they were finding it difficult to perceive the kind of messages that would "fit" in these platforms. First it was a challenge to learn how to adapt their communications in social media in terms of identity, tone and content, because they had conflicts regarding the integrity of the authority versus the familiarity that was required in the online community, where conversations take place, as a rule, in an informal way between peers. A few experts considered that their confidence was diminished because they were transmitting messages from an official institution through a platform conceived for people, not for organisations:

> What we don't know now is how we should be introduced to the online community. We want our message to be trusted and we are not sure if we should introduce ourselves as an agency or maybe we should introduce our staff members as people with strong food science backgrounds to give our message. We need to study this before joining any social network (Spain, food safety authority 1).

More experienced interviewees were more concerned about the tone and content of their messages, being of the opinion that using an informal tone would jeopardise their scientific reputation:

> At the beginning when we, kind of, went onto Facebook and we tried to be informal but we were still quite stuffy. So, it's quite hard for us as an agency, we are the authority, so you don't want to be kind of "hey guys" but then you don't want to be "hello", so it's trying to find a happy medium (Ireland, food safety authority 1).

Interviewees also encountered difficulties when adapting their messages to the intrinsic limitations of each platform:

> So, you need to be very clued in on how to communicate and how to engage on Twitter and the language that you use and its 140 characters, so it needs to be quick, smart and savvy (Ireland, food promotion authority 1).

In terms of content, a few interviewees also felt confused regarding how to engage with publics, with some not having clear ideas about what to communicate to the online community:

> I think it is early days [for being present in the social media] but yes, if I had a product to sell I think we would be far more engaged in Facebook (Ireland, food safety authority 2).

The result of not conceiving social media as an integrated part of overall communication strategies may lead to mistakes, especially in crisis situations. Therefore, organisations wanting or willing to develop a presence in social media platforms felt they needed to bear in mind that communications online must be considered as important as offline strategies:

> I think, in a time of crisis, a missed opportunity could be that, you are not using it, because you get side-tracked, so you are consumed by the risk and you are trying to form documents and send out press releases and focus on traditional media, and you are leaving social media behind and that is a threat in itself, because you are not communicating with your online audience (Ireland, food promotion authority 1).

Some interviewees also warned about the perils of the vast amount of content that may circulate in the social media during a crisis situation, possibly magnifying the real perception of risk:

> Social media can also have a very negative effect on crisis situations by exaggerating information. But if it's handled well, the situation can be brought back to normal proportions (Belgium, food safety authority 1).

Non-communication also communicates; this was a concern of one interviewee about using social media in times of crisis, particularly the difficulty to communicate in a timely manner whenever scientific evidence was involved, given that any silence could contribute to magnifying risk perceptions:

> I cannot be timely because I do not have complete information. For full details, I need to wait for a result, whereas users can generate panic due to the speed [of social media] (Italy, food safety authority 5).

Another difficulty was that social media operate in a rapidly evolving environment. Some of the interviewees complained about the need to keep constantly up to date with new platform configurations and with new platforms:

> To me one problem is that they [social media] evolve very quickly, that once you are used to one platform, it's the moment to start setting up a new one. Or, even with the same tool, it constantly changes. Facebook constantly changes its screen settings. So, it obliges you to be constantly up to date (Spain, research institute 2).

However, a few interviewees considered this difficulty to actually be an opportunity as the organisation could potentially become an early adopter:

> If you are doing social media and you are not keeping abreast with what's new out there it is a weakness, but it's also a strength, because if you are first to catch onto this new trend or new technology or new way of communicating on these platforms you are way ahead of the pack (Ireland, food promotion authority 1).

Finally, one of the most cited drawbacks to developing social media strategies was the underestimation of the time, financial and human investment needed. Social media platforms require staff who constantly update content and monitor and reply to users. An understaffed social media department may lead to underused platforms and ignored online communities. Some interviewees concluded that although social media were potentially useful, their organisations were unable to embrace them due to a lack of resources:

> I was the one putting Facebook. I underestimated how much time it would take us, even the postings of twice a week, it's a lot of time you have to be constantly looking at it (Ireland, food safety authority 1).

> To use social media for managing crisis could be an opportunity, but it seems to me that we'll need considerable resources to implement it. Resources that we currently do not have (Italy, government body 2).

> Before adopting social media, we need to evaluate the costs. Because they mean more staff. There are food industries that have three or four people working exclusively on them. We need to consider this (Spain, food safety authority 1).

> [Social media platforms] are very interesting, but you have the obligation to be there and to reply to people. So, the problem is if you don't have enough staff to respond (Spain, food safety authority 3).

Some experts also pointed to the need for a rapid response to user queries, given the fast pace of the social media environment, which creates the perception of immediacy. Yet organisations are run by individuals with established working schedules. It is therefore advisable to establish an internal policy to reply to users within 24 hours:

> Social media also creates expectations. If people think, I can post my individual question here and it will be answered within a day [...] then the risk is that one cannot live up to the expectation. One, thus, transmits expectation patterns through a communication channel. So, if one uses the channel, one can use it within a certain time frame. And if one does not live up to the expectations, one's reputation is very quickly affected (Netherlands, food safety authority).

Figure 5. Perceived drawbacks of using social media for food safety and promotion.
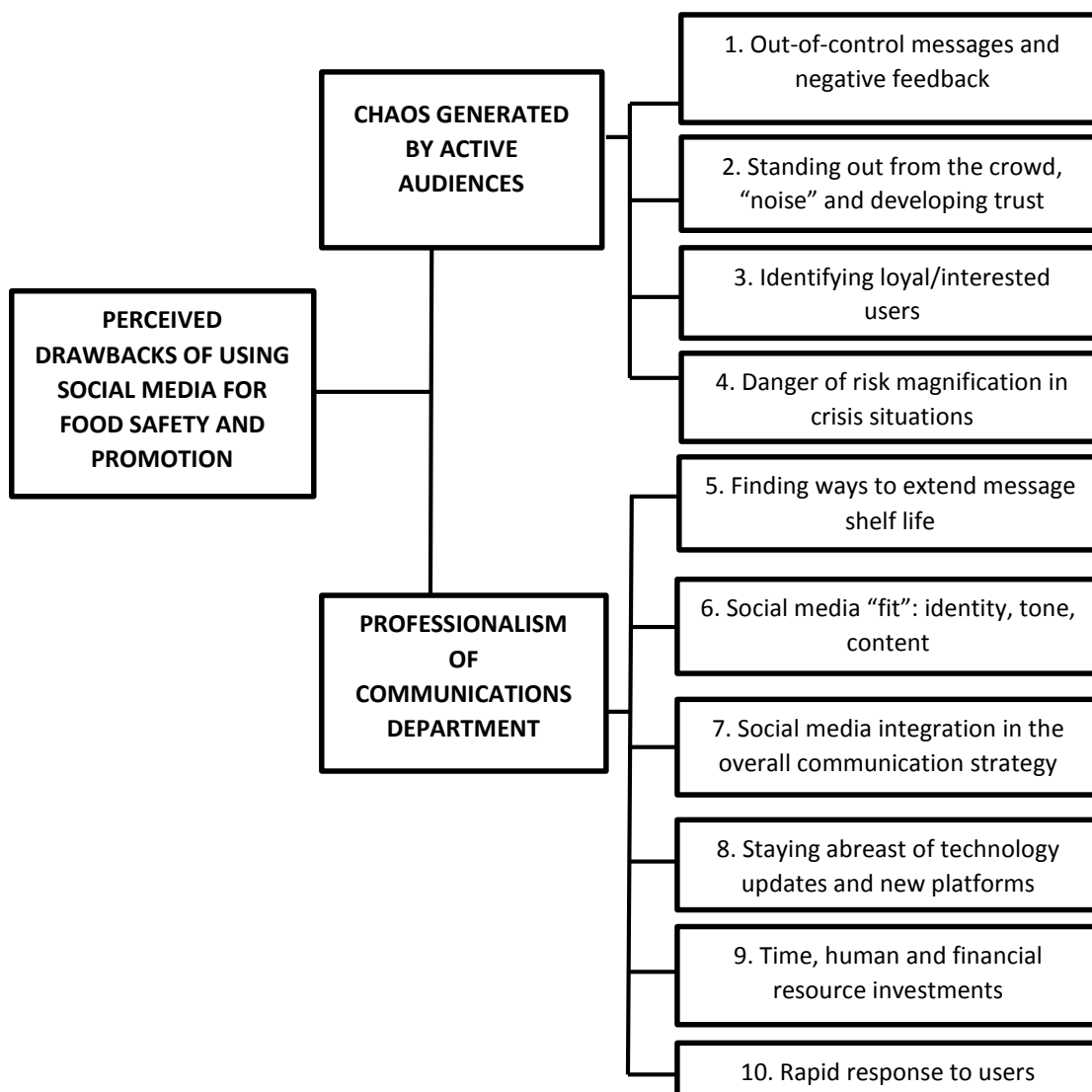
Source: Author.

4.1.4. Thematic analysis of interviews: concluding remarks

The study of European food information expert discourses provided an exploratory vision regarding the adoption of social media for the communication of food safety and health-related matters. Results indicate that some of the drawbacks of social media reflect problems from the pre-social-media age.

For instance, experts formerly complained about not being able to transmit their information to consumers because traditional media were not picking up their stories — especially more positive ones focused on food benefits. Nowadays, experts encounter similar difficulties in finding interested subscribers who will frequently visit their platforms. Another example is that formerly it was difficult to make messages stand out from the crowd because of the many — and therefore potentially confusing — sources of information with vested interests. Experts nowadays encounter the same problem online and so feel there may be a lack of trust in their message.

Some of the mentioned advantages of social media also have a downside. For example, while the broad dissemination of communications and the possibility for instant feedback were rated as positive, experts considered out-of-control messages and negative feedback to be a major challenge. The same occurred with message adaptations, mentioned both as an advantage and a challenge because social media managers need to understand — without jeopardising the integrity of the organisation — both the best way to approach different online communities and the kind of language and tone to use.

Finally, it should be noted that most of the interviewed food information experts perceived social media as yet another platform to communicate with consumers, especially difficult-to-reach segments. Although some experts valued the opportunity for dialogue with lay consumers, most of them viewed social media as top-down communication channels, both in normal and crisis times. It can therefore be assumed that their online messages are more focused on the provision of objective information rather than on engagement with users.

If there were only turnips and potatoes in the world,
someone would complain that plants grow the
wrong way – Georg C. Leichtenberg

An idealist is one who, on noticing that a rose smells
better than a cabbage, concludes that it will also make
better soup – H.L. Mencken

4.2. Online content analysis results[24]

4.2.1. Website characterisation

Most websites in the sample belonged to food safety/promotion authorities (56.7 percent), followed by ministries (30 percent), with the remaining websites representing research bodies (Denmark and Latvia) and consumers (Czech Republic and the Netherlands). The Czech Republic — with a food safety website and a teenage consumer website — and the Netherlands — with a ministerial website and a consumer website — were represented twice in the sample.

A total of 25 languages of the EU were used in the analysed websites. English was predominant, with a presence in nearly half (41.6 percent) of the websites. Websites were most commonly accessible in two languages (66.6 percent): the local language and English. A fifth of the websites were available in just one language, despite linguistic diversity in the corresponding countries (Ireland, Spain and Luxembourg). The remaining websites (13.4 percent) were available in three or four different languages. After English, the most important languages were German, Russian, French and Dutch (5 percent each).

4.2.2. Website content

Almost all the organisations (96.6 percent) included a presentation, an explanation of their mission and vision and a depiction of their organisation in the form of an organigram. Other content encountered in most websites were justificatory discourses and supporting legislation (86.7 percent) and descriptions and discussions of food hazards such as biological risks and contaminants and the monitoring and control of imported foodstuffs (83.4 percent). A high proportion of websites (70 percent) included a repository of published brochures and newsletters, some addressed to consumers (e.g., proper food storage, food fraud) and others targeted to expert publics (e.g., enforcement and audit activities).

Over half (56.7 percent) of the websites covered topics such as correct labelling and traceability controls of foodstuff; the same proportion gave basic hygiene information regarding safe cooking practices and the prevention of cross-contamination; and the same proportion again discussed novel foods, food supplements and technologies such as genetic modification and nanotechnology. Just over half (53.4 percent) described protocols for food crisis situations and provided the means for consumers to report anomalies regarding restaurants, supermarkets and manufacturers. Half (50 percent) described the benefits of food, offered nutritional information and promoted healthy diets. This kind of content often included recommendations on dietary habits and physical activity, scientific definitions and regulation of health claims.

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[24] See Appendix 2 for the SPSS charts referring to the online content analysis.

As for less representative content, 40 percent of websites covered local and national initiatives to promote food safety and healthy eating campaigns. The same proportion offered content addressed to population groups with special food information needs, namely, young people, pregnant women, elderly people and people with coeliac disease, food intolerances and allergies, with recommendations for each group and notifications of food allergen alerts. A third of the websites (33.3 percent) informed consumers about the latest food recalls. Finally, smaller proportions of websites promoted international food campaigns (13.4 percent) and posted healthy recipes and menu plans for consumers (6.7 percent) (Figure 6).

Figure 6. European food safety/promotion authority website content topics.
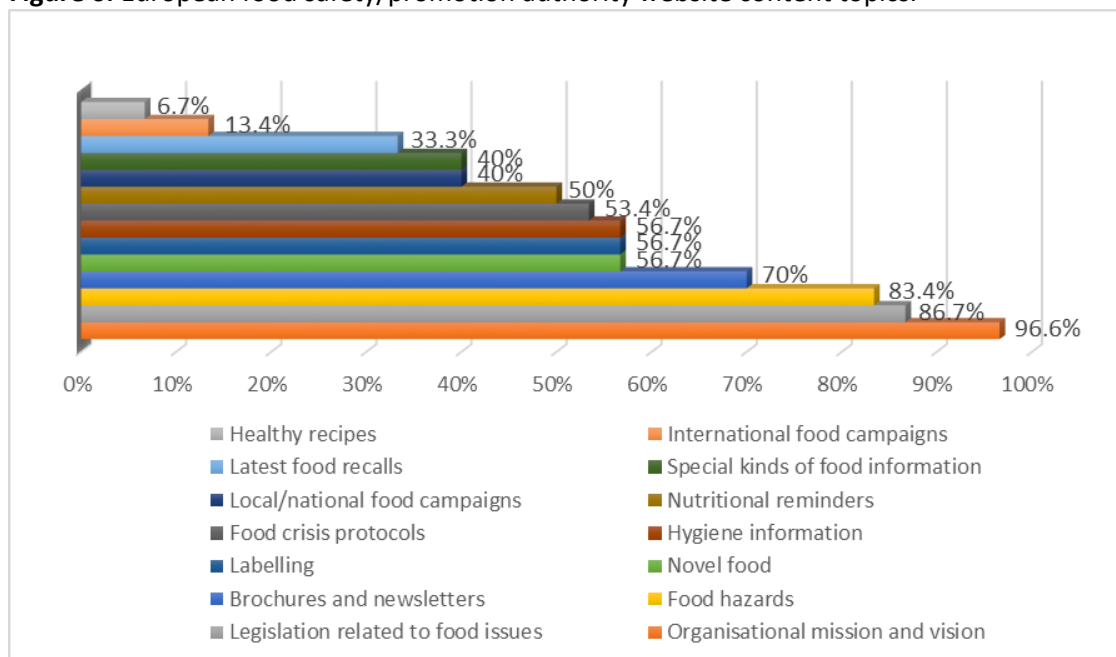
Source: Author.

It can be concluded that the main aim of official websites of European food safety/promotion authorities were to introduce the organisation and to legislatively justify its authority. As for secondary aims, discourses were more focused on risks than on benefits, given that most websites explained food hazards and quality controls for foodstuffs that guaranteed safe use by consumers. Likewise, risk discourses were also present in websites that posted food crisis protocols and gave practical tips to consumers about correct food storage, hygiene, defrosting, prevention of cross-contamination and safe cooking. Less attention (around half the websites) was paid to the nutritional aspects of foods and a small proportion proposed healthy diets to consumers. Most websites were targeted at an undefined consumer, with 60 percent neglecting to provide specific information for groups with special food needs. The exceptions included, as one example, the National Swedish Food Administration, which had translated some food safety information into the mother tongues of major migrant minorities (Arabic, Farsi, Kurdish, Somalian, Turkish and Urdu).

Half the websites covered six to ten topics (Table 6); the arithmetic mean, in fact, was 7.43 topics per website. Ministry websites tended to cover fewer topics than food safety/promotion websites. Specifically, no ministry website covered more than ten food-related topics (a third covered five or fewer topics), whereas a third (29.4 percent) of food safety/promotion bodies did so, with a further 52.9 percent covering six to ten topics.

Table 6. Number of topics covered in European food safety/promotion authority websites.

Topics	European food safety/promotion authority websites (30)
Under 5	**9 websites (30 percent):** Cyprus (3), Latvia (3), Poland (4), Bulgaria (5), Croatia (5), Denmark (5), Lithuania (5), Luxembourg (5) and Portugal (5).
6 to 10	**15 websites (50 percent):** Hungary (6), Malta (6), Czech Republic (food safety website, 7), Estonia (7), Italy (7), Romania (7), Slovak Republic (7), Slovenia (7), Netherlands (ministerial website, 7), Czech Republic (lay consumer website, 8), Germany (8), Greece (8), Netherlands (lay consumer website, 8), France (9) and Finland (10)
Over 11	**6 websites (20 percent):** Belgium (11), Sweden (11), Austria (12), Ireland (12), UK (12) and Spain (13).

Source: Author.

4.2.3. Website connectivity

The fact that the Internet permits users to surf from one website to another using hypertext links is a valuable opportunity for food safety/promotion authorities to connect their websites with interactive social media platforms. This was, in fact, how the 57 social media profiles of the authorities in different platforms were located for the purposes of this study.

Ideally, social media profiles should also include a link to official food safety/promotion websites; this was the case for 87.7 percent of the profiles, although this figure dropped when links to other social media platforms for the same food safety/promotion authority were included. Hence, only just under a quarter (23.5 percent) of the social media profiles had more than one platform set up to include links to its other platforms. This was the case of the Facebook profile of the UK Food Standards Agency, with permanent links to its Twitter and Pinterest profiles — but not to another six social media profiles (five Facebook profiles and one YouTube channel). This represented a lost opportunity to inform users of a presence in other social media platforms that may be of particular interest to other users or better adapted to the user's information needs.

As regards connectivity with the European authority, most food safety/promotion websites (86.7 percent) had a link to the EFSA. However, only a tenth also included links to an EFSA social media platform; these were the Finnish Food Safety Authority, the Food Safety Authority of Ireland and the Romanian Veterinary and Food Safety Authority; these had links to the EFSA YouTube video series *Understanding Science,*[25] which explains scientific concepts in plain language. Of the 57 social media platforms analysed, none had a link to the EFSA official website and only one (the Food Safety Authority of Ireland YouTube account) had a permanent link to the EFSA YouTube video series.

Relative to the high number of website links to the EFSA website, links to other national food safety/promotion authorities were few in number, with only 30 percent of websites including such hyperlinks and with none of them linking to any social media platform operated by these other bodies.

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[25] www.efsa.europa.eu/en/news/videos.htm

Nonetheless, an acceptable number (53.3 percent) of food safety/promotion authority websites were connected to other important food bodies, such as the Food and Agriculture Organisation of the United Nations[26] and the World Health Organisation,[27] and non-European agencies such as the US Centers for Disease Control and Prevention[28] and Food Standards Australia New Zealand.[29]

Only five websites included links to food campaigns that promoted food safety or healthy nutrition (16.7 percent): the Austrian Agency for Health and Food Safety, the Belgian Federal Agency of Food Chain Safety, the Czech Food Safety Department, the Hellenic Food Authority and the UK Food Standards Agency. The most linked campaigns were the British National Health Service *5 A Day*[30] and *Change4Life*[31] campaigns, both of which aim to increase the consumption of fruit and vegetables and reduce obesity rates. It might appear surprising that the UK Food Standards Agency itself had no link to either of these campaigns, but this is because it was decided in 2010 to transfer all nutrition-related information to the UK Health Department. Consequently, the UK Food Standards Agency now focuses more on food hygiene campaigns like its Food Safety Week (in 2014, *Don't wash raw chicken*).

4.2.4. Website interactivity

Listening to the opinions of users is crucial for any organisation wanting to build a strong relationship with its online community. Therefore, tools that enable users to express their views are essential.

None of the studied websites had any tool that allowed users to post or comment on uploaded information. That said, all the websites had an email address (93.3 percent) and/or an electronic form (30 percent) through which users could contact the food authority to express doubts or report food-related complaints. The inclusion of a contact telephone in websites was also a popular option (93.3 percent).

Another way to foster interactivity is to allow users to rate information available on a website, but only the Austrian Agency for Health and Food Safety and the Italian National Institute of Health permitted this option and only the Italian website allowed ratings to be visible to other users.

The literature indicates that sharing information greatly fosters interactivity. Of the sampled websites, over half (56.7 percent) enabled users to disseminate website content to their own contacts through personal emails or social media profiles (blogs, social networks, microblogs, social bookmarks, etc).

An online community can also be created by setting up an intranet or private website zone for registered users. Only around a quarter of the websites (26.7 percent) had this feature. Note that the level of interactivity inside the intranet and perceptions of users as passive or participatory were not issues studied in this research.

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[26] www.fao.org

[27] www.who.int

[28] www.cdc.gov

[29] www.foodstandards.gov.au

[30] www.nhs.uk/Livewell/5ADAY/Pages/5ADAYhome.aspx

[31] www.nhs.uk/Tools/Pages/Change4Life-meal-planner-and-recipe-finder.aspx

As regards low-level interaction applications, i.e., widgets, these were included in four websites (13.3 percent): the French Agency for Food, Environment and Occupational Health Safety, the Finnish Food Safety Authority, the Food Safety Authority of Ireland and Voedingscentrum (a nutrition website for Dutch consumers). The French, Finnish and Irish websites had one widget each to help users calculate calories in menus, to learn the nutritional composition of food items and to learn about specific additives, respectively. The Dutch website had five widgets focused mainly on promoting healthy eating: to calculate body mass index, to calculate recommended daily calorie intake, to obtain recipes from a recipe bank, to obtain personal dietary advice and to explain food nutritional labels.

A higher level of interactivity can be achieved by the inclusion of social media platforms within websites, i.e., tools that allow two-way and multidirectional communication in any format between the organisation and users and among users. Although several websites included photo galleries or video sections in their websites, these were not counted as Web 2.0 because users could not express opinions by uploading new audiovisual elements or posting comments. According to this definition, therefore, only two websites (6.67 percent) included social media platforms in their websites: the Slovak Ministry of Agriculture and the Hellenic Food Authority. The Slovak website included a public forum where users could launch debates and discussions and the Greek website ran polls among users and made results public.

Figure 7. European food safety/promotion authority website interactivity.
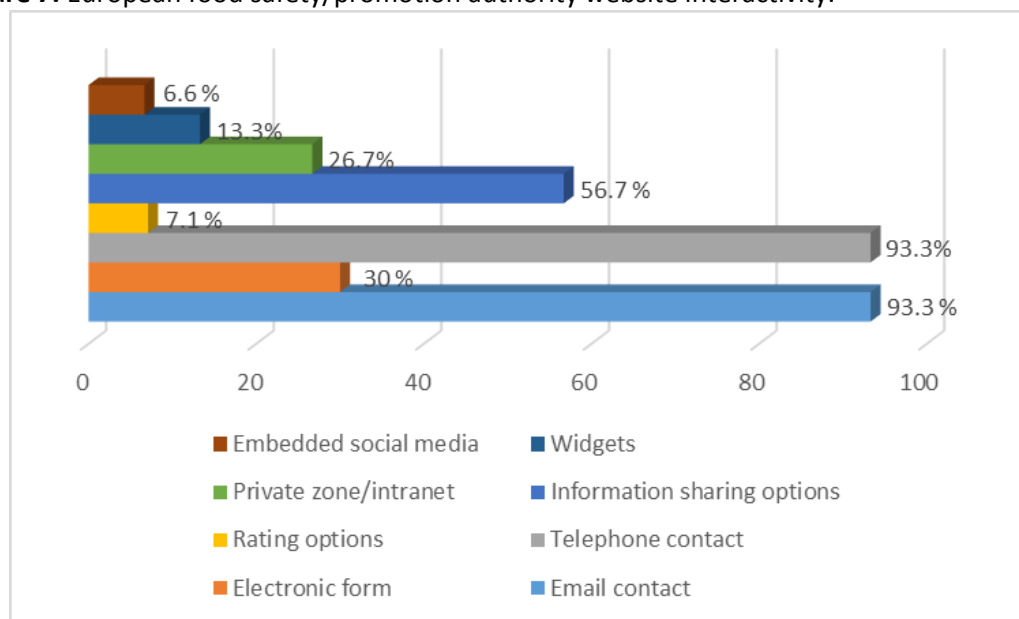
Source: Author.

Finally, some food safety/promotion authorities perceived their websites to be a static channel of communication, preferring to use a social media platform to offer users a more interactive experience. In order to be counted and analysed, these profiles had to have a link in the corresponding official website. Over half the websites (56.7 percent of websites, or 60,7 percent of the food safety/promotion authorities analysed[32]) had such links: two thirds (64.7 percent) had between one and three profiles; around a fifth (17.6 percent) had between four and six profiles; and the remaining 17.6 percent had between seven and nine profiles (the UK Food

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[32] Czech Republic and the Netherlands had two websites each, but in both cases, only one website had social media platforms linked from it. Therefore, the number of websites analysed is 30 but the number of food safety/promotion authorities is 28.

Standards Agency had as many as nine). From a geographical perspective, most southern EU countries had up to three social media profiles, whereas northern countries typically had five or more social media profiles (Figure 8).

Regarding social media platform links in websites according to website category, only 44.4 percent of ministry websites had such links (the Estonian Ministry of Agriculture, the Italian National Institute of Health, the Polish Chief Health Inspectorate and the Slovak Ministry of Agriculture), in contrast with over two thirds (64.7 percent) of food safety/promotion body websites. The research body and consumer website categories could not be analysed in the above terms because there were only two websites per category.

Figure 8. Number of social media profiles of European food safety/promotion authorities.
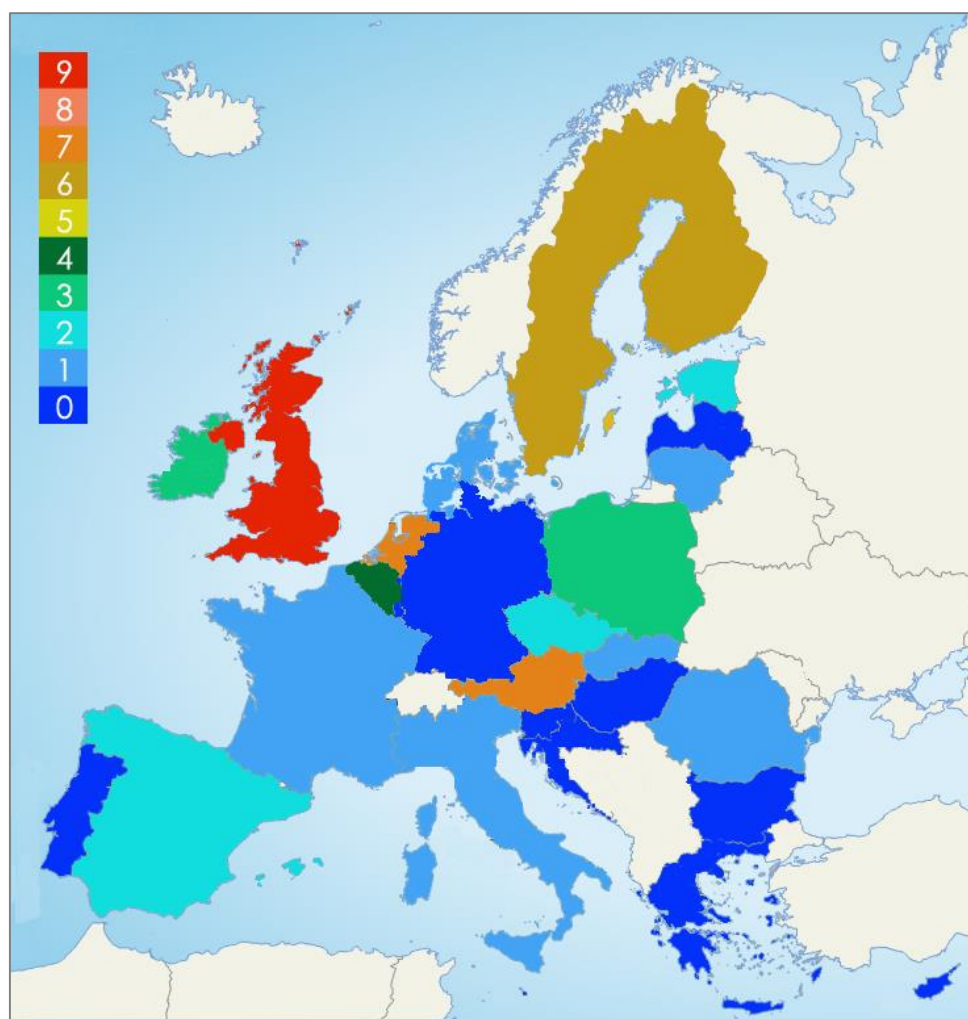
Source: Author.

There appeared to be a direct relationship between content variety and social media presence, i.e., between the number of topics covered on the websites and the number of social media accounts. Thus, a high percentage of websites covering fewer than five topics (66.7 percent) had no social media profile; the proportion dropped considerably (to 46.7 percent) for website content covering six to ten topics; and all websites covering more than 11 topics had at least one social media profile.

Over half the websites (54.5 percent) with fewer than three social media profiles covered between six and ten topics, whereas 60 percent of websites with between four and seven social media profiles covered more than 11 topics. The only two websites that broke this pattern were the Food Safety Authority of Ireland and the Spanish Consumption, Food Safety and Nutrition Agency (coverage of more than 11 topics but only up to three different social media profiles). These agencies possibly preferred to invest in developing website content — which is less onerous and costly — rather than in maintaining a social media presence.

4.2.5. Website linkages and identification in social media

As mentioned previously, 60.7 percent of the European food safety/promotion authorities linked to a total of 57 social media platforms (Figure 9) from their official websites. Three food safety/promotion authorities — representing 40.3 percent of the social media platforms in the sample — had seven or more profiles each, namely, the Austrian Agency for Health and Food Safety (7), the Dutch Food and Consumer Product Safety Authority (7) and the UK Food Standards Agency (9).

However, the norm was to have a single social media profile: 36.8 percent of the 57 social media profiles were in Facebook, 29.8 percent were in Twitter and 15.8 percent were in YouTube. These were the most common platforms used, although some agencies had profiles in other applications such as the photo-sharing platform Flickr (5.3 percent), the document-sharing platform Slideshare (3.5 percent) and the professional social network LinkedIn (3.5 percent). One agency each used the digital publisher platform Issuu, the blog creator Blogger and the pin album-sharing platform Pinterest (1.8 percent each).

The Austrian Agency for Health and Food Safety had the most varied social media presence; its seven profiles were in six different platforms (two in Facebook and one each in Twitter, YouTube, Flickr, Slideshare and Issuu).

Figure 9. European food safety/promotion authority presence in different social media platforms.
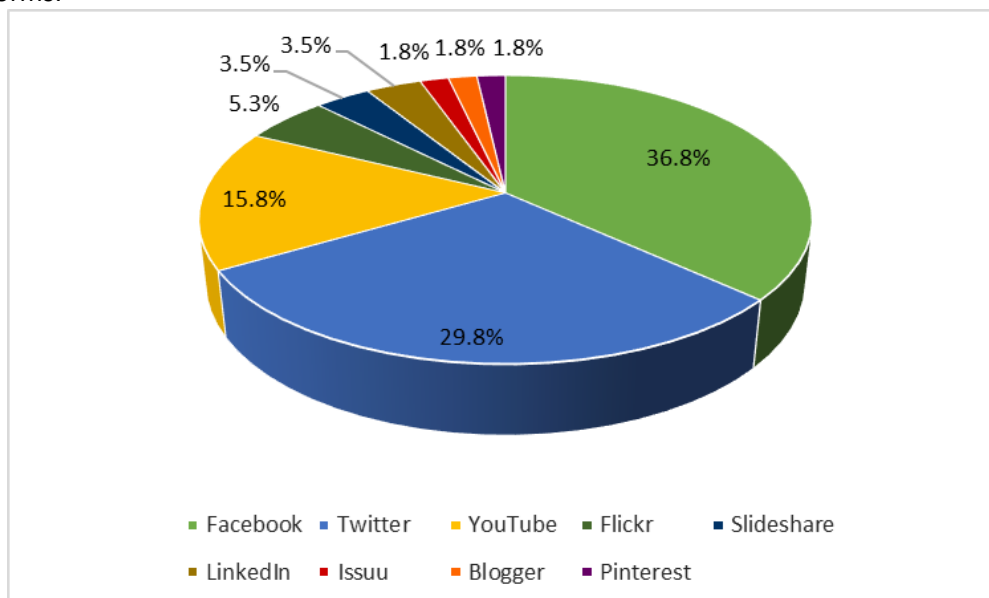
Source: Author.

The longest-standing social media profile is the UK Food Standards Agency YouTube channel, created in 2006. The first Facebook profile was registered in 2007 by the Finnish Food Safety Authority and the first two Twitter accounts were set up in 2009 by the Dutch Food and Consumer Product Safety Authority (@voedingscentrum) and the UK Food Standards Agency (@foodgov).[33] These three agencies were genuine pioneers in the use of social media platforms, given that most European food safety/promotion authorities created social media profiles in 2011 and 2012 (57.8 percent of the total sample). Considering when the three most used platforms were launched — Facebook (2004), YouTube (2005) and Twitter (2006) — it can be concluded that most European food safety/promotion authorities were late adopters of the new communication technologies.

Regarding linguistic diversity, this dropped to 15 languages in the case of social media profiles, compared to the 25 languages used in websites. Once again, English was the predominant language (32.8 percent), followed by Dutch (13.4 percent), Swedish and German (10.4 percent each) and Finnish (5.9 percent). The only agencies offering profiles in several languages were the Belgian Federal Agency of Food Chain Safety (four profiles, two in Dutch and two in French), the Finnish Food Safety Authority (three Twitter accounts, in Finnish, Swedish and English) and the UK Food Standards Agency (a Facebook profile in Welsh administered by its regional Welsh division and a YouTube account in both English and Welsh).

In terms of introducing themselves to their social media communities, most food safety/promotion authorities included their logotypes (94.7 percent) and full official names (93 percent) in their profiles. However, far fewer (68.4 percent) included a brief description of their mission and vision, a proportion that was, again, far lower than for websites (96.6 percent). This may indicate that social media platforms were considered as channels for communicating a different kind of content than would be communicated through websites; alternatively, it may reflect a lower level of interest in transmitting a solid corporate image.

4.2.6. Social media publics

The publics identified for the social media platforms were diverse. Most platforms were addressed to consumers (52.1 percent) and to the catering and food manufacturing sectors (19.1 percent). The remaining platforms were addressed to a scientific public (7.4 percent), general media (6.4 percent) and employees (4.2 percent). Only a small minority of the platforms targeted publics with special food information needs, such as pregnant women, parents and school managers (2.1 percent each). Noteworthy were the efforts of the Swedish National Food Administration to help pregnant women choose an appropriate diet and to respond to their dietary doubts via its Facebook profile titled Kostråd för gravida och ammande. In fact, this was the only social media platform in the sample that exclusively addressed the needs of one specific type of public. Other identified publics were elderly people, governments, prospective food and agriculture engineering students and prospective employees (1.1 percent each). The Austrian Agency of Health and Food Safety addressed the highest number of publics (5) in its Issuu platform, where there is no limit on the number of digital publications.

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[33] The UK Food Standards Agency was — and still is — the only European food safety agency to have a Pinterest profile, which it launched in 2012. Pinterest was created in 2010 and is likely to be the next social media giant, according to Forbes magazine (Bercovici 2014).

No social media profile was found that was addressed exclusively to consumers with food allergies or intolerances, although this type of information could be found in most of the general profiles targeting consumers.

Figure 10. European food safety/promotion authority social media publics.
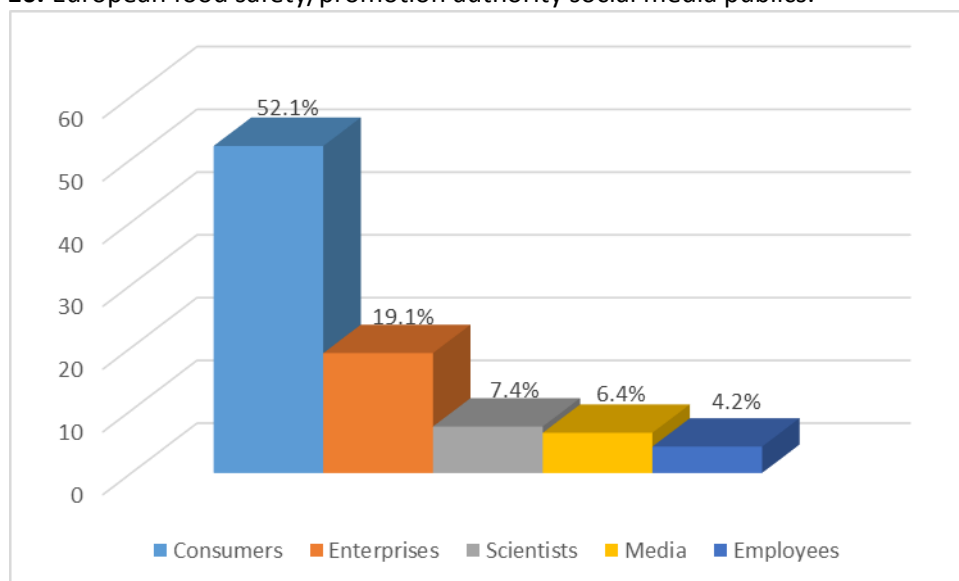
Source: Author.

Although there was one social media profile with some 73,200 followers (the Twitter account of the Spanish Consumption, Food Safety and Nutrition Agency, @sanidadgob[34]), the sample was mainly dominated by platforms with small numbers of registered subscribers. Overall, just under a quarter (24.5 percent) of the sample consisted of platforms with fewer than 100 subscribers and two thirds (67.9 percent) had 1,000 or fewer subscribed users. Percentages for between 1,001 and 15,000 subscribers and for 15,001 or more followers were 26.4 percent and 5.6 percent, respectively.

Table 7. Most popular social media profiles of European food safety/promotion authorities.

Rank	Facebook likers	Twitter followers	YouTube subscribers
1	Voedingscentrum (Netherlands) **N= 9,176**	@sanidadgob (Spain) **N = 73,247**	Food Standards Agency (UK) **N = 922**
2	Food Standards Agency (UK) **N = 3,899**	@foodgov (UK) **N = 17,913**	National Institute of Health (Italy) **N = 799**
3	Hoezo50Kilo (Netherlands) **N = 3,201**	@voedingscentrum (Netherlands) **N = 15,882**	Consumption, Food Safety Agency and Nutrition Agency (Spain) **N = 778**
4	Food Safety Authority (Ireland) **N = 2,363**	@Livsmedelsverk (Sweden) **N =2,025**	Voedingscentrum (Netherlands) **N = 215**

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[34] Note that the Spanish Consumption, Food Safety and Nutrition Agency's Twitter and YouTube accounts actually belong to the Ministry of Health, Social Services and Equality (to which the Spanish food agency is attached) and so have content that is not focused on food safety/promotion, such as on gender parity, family, non-food related diseases, vaccination, addictions to tobacco, drugs, alcohol, etc. Hence, the website belongs to the "food safety/promotion body" category but the social media profiles belong to the "ministry" category.

5	Food Standards Agency–Northern Ireland (UK) **N = 1,872**	@FSAIinfo (Ireland) **N = 1,923**	Food Safety Authority (Ireland) **N = 60**

Source: Author.

Regarding the most used social media platforms, 47.6 percent of Facebook profiles and 35.2 percent of Twitter accounts had more than 1,000 registered followers. The most popular YouTube account — belonging to the UK Food Standards Agency — had 922 subscribers.

In terms of what/who food safety/promotion authority were following,[35] just over half (52.4 percent) followed fewer than 100 and just over a third (38.1 percent) followed between 101 and 1,000 subscribers. In view of the number of subscribers registered with their official social media profiles, it can be concluded that food safety/promotion authorities were not very attentive to their subscribers or other potentially interesting sources of information. To cite two examples, the Twitter account of the UK Food Standards Agency (@foodgov), with 17,913 subscribers, was following the largest number of users, namely, 1,515; and the Twitter account of the Spanish Consumption, Food Safety and Nutrition Agency (@sanidadgob), with 73,247 subscribers, was following a mere 520 users.

4.2.7. Social media information sources

The last 20 posts published in the social media platforms were analysed in order to determine information sources feeding platform content.

All 57 platforms linked to their own press releases. Profiles linked to a far lesser degree to articles and other information from the scientific media (15.7 percent), EFSA press releases (12.2 percent) and press releases from international non-governmental organisations (e.g., the Red Cross) and food banks (10.5 percent). Less important again were links to articles by food bloggers (8.7 percent), citations from the social media accounts of ministers or managers of their own agency (8.7 percent), information from government bodies and ministries in their country (5.3 percent) and reports and articles published by international bodies like the World Health Organisation and the Food and Agriculture Organisation (5.2 percent). As a curiosity, one profile (1.7 percent) published and publicly responded to the email of a user.

What is surprising is how none of the studied social media platforms linked to information from the general media. It may be deduced that the general media will have quoted from official press releases of the food authorities, yet the authorities did not link to the published news. This would corroborate the conclusion from the previous section regarding the imbalance between the number of subscribers and the numbers followed by food authorities. It can be deduced that the underlying online communication strategy of these organisations is to offer information rather than start online debate.

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[35] Blogger, Facebook, Issuu, LinkedIn and Pinterest do not facilitate counts of the number of subscribers that a profile owner is following.

4.2.8. Social media interactivity and engagement

Social media users typically check what others have recently uploaded in their profiles, whether messages, texts, pictures or videos, so it is important to constantly update profiles in order to interact and engage with users. It was therefore interesting to observe just when new information was included in a food safety/promotion authority profile. A number of online marketers (Funk 2011; Meerman Scott 2009; Safko and Brake 2009) recommend organisations with a social media presence to develop a publishing plan adapted to the content-update needs of different platforms. For instance, Twitter and Facebook should be fed constantly (at least one post every day or second day); Blogger can be updated once a week or fortnight; and Flickr, YouTube, Slideshare, LinkedIn, Pinterest and Issuu — which do not seek immediate user interactivity — can be updated once every two to four weeks. Platforms with updates exceeding those time indications would seem outdated to enthusiastic followers.

Of the food safety/promotion authorities with social media profiles, most would seem to post frequently: a third (33.3 percent) had updated their platforms the same or previous day and over half (57.9 percent) had done so in the previous week. However, a considerable proportion last posted between one and six months previously (19.3 percent) or over six months previously (5.3 percent). Taking into consideration the hectic rhythm of Web 2.0, almost a quarter of the profiles (24.6 percent) had fairly inactive social media platforms (Figure 11). Crosstabs show that 64.7 percent of Twitter profiles had been updated on the same or previous day, whereas 42.8 percent of Facebook profiles had been updated between two and seven days previously and nearly half of YouTube profiles (44.4 percent) had been updated between one and six months previously. The posting patterns would appear to be quite consistent with the updating recommendations of online marketers (Funk 2011; Meerman Scott 2009; Safko and Brake 2009).

Observing the last time that a social media profile was updated is not the only way to measure content feed. Density of posts is also important as it indicates periodicity in updates (number of posts per day). For this research, density was calculated by dividing the number of posts by the time elapsed in days between the first and the twentieth post (20 was the number of posts analysed for this research). Data show that the greatest posting density of 2.85 times per day corresponded to the Twitter account of the Austrian Agency for Health and Food Safety (@agesnews). As for the rest of the sample, under a fifth (19.2 percent) posted between once and twice a day (Table 8). Curiously perhaps, the platform with lowest post density also belonged to the Austrian Agency for Health and Food Safety; 20 videos had been uploaded to its YouTube profile AgesNews over a period of 2 years and 4 months (average post density, 0.022 per day).

Table 8. Post density for European food safety/promotion authority social media platforms.

Food authority	Social media platform	Total time (1st–20th post)	Posts/day
Austrian Agency for Health and Food Safety	Twitter (@agesnews)	7 days	2.85
Irish Food Safety Authority	Twitter (@FSAIinfo)	10 days	2
Dutch Food and Consumer Product Safety Authority	Twitter (@voedingscentrum)	10 days	2
French Agency for Food, Environment and Occupational Health and Safety	Twitter (@Anses_fr)	11 days	1.81
Czech Food Safety Information Centre of the Ministry of Agriculture	Facebook (Informační Centrum Bezpečnosti Potravin)	13 days	1.53
Czech Food Safety Information Centre of the Ministry of Agriculture	Twitter (@bezpecnostp)	13 days	1.53
UK Food Standards Agency	Twitter (@foodgov)	14 days	1.42
Spanish Consumption, Food Safety and Nutrition Agency	Twitter (@sanidadgob)	16 days	1.25
Dutch Food and Consumer Product Safety Authority	Twitter (@Hoezo50kilo)	18 days	1.1
UK Food Standards Agency	Facebook (Food Standards Agency)	19 days	1.05
Finnish Food Safety Authority	Twitter (@Evira_uutiset)	20 days	1

Source: Author.

Conversations with users and among users are the engine that drives social media. Owners of a profile can choose, however, whether or not to including tools that permit other users to comment, upload pictures and videos and post links. Therefore, the more such tools a profile includes, the more interactive it is. The most important interactivity advantages for food safety/promotion authorities are that these can give a better service to consumers (by responding to doubts and concerns) and can strengthen relationships (by building trust).

The online content analysis revealed that, although users could initiate a conversation in half the social media profiles (50.9 percent), this proportion almost doubled (to 96.5 percent) when it was a matter of responding to topics proposed by the food authority. In other words, organisations reserved the right to propose content and to set the agenda for online discussions. Only two profiles offered no option at all to users to post opinions online: the YouTube account of the Italian National Institute of Health and the Issuu account of the Austrian Agency for Health and Food Safety.

Regarding the latest user comments or posts in a social media profile, three categories could be distinguished: dynamic profiles, with at least one post the same or the previous day (14 percent); active profiles, at least one post three to 15 days previously (18 percent); rather inactive profiles, with at least one post 16 to 30 days previously (20 percent); and totally inactive profiles, with no posts at all even if allowed (30 percent). Since users interacted with over half the profiles in the previous month, it can be concluded that most of the profiles are fairly active. However, viewed in comparison with the last time the social media profile was updated by the owner, it is evident that there is little interaction between owners and users.

Figure 11. Latest post in European food safety/promotion authority social media platforms (by owner or user).
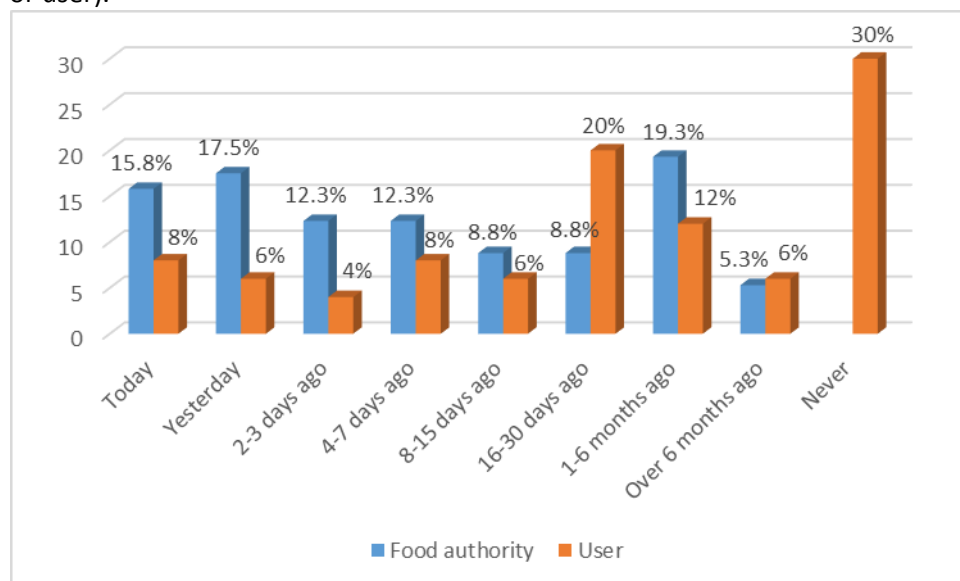
Source: Author.

As for replies to user posts — as the only logical basis for a conversation — under half (42.1 percent) of the food safety/promotion authorities replied to the comments, opinions and doubts of users. Significantly, 14 percent of organisations did not respond at all. Of the remaining 43.9 percent, it was not possible to determine whether or not they had replied, whether because users never posted anything, because the latest comments were posted over six months previously or because the platform technology did not allow tracking of the latest posts.

Fanpage Karma — an online analytical measuring tool popular with social media managers and communication agencies — indicated a low level of engagement and interaction for the Facebook profiles and low karma levels for the Facebook and Twitter profiles.[36]

Level of engagement for Facebook profiles was calculated as the average number of likes, comments and shares per day[37] divided by the number of subscribed users. The average for the profiles in the sample was 0.51 percent, implying 0.0051 interactions per liker. According to Eyl (2013), an engagement value of 1.2 percent or higher indicates a good performance by the community manager of the social media profile. On this basis, the level of engagement for the Lithuanian State Food and Veterinary Service account, the Romanian Veterinary and Food Safety Authority account and the UK Food Standards Agency account for Scotland, at 1.40 percent, 2 percent and 2.20 percent, respectively, was satisfactory.

Post interaction for Facebook, which indicates how well likers react to posts, was calculated as the average number of likes, comments and shares per liker. The average for the profiles in the sample was 1.68 percent. The food safety/promotion authority profiles that excelled were the UK Food Standards Agency account for Scotland (4.3 percent), AGES Produktwarnungen

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[36] www.fanpagekarma.com. Results regarding level of engagement, post interaction and karma for Facebook profiles are based on 20 rather than 21 profiles. The Welsh Facebook profile of the UK Food Standards Agency (Asiantaeth Safonau Bwyd), with registered 57 likers, was excluded because a profile must have a minimum of 100 registered likers for analysis purposes.

[37] The analysis covered the four weeks running from 23 April 2014 to 20 May 2014.

Österreich belonging to the Austrian Agency for Health and Food Safety (4.4 percent) and the Romanian Veterinary and Food Safety Authority (11 percent).

The karma level for Facebook and Twitter profiles weights the level of engagement value so as to make shares relatively more valuable than likes and comments — since sharing contributes to the dissemination of information. The average karma value for the profiles in the sample was 4.5, with above average performance by the UK Food Standards Agency (Food Hygiene Information Scheme, 6.7),[38] the Austrian Agency for Health and Food Safety (AGES Produktwarnungen Österreich, 6.9) and the French version of the Belgian Federal Agency of Food Chain Safety (7.1). Even though Facebook allows content to be disseminated via the "share" button, Twitter profiles tend to have higher karma levels because the "retweet" button and hashtags make it easier to pick up and follow trending topics. Therefore, karma levels were better for agencies with Twitter accounts, namely, the Dutch Food and Consumer Product Safety Authority (@Voedingscentrum, 10.3), the Food Safety Authority of Ireland (@FSAIinfo, 10.5), the Austrian Agency for Health and Food Safety (@agesnews, 11.1) and the UK Food Standards Agency (@foodgov, 22.1).

Table 9. Engagement, post interaction and karma of European food safety/promotion authority social media platforms.

	Facebook			Twitter
Rank	**Engagement**	**Post interaction**	**Karma**	**Karma**
1	Food Standards Agency – Scotland (UK) **2.2%**	Veterinary and Food Safety Authority (Romania) **11%**	AFSCA Agence Alimentaire (Belgium) **7.1**	@foodgov (UK) **22.1**
2	Veterinary and Food Safety Authority (Romania) **2%**	AGES Produktwarnungen Österreich (Austria) **4.4%**	AGES Produktwarnungen Österreich (Austria) **6.9**	@agesnews (Austria) **11.1**
3	State Food and Veterinary Service (Lithuania) **1.4%**	Food Standards Agency–Scotland (UK) **4.3%**	Food Hygiene Information Scheme (UK) **6.7**	@FSAIinfo (Ireland) **10.5**
4	AGES Produktwarnungen Österreich (Austria) **0.8%**	Food Hygiene Information Scheme (UK) **3.1%**	Veterinary and Food Safety Authority (Romania) **4.5**	@Voedingscentrum (Netherlands) **10.3**
5	Hoezo50Kilo (Netherlands) **0.7%**	Livsmedelsverket (Sweden) **2.9%**	Livsmedelsverket (Sweden) **4.1**	@Maltiden (Sweden) **8.6**

Fanage Karma measurements: www.fanpagekarma.com

Fanpage Karma cannot calculate levels of engagement or karma for YouTube profiles, although it can indicate the reach of uploaded videos. For the YouTube channels in the sample, each video was seen an average of 2,721.11 times (cf. the over 7 million views for the Cadbury advertising campaigns mentioned in Chapter 2.5.4). The most visited channels in the sample were those for the Spanish Consumption, Food Safety and Nutrition Agency (1.3 million views for 148 videos, or 8,784 views/video), followed at a distance by the UK Food Standards Agency (360,000 views for 76 videos, or 4,734 views/video) and the Italian National Institute of Health (281,000 views

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[38] Note that the Food Hygiene Information Scheme profile was terminated in July 2014.

for 142 videos or 1,979 views/video). Note that the Spanish and Italian YouTube channels focused not only on food safety/promotion issues, but also covered topics related to gender parity and family, non-food-related diseases, vaccination and addictions. Note also that the Swedish National Food Administration received 24,000 views for a mere 8 uploaded videos (3,000 views/video). On average, user reactions to YouTube channels were generally positive, with 238,560 likes compared to 32,440 dislikes. That said, user feedback was difficult to gauge as only an average of 58.78 comments were made per channel. In general terms, YouTube channels enable visualisation of content, but are not a useful platform for observing opinions, doubts and comments of users.

Overall, it can be concluded that the food safety/promotion bodies most concerned to engage with their users were the UK Food Standards Agency, the Austrian Agency for Health and Food Safety, the Romanian Veterinary and Food Safety Authority, the Dutch Food and Consumer Product Safety Authority and the Swedish National Food Administration.

4.2.9. Social media content and aims

The content of the last 20 posts published in each food safety/promotion authority social media profile were classified in five categories reflecting the aims of the communication:[39] introductory messages; information and education; food alarm and crisis prevention; campaign and other promotions; and strengthening relationships with consumers. Note that some messages reflected different categories and so were included in more than one category.

A. Introductory messages

In introductory messages to the online community food safety/promotion authorities described who they were, where they were, how they worked and what they normally did.

The online content analysis showed that 52.6 percent of social media profiles were set up to give general information on the latest news from the food authority. Included were public relations events of potential interest to publics. An example of this category was a post published on the Facebook profile of the Slovak Ministry of Agriculture, referring to a ministerial visit to manufacturers and including four pictures of the event:

> The minister visited Jahnátek manufacturers in Central and Eastern Slovakia (Ministerstvo pôdohospodárstva a rozvoja vidieka SR, Facebook profile, 17 March 2014).

A similar proportion of profiles (52.6 percent) were concerned to humanise the corresponding food organisations by introducing staff at work to the online community. An example was the Swedish National Food Administration post in its blog Måltidsbloggen, which showed photos of new employees and included a short message from each regarding their commitment and integrity. The title of the post was: "A message from our new employees" (Livsmedelsverket, Blogger profile, 12 February 2014).

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[39] All analysed posts were written in the local language, so, as appropriate, quotes have been translated.

Figure 12. Swedish National Food Administration Måltidsbloggen blog (screenshot): new employees introduce themselves to the online community.

Source: www.maltidsbloggen.blogspot.se

Another example of presenting employees and their work was a post in the UK Food Standards Agency Facebook account announcing that staff had given a talk to primary school pupils. Although this event could also be included in the category of general news, the vocabulary used in the post made the event seem very human; indeed, it seemed clear that the agency's goal was to showcase its activities:

> This afternoon two of our staff visited the Scottish Cooking Bus for the first time. Great to see the enthusiasm of the children from Riverbank Primary (Aberdeen) as they rustled up their spanakopita — a Greek savoury pastry filled with spinach and feta (Food Standards Agency in Scotland, Facebook profile, 23 April 2014).

Almost a fifth (19.2 percent) of the social media profiles gave online exposure to internal activities. Although this kind of post is mainly of interest to the food safety/promotion body and to the direct participants, it is a way of externally promoting the organisation. The Lithuanian State Food and Veterinary Service, for example, planted an oak to commemorate the tenth anniversary of Lithuania's accession to the EU, publishing some pictures of the event on its Facebook account and quoting the director of the agency, John Milius, in an address to employees:

> I wish to make our service as strong as the oak, for us to grow each year and consolidate our existence (Valstybinė maisto ir veterinarijos tarnyba, Facebook profile, 7 May 2014).

Other internal activities organised by employees were publicised for public relations purposes. The Northern Ireland division of the UK Food Standards Agency, for example, proposed a novel diet (£ for lbs challenge) for its employees during Easter: a pound would be donated to local charities for each pound weight lost by employees. At the end of the campaign, the agency posted a picture of participating employees and calculated the donation for charities:

> FSA in NI's [Nothern Ireland's] *£ for lbs challenge* has come to an end and the results are in… the group had a net weight loss of 124 lbs, 72 cm lost from our waists and a reduction of overall BMI by 22. During the challenge we raised £228 from weigh-ins and £78 from our Pancake day event, so overall we are making a donation to NI Chest, Heart and Stroke of £306! #NICHS #£4lbs (Food Standards Agency in Northern Ireland, Facebook profile, 2 May 2014).

A small percentage (15.7 percent) of the social media profiles included messages, maps and pictures that showed the location of the food safety/promotion authority. An even smaller proportion of the organisations (5.2 percent) used their social media profiles to promote job vacancies; for example, the Federal Agency of Food Chain Safety in Belgium announced a vacancy for a veterinary inspector on its Facebook and Twitter profiles (since the agency has four different social media platforms and the job was only published on those written in Dutch, it could filter candidates by language).

Only 3.5 percent of the profiles reminded users that food safety/promotion authorities were independent institutions working in the interest of the general public, and just 1.7 percent provided information on meetings and agreements with other key institutions.

Figure 13. European food safety/promotion authority introductory messages to social media users.
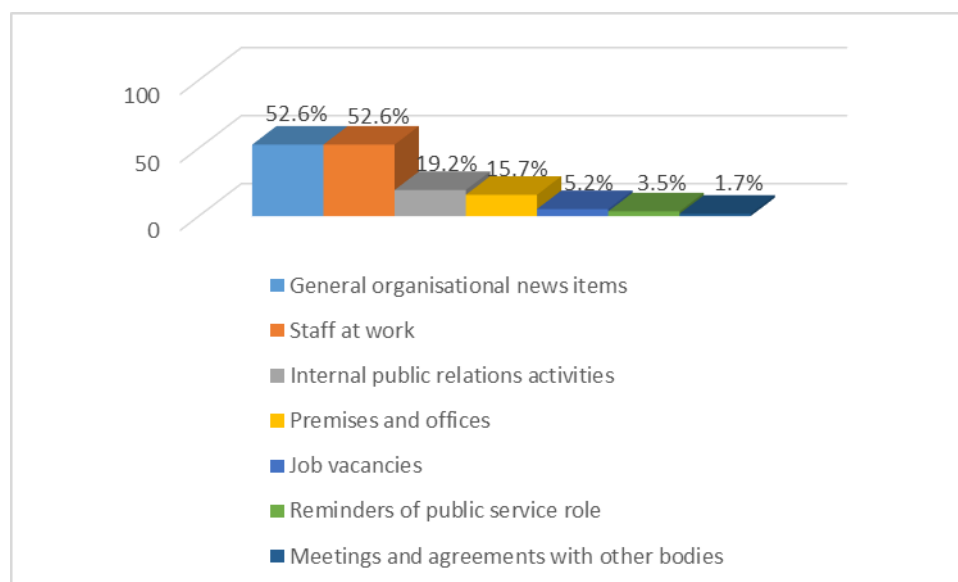
Source: Author.

B. Information and education

According to the EU's General Food Law (EC 2002), the main communication purpose of food safety/promotion authorities is to provide objective, reliable and easily understandable information on food. Therefore, social media profiles need to enable food authorities to connect with users and to inform them.

The online content analysis showed that just under half (42.1 percent) of the social media profiles were used to explain and clarify doubts about food hazards. One example was the Polish Chief Health Inspectorate, which posted videos in its YouTube channel that described the perils of mushroom poisoning and explained how to recognise edible mushrooms. Another was the Finnish Food Safety Authority, which used its Flickr profile to depict bacteriological hazards, such as the potato beetle, and make them recognisable for farmers. Yet another example was the

Swedish National Food Administration, which posted information about pesticide risks in its Twitter account, but due to the limited length of posts in this platform (Twitter only allows 140 characters per tweet), it included a link to a scientific report:

> Much about health and pesticides in fruit today. Organic fruit is good for the environment. All fruit is beneficial to health. http://bit.ly/QOWp7y" (@Livsmedelsverk, Twitter profile, 28 April 2014).

A significant proportion (36.8 percent) of the profiles linked to recent scientific research results, uploaded full interviews or cited scientific talks given by food safety/promotion body staff. This practice not only makes the results of research accessible to consumers but makes the organisation and its work more transparent. The Swedish National Food Administration used its Facebook page, for instance, to post the following message with a link to an extended report:

> The number of people who have been infected with listeria from food has increased during the winter. In about 27 cases it is suspected that there may be a common source of infection. The Food Administration and the Public Health Agency are working with the country's disease control units to find out how people have been infected and by what (Livsmedelsverket, Facebook profile, 26 February 2014).

Apart from posting scientific facts, many food organisations (29.8 percent) offered health advice, recipes and dietary tips to users. Examples were the Swedish National Food Administration post about vitamin D targeting pregnant women and the list of recipes for young students offered by the Dutch Food and Consumer Product Safety Authority:

> Now the days are getting longer, but you cannot yet get your vitamin D from the sun. So choose foods with vitamin D, such as skim milk, fish and eggs. http://bit.ly/ya3BNo (Kostråd för gravida och ammande, Facebook profile, 24 January 2014).

> Before and during the exams you have to be sharp. So here are some good food and drink tips for between learning and exams. These four recipes will give you extra power: http://www.voedingscentrum.nl/examen (Voedingscentrum, Facebook profile, 7 May 2014).

Figure 14. French Agency for Food, Environment and Occupational Health and Safety tweet (screenshot): advice on moderating caffeine intake.

Source: www.twitter.com/Anses_fr

Reminders about hygiene, whether as tweets, educational links to YouTube videos (e.g., about how to prevent cross-contamination) or albums uploaded to Pinterest, were issued by 26.3 percent of the analysed social media profiles, namely, the Austrian Agency for Health and Food Safety, the Belgian Federal Agency of Food Chain Safety, the Dutch Food and Consumer Product Safety Authority, the Finnish Food Safety Authority, the Romanian Veterinary and Food Safety Authority, the Swedish National Food Administration and the UK Food Standards Agency.

Figure 15. UK Food Standards Agency Pinterest album (screenshot): food hygiene and food safety issues.
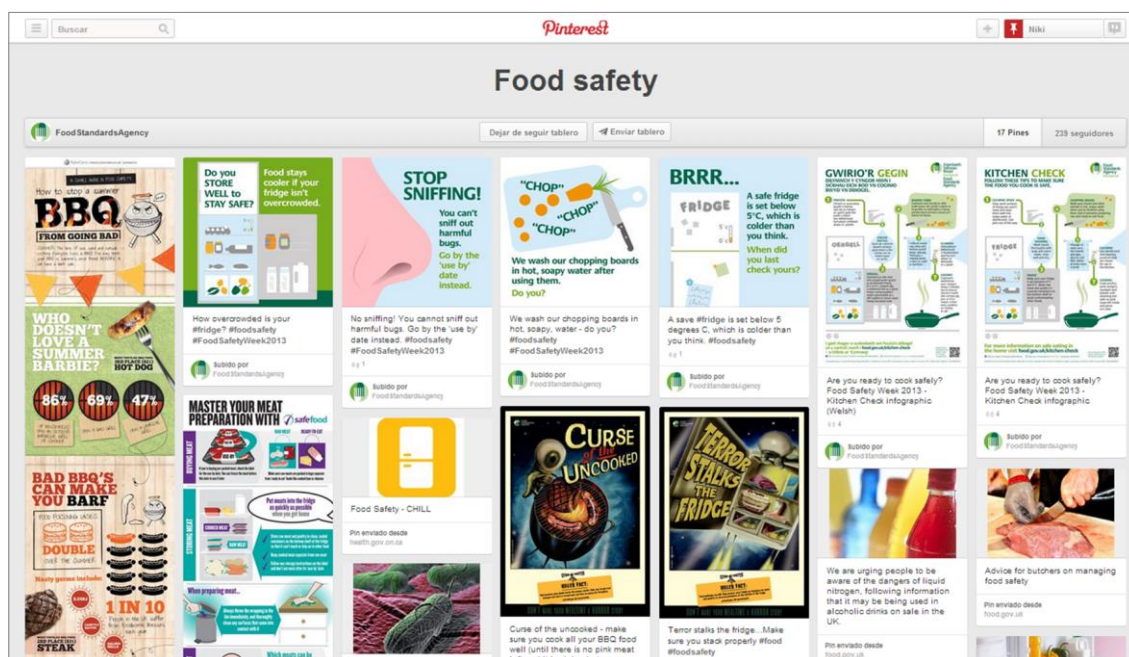
Source: www.pinterest.com/foodgov

Informing groups with special food needs was the communication aim of 22.8 percent of the social media profiles analysed. As previously stated, the Swedish National Food Administration Facebook account targeted at pregnant women, Kostråd för gravida och ammande, was the only profile that exclusively addressed a group with special needs. Far fewer social media profiles than websites (40 percent less) posted specific content for publics with special information needs.

Most messages addressed to people with food intolerances and allergies referred to the withdrawal of mislabelled food products, as exemplified by Food Safety Authority of Ireland post:

> Presence of Milk Protein in a Batch of Home Cook Wonderbar Dark Chocolate Flavour Cake Covering. Following a report of one case of an allergic reaction after eating Home Cook Wonderbar Dark Chocolate Flavour Cake Covering, the product was tested and milk protein was detected in the implicated batch. The affected person is known to be allergic to both milk and egg. Milk is not an ingredient in this product; however, it is manufactured on the same production line as chocolate products which contain milk ingredients. This may make this batch unsafe for consumers who are allergic to or intolerant of milk or its constituents. This batch is also being tested for the presence of egg, however egg is not used as an ingredient on this production line. Depending on the outcome of this test, this allergen alert will be updated, if necessary. Please click here for more info on this alert: http://bit.ly/1lN3uQB (Food Safety Authority of Ireland, Facebook profile, 10 April 2014).

The UK Food Standards Agency offered extra information that prioritised publics with food allergies and intolerances:

> At the FSA we do research to help improve the lives of people living with food allergies. Find out more: http://ow.ly/wptcQ (Food Standards Agency, Facebook profile, 4 May 2014).

The UK Food Standards Agency also posted messages to raise awareness among restaurant and canteen managers regarding allergies and intolerances:

> If you are a food business, it's very important to take food allergies seriously. You should also be getting prepared for the new regulation coming in December. You can find more info to help you get ready here: http://food.gov.uk/business-industry/guidancenotes/allergy-guide/ (Food Standards Agency, Facebook profile, 1 May 2014).

Continuing with the content analysis, 21 percent of the social media profiles provided information on the availability of brochures, charts and newsletters for download from their websites or other social media platforms. The Dutch Food and Consumer Product Safety Authority's Twitter account addressed to school canteens and other businesses offered posters and other display materials on healthy eating:

> Pay attention to healthy eating in class? Good idea! Use these teaching materials: http://bit.ly/1nCZs0L (@GezondeBrigade, Twitter account, 13 May 2014).

Note that one of the main objectives of platforms like Issuu, Flickr, Slideshare and Pinterest is to make downloadable and printable leaflets, posters, publications and presentations available to users.

Food safety/promotion profiles also occasionally provided information on the availability of specific applications for businesses. One example was the Irish Food Safety Authority's MenuCal,

designed to help restaurants calculate and display the calories in their menus; another was the UK Food Standards Agency's Food Hygiene Rating scheme, which scored hygiene for restaurants inspected by health inspectors. This application was announced in a chatty way in the Welsh Facebook profile of the UK Food Standards Agency:

> What are your plans for Easter weekend? Snack-break with friends? Or a four-course meal with the family? Wherever you choose, remember to check the food hygiene rating first! www.food.gov.uk/ratings — click on "Welsh" (Asiantaeth Safonau Bwyd, Facebook profile, 14 April 2014).

Figure 16. Finnish Food Safety Authority tweet (screenshot): encouraging consumers to use the authority's Evira search portal to verify organic claims for foodstuffs.
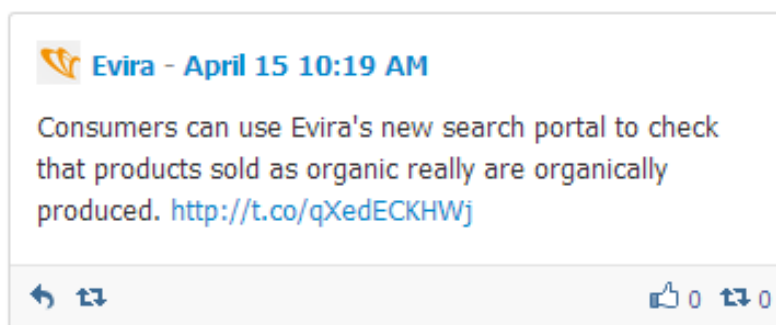
Source: www.twitter.com/evira_news

Food safety/promotion authorities also worked to increase public awareness of food safety and food hygiene (19.2 percent). The UK Food Standards Agency developed an excellent public relations campaign for this purpose, whereby restaurants and cafés with good hygiene ratings were awarded a distinctive certificate that they could display in their windows. It also organised the first *Eat Safe Awards* to encourage participation by takeaway businesses. The following message, announcing an award — ironically for a kind of cuisine that has traditionally been considered to be notoriously unhealthy — was posted once the competition finished:

> Congratulations to Camerons Chip Shop in Stornoway on achieving their Eat Safe Award! This is the first Eat Safe Award issued in the Western Isles Council area. More details on Eat Safe Awards can be found at http://www.eatsafe.gov.uk/ (Food Standards Agency in Scotland, Facebook profile, 16 April 2014).

Around a tenth (12.2 percent) of the social media profiles provided nutritional information. To cite an example, the Dutch Food and Consumer Product Safety Authority devoted a post on its Facebook profile to explaining the risks and benefits of food supplements:

> RIVM warns: "Dietary supplements can be harmful to health." And yet there are special groups that need them. Check this message to know more about them and if you need to take extra vitamins: http://www.voedingscentrum.nl/rivm-supplement (Voedingscentrum, Facebook profile, 14 May 2014).

Smaller numbers of social media profiles explained the perils and benefits of novel foods (5.2 percent), informed about new regulations (3.5 percent), provided information on food labelling (3.5 percent), corrected false information from the media and demystified facts about food, like the popular 5-second rule (1.7 percent).

Figure 17. European food safety/promotion authority informational and educational messages to social media users.
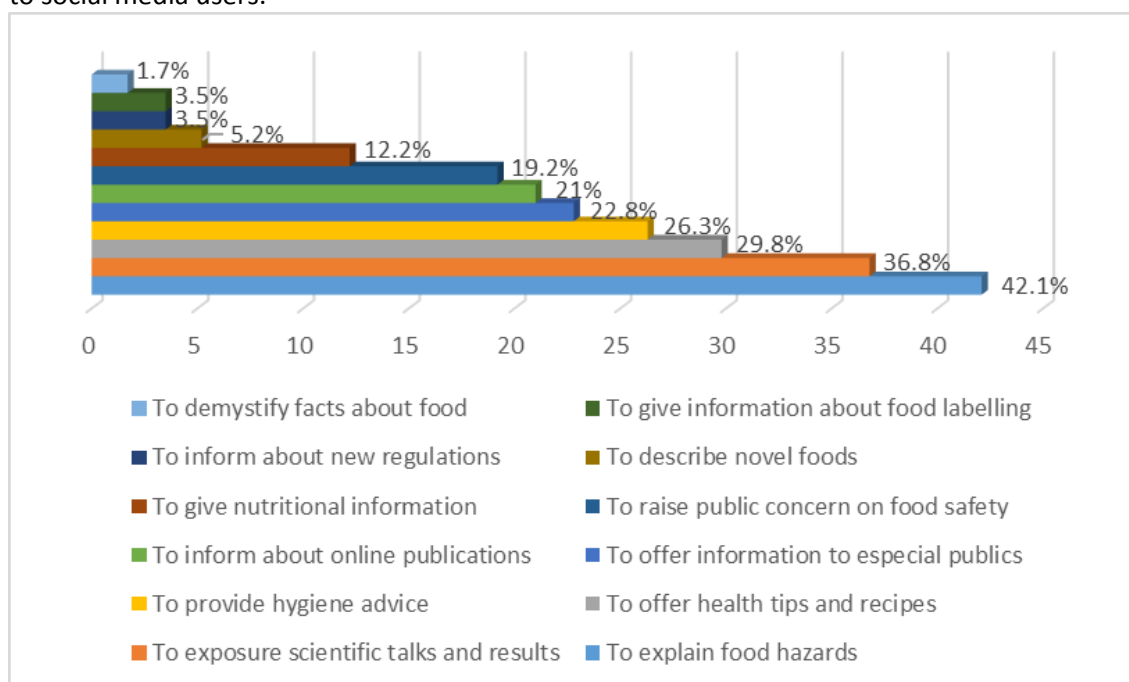
Source: Author.

C. Food alarm and crisis prevention

It is important to remember that food safety/promotion authorities were initially created to prevent and manage food crises and, as a secondary objective, to rebuild the trust of European citizens in their institutions. Therefore, communications aimed at preventing food alarms and crises would be expected to feature in the corresponding social media profiles.

Some agencies approached this task by educating consumers about food hazards and by raising public awareness of food safety and hygiene issues. Almost half the profiles studied (40.4 percent) informed users of food recalls and updated information on recalls. This was the main aim of the Austrian Agency for Health and Food Safety Facebook profile AGES Produktwanungen, which informed consumers about the latest recalls and the reasons for food being removed from retailer shelves. An example follows:

> Food - Warning: Listeria in cheese, company expands recall to other products from *Bioland Bio-Hofkäse*, *Unsere Heimat Hofkäse*, *Bergpracht Weichkäse mit Blauschimmel* and *Bergpracht Demeter Bio-Weichkäse mit Blauschimmel* (AGES Produktwanungen, Facebook profile, 1 April 2014).

Other food authorities also updated information about food recalls, for instance, the Swedish National Food Administration via its Facebook page for pregnant women:

> Green light for frozen strawberries again! At last the outbreak of hepatitis A is over and you no longer need to boil frozen strawberries from Morocco and Egypt, which were behind the outbreak. Good news for all smoothie lovers... http://bit.ly/1biuJO3 (Kostråd för gravida och ammande, Facebook profile, 5 December 2013).

Figure 18. UK Food Safety Agency tweets (screenshot): food recalls for olives and baby food.

Source: www.twitter.com/foodgov

This type of message seemed to be positively received by users as they were widely shared, liked and commented. An example of this positive reception was a message, from a user of the Facebook page of the Belgian Federal Agency of Food Chain Safety, responding to a food recall by an important supermarket:

> Thanks AFSCA for transmitting this crucial information when brands are abandoning their responsibilities! (Subscribed user of the Agence Alimentaire AFSCA, Facebook profile, 30 March 2014).

A small proportion of social media profiles offered updated information about food controls (7 percent). An example was the Swedish National Food Administration post about clams and oysters:

> Right now, do not eat clams and oysters that you picked yourself on the West Coast. They may contain algal toxins. But clams available in stores are ok to eat. http://bit.ly/1kFqE (Livsmedelsverket, Facebook profile, 8 April 2014).

A small proportion of food organisations (5.2 percent) issued advice aimed at preventing possible food crises. Examples were the messages published by the Finnish Food Safety Authority, the first addressed to tourists and the second to subsistence farmers:

> Do not bring back apple and pear seeds with you as a gift from a journey to Estonia http://t.co/ziuB3HI2px (@evira_nyheter, Twitter profile, 5 May 2014).

> Thinking of buying summer chickens? Check the memory list, what matters is what chickens may bring during summer and what you should take into account. http://bit.ly/1fiWYfC (Elintarviketurvallisuusvirasto Evira, Facebook profile, 22 April 2014).

Some few food safety/promotion authorities (5.2 percent), concerned about food security and food sustainability, issued advice to their subscribed users aimed at reducing the amount of food waste. Food waste is, in fact, the *raison d'être* of the Hoezo50kilo Facebook and Twitter platforms of the Dutch Food and Consumer Product Safety Authority, set up in response to a finding that Dutch consumers throw away 50 kilos of food on average each year. The platforms host videos, links and reports aimed at raising awareness of waste and also provides information on food regulatory changes aimed at reducing waste:

Good news! The first steps towards the abolition of the expiry date on pasta, rice and coffee are in place. According to Mr Corné, those products are fine to eat after the expiry date: "This is a quality date of the manufacturer, not a safety date. Basically it's like having a refrigerator, you do not throw it away once warranty has expired" (Hoezo50Kilo, Facebook profile, 12 May 2014).

Figure 19. European food safety/promotion authority food alarm prevention messages to social media users.
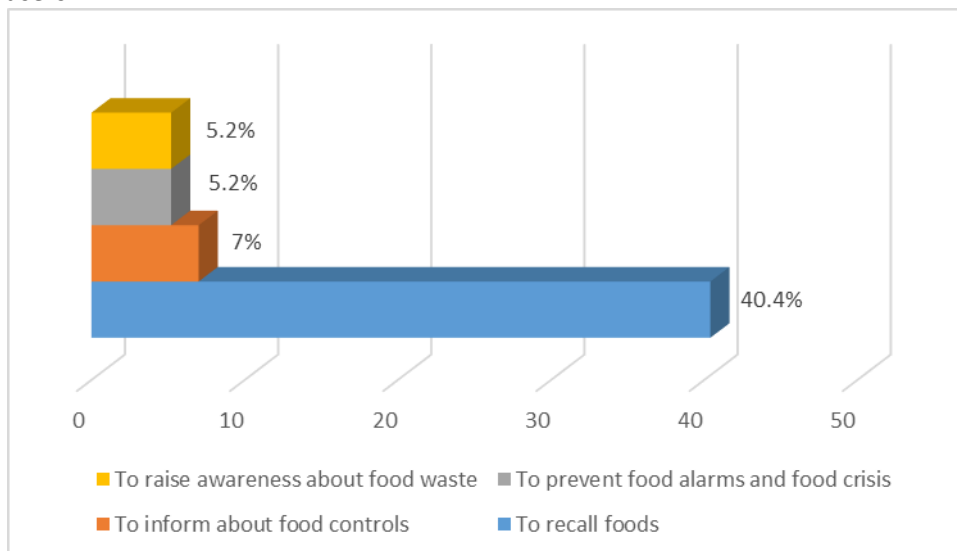
Source: Author.

D. Campaign and other promotions

Social media, compared to traditional media, can be an effective and inexpensive way to disseminate and promote publicity and public relations campaigns, given the high cost of media planning and the news priorities of journalists in traditional media. It was hardly surprising, therefore, to observe that nearly half (43.8 percent) the food safety/promotion bodies used their social media profiles to promote local or national food campaigns.

The Spanish Consumption, Food Safety and Nutrition Agency, in relation to its National Nutrition Day project, uploaded a short YouTube video with consumer quotes that explained why nutrition was important and described the significance of the National Nutrition Day and some of the actions that would commemorate the twelfth edition. The title and text were as follows:

National Nutrition Day 2013. The National Day of Nutrition, FESNAD and AESAN recommend *Eating Well for Better Ageing* (Ministeriosyps, YouTube profile, 28 May 2013).

Another example of national food campaigns were those supported by the UK Food Standards Agency via its Twitter account. One was a campaign to increase vegetable consumption (#VeggieWeek), developed by the Vegetarian Society of the UK, which launched a website with original and healthy vegetable-based recipes. The UK Food Standards Agency promoted the campaign via the following post:

It's National #VeggieWeek and @nvw2014's recipes look delicious! (@foodgov, Twitter profile, 20 May 2014).

The following month, the UK Food Standards Agency promoted a campaign of its own to increase food safety awareness among users, especially reminding users not to wash raw chicken. It was promoted as follows, with an invitation to both participate in, and disseminate, the campaign:

> It's food safety week next month! Please support our Thunderclap. Help us spread the word, not the germs! http://thndr.it/1jnO45o #FSW2014 (@foodgov, Twitter profile, 16 May 2014).

Although nearly half of the food safety/promotion bodies promoted local and national campaigns, only a quarter (24.5 percent) promoted international campaigns. To cite an example, the Swedish National Food Administration posted as follows:

> World Water Day takes place on Saturday 22 March. Livsmedelsverket would therefore like to draw attention to the challenges posed by climate change for us to have good drinking water in our taps (Livsmedelsverket, Facebook profile, 21 March 2014).

A small proportion of organisations (5.2 percent) used their social media platforms to promote their own publications, whether information leaflets or books, for instance, the Dutch Food and Consumer Product Safety Authority:

> In the book *Good food with less salt* you will learn how easy and tasty and varied is a diet with less salt. Less salty foods can contribute to lowering blood pressure (Voedingscentrum, Facebook profile, 15 May 2014).

Figure 20. European food safety/promotion authority messages aimed at promoting campaigns and publications/materials.
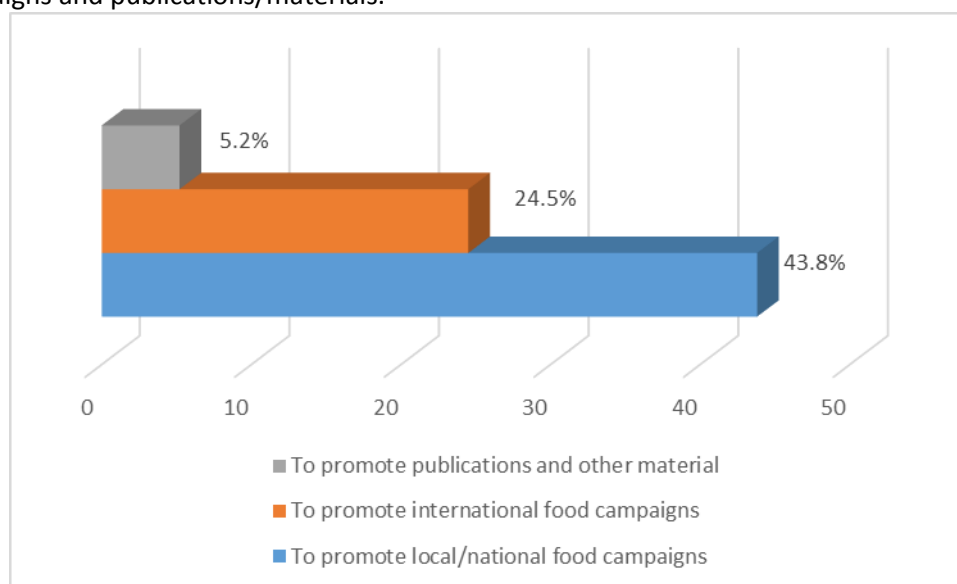
Source: Author.

E. Strengthening relationships with consumers

Social media platforms that allow and encourage users to express opinions, comments and doubts create an opportunity to know publics better — and this may even serve as the initial contact for a future face-to-face meeting. Over a quarter (28 percent) of the studied profiles encouraged user participation in seminars and workshops. As one example, the National Food Institute-Technical University of Denmark used its LinkedIn profile to encourage participation in an academic conference:

Come to INSPIRE conference on research-based innovation in the food industry and share the knowledge and results of your research on 30 October in Roskilde. Read more at: http://lnkd.in/bCpWqWk (DTU Fødevareinstituttet, LinkedIn profile, 1 September 2013).

Other food bodies promoted free seminars or conferences to businesses and consumers. The Food Safety Authority of Ireland promoted conferences addressed to food business start-ups on its social media platforms, for instance:

Are you thinking of starting a new food business or do you want to learn more about food safety legislation? We're hosting a free half-day seminar in Galway on 28th May where you'll hear about registering a new food business, food product development, food safety training requirements, setting up a food safety management system, labelling regulations, traceability, the food recall process, inspections and the information resources available from the Food Safety Authority. Click here to register: http://bit.ly/1jHJ3m6 (Food Safety Authority of Ireland, Facebook profile, 29 April 2014).

Nearly a quarter (22.8 percent) of the food safety/promotion authorities used social media platforms to recruit participants for surveys and studies — based on user participation online, by telephone or in person — covering topics ranging from food consumption habits, allergies, waste and storage.

Figure 21. Food Safety Authority of Ireland tweet (screenshot): recruiting participants for a survey on egg storage.

Source: www.facebook.com/FSAI

The use of social media platforms helps spread the word and recruit suitable people for studies. An example is how the Austrian Agency for Health and Food Safety recruited men from a specific region for their study on future foods:

Men from Linz are not interested in nutrition. We do not believe it. For the project, Future Foods, we are still looking for male participants in Linz. You can help shape the future of our food! May 8, 2014 - Workshop in Linz. Info and registration: http://www.ages.at/ages/futurefoods (AGES Agentur Gesundheit Ernährungssicherheit, Facebook profile, 25 April 2014).

Another advantage of using social media is that organisations can provide information in real time. This is how the Scottish division of the UK Food Safety Agency asked users to help with data collection for a salt-intake study by being available for interview:

Just a quick information update to anyone who receives a call in relation to a survey being run by the Food Standards Agency in Scotland (FSAS) in the near future. Natcen are currently running an important study investigating salt intake in Scotland on behalf of FSAS. If Natcen contact you by phone regarding this survey we would appreciate it if you would consider taking part (Food Standards Agency in Scotland, Facebook profile, 25 April 2014).

Finally, a small proportion of the social media profiles (1.7 percent) encouraged users to share pictures, videos, recipes and health tips. The main aim in asking for comments was to start a dialogue and directly connect with users, which, in turn, would help create an appropriate environment for building a community of healthy consumers. The implementation of both these objectives was exemplified by Hoezo50kilo, the Dutch Food and Consumer Product Safety Authority's Facebook page on food waste. What made this platform different from all the others analysed is that its community managers not only provided food waste statistics and reports, they also educated users by giving tips and recipes aimed at recycling leftover food and by encouraging users to report back and share their results. This open communication strategy helped Hoezo50kilo achieve over 3,200 fans in its first year — and undoubtedly has helped reduce food waste in the Netherlands.

Figure 22. Hoezo50kilo Facebook post (screenshot): encouraging users to share cooking experiences, in this case quiche made using stale bread. The link is to a demonstration video posted in YouTube.

Source: www.facebook.com/Hoezo50kilo

Hoezo50Kilo also has a Twitter account. Interestingly, however, of the last 20 tweets analysed for this account, none encouraged users to send in recipes or referred to followers as a community of healthy food users. The account focused more on posting its own recipes to discourage food waste.

Figure 23. European food safety/promotion authority messages aimed at strengthening relationships with consumers.
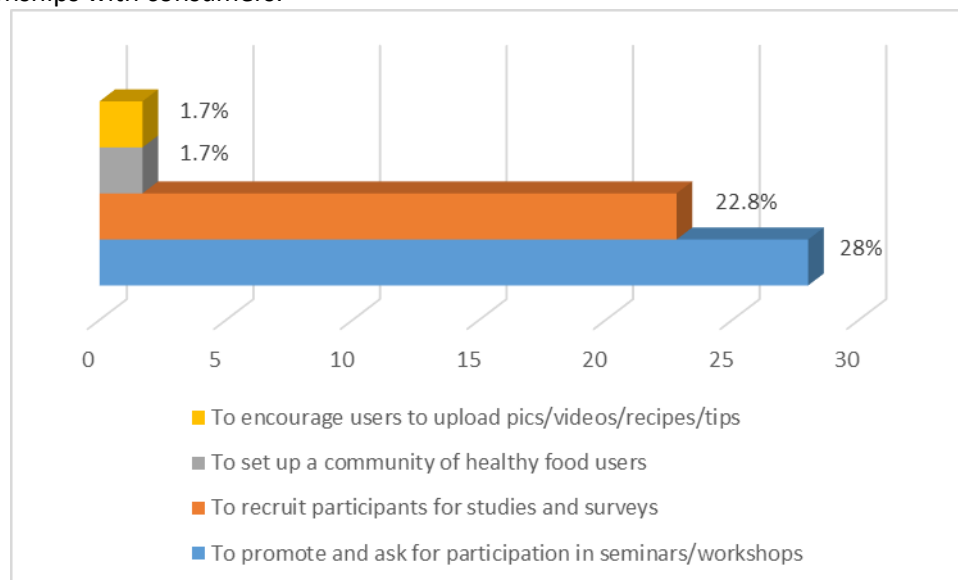
Source: Author.

To conclude this section, it was observed that the average number of aims reflected in the social media profiles was 5.65. The social media profiles that reflected most aims were the Facebook page of the Scottish division of the UK Food Standards Agency and the Twitter account of the UK Food Standards Agency.

Table 10. Most common aims reflected in European food safety/promotion authority social media profiles.

Aim	Percentage	Group of aims
To provide general organisational news	52.6%	Introductory messages
To show staff at work	52.6%	Introductory messages
To promote national food campaigns	43.8%	Campaign and other promotions
To explain food hazards	42.1%	Information and education
To recall foods	40.4%	Food alarm and crisis prevention
To draw attention to research	36.8%	Information and education

Source: Author.

Regarding number of aims per platform type, nearly half of the Facebook profiles (47.6 percent) and nearly a third of the Twitter profiles (29.4 percent) had eight or more aims. As for YouTube profiles, most (66.7 percent) reflected two or three aims. Other platforms cannot be commented on as regards aims as the subsamples were not representative.

4.2.10. Other content

Apart from the topics and aims of social media platforms discussed above, information other than food safety and food promotion information was also offered by over a third of profiles (35.1 percent). Of this different content, 34.9 percent was agricultural and veterinary, 22.2 percent was environmental and 14.3 percent was pharmacological. The explanation for this range of content was that some food safety/promotion authorities belonged to or were very closely associated with ministries of agriculture, fisheries, veterinary, forestry and health.

Other less common content appeared in the social media platforms, referring to non-comestible products like toys and furniture (6.3 percent), non-food-related diseases and vaccination (6.3 percent), exercise and lifestyle (3.2 percent), gender parity and family (3.2 percent), the economy (3.2 percent), addiction to tobacco, drugs and alcohol (1.6 percent), ecotourism (1.6 percent), innovation in food-related products (1.6 percent) and safety at work (1.6 percent). The explanation for these less frequent topics is that some food safety authorities are attached to consumption and employment bodies, e.g., the French Food, Environment and Occupational Health Safety Agency, the Portuguese Economy and Food Safety Authority and the Spanish Consumption, Food Safety and Nutrition Agency (recently incorporated in the Spanish Ministry of Health, Social Services and Equality).

4.2.11. Online content analysis: concluding remarks

Findings of the online content analysis demonstrate that the main goal for both the websites and social media platforms of the food safety/promotion bodies was to introduce themselves to the online community and highlight their authority. As for secondary goals, theses bodies tended to focus on negative aspects of food, such as food hazards, food hygiene and food crisis protocols.

In terms of interactivity, all the sampled websites offered an email or electronic form for users to contact them directly and almost all provided a telephone number. Few websites included low-level interaction applications such as widgets and rating tools or high-level interaction technologies like forums and public polls

Only two websites (6.67 percent) had embedded Web 2.0 platforms; most websites (56.7 percent) preferred to have profiles in external social media platforms. The most popular platforms were Facebook, Twitter and YouTube. A large proportion (35.3 percent) of agencies with external social media profiles were owners of just a single platform.

The social media profiles of the food safety/promotion authorities had relatively small communities, with just over half (52.4 percent) having under 100 registered subscribers and a mere 14 percent having over 2,000 registered subscribers. These figures would call into question the ability of these organisations to reach wide audiences.

As for engagement with users, half (50.9 percent) of the social media profiles enabled users to initiate conversations, although this proportion nearly doubled (to 96.5 percent) when it came to subscribed members being able to respond to posted topics. It can be inferred that the food safety/promotion authorities prefer to reserve the right to initiate and control discussions.

In terms of entering into dialogues with users, 42.1 percent of the studied food safety/promotion authorities openly replied to the comments of users in social media profiles. There was no way of knowing whether other posts had been responded to at all or had been

responded to privately using the one-to-one contact options available in Facebook and Twitter. However, agencies wishing to strengthen relationships with users should make an effort to increase the percentage of visible replies, given that this kind of openness reinforces transparency and trust.

The findings overall demonstrate that most European food safety/promotion authorities used social media platforms to introduce themselves and to provide information to users rather than to build and strengthen relationships. Only four of the 30 different aims detected in the content analysis reflected invitations to users to become actively involved (e.g., through workshops and surveys) or encouragement to users to upload pictures, videos, healthy recipes, etc.

Finally, around a third (35.1 percent) of the social media platforms also offered information other than on food safety and promotion, mainly in the agricultural, veterinary, environmental and pharmacological areas. The explanation is that the owners of such social media platforms perceived content in terms of organisational structures rather than in terms of targeted interests and thematic associations.

*Growing up, I learned life's important lessons at the
dinner table* – John Besh

*What I've enjoyed most, though, is meeting people
who have a real interest in food and sharing ideas
with them. Good food is a global thing and I find that
there is always something new and amazing to learn
- I love it!* – Jamie Oliver

5. CONCLUSIONS

The main duty of food safety/promotion authorities is to protect people's health. Consequently, one of their obligations is to communicate objective and reliable information to consumers. In non-crisis periods, communications should help build meaningful relationships with consumers that may assume special importance in crisis situations. Although food issues are potentially of interest to everyone, due to the human's intrinsic need for nourishment, the fact remains that food authorities have traditionally encountered difficulties in communicating with consumers (McCarthy and Brennan 2009; Cope et al. 2010; Smillie and Blissett 2010; Lofstedt et al. 2011). Food risk communication theories suggest that the lack of interest of traditional media is possibly to blame (Stuyck 1990; Wallack 1990; Houghton et al. 2008; McCarthy and Brennan 2009).

This lack of interest has acted as a spur to the inclusion of social media platforms as part of the communication strategies of food authorities (Barnett et al. 2011; Thackeray et al. 2012; Chapman et al. 2014). The interest in social media is further supported by the perception that they facilitate listening, dialogue, dissemination of information, participation and allow direct communication with consumers (Panagiotopoulos et al. 2013; Gaspar et al. 2014; McGloin and Eslami 2014; Regan, Raats et al. 2014). However, social media also potentially have their own barriers to communication. There is no guarantee of being able to reach targeted publics effectively, of being an opinion leader or of retaining control over the message; furthermore, time and resources need to be invested wisely and well in developing and effectively maintaining a social media presence (Freberg 2012; van Velsen et al. 2012; Lozano and Lores 2013; Rutsaert, Regan et al. 2013; Rutsaert et al. 2014).

5.1. Objectives, research questions and hypotheses revisited

To recap, the main objectives of the research documented in this thesis were two:

(1) To explore the opinions of European food safety/promotion authorities and other key food information experts regarding how social media platforms could help communicate food risks and benefits to consumers.

(2) To evaluate how social media platforms are currently being used by European food safety/promotion authorities and, in particular, to assess whether they are being used effectively to disseminate information, enhance consumer participation and build relationships.

These objectives were reflected in two research questions, each of which, in turn, gave rise to a number of hypotheses.

5.1.1. Research question 1

How do European food safety/promotion authorities and other key food information experts perceive social media as a tool to communicate their scientific discourses to consumers?

H1a. *Social media are perceived as a digital space in which to post discourses rather than interact with consumers.*

The findings of the inductive thematic analysis broadly confirm hypothesis H1a. Interviewees had arguments for and against using social media (Figure 3). Discourses in favour understand social media to be digital platforms frequented by vast numbers of individuals, with food authorities feeling that they must keep abreast of the latest trends in communication channels in order to connect with consumers, most especially with younger population segments. There is also a perceived real need for evidence-based scientific input from public authorities to counteract the — often misleading — health claims (from the private sector) and misinformation circulating in the social media. Social media are perceived to be not just a passing fad, but as greatly facilitating information seeking and communications with peers and with organisations. Speed and reach are key strengths of the social media, making them ideal platforms for informing consumers about food risks in real time. Arguments against are that social media (especially social networks) are appropriate only for personal use and entertainment and that adopting social media implies organisational changes for which institutions are not ready. Nonetheless, the inclusion of social media as part of their communication strategies is seen as an opportunity that needs to be taken full advantage of by food safety/promotion authorities. The perceived advantages of social media (Figure 4) overall are more focused on information dissemination than on participation and relationship building because, from a qualitative point of view, communication strategies are considered in terms of a top-down framework. Surprisingly, the reason behind information dissemination as a strategy is grounded in a widely held assumption that behaviour change would come from informed citizens, and the reason for a presence in social media is the duty to protect the health of consumers.

H1b. *Social media are considered to be a definitive "communication solution", yet drawbacks are underestimated, mainly the need to make a committed investment in trained professionals, time and financial resources.*

Hypothesis H1b is rejected, as perceived drawbacks of social media (Figure 5) contemplate discourses regarding the professionalism of communication departments. European food information experts recognise that being an authority does not imply being an opinion leader so ways need to be found to adapt scientific discourses for social media publics and to extend the shelf life of messages. Social media platforms also require updating on a frequent basis and responsiveness to the queries and doubts of users, a problem that is further aggravated by the need to deal with different kinds of publics using different platforms. Social media strategies, in addition, cannot be assumed to replace offline strategies but need to form part of overall communication strategies. Overcoming all these problems ultimately requires an investment in staff specially trained in digital communications. There is a recognised danger that the cost of the investment in staff, resources and time will be underestimated. As a consequence, European food information experts perceive the social media to be an uncertain opportunity whose limitations need to be thoroughly studied before implementation.

H1c. Fear of losing control over the message is a key threat in the implementation of social media strategies.

Hypothesis H1c is rejected, as concerns about how to deal with out-of-control messages (Figure 5) are more grounded in the inability to ensure that scientifically accurate content is heard above the noise in digital channels rather than in the threat of receiving negative feedback that might undermine legitimacy and trust in the authority. Given their mission of protecting consumers' health, food safety/promotion authorities have a key role in safeguarding content regarding food and so are concerned to monitor and correct distorted messages. Yet it is recognised that misinformation and extreme views are part and parcel of social media and that it may be difficult for the scientifically accurate voice to emerge above the noise in this crowded medium. Consumers, in fact, often seek simple key messages, yet contradictory information circulating in the social media may lead them to revert to the traditional media. Hence, having a strong social media presence and posting simple and reliable messages is an opportunity to become a trusted and up-to-date source for both users and traditional media. Being present in the social media also implies dealing with negativity and with inaccurate messages inside and outside the platforms. Nonetheless, allowing users to express negative opinions rather than ignoring such messages represents an opportunity to correct inaccurate information.

5.1.2. Research question 2

How are official European food safety/promotion authorities using social media platforms to communicate with consumers and strengthen relationships with them?

H2a. A minority of European food safety/ promotion authorities are using social media platforms.

Hypothesis H2a is rejected, as nearly two thirds of the food safety/promotion authorities have social media profiles, whether in social networks, microblogging or blogging sites, photo-, video- or document-sharing platforms or pin album-sharing platforms (Figure 8). Nonetheless, only the Greek and the Slovak Republic food safety/promotion authority have social media tools embedded in their websites where users can freely and visibly express opinions and comments. Furthermore, European food safety/promotion authorities are tending to be tardy in adopting social media: most own just one social media platform, most platforms have fewer than 100 subscribers and only four social media platforms have more than 5,000 subscribers. All this would indicate that despite their presence in the social media, their impact is very poor in terms of outreach to online audiences.

H2b. Most European food safety/promotion authority social media platforms disseminate official information from a top-down perspective.

Hypothesis H2b is accepted because food safety/ promotion authorities tend to propose dialogues to their social media users but are less open to receiving topic suggestions from creative audiences: although nearly all of the profiles allow users to reply to the proposed topic, only around half allow users to initiate conversations of their own. Users are thus perceived as passive audiences, which is likely to affect levels of engagement. Further evidence of the top-down perspective is that over half of the social media platforms do not openly reply to the comments and queries of users, meaning that many users experience a disappointing silence as the only response to their query. When interactivity with and among subscribers is not fostered, levels of engagement are negatively affected. Several food safety/promotion authorities are exemplary, nonetheless, in terms of engagement with users through several platforms, namely,

the Austrian Agency for Health and Food Safety, the Dutch Food and Consumer Product Safety Authority, the Romanian Veterinary and Food Safety Authority, the Swedish National Food Administration and the UK Food Standards Agency (Table 9).

Message aims as a reflection of the purpose of the social media platforms further underline this greater concern with disseminating information than with strengthening relationships with users, as evidenced by the fact that only four of 30 different aims focused on encouraging participation in workshops or seminars or on uploading materials or comments.

Good food ends with good talk – Geoffrey Neighor

Most of my recipes start life in the domestic kitchen, and even those that start out in the restaurant kitchen have to go through the domestic kitchen – Yotam Ottolenghi

You have to know the classics if you want to cook modern food – Tom Colicchio

5.2. Three concluding observations

5.2.1. Why information over participation?

There were insufficient data to determine precisely why food safety/promotion authorities prefer to disseminate information rather than enhance participation in their social media platforms. Three possibilities emerge, however. First, the reason may be financial, in that social media may be viewed as a cost-effective alternative to traditional ways of publicising and disseminating communications. Second, community managers may lack digital experience and so issue the kind of top-down messages they typically issue through the traditional media. Finally, there may be resistance to a loss of message control, with social media perceived as digital platforms for informing and disseminating discourses, not for engaging with consumers. This last possibility is inferred from instructions to that effect contained in the leaflet *When food is cooking up a storm,* published by the EFSA (2012), of which the national food safety/promotion authorities are analogue bodies.

Irrespective of the reasons, food safety/promotion authorities are missing out on the opportunity to enhance their visibility to consumers by monitoring their interests, listening and dialoguing with them and negotiating food meanings. This should be the main reason for establishing a social media profile — otherwise, why not simply use   websites, which would result less costly and less onerous?

5.2.2. What awareness of a third culture?

There is a dearth of studies regarding online public relations as used to communicate food risks and benefits, which the research documented in this thesis has endeavoured to address from a critical public relations perspective. This thesis has explored food information experts' perceptions of social media and how they are used — together with other long-established communication channels — by food safety/promotion authorities as a creative platform to disseminate their messages to consumers, especially during food crisis situations. Food bodies have the opportunity to connect more closely and genuinely with their publics than ever before, yet they need to be more aware of how to use their symbolic power to negotiate food meanings with their intended audiences. Only by understanding that social media are not platforms for disseminating one-way messages and controlling audiences, but platforms where discourses are received, reinterpreted, shared and changed by and among users, can food safety/promotion authorities build and benefit from honest and lasting relationships with consumers. As documented in this thesis, although most European food safety/promotion authorities have implemented social media profiles, these lack appropriate communicative structures and cultures that favour the sharing of food meanings.

Social media have made real the concept of a "third culture" referred to by Brockman (1996 cited in Kelly 1998), i.e., the possibilities offered by networked technology to enable open discussion of science between experts and consumers, leading to a reduction in the complexity of science in favour of divulgation to non-specialised audiences. Food bodies, in particular, need to be more open to translating their scientific discourses into media logic (Altheide 2004); in other words, institutional discourses need to be expressed in evocative and encapsulated forms that are familiar to and understandable by lay audiences. Food safety/promotion authorities need to understand that social media platforms were created for interaction between people (including consumers), so content that is not appealing is likely to be ignored, especially given the vast amounts of competing information available online. It is therefore crucial that European food safety/promotion authorities employ suitably qualified journalists and public relations practitioners in their communications departments — to adapt scientific discourses to media logic and to act as cultural intermediaries (Bourdieu 1984) between the authority and the media and consumers.

5.2.3. Identity problems?

The low numbers of subscribers to food safety/promotion authority social media platforms not only reflect a low level of interest in content but also little cognisance of the existence of these authorities. This is an historical problem, far older than many of the social media platforms themselves. Food safety/promotion authorities need to create strong identities that position them as first ports of call when it comes to food safety/promotion issues. To date, efforts have focused on disseminating food benefits and risks — but discourses also need to reflect and transmit the independence, transparency, scientific standards and public interests defended by these organisations. In other words, food safety/promotion authorities need to become landmark food information bodies.

Food safety/promotion authorities need to work on developing media relations using strategies that go further than issuing press releases or holding press conferences. Rather, they need to develop a strongly networked community of traditional and digital journalists by offering real life actions such as media conferences regarding, for instance, the latest food technology research, results of in-house scientific projects and of promotional campaigns, workshops on how to transmit scientific data to consumers, etc. Such encounters could be recorded and uploaded to the authority's YouTube channel to inform interested consumers and other experts. Also, given the lack of attention paid by food bodies to special food information needs, authorities need to improve relationships with other interested publics such as associations of consumers affected by food-related disorders and allergies.

Finally, even though most food information experts acknowledge their limited budget for advertising, it is undoubtedly necessary to raise consumer awareness of food safety/promotion authorities as trusted experts and scientific authorities; this could most effectively be done by running sporadic online and offline advertising campaigns.

The following sections will present the limitations of this study and will give some ideas for future research.

Of course I made many boo-boos. At first this broke my heart, but then I came to understand that learning how to fix one's mistakes, or live with them, was an important part of becoming a cook – Julia Child

5.3. Study limitations

This research has both chronological and linguistic limitations.

The first limitation is that the data for the two methodological techniques were collected and analysed at different times: interviews were carried out between December 2010 and April 2011 (within the framework of the FoodRisC project) and online website and social media platform content was analysed almost three years later in May 2014. In a research field where technology evolves as fast as social media, this time lag potentially affects the triangulation of results.

Nonetheless, this fact should not detract from the credibility of the study, as the two periods represent interesting snapshots of two moments in time. The interviews with food information experts represented a declaration of principles regarding social media and possible intentions to adopt them, at a moment when (2011) most interviewees were becoming aware of the potential and promise of social media. As for the online content analysis of the full range of European food safety/promotion authority websites and social media platforms in existence by early 2014, this pointed to a level of maturity and of engagement with lay consumers that reveal that most authorities still have not fully grasped the potential of these platforms nor have they fully integrated them into their communication strategies.

It would be interesting to replicate the interviews with food information experts in order to compare and contrast their perspectives on social media in 2011 with their perspectives now (January 2015), i.e., to uncover perceptions regarding new opportunities and challenges that have arisen since the initial interviews and to determine what communication objectives have been accomplished after several years' experience with social media strategies.

The second limitation was accessibility to the raw data transcripts — in Flemish and Dutch — of food information expert interviews and to website and social media platform content. For the interviews this problem was overcome by consulting transcripts provided as part of deliverable D1.5 of the FoodRisC project and obtaining an explanation of context and a translation to English of quotes. As for website and social media platform content in languages not known by the author, online automatic translators and dictionaries were used in order to categorise messages and posts.

Recipes are important but only to a point. What's more important than recipes is how we think about food, and a good cookbook should open up a new way of doing just that – Michael Symon

After all these years of cooking and writing recipes, I am still amazed every time I notice how even the minutest of variation in technique can make a spectacular difference – Yotam Ottolenghi

5.4. Future research

Although this thesis has considered creative audiences in the context of the communicative strategies of European food safety/promotion authorities, it has not directly studied the perspectives and use of social media by these audiences, in particular, their food information seeking behaviours. Interviews and focus group discussions with consumers of different ages and sexes, from different regions, with different digital literacy levels, with specific food information needs, etc, would be informative in terms of better understanding consumer perceptions and use of social media. It would especially be useful to learn if consumers were aware of the social media platforms of the food authorities and to experiment with posts and messages in order to assess content relevance and consumer levels of engagement. It would also be useful to collect consumer opinions about food authorities, assess levels of awareness of their powers and functions and identify key sources of information about food risks and benefits.

Highlighted in this thesis was the particular usefulness of social media in crisis situations and also the fact that traditional media are more likely than consumers to be aware of and follow the social media platforms of European food authorities. Further research could therefore focus on the influence of traditional media during food crisis situations and how the discourses of authorities, consumers and journalists are transmitted, changed and reinterpreted by the different actors involved in the communication cycle.

6. REFERENCES

Abbots, E.J. and Coles, B. 2013. Horsemeat-gate. Discursive production of a neoliberal food scandal. *Food, culture and society.* 16 (4), pp. 535-550.

Agostino, D. 2013. Using social media to engage citizens: A study of Italian municipalities. *Public Relations Review*. 39 (3), pp. 232-234.

Allué, T. 2013. Food sector communication and online influencers. *Catalan Journal of Communication & Cultural Studies*. 5 (2), pp. 311-314.

Altheide, D. 2004. Media logic and political communication. *Political Communication.* 21(3), pp. 293-296.

Arkin, E.B. 1990. Opportunities for improving the nation's health through collaboration with the mass media. *Public Health Report.* 105 (3), pp. 219-223.

Atkin, C. and Arkin E. B. 1990. Issues and Initiatives in Communicating Health Information to the Public. In: Atkin, C. and Wallack, L. (ed.) *Mass communication and public health: complexities and conflicts.* Newbury Park: Sage Publications, pp. 13-40.

Auger, G. A. 2013. Fostering democracy through social media: Evaluating diametrically opposed nonprofit advocacy organizations' use of Facebook, Twitter, and YouTube. *Public Relations Review*. 39 (4), pp. 369-376.

Bardhan, N. 2010. Culture, communication and third culture building in public relations within global flux. In: Bardhan, N. and Weaver, C.K. (eds.) *Public Relations in Global Cultural Contexts: Multi-Paradigmatic Perspectives.* New York: Routledge, pp. 225-248.

Barnett, J., McConnon, A., Kennedy, J., Raats, M., Shepherd, R., Verbeke, W., Fletcher, J., Kuttschreuter, M., Lima, L., Wills, J. and Wall, P. 2011. Development of strategies for effective communication of food risks and benefits across Europe: Design and conceptual framework of the FoodRisC project. *BioMed Central Public Health*. 11: 308, pp. 1-9.

Baudrillard, J. 1998. *The consumer society: Myths and structures*. London: Sage.

Beal, A. and Strauss, J. 2008. *Radically transparent. Monitoring and managing reputations on line.* United States: Wiley Publishing.

Bentele, G. and Wehmeier, S. 2007. Applying sociology to public relations: A commentary. *Public Relations Review*. 33 (3), pp. 294-300.

Bercovici, J. 2014. Still More Data Shows Pinterest Passing Twitter In Popularity. *Forbes.* 24 June. Available at: www.forbes.com/sites/jeffbercovici/2014/06/24/still-more-data-shows-pinterest-passing-twitter-in-popularity/
Accessed: 1 August 2014.

Berthon, P.R.; Pitt, J.F.; Plangger, K. and Shapiro, D. 2012. Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy. *Business Horizons.* 55 (3), pp. 261-271.

Botan, C.H. and Hazleton, V. 2006. Public relations in a new age. In: Botan, C.H. and Hazleton, V. (eds.) *Public Relations Theory II.* Mahwah: Lawrence Erlbaum Associates, pp. 1-18.

Bourdieu, P. 1984. *Distinction: A social critique of the judgement of taste*. London: Routledge & Kegan Paul.

Breakenridge, D. 2008. *PR 2.0. New Media, New Tools, New Audiences*. Upper Saddler River: FT Press.

Briones, R.L.; Kuch, B.; Liu, B.F. and Jin, Y. 2011. Keeping up with the digital age: How the American Red Cross uses social media to build relationships. *Public Relations Review*. 37 (1), pp. 336-341.

Broom, G.M. and Dozier, D.M. 1990 *Using research in public relations. Applications to program management*. New Jersey: Prentice Hall.

Brown, R.E. 2006. Myth of symmetry: Public relations as cultural styles. *Public Relations Review*. 32 (3), pp. 206-212.

Brown, R. 2009. *Public relations and the social web: How to use social media and web 2.0 in communications.* London: Kogan Page.

Burns, R. 2000. *Introduction to research methods.* 4th ed. London: Sage Publications.

Carey, J. 2009. *Communication as culture: essays on media and society*. 4th ed. New York: Routledge.

Carslaw, N. 2008. Communicating risks linked to food – the media's role. *Trends in Food Science & Technology.* 19 (Supplement 1), pp. S14-S17.

Castells, M. 2001. *The Internet galaxy: Reflections on the Internet, business, and society.* Oxford: Oxford University Press.

Chapman, B.; Raymond, B. and Powell, D. 2014. Potential of social media as a tool to combat foodborne illness. *Perspectives in Public Health.* 134 (4), pp. 225-230.

Coombs, W.T. and Holladay, S.J. 2012. Fringe public relations: How activism moves critical PR toward the mainstream. *Public Relations Review.* 38 (5), pp. 880-887.

Cope, S.; Frewer, L.J.; Houghton, J.; Rowe, G.; Fischer, A.R.H. and de Jonge, J. 2010. Consumer perceptions of best practice in food risk communication and management: Implications for risk analysis policy. *Food Policy*. 35 (4), pp. 349-357.

CORDIS. 2012. FoodRisC Report Summary. *Publications Office of the European Union*.
Available at: http://cordis.europa.eu/result/rcn/54048_en.html
Accessed: 26 January 2015.

Cronin, J.M. and McCarthy, M.B., 2011. Fast food and fast games: an ethnographic exploration of food consumption complexity among the videogames subculture. *British Food Journal.* 113 (6), pp. 720-743.

Curtin, P. and Gaither, T.K. 2007. *International public relations: negotiating culture, identity, and power.* London: SAGE Publications.

Cutlip, S.; Center, A.; Broom, G. 2006. *Effective public relations*. 9th ed. Englewood Cliffs: Pearson Education Inc., pp. 87-117.

Davies, M.M. and Mosdell, N. 2006. *Practical research methods for media and cultural studies. Making People Count.* Edinburgh: Edinburgh University.

Deacon, D.; Pickering, M.; Golding, P. and Murdock, G. 1999. *Researching Communications: a Practical Guide to Methods in Media and Cultural Analysis.* London: Arnold.

Demetrious, K. 2011. Bubble wrap: Social media, public relations, culture and society. In: Edwards, L. and Hodges, C. (eds.) *Public relations, society and culture: theoretical and empirical explorations*. Abingdon: Routledge, pp. 118-132.

DiStaso, M.W.; McCorkindale, T. and Wright, D.K. 2011. How public relations executives perceive and measure the impact of social media in their organizations. *Public Relations Review.* 37 (3), pp. 37-43.

Dozier, D.M. and Broom, G.M. 1995. Evolution of the manager role of public relations practice, *Journal of Public Relations Research*. 7 (1), pp. 3-26.

du Gay, P.; Hall, S.; Janes, L.; Mackay, H. and Negus, K. 1997. *Doing cultural studies. The story of the Sony Walkman*. London: Sage Publications.

Edwards, L. 2006. Rethinking power in public relations. *Public Relations Review*. 32 (3), pp. 229-231.

Edwards, L. 2012. Defining the 'object' of public relations research: A new starting point. *Public Relations Inquiry.* 1 (1), pp. 7-30.

Edwards, L. and Hodges, C. 2011. Introduction: Implications of a (radical) socio-cultural 'turn' in public relations scholarship. In: Edwards, L. and Hodges, C. (eds.) *Public relations, society and culture: theoretical and empirical explorations*. Abingdon: Routledge, pp. 1-14.

Edwards, L. and Hodges, C. (eds.) 2011b. *Public relations, society and culture: theoretical and empirical explorations*. Abingdon: Routledge.

European Food Safety Authority. 2012. *When food is cooking up a storm. Proven recipes for risk communications.* Parma: EFSA.
Available at: www.efsa.europa.eu/en/corporate/doc/riskcommguidelines.pdf
Accessed: 1 March 2014.

European Food Safety Authority. 2013. *Horsemeat in the EU food chain.* 11 February.
Available at: www.efsa.europa.eu/en/press/news/130211.htm
Accessed: 14 December 2014.

European Commission. 2000. *White Paper on food safety.*
Available at: http://europa.eu/legislation_summaries/other/l32041_en.htm
Accessed: 13 December 2013.

European Commission. 2002. Regulation (EC) No. 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety. Official Journal of the European Communities L31, pp. 1-24.

European Commission. 2007. *50 years of Food Safety in the European Union*. Luxembourg: Office for Official Publications of the European Communities. Available at: http://ec.europa.eu/food/food/docs/50years_foodsafety_en.pdf
Accessed: 14 February 2014.

European Commission. 2012. *Standard Eurobarometer 78. Media use in the European Union*. Brussels: European Commission.
Available at: http://ec.europa.eu/public_opinion/archives/eb/eb78/eb78_media_en.pdf
Accessed: 15 November 2014.

European Commission. 2014. *Europeans becoming enthusiastic users of online health information*. Digital agenda for Europe. 28 November.
Available at: http://ec.europa.eu/digital-agenda/en/news/europeans-becoming-enthusiastic-users-online-health-information
Accessed: 13 December 2014.

Eyl, S. 2013. Study on Facebook Engagement and Interaction Rates. *Fanpage karma Blog*. 13 February. Available at:
http://blog.fanpagekarma.com/2013/02/13/facebook-engagement-interaction-rates/
Accessed: 18 August 2014.

Farré, J. and Barnett, J. 2013. Food for health communication: Food for thought at the level of EU. *Catalan Journal of Communication & Cultural Studies*. 5 (2), pp. 149–161.

Farré, J. and Gonzalo, J.L. 2011. *Teoría de la comunicación de riesgo.* Barcelona: Editorial UOC.

Farré, J.; Gonzalo, J.L.; Lores, M.; Lozano, N. and Prades, J. 2012. Comunicación de riesgos y seguridad alimentaria en la era 2.0. *El profesional de la información*. 21(4), pp. 381-384.

Farré, J.; Prades, J. and Gonzalo, J.L. 2013. The mediatization of the food chain in networked times. *Catalan Journal of Communication & Cultural Studies*. 5 (2), pp. 163-182.

Fereday, J. and Muir-Cochrane, E. 2006. Demonstrating rigor using thematic analysis: a hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*. 5 (1), pp. 80-92.

Ferry, J.F. 2003. *Food in film. A culinary performance of communication.* New York: Routledge.

Fischer, E. and Reuber, R. A. 2011. Social interaction via new social media: (How) can interactions on Twitter affect effectual thinking and behavior? *Journal of Business Venturing*. 26 (1), pp. 1–18.

FoodRisC. 2011. *FoodRisC project deliverable 1.5: Report on characterisation of risk/benefit configurations in the food chain, their communication implications and the channels/tools used for communication*. European Commission. 7th Framework Program, Brussels.

Fournier, S. and Avery, J. 2011. The uninvited brand. *Business Horizons.* 54 (3), pp. 193-207.

Freberg, K. 2012. Intention to comply with crisis messages communicated via social media. *Public Relations Review*. 38 (3), pp. 416-421.

Freeman, B. and Chapman, S. 2008. Gone viral? Heard the buzz? A guide for public health practitioners and researchers on how Web 2.0 can subvert advertising restrictions and spread health information. *Journal of Epidemiology and Community Health.* 62 (9), pp. 778-782.

Frewer, L. J.; Howard, J.C.; Hedderley,D. and Shepherd, R. 1996. What determines trust in information about food-related risks? Underlying psychological constructs *Risk Analysis.* 16 (4), pp. 473-486.

Friel, M. and Wills, J.M. 2014. Traditional and social media in food risk communication. *Agro FOOD Industry Hi-Tech.* 25 (5), pp. 57-60.

Funk, T. 2011. *Social media playbook for business: reaching your online community with Twitter, Facebook, LinkedIn, and more.* Santa Barbara: Praeger.

Ewen, S. 1996. *PR! A Social history of spin.* New York: Basic Books.

Gaspar, R.; Gorjão, S.; Seibt, B.; Lima, L.; Barnett, J.; Moss, A. and Wills, J. 2014. Tweeting during food crises: A psychosocial analysis of threat coping expressions in Spain, during the 2011 European EHEC outbreak. *International Journal of Human-Computer Studies.* 72 (2), pp. 239-254.

Gaspar, R.; Lima, L.; Seibt, B.; Gorjão, S. and Carvalho, J. 2012. Novos media sociais na comunicação de benefícios e riscos alimentares: o caso das crises alimentares na Europa. *Riscos e Alimentos. Revista da Autoridade de Segurança Alimentar e Económica.* 3, pp. 30-32.

Giustini, D. 2006. How Web 2.0 is changing medicine. Is a medical Wikipedia the next step? *British Medical Journal,* 333 (7582), pp. 1283-1284.

Grabill, J.T. and Simmons, W.M. 1998. Toward a critical rhetoric of risk communication: Producing citizens and the role of technical communicators. *Technical Communication Quarterly.* 7 (4), pp. 415-441.

Grossman, L. 2006. Time's Person of Year: You. *Time.* 25 December.
Available at: www.time.com/time/magazine/article/0,9171,1569514,00.html
Accessed: 22 March 2013.

Grunig, J.E. (ed.) 1992. *Excellence in public relations and communication management.* Hillsdale: Lawrence Erlbaum Associates.

Grunig, L.A. 1992. Power in the public relations department. In: Grunig, J.E. (ed.) *Excellence in public relations and communication management.* Hillsdale: Lawrence Erlbaum Associates, pp. 483- 502.

Grunig, J.E. and Grunig, L.A. 1992. Models of public relations and communication. In: Grunig, J.E. (ed.) *Excellence in public relations and communication management.* Hillsdale: Lawrence Erlbaum Associates, pp. 285-325.

Grunig, L.A.; Grunig, J.E. and Dozier, D.M. 2002. *Excellent public relations and effective organizations. A study of communication management in three countries.* Mahwah: Lawrence Erlbaum Associates, Inc.

Grunig, J.E.; Grunig, L.A. and Dozier, D.M. 2006. The excellence theory. In: Botan, C.H. and Hazleton, V. (eds.) *Public relations theory II.* Mahwah: Lawrence Erlbaum Associates, pp. 21-62.

Grunig, L.A.; Grunig, J.E. and Verčič, D. 1998. Are the IABC's excellence principles generic? Comparing Slovenia and the United States, the United Kingdom and Canada. *Journal of Communication Management*, 2 (4), pp. 335-356.

Grunig, J.E. and Hunt, T. 1984. *Managing public relations*. New York: Holt, Rinehart and Winston.

Grunig, J.E. and White, J. 1992. The effect of worldviews on public relations theory and practice. In: Grunig, J.E. (ed.) 1992. *Excellence in public relations and communication management.* Hillsdale: Lawrence Erlbaum Associates, pp. 31-64.

Guest, G.; MacQueen, K.M. and Namey, E. 2012. *Applied thematic analysis*. Los Angeles: SAGE Publications.

Han, G. and Zhang, A. 2009. Starbucks is forbidden in the Forbidden City: Blog, circuit of culture and informal public relations in China. *Public Relations Review*. 35 (4), pp. 395-401.

Hanna, R.; Rohm, A. and Crittenden, V.L. 2011. We're all connected: The power of the social media ecosystem. *Business Horizons.* 54 (3), pp. 265-273.

Hodges, C. 2006. "PRP culture". A framework for exploring public relations practitioners as cultural intermediaries*. Journal of Communication Management.* 10 (1), pp. 80-93.

Hodges, C. and McGrath, N. 2011. Communication for social transformation. In: Edwards, L. and Hodges, C. (eds.) *Public relations, society and culture: theoretical and empirical explorations*. Abingdon: Routledge, pp. 90-104.

Holzner, S. 2009. *Facebook Marketing. Leverage Social Media to Grow Your Business.* Indiana: Que Publishing.

Houghton, J.R.; Rowe, G.; Frewer, L.J.; van Kleef, E.; Chryssochoidis, G.; Kehagia, O.; Korzen-Bohr, S.; Lassen, J.; Pfenning, U. and Strada, A. 2008. The quality of food risk management in Europe: Perspectives and priorities. *Food Policy*. 33 (1), pp. 13-26.

Huang, X. 2011. The mobile phone: It has nothing to do with identity in the process of cultural practice. *Cross-cultural Communication.* 7 (2), pp. 174-180.

Huertas, A.; Ordeix, E. and Lozano, N. 2010. La excelencia comunicativa en las organizaciones españolas. Aplicación del estudio Excellence de J. Grunig en España. In: Ordeix, E. and Rom, J. (eds.) 2012. *La innovación en Relacions Públicas. V Congreso Internacional de Investigación y Relaciones Públicas*. Barcelona, 13-14 May 2010. Spain: Trípodos EXTRA, pp. 95-114.

Ihlen, Ø. 2009. On Bourdieu. Public relations in field struggles. In: Ihlen, Ø; van Ruler, B.; Fredriksson, M. (eds.) *Public relations and social theory: key figures and concepts.* New York; Abingdon: Routledge, pp. 63-82.

Ihlen, Ø.; van Ruler, B. 2007. How public relations works: Theoretical roots and public relations perspectives. *Public Relations Review*. 33 (3), pp. 243-248.

Ihlen, Ø; van Ruler, B.; Fredriksson, M. (eds.) 2009. *Public relations and social theory: key figures and concepts.* New York; Abingdon: Routledge.

Ihlen, Ø. and Verhoeven, P. 2009. Conclusions on the Domain, Context, Concepts, Issues, and Empirical Avenues of Public Relations. In: Ihlen, Ø; van Ruler, B.; Fredriksson, M. (eds.) *Public relations and social theory: key figures and concepts*. New York; Abingdon: Routledge, pp. 323-340.

Ihlen, Ø. and Verhoeven, P. 2012. A public relations identity for the 2010s. *Public Relations Inquiry*. 1 (2), pp. 159-176.

Issuu. 2013. *What is Issuu?*
Available at: http://help.issuu.com/entries/23973948-What-is-Issuu-
Accessed: 26 April 2014.

Jackson, P. 2010. Food stories: Consumption in an age of anxiety. *Cultural Geographies.* 17 (2), pp. 147-165.

James, R. 2009. A brief history of McDonald's abroad. *Time.* 28 October.
Available at: http://www.time.com/time/world/article/0,8599,1932839,00.html
Accessed: 9 February 2014.

Jensen, K. K. and Sandøe, P. 2002. Food safety and ethics: The interplay between science and values. *Journal of Agricultural and Environmental Ethics*. 15 (3), pp. 245-253.

Jo, S. and Kim, Y. 2003. The effect of web characteristics on relationship building. *Journal of Public Relations Research,* 15(3), pp. 199-223.

Kaplan, A.M. and Haenlein, M. 2010. Users of the world, unite! The challenges and the opportunities of Social Media. *Business Horizons.* 53 (1), pp. 59-68.

Kelleher, T. and Miller, B.M. 2006. Organizational Blogs and the Human Voice: Relational Strategies and Relational Outcomes. *Journal of Computer-Mediated Communication*. 11 (2), pp. 395-414.

Kelly, K. 1998. The third culture. *Science.* 279 (5353), pp. 992-993.

Kent, M.L. 2008. Critical analysis of blogging in public relations. *Public Relations Review.* 34 (1), pp. 32-40.

Kent, M.L. and Taylor, M. 1998. Building dialogic relationships through the World Wide Web. *Public Relations Review.* 24 (3), pp. 321-334.

Kent, M.L. and Taylor, M. 2002. Toward a dialogic theory of public relations. *Public Relations Review.* 28 (1), pp. 21–37.

Kent, M.L. and Taylor, M. 2007. Beyond excellence: Extending the generic approach to international public relations. The case of Bosnia. *Public Relations Review*. 33 (1), pp. 10-20.

Kuttschreuter, M.; Rutsaert, P.; Hilverda, F.; Regan, Á.; Barnett, J. and Verbeke, W. 2014. Seeking information about food-related risks: The contribution of social media. *Food Quality and Preference.* 37, pp. 10-18.

Lanyon, D. 2013. Horsemeat scandal hits Tesco and Ikea across social media. *The Grocer*. 7 March. Available at:
www.thegrocer.co.uk/home/topics/food-safety/horsemeat-scandal-hits-tesco-and-ikea-across-social-media/237214.article
Accessed: 11 December 2014.

Laroche, M.; Habibi, M.R. and Richard, M.-O. 2013. To be or not to be in social media: How brand loyalty is affected by social media? *International Journal of Information Management*. 33 (1), pp. 76-82.

Lasswell, H. D. 1948. The structure and function of communication in society. In: Bryson, L. (ed.) *The communication of ideas*. New York: Harper and Row, pp. 37–51.

Lawrence, F. 2013. Horsemeat dinner is served, courtesy of organised crime. *The Guardian.* 18 December. Available at:
www.theguardian.com/commentisfree/2013/dec/18/horsemeat-organised-crime-food-banking-industries
Accessed: 11 December 2014.

L'Etang, J. 2008. *Public Relations. Concepts, practice and critique.* London: SAGE Publications.

L'Etang, J. 2011. Imagining public relations anthropology. In: Edwards, L. and Hodges, C. (eds.) *Public relations, society and culture: theoretical and empirical explorations*. Abingdon: Routledge, pp. 15-32.

Linke, A. and Zerfass, A. 2013. Social media governance: regulatory frameworks for successful online communications. *Journal of Communication Management.* 17 (3), pp. 270-286.

LinkedIn. 2014. *About LinkedIn.*
Available at: http://press.linkedin.com/about
Accessed: 26 April 2014.

Lofstedt, R. 2006. How can we make food risk communication better: where are we and where are we going? *Journal of Risk Research*. 9 (8), pp. 869-890.

Lofstedt, R., Bouder, F., Wardman, J. and Chakraborty, S. 2011. The changing nature of communication and regulation of risk in Europe. *Journal of Risk Research.* 14 (4), pp. 409-429.

Lores, M. and Lozano, N. 2012. Percepciones y usos de los Social Media en la comunicación de riesgos y beneficios alimentarios: los consumidores europeos como caso de estudio. Presented in: *III Congreso Internacional de la Asociación Española de Investigación de la Comunicación. AE-IC 2012 Tarragona "Comunicación y riesgo".* Tarragona (Spain), 18-20 January 2012.

Lovejoy, K.; Waters, R.D. and Saxton, G.D. 2012. Engaging stakeholders through Twitter: How nonprofit organizations are getting more out of 140 characters or less. *Public Relations Review.* 38 (2), pp. 313-318.

Lozano, N. 2009. *Social networks, an online PR tool to cultivate relationships: Based on Spanish brands case study.* Unpublished MA Dissertation, Cardiff University.

Lozano, N. 2011. Recommendation culture's influence on the promotional communication of Spanish autonomous community brands. *Catalan Journal of Communication and Cultural Studies.* 3(2), pp. 289-296.

Lozano, N. and Lores, M. 2012. La gestió comunicativa de la seguretat alimentària a la Unió Europea: l'ús institucional dels mitjans de comunicació social. *Periodística.* 14 (1), pp. 59-72.

Lozano, N. and Lores, M. 2013. Food safety agencies' challenge: Is social media the definitive communicative solution? *Catalan Journal of Communication and Cultural Studies*. 5 (2), pp. 285-293.

Marcu, A.; Gaspar, R.; Rutsaert, P.; Seibt, B.; Fletcher, D.; Verbeke, W. and Barnett, J. 2014. *Analogies, metaphors, and wondering about the future: Lay sense-making around synthetic meat.* Public Understanding of Science. Published online. pp. 1-16.
DOI: 10.1177/0963662514521106

McCarthy, M. and Brennan, M. 2009. Food risk communication: Some of the problems and issues faced by communicators on the Island of Ireland (IOI). *Food Policy*. 34 (6),   pp. 549-556.

McDonald's. 2014. *Discover McDonald's around the globe*.
Available at: http://www.aboutmcdonalds.com/mcd/country/map.html
Accessed: 9 February 2014.

McGloin, A.F. and Eslami, S. 2014. Digital and social media opportunities for dietary behaviour change. In: *Proceedings of the Nutrition Society*. Conference on 'Changing dietary behaviour: physiology through to practice. Symposium 3: Novel methods for motivating dietary change'. Coleraine (United Kingdom), 18-20 June 2014, pp. 1-10.

McKie, D. and Munshi, D. 2005. Tracking trends: peripheral visions and public relations. *Public Relations Review.* 31 (4), pp. 453-457.

Meerman Scott, D. 2009. *The New Rules of Marketing & PR*. 2nd ed. Hoboken: John Wiley & Sons.

Meikle, G. and Young, S. 2012. *Media convergence: networked digital media in everyday life*. Basingstoke: Palgrave Macmillan.

Men, L.R. and Tsai, W.-H.S. 2012. How companies cultivate relationships with publics on social network sites: Evidence from China and the United States. *Public Relations Review.* 38 (5), pp. 723-730.

Montgomery, K.C. 1990. Promoting health through entertainment television. In: Atkin, C. and Wallack, L. (ed.) *Mass communication and public health: complexities and conflicts.* Newbury Park: Sage Publications, pp. 114-128.

Nixon, S. and du Gay, P. 2002. Who needs cultural intermediaries? *Cultural studies*. 16 (4), pp. 495-500.

Novelli, W. 1990. Controversies in Advertising of Health-Related Products. In: Atkin, C. and Wallack, L. (ed.) *Mass communication and public health: complexities and conflicts*. Newbury Park: Sage Publications, pp. 78-87.

Oksiutycz, A. and Enombo, M.P. 2011. Public relations practice in private sector companies in Gabon. *Public Relations Review.* 37 (3), pp. 274-280.

Paek, H. J.; Hove, T.; Jeong, H. J. and Kim, M. 2011. Peer or expert? The persuasive impact of YouTube public service announcement producers. *International Journal of Advertising*. 30 (1), pp. 161-188.

Panagiotopoulos, P.; Barnett, J. and Brooks, L. 2013. Social media and government responsiveness: the case of the UK Food Standards Agency. In: Wimmer, M.A.; Janssen, M. and

Scholl, H.J. (eds.) *Electronic Government: Proceedings of the 12th IFIP WG 8.5 International Conference EGOV 2013*. Koblenz, Germany. 16-19 September 2013. Springer Lecture Notes in Computer Science. Vol. 8074, pp. 310-321.

Pavlik, J. V. 1990. *Public relations: what research tells us*. 2nd ed. Newbury Park: SAGE Publications.

Pieczka, M. 2011. Public relations as dialogic expertise? *Journal of Communication Management.* 15 (2), pp. 108-124.

Pieniak, Z.; Verbeke, W.; Scholderer, J.; Brunso, K. and Olsen, S.O. 2007. European consumers' use of and trust in information sources about fish. *Food Quality and Preference*. 18 (8), pp.1050-1063.

Pollan, M. 2008. *In defense of food: an eater's manifesto*. New York: Penguin group.

Poppe, C. and Kjærnes, U. 2003. *Trust in Food in Europe. A Comparative Analysis*. Oslo: National Institute for Consumer Research.

Prades, J.; Farré, J. and Gonzalo, J.L. 2014. Journalists and bloggers. Professional identities and practices in food risk/benefits communication in Spain. *Communication & Society/Comunicación y Sociedad.* 27 (1), pp. 1-21.

Regan, Á.; McConnon, Á.; Kuttschreuter, M.; Rutsaert, P.; Shan, L.C.; Pieniak, Z.; Barnett,J.; Verbeke, W. and Wall, P. 2014. The impact of communicating conflicting risk and benefit messages: An experimental study on red meat information. *Food Quality and Preference.* 38, pp. 107–114.

Regan, Á.; Raats, M.; Shan, L.C.; Wall, P. and Á. McConnon. 2014. Risk communication and social media during food safety crises: a study of stakeholders' opinions in Ireland. *Journal of Risk Research.* Published online. pp. 1-15. DOI:10.1080/13669877.2014.961517

Rheingold, H. 2002. *Smart Mobs: The next social revolution. Transforming cultures and communities in the age of instant access.* Cambridge: Perseus Book Group.

Riesman, D.; Glazer, N. and Denney, R. 1950. *The lonely crowd. A study of the changing American character.* New Haven: Yale University press.

Ritzer, G. and Jurgenson, N. 2010. Production, Consumption, Prosumption: The nature of capitalism in the age of the digital 'prosumer'. *Journal of Consumer Culture*. 10 (1), pp. 13-36.

Rollin, F.; Kennedy, J. and Wills, J. 2011. Consumer and new technologies. *Trends in Food Science & Technology*. 22 (2-3), pp. 99-111.

Rutsaert, P.; Barnett, J.; Gaspar, R.; Marcu, A.; Pieniak, Z.; Seibt, B.; Lima, M.L.; Fletcher, D. and Verbeke, W. 2015. Beyond information seeking: Consumers' online deliberation about the risks and benefits of red meat. *Food Quality and Preference*. 39, pp. 191-201.

Rutsaert, P.; Pieniak, Z.; Regan, Á.; McConnon, Á.; Kuttschreuter, M.; Lores, M.; Lozano, N.; Guzzon, A.; Santare, D. and Verbeke, W. 2014. Social media as a useful tool in food risk and benefit communication? A strategic orientation approach. *Food Policy*. 46 (1), pp. 84-93.

Rutsaert, P.; Pieniak, Z.; Regan, Á.; McConnon, Á. and Verbeke, W. 2013. Consumer interest in receiving information through social media about risks of pesticides residues. *Food Control*. 34 (2), pp. 386-392.

Rutsaert, P.; Regan, Á.; Pieniak, Z.; McConnon, Á.; Moss, A.; Wall, P. and Verbeke, W. 2013. The use of social media in food risk and benefit communication. *Trends in Food Science and Technology*. 30 (1), pp. 84-91.

Rybalko, S. and Seltzer, T. 2010. Dialogic communication in 140 characters or less: How *Fortune* 500 companies engage stakeholders using Twitter. *Public Relations Review*. 36 (4), pp. 336-341.

Safko, L. and Brake, D.K. 2009. *The Social Media Bible. Tactics, tools & strategies for business success*. Hoboken: John Wiley & Sons, Inc.

Sallot, L. M.; Lyon, L. J.; Acosta-Alzuru, C. and Ogata Jones, K. 2003. From aardvark to zebra: A new millennium analysis of theory development in public relations academic journals. *Journal of Public Relations Research*, 15(1), pp. 27-90.

Scott-Thomas, C. 2013. 'Fact and fiction ran neck and neck': FSAI chief on lessons of the horse meat crisis. *Food navigator.com.* 13 September.
Available at: www.foodnavigator.com/Market-Trends/Fact-and-fiction-ran-neck-and-neck-FSAI-chief-on-lessons-of-the-horse-meat-crisis
Accessed: 14 December 2014.

Shan, L.C.; Panagiotopoulos, P.; Regan, Á.; De Brún, A.; Barnett, J.; Wall, P. and McConnon, Á. 2015. Interactive communication with the public: qualitative exploration of the use of social media by food and health organizations. *Journal of Nutrition Education and Behavior,* 47 (1), pp. 104-108.

Shan, L.C.; Regan, Á.; De Brún, A.; Barnett, J.; van der Sanden, M.C.A.; Wall, P. and McConnon, Á. 2014. Food crisis coverage by social and traditional media: A case study of the 2008 Irish dioxin crisis. *Public Understanding of Science*. 23 (8), pp. 911-928.

Smillie, L. and Blisset, A. 2010. A model for developing risk communication strategy. *Journal of Risk Research.* 13 (1), pp. 115-134.

Ströh, U. 2007. An alternative postmodern approach to corporate communication strategy. In: Toth, E. (ed.) *The future of excellence and communication management: challenges for the next generation, Festschrift*. Mahwah, NJ: Lawrence Erlbaum Associates, pp. 199-220.

Stuyck, S.C. 1990. Public Health and the Media: Unequal Partners? In: Atkin, C. and Wallack, L. (ed.) *Mass communication and public health: complexities and conflicts.* Newbury Park: Sage Publications, pp. 71-77.

Taylor, B.C.; Demont-Heinrich, C.; Broadfoot, K.J.; Dodge, J. and Jian, G. 2002. New media and the circuit of cyber-culture: conceptualizing Napster. *Journal of Broadcasting & Electronic Media.* 46 (4), pp. 607-629.

Tewksbury, D. and Rittenberg, J. 2012. *News on the internet. Information and citizenship in the 21st century.* New York: Oxford University Press Inc.

Thackeray, R.; Neiger, B.L.; Smith, A.K. and Van Wagenen, S.B. 2012. Adoption and use of social media among public health departments. *BioMed Central Public Health*. 12: 242, pp. 1-6.

The Economist. 1999. Frankenstein foods. *The Economist.* 18 February.
Available at: http://www.economist.com/node/186575
Accessed: 16 February 2014.

Theunissen, P. and Wan Noordin, W.N. 2012. Revisiting the concept "dialogue" in public relations. *Public Relations Review*. 38 (1), pp. 5– 13.

Thompson, J. 1995. *The media and modernity. A social theory of the media.* Stanford: Stanford University Press.

Thompson, C. 2007. The See-Through CEO. *Wired.* March.
Available at: www.wired.com/wired/archive/15.04/wired40_ceo.html
Accessed: 9 April 2013.

Travers, R.L. 2012. Social Media in Dermatology: Moving to Web 2.0*. Seminars in Cutaneous Medicine and Surgery*. 31 (3), pp. 168-173.

Tsabar, G. 2009. Uncertain times demand embrace of social media. *PR Week US.* 23 February.
Available at:
www.prweekus.com/Uncertain-times-demand-embrace-of-social-media/article/127718
Accessed: 3 April 2013.

van Dijk, H.; Houghton, J.; van Kleef, E.; van der Lans, I.; Rowe, G. and Frewer, L. 2008. Consumer responses to communication about food risk management. *Appetite*. 50 (2-3), pp. 340-352.

van Gorp, B. and Pauwels, L. 2007. Positioning and role of public relations in large Belgian organizations. *Public Relations Review*. 33 (3), pp. 301–305.

van Velsen, L.; van Gemert-Pijnen, J.E.W.C.; Beaujean, D.J.M.A.; Wentzel, J. and van Steenbergen, J.E. 2012. Should organizations use Web 2.0 media in times of an infectious disease crisis? An in-depth qualitative study of citizens' information behaviour during EHEC outbreak. *Journal of Medical Internet Research.* 14 (6), e:181.

Verbeke, W. 2005. Agriculture and the food industry in the information age. *European Review of Agricultural Economics.* 32 (3), pp. 347-368.

Verbeke, W.; Marcu, A.; Rutsaert, P.; Gaspar, R.; Seibt, B.; Fletcher, D. and Barnett, J. 2015. 'Would you eat cultured meat?': Consumers' reactions and attitude formation in Belgium, Portugal and the United Kingdom. *Meat Science.* 102 (1), pp. 49-58.

Wales, C.; Harvey, M. and Warde, A. 2006. Recuperating from BSE: The shifting UK institutional basis for trust in food. *Appetite.* 47 (2), pp. 187-195.

Wallack, L. 1990. Improving Health Promotion: Media Advocacy and Social Marketing Approaches. In: Atkin, C. and Wallack, L. (ed.) *Mass communication and public health: complexities and conflicts.* Newbury Park: Sage Publications, pp. 147-163.

Walsh, F. 2013. Horsemeat – food fraud, not food safety. *BBC News.* 15 February. Available at: www.bbc.com/news/health-21482127
Accessed: 14 December 2014.

Waters, R.D.; Burnett, E.; Lamm, A. and Lucas, J. 2009. Engaging stakeholders through social networking: How nonprofit organizations are using Facebook. *Public Relations Review*. 35 (2), pp. 102-106.

Wilcox, D.; Cameron, G.; Ault, P.; Agee, W. 2007. *Public relations: strategies and tactics*. 8th ed. Boston: Pearson Education Inc., pp. 43-74.

YouTube. 2007. *Cadbury's gorilla advert Aug 31st 2007.*
Available at: www.youtube.com/watch?v=TnzFRV1LwIo
Accessed: 23 January 2015.

YouTube. 2009. *Cadbury Eyebrows (official version).*
Available at: www.youtube.com/watch?v=TVblWq3tDwY
Accessed: 23 January 2015.

YouTube 2014. *YouTube Ads Leaderboard January 2014.*
Available at: www.youtube.com/playlist?list=PLr7R_7VsC4zYcu8DmRLVKFTvcRGqrlxq2
Accessed: 28 February 2014.

YouTube 2014b. *Yes sir! Nick Hewer has a boogie in the lifts when no one's looking.*
Available at: www.youtube.com/watch?v=jm7Cev0HzO8
Accessed: 28 February 2014.

YouTube. 2014c. *James Corden's Ultimate Lip-Sync Performance Directed by Ben Winston for Cadbury Dairy Milk*.
Available at: www.youtube.com/watch?v=VlQ4hhJ8fAQ
Accessed: 1 March 2014.

APPENDIX 1: ONLINE CONTENT ANALYSIS CODING SHEET

Websites coding sheet

Food safety/promotion authority:

Country:

Languages:

WEBSITE CHARACTERISATION

What category is better identified with the type of website?

☐ **Ministry.** Topics include health, agriculture, veterinary, etc, with food safety assigned a tab or a small section of the website.

☐ **Food safety/promotion authority**. Topics include roles and relationship with EFSA, with a tab or small section assigned to consumer information such as food recalls, hygiene, hazards, nutrition, etc.

☐ **Research body** (scientific foundation or institute) website. Topics are diverse, covering a wide range of food issues.

☐ **Consumer website**. Topics exclusively cover food safety issues and food benefits and risks.

WEBSITE CONTENT

Does the website give information about…

☐ 1. Latest food recalls

☐ 2. Hygiene information

☐ 3. Healthy recipes

☐ 4. Nutritional reminders

☐ 5. Food hazards

☐ 6. Local/national food campaigns

☐ 7. International food campaigns

☐ 8. Novel food

☐ 9. Labelling

☐ 10. Organisational mission and vision

☐ 11. Food crisis protocols

☐ 12. Legislation related to food issues

☐ 13. Brochures and newsletters

☐ 14. Special kinds of food information

WEBSITE CONNECTIVITY

Links to EFSA website?	Yes ☐ No ☐
Links to other EU food safety/promotion websites?	Yes ☐ No ☐
Links to SM platforms of EFSA?	Yes ☐ No ☐
Links to SM platform of other EU food safety/promotion websites?	Yes ☐ No ☐
Links to other institutions?	Yes ☐ No ☐
Links to food campaigns	Yes ☐ No ☐

WEBSITE INTERACTIVITY

How can users express their opinions/doubts to food safety/promotion authorities?

- User can post/comment on the website   Yes ☐   No ☐

- There is an electronic form   Yes ☐   No ☐

- There is an email contact   Yes ☐   No ☐

- There is a telephone number   Yes ☐   No ☐

Can user rate information from the website?   Yes ☐   No ☐

Are the ratings visible to other users?   Yes ☐   No ☐

Can users register on the websites?   Yes ☐   No ☐

Can user share information from the website?   Yes ☐   No ☐

Does the food authority have any embedded SM platforms in the website?   Yes ☐   No ☐

Does the food authority have any SM platforms linked from the website?   Yes ☐   No ☐

How many SM platforms are linked to the website?   _____

Does it include any widgets?   Yes ☐   No ☐

Type: ☐ 1. Your weight   ☐ 2. Planning menus   ☐ 3. Recipe bank   ☐ 4. Other

SOCIAL MEDIA PLATFORMS CODING SHEET

DESCRIPTION AND IDENTIFICATION

Name and URL:

Type of social media application:

Languages:

Date of registration:

Picture of the logotype?   Yes ☐   No ☐

Identification of the food safety/promotion agency?   Yes ☐   No ☐

Description of the mission and vision?   Yes ☐   No ☐

SOCIAL MEDIA PUBLICS

Number of likers/followers/subscribers:

Number of following:

What is the target of this platform?

1. Consumers ☐   2. Young people ☐   3. Pregnant women ☐   4. Elder people ☐

5. Scientists ☐   6. Enterprises ☐   7. Others ☐

SOCIAL MEDIA CONNECTIVITY

Links to the food safety agency website?   Yes ☐   No ☐

Links to EFSA website?   Yes ☐   No ☐

Links to other SM platforms of the food safety?   Yes ☐   No ☐

Links to other SM platforms of EFSA?   Yes ☐   No ☐

SOCIAL MEDIA INFORMATION SOURCES

In the last 20 posts, the sources of information published on the SM platforms are:

☐ 1. Food safety/promotion authority

☐ 2. Ministers/managers of the food safety/promotion authority

☐ 3. EFSA   ☐ 4. Scientific media

☐ 5. Food bloggers   ☐ 6. General media

☐ 7. Others

SOCIAL MEDIA INTERACTIVITY AND ENGAGEMENT

Users can post text comments/photos/videos/etc (start conversation)   Yes □   No □

Users can reply posts from the food authority (continue the conversation)   Yes □   No □

Does the food authority reply to posts from users?   Yes □   No □   N/A □

When was the last time a user posted?

Today □   Yesterday □   2-3 days □   4-7 days □   8-15 days □

16-30 days □   1-6 months □   +6 months □   Never □   Not available □

Latest creator's update:

Today □   Yesterday □   2-3 days □   4-7 days □   8-15 days □

16-30 days □   1-6 months □   +6 months □

Density of posts (1-20): Date of the 1st: _____   The 5th: _____

The 10th: _____   The 15th: _____   The 20th: _____

FANPAGE KARMA ANALYSIS:

Engagement level on Facebook. _____

Facebook post interaction. _____

Karma level on Facebook and Twitter. _____

YouTube video-views. _____

YouTube average views per video. _____

YouTube total likes. _____

YouTube total dislikes. _____

YouTube total comments. _____

SOCIAL MEDIA CONTENT AND AIMS

From the last 20 posts, what is the aim of the platform?

INTRODUCTORY MESSAGES

□ 1. To reminder of public service role

□ 2. To inform about general organisational news items

□ 3. To show premises and offices

□ 4. To show staff at work

□ 5. To inform about meetings/agreements with other bodies

□ 6. To exposure internal public relations activities

□ 7. To promote job vacancies

INFORMATION AND EDUCATION

□ 8. To give nutritional information

□ 9. To describe novel food

□ 10. To explain food hazards

□ 11. To give information about food labelling

□ 12. To offer information to special publics

□ 13. To inform about new food regulations

□ 14. To provide hygiene advice

□ 15. To offer health tips and recipes

□ 16. To exposure scientific talks and results

□ 17. To demystify facts about food

□ 18. To raise public concern on food safety

□ 19. To inform about online publications

FOOD ALARM AND CRISIS PREVENTION

□ 20. To recall foods

□ 21. To prevent food alarms and food crisis

□ 22. To inform about food controls

□ 23. To raise awareness about food waste

CAMPAIGN AND OTHER PROMOTIONS

□ 24. To promote local/national food campaigns

□ 25. To promote international food campaigns

□ 26. To promote publications and other material

STRENGTHENING RELATIONSHIPS WITH CONSUMERS

□ 27. To promote and ask for participation in seminars/workshops

□ 28. To recruit participants for studies and surveys

□ 29. To set up a community of healthy food users

□ 30. To encourage users to upload pics/videos/recipes/tips

Does the platform only focus on food information?   Yes □   No □

Apart from food, does it include any of the following information?

□ 1. Exercise and lifestyle

□ 2. Medicines

□ 3. Non-comestible products

□ 4. Agriculture and veterinary information

□ 5. Environment information

□ 6. Others _____

APPENDIX 2:   SPSS CHARTS AND CORRELATION TABLES

Languages

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	English	25	83,3	83,3	83,3
	Italian	1	3,3	3,3	86,7
	Romanian	1	3,3	3,3	90,0
	Czech	1	3,3	3,3	93,3
	French	1	3,3	3,3	96,7
	Spanish	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Languages

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	6	20,0	20,0	20,0
	Greek	2	6,7	6,7	26,7
	Bulgarian	1	3,3	3,3	30,0
	Croatian	1	3,3	3,3	33,3
	Czech	1	3,3	3,3	36,7
	Danish	1	3,3	3,3	40,0
	Hungarian	1	3,3	3,3	43,3
	French	1	3,3	3,3	46,7
	Lithuanian	1	3,3	3,3	50,0
	Maltese	1	3,3	3,3	53,3
	Polish	1	3,3	3,3	56,7
	Portuguese	1	3,3	3,3	60,0
	Slovak	1	3,3	3,3	63,3
	Slovenian	1	3,3	3,3	66,7
	German	3	10,0	10,0	76,7
	Swedish	1	3,3	3,3	80,0
	Russian	3	10,0	10,0	90,0
	Dutch	2	6,7	6,7	96,7
	Welsh	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Languages

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	26	86,7	86,7	86,7
	Estonian	1	3,3	3,3	90,0
	Finnish	1	3,3	3,3	93,3
	French	1	3,3	3,3	96,7
	Latvian	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Languages

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	28	93,3	93,3	93,3
	Swedish	1	3,3	3,3	96,7
	Dutch	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

What category is better identified with the website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Ministry	9	30,0	30,0	30,0
	Food safety agency	17	56,7	56,7	86,7
	Research body	2	6,7	6,7	93,3
	Consumer	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Latest food recalls	10	33,3	33,3	33,3
	Hygiene tips	9	30,0	30,0	63,3
	Nutritional reminds	4	13,3	13,3	76,7
	Food hazards	7	23,3	23,3	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Organisational mission/vision, org chart	4	13,3	13,3	13,3
	Hygiene tips	8	26,7	26,7	40,0
	Healthy recipes	1	3,3	3,3	43,3
	Nutritional reminds	3	10,0	10,0	53,3
	Food hazards	7	23,3	23,3	76,7
	Local/national food campaigns	3	10,0	10,0	86,7
	Novel food	2	6,7	6,7	93,3
	Labelling	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Organisational mission/vision, org chart	3	10,0	10,0	10,0
	Food crisis protocol	1	3,3	3,3	13,3
	Laws and docs related with food issues	3	10,0	10,0	23,3
	Brochures/magazines published	1	3,3	3,3	26,7
	Healthy recipes	1	3,3	3,3	30,0
	Nutritional reminds	7	23,3	23,3	53,3
	Food hazards	4	13,3	13,3	66,7
	Local/national food campaigns	3	10,0	10,0	76,7
	International food campaigns	1	3,3	3,3	80,0
	Novel food	4	13,3	13,3	93,3
	Labelling	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	2	6,7	6,7	6,7
	Organisational mission/vision, org chart	5	16,7	16,7	23,3
	Food crisis protocol	2	6,7	6,7	30,0
	Laws and docs related with food issues	2	6,7	6,7	36,7
	Brochures/magazines published	2	6,7	6,7	43,3
	Nutritional reminds	1	3,3	3,3	46,7
	Food hazards	6	20,0	20,0	66,7
	Local/national food campaigns	4	13,3	13,3	80,0
	Novel food	3	10,0	10,0	90,0
	Labelling	3	10,0	10,0	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	3	10,0	10,0	10,0
	Organisational mission/vision, org chart	6	20,0	20,0	30,0
	Food crisis protocol	3	10,0	10,0	40,0
	Laws and docs related with food issues	3	10,0	10,0	50,0
	Brochures/magazines published	1	3,3	3,3	53,3
	Specific information to special publics	3	10,0	10,0	63,3
	Food hazards	1	3,3	3,3	66,7
	Local/national food campaigns	2	6,7	6,7	73,3
	International food campaigns	1	3,3	3,3	76,7
	Novel food	4	13,3	13,3	90,0
	Labelling	3	10,0	10,0	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	9	30,0	30,0	30,0
	Organisational mission/vision, org chart	3	10,0	10,0	40,0
	Food crisis protocol	2	6,7	6,7	46,7
	Laws and docs related with food issues	7	23,3	23,3	70,0
	Brochures/magazines published	1	3,3	3,3	73,3
	Specific information to special publics	1	3,3	3,3	76,7
	International food campaigns	2	6,7	6,7	83,3
	Novel food	2	6,7	6,7	90,0
	Labelling	3	10,0	10,0	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	11	36,7	36,7	36,7
	Organisational mission/vision, org chart	3	10,0	10,0	46,7
	Food crisis protocol	1	3,3	3,3	50,0
	Laws and docs related with food issues	3	10,0	10,0	60,0
	Brochures/magazines published	7	23,3	23,3	83,3
	Specific information to special publics	1	3,3	3,3	86,7
	Novel food	2	6,7	6,7	93,3
	Labelling	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	18	60,0	60,0	60,0
	Organisational mission/vision, org chart	2	6,7	6,7	66,7
	Food crisis protocol	3	10,0	10,0	76,7
	Laws and docs related with food issues	1	3,3	3,3	80,0
	Brochures/magazines published	1	3,3	3,3	83,3
	Specific information to special publics	3	10,0	10,0	93,3
	Labelling	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	22	73,3	73,3	73,3
	Organisational mission/vision, org chart	2	6,7	6,7	80,0
	Food crisis protocol	2	6,7	6,7	86,7
	Laws and docs related with food issues	3	10,0	10,0	96,7
	Brochures/magazines published	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	23	76,7	76,7	76,7
	Organisational mission/vision, org chart	1	3,3	3,3	80,0
	Food crisis protocol	2	6,7	6,7	86,7
	Laws and docs related with food issues	2	6,7	6,7	93,3
	Brochures/magazines published	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	24	80,0	80,0	80,0
	Laws and docs related with food issues	2	6,7	6,7	86,7
	Brochures/magazines published	3	10,0	10,0	96,7
	Specific information to special publics	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	26	86,7	86,7	86,7
	Brochures/magazines published	2	6,7	6,7	93,3
	Specific information to special publics	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Contents covered

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	29	96,7	96,7	96,7
	Specific information to special publics	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Contents covered: other

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos		16	53,3	53,3	53,3
	AIDS/HIV patients	1	3,3	3,3	56,7
	Allergens and intolerances	1	3,3	3,3	60,0
	Coeliacs	1	3,3	3,3	63,3
	Coeliacs+pregnants+allergens+children+teenagers	1	3,3	3,3	66,7

Coeliacs+pregnants+Elderly+Teens+Children+Sporty	1	3,3	3,3	70,0
Children	1	3,3	3,3	73,3
Diabetics	1	3,3	3,3	76,7
Pregnant+children	1	3,3	3,3	80,0
Pregnant+toddlers	1	3,3	3,3	83,3
Pregnants+Allergens+Intolerants	1	3,3	3,3	86,7
Pregnants+children+toddlers	1	3,3	3,3	90,0
Pregnants+kids+Toddlers. Info brochures in 11 languages (arabic+farsi+kurd+sami+somalian+sorani+spanish+turkish+urdu)	1	3,3	3,3	93,3
Scientific publications of the agency related with food issues & academic courses info to enrol in	1	3,3	3,3	96,7
Teenagers	1	3,3	3,3	100,0
Total	30	100,0	100,0	

		How many contents are covered?
N	Válidos	30
	Perdidos	0
Media		7,43
Mediana		7,00
Moda		7

How many contents are covered? (per groups)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Less than 5	9	30,0	30,0	30,0
	From 6 to 10	15	50,0	50,0	80,0
	More than 11	6	20,0	20,0	100,0
	Total	30	100,0	100,0	

Are there any links to EFSA website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	26	86,7	86,7	86,7
Válidos	No	4	13,3	13,3	100,0
	Total	30	100,0	100,0	

Are there any links to other national food agencies?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	9	30,0	30,0	30,0
Válidos	No	21	70,0	70,0	100,0
	Total	30	100,0	100,0	

Are there any links to SM of EFSA?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	2	6,7	6,7	6,7
Válidos	No	28	93,3	93,3	100,0
	Total	30	100,0	100,0	

Are there any links to SM of other food agencies?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	No	30	100,0	100,0	100,0

Are there any links to other institutions?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	16	53,3	53,3	53,3
Válidos	No	14	46,7	46,7	100,0
	Total	30	100,0	100,0	

Are there any links to food campaigns?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	4	13,3	13,3	13,3
Válidos	No	26	86,7	86,7	100,0
	Total	30	100,0	100,0	

Expressing opinions. Post/comment

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	No	30	100,0	100,0	100,0

Expressing opinions. Electronic form

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	9	30,0	30,0	30,0
Válidos	No	21	70,0	70,0	100,0
	Total	30	100,0	100,0	

Expressing opinions. Email

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	28	93,3	93,3	93,3
Válidos	No	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Expressing opinions. Telephone

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	28	93,3	93,3	93,3
Válidos	No	2	6,7	6,7	100,0
	Total	30	100,0	100,0	

Can user rate information from the website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	2	6,7	6,7	6,7
Válidos	No	28	93,3	93,3	100,0
	Total	30	100,0	100,0	

Are ratings visible to other users?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
		28	93,3	93,3	93,3
	Yes	1	3,3	3,3	96,7
Válidos	No	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Can user register on the websites?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	8	26,7	26,7	26,7
Válidos	No	22	73,3	73,3	100,0
	Total	30	100,0	100,0	

Can user share information from the website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	17	56,7	56,7	56,7
Válidos	No	13	43,3	43,3	100,0
	Total	30	100,0	100,0	

Does this food safety agency include SM platforms in the website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	3	10,0	10,0	10,0
Válidos	No	27	90,0	90,0	100,0
	Total	30	100,0	100,0	

Description of social media platforms in

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
		28	93,3	93,3	93,3
	Forum	1	3,3	3,3	96,7
Válidos	Polls	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Does the food safety has any SM platforms linked from the website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	17	56,7	56,7	56,7
Válidos	No	13	43,3	43,3	100,0
	Total	30	100,0	100,0	

Does it include any widgets?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Your weight	1	3,3	25,0	25,0
Válidos	Other	3	10,0	75,0	100,0
	Total	4	13,3	100,0	
Perdidos	0	26	86,7		
Total		30	100,0		

Does it include any widgets?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Recipe bank	1	3,3	100,0	100,0
Perdidos	0	29	96,7		
Total		30	100,0		

Description of other widgets

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
		26	86,7	86,7	86,7
	Calculate daily kcals+Personal dieatary advice+Label guide	1	3,3	3,3	90,0
	Calculate kcals in a menu	1	3,3	3,3	93,3
Válidos	Nutritional composition of food items	1	3,3	3,3	96,7
	To find out and description of additives	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

How many SM platforms per groups

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	None	13	43,3	43,3	43,3
	Less than 3	11	36,7	36,7	80,0
Válidos	From 4-7	5	16,7	16,7	96,7
	8 or more	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Tabla de contingencia What category is better identified with the website? * How many contents are covered?

			How many contents are covered?			Total
			Less than 5	From 6 to 10	More than 11	
What category is better identified with the website?	Ministry	Recuento	3	6	0	9
		% dentro de What category is better identified with the website?	33,3%	66,7%	0,0%	100,0%
		% dentro de How many contents are covered?	37,5%	35,3%	0,0%	30,0%
		% del total	10,0%	20,0%	0,0%	30,0%
	Food safety agency	Recuento	3	9	5	17
		% dentro de What category is better identified with the website?	17,6%	52,9%	29,4%	100,0%
		% dentro de How many contents are covered?	37,5%	52,9%	100,0%	56,7%
		% del total	10,0%	30,0%	16,7%	56,7%
	Research body	Recuento	2	0	0	2
		% dentro de What category is better identified with the website?	100,0%	0,0%	0,0%	100,0%
		% dentro de How many contents are covered?	25,0%	0,0%	0,0%	6,7%
		% del total	6,7%	0,0%	0,0%	6,7%
	Consumer	Recuento	0	2	0	2
		% dentro de What category is better identified with the website?	0,0%	100,0%	0,0%	100,0%
		% dentro de How many contents are covered?	0,0%	11,8%	0,0%	6,7%

	% del total	0,0%	6,7%	0,0%	6,7%
	Recuento	8	17	5	30
Total	% dentro de What category is better identified with the website?	26,7%	56,7%	16,7%	100,0%
	% dentro de How many contents are covered?	100,0%	100,0%	100,0%	100,0%
	% del total	26,7%	56,7%	16,7%	100,0%

Tabla de contingencia How many contents are covered? * Does the food safety has any SM platforms linked from the website?

			Does the food safety has any SM platforms linked from the website?		Total
			Yes	No	
How many contents are covered?	Less than 5	Recuento	3	6	9
		% dentro de How many contents are covered?	33,3%	66,7%	100,0%
		% dentro de Does the food safety has any SM platforms linked from the website?	17,6%	46,2%	30,0%
		% del total	10,0%	20,0%	30,0%
	From 6 to 10	Recuento	8	7	15
		% dentro de How many contents are covered?	53,3%	46,7%	100,0%
		% dentro de Does the food safety has any SM platforms linked from the website?	47,1%	53,8%	50,0%
		% del total	26,7%	23,3%	50,0%
	More than 11	Recuento	6	0	6
		% dentro de How many contents are covered?	100,0%	0,0%	100,0%
		% dentro de Does the food safety has any SM platforms linked from the website?	35,3%	0,0%	20,0%
		% del total	20,0%	0,0%	20,0%

	Recuento	17	13	30
	% dentro de How many contents are covered?	56,7%	43,3%	100,0%
Total	% dentro de Does the food safety has any SM platforms linked from the website?	100,0%	100,0%	100,0%
	% del total	56,7%	43,3%	100,0%

SOCIAL MEDIA SPSS CHARTS

Country

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Austria	7	12,3	12,3	12,3
	Belgium	4	7,0	7,0	19,3
	Czech Republic	2	3,5	3,5	22,8
	Denmark	1	1,8	1,8	24,6
	Estonia	2	3,5	3,5	28,1
	Finland	6	10,5	10,5	38,6
	France	1	1,8	1,8	40,4
	Ireland	3	5,3	5,3	45,6
	Italy	1	1,8	1,8	47,4
	Lithuania	1	1,8	1,8	49,1
	Poland	3	5,3	5,3	54,4
	Romania	1	1,8	1,8	56,1
	Slovak Republic	1	1,8	1,8	57,9
	Spain	2	3,5	3,5	61,4
	Sweden	6	10,5	10,5	71,9
	The Netherlands	7	12,3	12,3	84,2
	United Kingdom	9	15,8	15,8	100,0
	Total	57	100,0	100,0	

Type of SM application

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Facebook	21	36,8	36,8	36,8
	Twitter	17	29,8	29,8	66,7
	YouTube	9	15,8	15,8	82,5
	LinkedIn	2	3,5	3,5	86,0
	Issuu	1	1,8	1,8	87,7
	Pinterest	1	1,8	1,8	89,5
	Flickr	3	5,3	5,3	94,7
	Blogger	1	1,8	1,8	96,5
	Slideshare	2	3,5	3,5	100,0
	Total	57	100,0	100,0	

What category is better identified with the website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Ministerial	9	15,8	15,8	15,8
	Food safety agency	40	70,2	70,2	86,0
	Scientific organisation	1	1,8	1,8	87,7
	Lay consumer	7	12,3	12,3	100,0
	Total	57	100,0	100,0	

Languages

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	English	13	22,8	22,8	22,8
	Italian	1	1,8	1,8	24,6
	Romanian	1	1,8	1,8	26,3
	Czech	2	3,5	3,5	29,8
	Estonian	2	3,5	3,5	33,3
	Finnish	4	7,0	7,0	40,4
	French	3	5,3	5,3	45,6
	Lithuanian	1	1,8	1,8	47,4
	Polish	3	5,3	5,3	52,6
	Slovak	1	1,8	1,8	54,4
	Spanish	2	3,5	3,5	57,9
	German	7	12,3	12,3	70,2
	Swedish	7	12,3	12,3	82,5
	Dutch	9	15,8	15,8	98,2
	Welsh	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Languages

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos		47	82,5	82,5	82,5
	English	9	15,8	15,8	98,2
	Welsh	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Does it include the logo?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	54	94,7	94,7	94,7
	No	3	5,3	5,3	100,0
	Total	57	100,0	100,0	

Does it include an identification of the food safety agency?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	53	93,0	93,0	93,0
	No	4	7,0	7,0	100,0
	Total	57	100,0	100,0	

Does it include a description of the mission and vision of the food agency?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	39	68,4	68,4	68,4
	No	18	31,6	31,6	100,0
	Total	57	100,0	100,0	

What is the target of the platform?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Lay consumer	49	86,0	86,0	86,0
	Pregnant women	1	1,8	1,8	87,7
	Scientists	5	8,8	8,8	96,5
	Enterprises	2	3,5	3,5	100,0
	Total	57	100,0	100,0	

What is the target of the platform?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	34	59,6	59,6	59,6
	Pregnant women	1	1,8	1,8	61,4
	Scientists	1	1,8	1,8	63,2
	Enterprises	15	26,3	26,3	89,5
	Others	6	10,5	10,5	100,0
	Total	57	100,0	100,0	

What is the target of the platform?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	52	91,2	91,2	91,2
	Elder people	1	1,8	1,8	93,0
	Others	4	7,0	7,0	100,0
	Total	57	100,0	100,0	

What is the target of the platform?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	56	98,2	98,2	98,2
	Scientists	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Description of other target

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos		46	80,7	80,7	80,7
	Enterprises+Mothers	1	1,8	1,8	82,5
	Governments	1	1,8	1,8	84,2
	Media	2	3,5	3,5	87,7
	Media+Employees	4	7,0	7,0	94,7
	Prospective employees+students	1	1,8	1,8	96,5
	Schools	1	1,8	1,8	98,2
	Schools and parents	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Are there any links to the food safety agency website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	50	87,7	87,7	87,7
	No	7	12,3	12,3	100,0
	Total	57	100,0	100,0	

Are there any links to EFSA website?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	No	57	100,0	100,0	100,0

Are there any links to other SM platforms of the food safety?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	13	22,8	22,8	22,8
Válidos	No	44	77,2	77,2	100,0
	Total	57	100,0	100,0	

Are there any links to other SM platforms of EFSA?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Yes	1	1,8	1,8	1,8
Válidos	No	56	98,2	98,2	100,0
	Total	57	100,0	100,0	

Sources of information

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Food safety agency	57	100,0	100,0	100,0

Sources of information

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Not applicable	35	61,4	61,4	61,4
	Ministers/managers of food safety agency	5	8,8	8,8	70,2
Válidos	EFSA	6	10,5	10,5	80,7
	Scientific media	4	7,0	7,0	87,7
	Bloggers	3	5,3	5,3	93,0
	Others	4	7,0	7,0	100,0
	Total	57	100,0	100,0	

Sources of information

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
		1	1,8	1,8	1,8
	Not applicable	43	75,4	75,4	77,2
	EFSA	1	1,8	1,8	78,9
Válidos	Scientific media	4	7,0	7,0	86,0
	Bloggers	1	1,8	1,8	87,7
	Others	7	12,3	12,3	100,0
	Total	57	100,0	100,0	

Description of other sources of information

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
		43	75,4	75,4	75,4
	Bloggers + NGOs	1	1,8	1,8	77,2
	Emails from users, NGOs	1	1,8	1,8	78,9
	Gubernamental agencies	1	1,8	1,8	80,7
	Gubernamental institutions	1	1,8	1,8	82,5
	International institutions (WHO, FAO, UNICEF, ECDC, CDC)	3	5,3	5,3	87,7
Válidos	NGOs	4	7,0	7,0	94,7
	Organisations that qualify school meals	1	1,8	1,8	96,5
	Scientidic institutions+National gubernamental institutions	1	1,8	1,8	98,2
	Scientific media + Others (EUFIC, Czech Veterinary Ministry)	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Can users post (start conversation)?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	29	50,9	50,9	50,9
	No	28	49,1	49,1	100,0
	Total	57	100,0	100,0	

Can users reply to posts (continue the conversation)?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	55	96,5	96,5	96,5
	No	2	3,5	3,5	100,0
	Total	57	100,0	100,0	

When was the last time a user posted anything?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Today	4	7,0	8,0	8,0
	Yesterday	3	5,3	6,0	14,0
	2-3 days ago	2	3,5	4,0	18,0
	4-7 days ago	4	7,0	8,0	26,0
	8-15 days ago	3	5,3	6,0	32,0
	16-30 days ago	10	17,5	20,0	52,0
	1-6 months ago	6	10,5	12,0	64,0
	+6 months ago	3	5,3	6,0	70,0
	Never	15	26,3	30,0	100,0
	Total	50	87,7	100,0	
Perdidos	Not available	7	12,3		
Total		57	100,0		

Does the food safety agency reply to posts from users?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	24	42,1	42,1	42,1
	No	8	14,0	14,0	56,1
	Not available	25	43,9	43,9	100,0
	Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	2	3,5	3,5	3,5
	To warn about food recalls	23	40,4	40,4	43,9
	To remind that they are a public service	1	1,8	1,8	45,6
	To show their buildings	2	3,5	3,5	49,1
	To show their staff and how they work	3	5,3	5,3	54,4
	To exposure the latest internal public relations events	1	1,8	1,8	56,1
	To remind hygiene tips	9	15,8	15,8	71,9
	To give general news about the food agency	2	3,5	3,5	75,4
	To promote and ask for participation in seminars/workshops	1	1,8	1,8	77,2
	To promote local/national food campaigns	8	14,0	14,0	91,2
	To give healthy recipes or tips	2	3,5	3,5	94,7
	To explain novel food	1	1,8	1,8	96,5
	To explain food hazards	2	3,5	3,5	100,0
	Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	5	8,8	8,8	8,8
	To exposure adverts of food campaigns	4	7,0	7,0	15,8
	To show their buildings	2	3,5	3,5	19,3
	To show their staff and how they work	4	7,0	7,0	26,3
	To exposure the latest internal public relations events	2	3,5	3,5	29,8

To exposure scientific talks/results/interviews	1	1,8	1,8	31,6
To remind hygiene tips	6	10,5	10,5	42,1
To give general news about the food agency	1	1,8	1,8	43,9
To inform about their newsketters/brochures/charts/apps	1	1,8	1,8	45,6
To raise public concern and aware on food safety/hygiene	1	1,8	1,8	47,4
To promote local/national food campaigns	12	21,1	21,1	68,4
To give information about food labelling	1	1,8	1,8	70,2
To give healthy recipes or tips	9	15,8	15,8	86,0
To give nutritional information	1	1,8	1,8	87,7
To explain food hazards	6	10,5	10,5	98,2
To offer specific information to special groups	1	1,8	1,8	100,0
Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	6	10,5	10,5	10,5
	To exposure adverts of food campaigns	4	7,0	7,0	17,5
	To show their buildings	3	5,3	5,3	22,8
	To show their staff and how they work	9	15,8	15,8	38,6
	To exposure the latest internal public relations events	2	3,5	3,5	42,1
	To exposure scientific talks/results/interviews	5	8,8	8,8	50,9
	To give general news about the food agency	3	5,3	5,3	56,1

To promote and ask for participation in seminars/workshops	1	1,8	1,8	57,9
To promote local/national food campaigns	5	8,8	8,8	66,7
To promote and sell their services	1	1,8	1,8	68,4
To give healthy recipes or tips	3	5,3	5,3	73,7
To give nutritional information	6	10,5	10,5	84,2
To explain food hazards	6	10,5	10,5	94,7
To offer specific information to special groups	3	5,3	5,3	100,0
Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	16	28,1	28,1	28,1
	To exposure adverts of food campaigns	2	3,5	3,5	31,6
	To show their buildings	1	1,8	1,8	33,3
	To show their staff and how they work	6	10,5	10,5	43,9
	To exposure the latest internal public relations events	1	1,8	1,8	45,6
	To exposure scientific talks/results/interviews	6	10,5	10,5	56,1
	To recruit participants for a scientific study	1	1,8	1,8	57,9
	To give general news about the food agency	5	8,8	8,8	66,7
	To promote and ask for participation in seminars/workshops	1	1,8	1,8	68,4
	To inform about their newsketters/brochures/charts/apps	1	1,8	1,8	70,2

	Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
To raise public concern and aware on food safety/hygiene	1	1,8	1,8	71,9
To offer updated information about food and food controls	1	1,8	1,8	73,7
To inform about new regulations	1	1,8	1,8	75,4
To give healthy recipes or tips	2	3,5	3,5	78,9
To explain novel food	2	3,5	3,5	82,5
To explain food hazards	7	12,3	12,3	94,7
To offer specific information to special groups	3	5,3	5,3	100,0
Total	57	100,0	100,0	

	Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
To offer information to prevent a food crisis	1	1,8	1,8	82,5
To raise public concern and aware on food waste	2	3,5	3,5	86,0
To promote and sell books and other material	1	1,8	1,8	87,7
To promote and sell their services	1	1,8	1,8	89,5
To explain food hazards	3	5,3	5,3	94,7
To offer specific information to special groups	3	5,3	5,3	100,0
Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	21	36,8	36,8	36,8
	To exposure adverts of food campaigns	2	3,5	3,5	40,4
	To remind that they are a public service	1	1,8	1,8	42,1
	To show their buildings	1	1,8	1,8	43,9
	To show their staff and how they work	4	7,0	7,0	50,9
	To promote job vacancies	1	1,8	1,8	52,6
	To exposure scientific talks/results/interviews	2	3,5	3,5	56,1
	To recruit participants for a scientific study	3	5,3	5,3	61,4
	To give general news about the food agency	9	15,8	15,8	77,2
	To promote and ask for participation in seminars/workshops	1	1,8	1,8	78,9
	To inform about their newsketters/brochures/charts/apps	1	1,8	1,8	80,7

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	28	49,1	49,1	49,1
	To exposure adverts of food campaigns	1	1,8	1,8	50,9
	To show their staff and how they work	2	3,5	3,5	54,4
	To inform about meetings/agreements with other institutions	1	1,8	1,8	56,1
	To exposure the latest internal public relations events	2	3,5	3,5	59,6
	To exposure scientific talks/results/interviews	2	3,5	3,5	63,2
	To recruit participants for a scientific study	1	1,8	1,8	64,9
	To encourage users to upload pics/videos/recipes/tips	1	1,8	1,8	66,7
	To give general news about the food agency	4	7,0	7,0	73,7
	To promote and ask for participation in seminars/workshops	4	7,0	7,0	80,7

	Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
To inform about their newsketters/brochures/charts/apps	1	1,8	1,8	82,5
To offer information to prevent a food crisis	1	1,8	1,8	84,2
To raise public concern and aware on food safety/hygiene	2	3,5	3,5	87,7
To offer updated information about food and food controls	2	3,5	3,5	91,2
To inform about new regulations	1	1,8	1,8	93,0
To offer specific information to special groups	3	5,3	5,3	98,2
To correct false information/desmitify facts about food	1	1,8	1,8	100,0
Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	33	57,9	57,9	57,9
	To exposure adverts of food campaigns	1	1,8	1,8	59,6
	To show their staff and how they work	2	3,5	3,5	63,2
	To exposure the latest internal public relations events	2	3,5	3,5	66,7
	To exposure scientific talks/results/interviews	3	5,3	5,3	71,9
	To recruit participants for a scientific study	3	5,3	5,3	77,2
	To give general news about the food agency	4	7,0	7,0	84,2
	To promote and ask for participation in seminars/workshops	3	5,3	5,3	89,5

	Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
To inform about their newsketters/brochures/charts/apps	3	5,3	5,3	94,7
To raise public concern and aware on food safety/hygiene	2	3,5	3,5	98,2
To promote and sell books and other material	1	1,8	1,8	100,0
Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	38	66,7	66,7	66,7
	To exposure scientific talks/results/interviews	1	1,8	1,8	68,4
	To recruit participants for a scientific study	1	1,8	1,8	70,2
	To set up a community of food healthy users	1	1,8	1,8	71,9
	To give general news about the food agency	2	3,5	3,5	75,4
	To promote and ask for participation in seminars/workshops	1	1,8	1,8	77,2
	To inform about their newsketters/brochures/charts/apps	4	7,0	7,0	84,2
	To offer information to prevent a food crisis	1	1,8	1,8	86,0
	To raise public concern and aware on food safety/hygiene	3	5,3	5,3	91,2
	To raise public concern and aware on food waste	1	1,8	1,8	93,0
	To offer updated information about food and food controls	1	1,8	1,8	94,7
	To promote and sell books and other material	1	1,8	1,8	96,5

	Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
To promote and sell their services	1	1,8	1,8	98,2
To give healthy recipes or tips	1	1,8	1,8	100,0
Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	46	80,7	80,7	80,7
	To promote job vacancies	1	1,8	1,8	82,5
	To exposure scientific talks/results/interviews	1	1,8	1,8	84,2
	To recruit participants for a scientific study	2	3,5	3,5	87,7
	To promote and ask for participation in seminars/workshops	3	5,3	5,3	93,0
	To inform about their newsketters/brochures/charts/apps	1	1,8	1,8	94,7
	To raise public concern and aware on food safety/hygiene	2	3,5	3,5	98,2
	To give information about food labelling	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	54	94,7	94,7	94,7
	To promote job vacancies	1	1,8	1,8	96,5
	To recruit participants for a scientific study	1	1,8	1,8	98,2
	To promote and ask for participation in seminars/workshops	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Aim of the platform

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	55	96,5	96,5	96,5
	To exposure the latest internal public relations events	1	1,8	1,8	98,2
	To recruit participants for a scientific study	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Does the platform only focus on food information?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Yes	37	64,9	64,9	64,9
	No	20	35,1	35,1	100,0
	Total	57	100,0	100,0	

Apart from food, does it include any of these information?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	20	35,1	35,1	35,1
	Exercise and lifestyle	2	3,5	3,5	38,6
	Medicines	8	14,0	14,0	52,6
	Non-comestible products	1	1,8	1,8	54,4
	Agriculture and veterinary information	19	33,3	33,3	87,7
	Environment information	6	10,5	10,5	98,2
	Other	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

Apart from food, does it include any of these information?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Not applicable	38	66,7	66,7	66,7
	Medicines	1	1,8	1,8	68,4
	Non-comestible products	3	5,3	5,3	73,7
	Agriculture and veterinary information	2	3,5	3,5	77,2

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Environment information	7	12,3	12,3	89,5
	Other	6	10,5	10,5	100,0
	Total	57	100,0	100,0	

Apart from food, does it include any of these information?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Not applicable	50	87,7	87,7	87,7
Válidos	Agriculture and veterinary information	1	1,8	1,8	89,5
	Environment information	1	1,8	1,8	91,2
	Other	5	8,8	8,8	100,0
	Total	57	100,0	100,0	

Description of other information topics

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
		45	78,9	78,9	78,9
	Diseases and addictions (tobacco, drugs, alcohol...)	1	1,8	1,8	80,7
	Diseases and vaccination	4	7,0	7,0	87,7
	Economy. None of the content is about food safety	2	3,5	3,5	91,2
	Ecotourism	1	1,8	1,8	93,0
Válidos	Gender parity and family, addictions and diseases	1	1,8	1,8	94,7
	Health, gender parity and family	1	1,8	1,8	96,5
	Innovation in food industry related products	1	1,8	1,8	98,2
	Work safety	1	1,8	1,8	100,0
	Total	57	100,0	100,0	

When was the last time the food agency posted anything?

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
	Today	9	15,8	15,8	15,8
	Yesterday	10	17,5	17,5	33,3
	2-3 days ago	7	12,3	12,3	45,6
	4-7 days ago	7	12,3	12,3	57,9
Válidos	8-15 days ago	5	8,8	8,8	66,7
	16-30 days ago	5	8,8	8,8	75,4
	1-6 months ago	11	19,3	19,3	94,7
	+6 months ago	3	5,3	5,3	100,0
	Total	57	100,0	100,0	

Estadísticos

Date of registration

N	Válidos	57
	Perdidos	0
Media		SEP 2011
Mediana		JAN 2012
Moda		JAN 2012
Desv. típ.		579 10:54:54,116
Mínimo		NOV 2006
Máximo		MAR 2014

Number of fans/followers/subscribers

N	Válidos	53
	Perdidos	4
Media		2906,40
Mediana		743,00
Moda		0ª
Mínimo		0
Máximo		73247
Suma		154039
Percentiles	20	54,40
	40	402,40
	60	781,80
	80	1752,80

a. Existen varias modas. Se mostrará el menor de los valores.

Fans number grup

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos		4	7,0	7,0	7,0
	Less than 100	13	22,8	22,8	29,8
	From 101 to 500	9	15,8	15,8	45,6
	From 501 to 1000	14	24,6	24,6	70,2
	More than 1001	17	29,8	29,8	100,0
	Total	57	100,0	100,0	

Estadísticos

Number of following

N	Válidos	21
	Perdidos	36
Media		314,48
Mediana		87,00
Moda		1
Desv. típ.		446,178
Mínimo		0
Máximo		1515
Suma		6604
Percentiles	25	13,50
	50	87,00
	75	461,00

Number following groups

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos		36	63,2	63,2	63,2
	Less than 100	11	19,3	19,3	82,5
	From 101 to 500	5	8,8	8,8	91,2
	From 501 to 1000	3	5,3	5,3	96,5
	More than 1001	2	3,5	3,5	100,0
	Total	57	100,0	100,0	

Estadísticos

		How many posts does it have in the last month?	How many from the agency in the last month?	How many from users in the last month?
N	Válidos	53	52	52
	Perdidos	4	5	5
Media		21,19	13,94	6,94
Mediana		10,00	7,00	,00
Moda		0	0	0
Desv. típ.		30,742	16,205	21,207
Mínimo		0	0	0
Máximo		161	60	133
Suma		1123	725	361
Percentiles	25	2,00	1,00	,00
	50	10,00	7,00	,00
	75	28,00	23,50	3,00

Posts Month Groups

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Less than 10 posts	28	49,1	52,8	52,8
	From 11 to 20 posts	10	17,5	18,9	71,7
	From 21 to 30 posts	3	5,3	5,7	77,4
	More than 31 posts	12	21,1	22,6	100,0
	Total	53	93,0	100,0	
Perdidos	Sistema	4	7,0		
Total		57	100,0		

Posts Month Agency Groups

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Less than 10 posts	31	54,4	59,6	59,6
	From 11 to 20 posts	7	12,3	13,5	73,1
	From 21 to 30 posts	5	8,8	9,6	82,7
	More than 31 posts	9	15,8	17,3	100,0
	Total	52	91,2	100,0	
Perdidos	Sistema	5	8,8		
Total		57	100,0		

Posts Month Users Groups

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	From 1 to 10 posts	18	31,6	34,6	34,6
	From 11 to 20 posts	2	3,5	3,8	38,5
	More than 31 posts	4	7,0	7,7	46,2
	Any posts	28	49,1	53,8	100,0
	Total	52	91,2	100,0	
Perdidos	Sistema	5	8,8		
Total		57	100,0		

		Engagement	Karma level	Facebook post interaction	Post sor tweets per day
N	Válidos	20	37	20	46
	Perdidos	37	20	37	11
Media		,5105	4,5027	1,6800	,8326
Mediana		,2000	3,4000	,6500	,3500
Moda		,20	,00	,00	,00
Desv. típ.		,64088	4,30932	2,58571	1,54702
Mínimo		,00	,00	,00	,00
Máximo		2,20	22,10	11,00	9,30
Suma		10,21	166,60	33,60	38,30
Percentiles	25	,0900	1,6000	,1000	,1000
	50	,2000	3,4000	,3500	,3500
	75	,6750	7,0000	,9000	,9000

		YouTube video-views	YouTube total likes	YouTube total dislikes	YouTube total comments
N	Válidos	9	9	9	9
	Perdidos	48	48	48	48
Media		242322,2222	238,56	32,44	58,78
Mediana		26000,0000	38,00	11,00	7,00
Moda		1700,00ª	2ª	0	3
Desv. típ.		418536,55091	366,164	41,696	94,057
Mínimo		1700,00	2	0	0
Máximo		1300000,00	1100	117	292
Suma		2180900,00	2147	292	529
Percentiles	25	7600,0000	15,00	1,50	2,50
	50	26000,0000	38,00	11,00	7,00
	75	320500,0000	392,00	63,00	77,00

Estadísticos

How many aims are described?

N	Válidos	57
	Perdidos	0
Media		5,65
Mediana		6,00
Moda		3
Desv. típ.		2,819
Mínimo		0
Máximo		11
Suma		322
Percentiles	25	3,00
	50	6,00
	75	8,00

Grups aims

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	Less than 3 aims	16	28,1	28,1	28,1
	From 4 to 6 aims	17	29,8	29,8	57,9
	From 7 to 9 aims	21	36,8	36,8	94,7
	More than 10 aims	3	5,3	5,3	100,0
	Total	57	100,0	100,0	

Estadísticos

Density of the posts/days (from 1-20)

N	Válidos	53
	Perdidos	4
Media		172,94
Mediana		57,00
Moda		10ª
Desv. típ.		265,307
Varianza		70387,785
Rango		1185
Mínimo		7
Máximo		1192
Suma		9166
Percentiles	25	21,50
	50	57,00
	75	158,50

Estadísticos

		Total number of posts	Total number of pictures and videos	Total number of albums	Total number of presentations and documents
N	Válidos	40	20	4	3
	Perdidos	17	37	53	54
Media		693,18	119,25	18,25	58,33
Mediana		303,00	31,50	15,50	59,00
Moda		145	1[a]	8[a]	29[a]
Desv. típ.		1073,697	219,184	11,087	29,006
Mínimo		4	1	8	29
Máximo		4952	939	34	87
Suma		27727	2385	73	175
Percentiles	25	146,75	10,50	9,75	29,00
	50	303,00	31,50	15,50	59,00
	75	759,75	144,25	29,50	.

a. Existen varias modas. Se mostrará el menor de los valores.

Tabla de contingencia Type of SM application * Registration years

			Registration years									Total
			2006	2007	2008	2009	2010	2011	2012	2013	2014	
Type of SM application	Facebook	Recuento	0	1	0	1	3	4	7	4	1	21
		% dentro de Type of SM application	0,0%	4,8%	0,0%	4,8%	14,3%	19,0%	33,3%	19,0%	4,8%	100,0%
		% dentro de Registration years	0,0%	100,0%	0,0%	16,7%	60,0%	40,0%	30,4%	44,4%	100,0%	36,8%
		% del total	0,0%	1,8%	0,0%	1,8%	5,3%	7,0%	12,3%	7,0%	1,8%	36,8%
	Twitter	Recuento	0	0	0	2	2	1	10	2	0	17
		% dentro de Type of SM application	0,0%	0,0%	0,0%	11,8%	11,8%	5,9%	58,8%	11,8%	0,0%	100,0%
		% dentro de Registration years	0,0%	0,0%	0,0%	33,3%	40,0%	10,0%	43,5%	22,2%	0,0%	29,8%
		% del total	0,0%	0,0%	0,0%	3,5%	3,5%	1,8%	17,5%	3,5%	0,0%	29,8%
	YouTube	Recuento	1	0	1	2	0	2	3	0	0	9
		% dentro de Type of SM application	11,1%	0,0%	11,1%	22,2%	0,0%	22,2%	33,3%	0,0%	0,0%	100,0%
		% dentro de Registration years	100,0%	0,0%	100,0%	33,3%	0,0%	20,0%	13,0%	0,0%	0,0%	15,8%
		% del total	1,8%	0,0%	1,8%	3,5%	0,0%	3,5%	5,3%	0,0%	0,0%	15,8%
	LinkedIn	Recuento	0	0	0	0	0	0	0	2	0	2
		% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	100,0%
		% dentro de Registration years	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	22,2%	0,0%	3,5%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,5%	0,0%	3,5%
	Issuu	Recuento	0	0	0	1	0	0	0	0	0	1
		% dentro de Type of SM application	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
		% dentro de Registration years	0,0%	0,0%	0,0%	16,7%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
		% del total	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
	Pinterest	Recuento	0	0	0	0	0	0	1	0	0	1
		% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	100,0%
		% dentro de Registration years	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	4,3%	0,0%	0,0%	1,8%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	1,8%
	Flickr	Recuento	0	0	0	0	0	1	2	0	0	3
		% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	33,3%	66,7%	0,0%	0,0%	100,0%
		% dentro de Registration years	0,0%	0,0%	0,0%	0,0%	0,0%	10,0%	8,7%	0,0%	0,0%	5,3%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	3,5%	0,0%	0,0%	5,3%
	Blogger	Recuento	0	0	0	0	0	1	0	0	0	1

		% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	100,0%
		% dentro de Registration years	0,0%	0,0%	0,0%	0,0%	0,0%	10,0%	0,0%	0,0%	0,0%	1,8%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	1,8%
		Recuento	0	0	0	0	0	1	0	1	0	2
	Slideshare	% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	50,0%	0,0%	50,0%	0,0%	100,0%
		% dentro de Registration years	0,0%	0,0%	0,0%	0,0%	0,0%	10,0%	0,0%	11,1%	0,0%	3,5%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	1,8%	0,0%	3,5%
		Recuento	1	1	1	6	5	10	23	9	1	57
Total		% dentro de Type of SM application	1,8%	1,8%	1,8%	10,5%	8,8%	17,5%	40,4%	15,8%	1,8%	100,0%
		% dentro de Registration years	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		% del total	1,8%	1,8%	1,8%	10,5%	8,8%	17,5%	40,4%	15,8%	1,8%	100,0%

Pruebas de chi-cuadrado

	Valor	gl	Sig. asintótica (bilateral)
Chi-cuadrado de Pearson	53,505[a]	64	,822
Razón de verosimilitudes	45,658	64	,960
N de casos válidos	57		

a. 79 casillas (97,5%) tienen una frecuencia esperada inferior a 5. La

frecuencia mínima esperada es ,02.

Tabla de contingencia Country * How many aims are described?

		How many aims are described?												Total
		0	1	2	3	4	5	6	7	8	9	10	11	
Country Austria	Recuento	0	1	0	3	0	2	0	1	0	0	0	0	7
	% dentro de Country	0,0%	14,3%	0,0%	42,9%	0,0%	28,6%	0,0%	14,3%	0,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	33,3%	0,0%	30,0%	0,0%	28,6%	0,0%	16,7%	0,0%	0,0%	0,0%	0,0%	12,3%
	% del total	0,0%	1,8%	0,0%	5,3%	0,0%	3,5%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	12,3%
Belgium	Recuento	0	0	0	1	0	2	0	0	0	1	0	0	4
	% dentro de Country	0,0%	0,0%	0,0%	25,0%	0,0%	50,0%	0,0%	0,0%	0,0%	25,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	10,0%	0,0%	28,6%	0,0%	0,0%	0,0%	12,5%	0,0%	0,0%	7,0%
	% del total	0,0%	0,0%	0,0%	1,8%	0,0%	3,5%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	7,0%
Czech Republic	Recuento	0	0	0	0	0	0	1	0	1	0	0	0	2
	% dentro de Country	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	50,0%	0,0%	50,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	20,0%	0,0%	14,3%	0,0%	0,0%	0,0%	3,5%
	% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	1,8%	0,0%	0,0%	0,0%	3,5%
Denmark	Recuento	0	1	0	0	0	0	0	0	0	0	0	0	1
	% dentro de Country	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
	% del total	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
Estonia	Recuento	1	1	0	0	0	0	0	0	0	0	0	0	2
	% dentro de Country	50,0%	50,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	50,0%	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,5%
	% del total	1,8%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,5%
Finland	Recuento	0	0	0	2	0	0	0	0	4	0	0	0	6
	% dentro de Country	0,0%	0,0%	0,0%	33,3%	0,0%	0,0%	0,0%	0,0%	66,7%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	20,0%	0,0%	0,0%	0,0%	0,0%	57,1%	0,0%	0,0%	0,0%	10,5%
	% del total	0,0%	0,0%	0,0%	3,5%	0,0%	0,0%	0,0%	0,0%	7,0%	0,0%	0,0%	0,0%	10,5%

Country														Total
France	Recuento	0	0	0	0	1	0	0	0	0	0	0	0	1
	% dentro de Country	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	20,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
	% del total	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
Ireland	Recuento	0	0	0	0	0	0	1	1	0	1	0	0	3
	% dentro de Country	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	33,3%	33,3%	0,0%	33,3%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	20,0%	16,7%	0,0%	12,5%	0,0%	0,0%	5,3%
	% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	1,8%	0,0%	1,8%	0,0%	0,0%	5,3%
Italy	Recuento	0	0	0	1	0	0	0	0	0	0	0	0	1
	% dentro de Country	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	10,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
	% del total	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
Lithuania	Recuento	0	0	0	0	0	0	0	0	0	1	0	0	1
	% dentro de Country	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	12,5%	0,0%	0,0%	1,8%
	% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	1,8%
Poland	Recuento	0	0	1	1	1	0	0	0	0	0	0	0	3
	% dentro de Country	0,0%	0,0%	33,3%	33,3%	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	100,0%	10,0%	20,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	5,3%
	% del total	0,0%	0,0%	1,8%	1,8%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	5,3%
Romania	Recuento	0	0	0	0	0	0	0	1	0	0	0	0	1
	% dentro de Country	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	16,7%	0,0%	0,0%	0,0%	0,0%	1,8%
	% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	1,8%

															Total
		Recuento	0	0	0	0	1	0	0	0	0	0	0	0	1
		% dentro de Country	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	Slovak Republic	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	20,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
		% del total	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
		Recuento	1	0	0	1	0	0	0	0	0	0	0	0	2
		% dentro de Country	50,0%	0,0%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
	Spain	% dentro de How many aims are described?	50,0%	0,0%	0,0%	10,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,5%
		% del total	1,8%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,5%
		Recuento	0	0	0	0	1	1	2	2	0	0	0	0	6
		% dentro de Country	0,0%	0,0%	0,0%	0,0%	16,7%	16,7%	33,3%	33,3%	0,0%	0,0%	0,0%	0,0%	100,0%
	Sweden	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	20,0%	14,3%	40,0%	33,3%	0,0%	0,0%	0,0%	0,0%	10,5%
		% del total	0,0%	0,0%	0,0%	0,0%	1,8%	1,8%	3,5%	3,5%	0,0%	0,0%	0,0%	0,0%	10,5%
		Recuento	0	0	0	0	1	1	1	1	1	2	0	0	7
		% dentro de Country	0,0%	0,0%	0,0%	0,0%	14,3%	14,3%	14,3%	14,3%	14,3%	28,6%	0,0%	0,0%	100,0%
	The Netherlands	% dentro de How many aims are described?	0,0%	0,0%	0,0%	0,0%	20,0%	14,3%	20,0%	16,7%	14,3%	25,0%	0,0%	0,0%	12,3%
		% del total	0,0%	0,0%	0,0%	0,0%	1,8%	1,8%	1,8%	1,8%	1,8%	3,5%	0,0%	0,0%	12,3%
		Recuento	0	0	0	1	0	1	0	0	1	3	1	2	9
		% dentro de Country	0,0%	0,0%	0,0%	11,1%	0,0%	11,1%	0,0%	0,0%	11,1%	33,3%	11,1%	22,2%	100,0%
	United Kingdom	% dentro de How many aims are described?	0,0%	0,0%	0,0%	10,0%	0,0%	14,3%	0,0%	0,0%	14,3%	37,5%	100,0%	100,0%	15,8%
		% del total	0,0%	0,0%	0,0%	1,8%	0,0%	1,8%	0,0%	0,0%	1,8%	5,3%	1,8%	3,5%	15,8%
		Recuento	2	3	1	10	5	7	5	6	7	8	1	2	57
		% dentro de Country	3,5%	5,3%	1,8%	17,5%	8,8%	12,3%	8,8%	10,5%	12,3%	14,0%	1,8%	3,5%	100,0%
Total		% dentro de How many aims are described?	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		% del total	3,5%	5,3%	1,8%	17,5%	8,8%	12,3%	8,8%	10,5%	12,3%	14,0%	1,8%	3,5%	100,0%

Tabla de contingencia Type of SM application * When was the last time the food agency posted anything?

			When was the last time the food agency posted anything?								Total
			Today	Yesterday	2-3 days ago	4-7 days ago	8-15 days ago	16-30 days ago	1-6 months ago	+6 months ago	
Type of SM application	Facebook	Recuento	4	2	4	5	2	1	3	0	21
		% dentro de Type of SM application	19,0%	9,5%	19,0%	23,8%	9,5%	4,8%	14,3%	0,0%	100,0%
		% dentro de When was the last time the food agency posted anything?	44,4%	20,0%	57,1%	71,4%	40,0%	20,0%	27,3%	0,0%	36,8%
		% del total	7,0%	3,5%	7,0%	8,8%	3,5%	1,8%	5,3%	0,0%	36,8%
	Twitter	Recuento	5	6	3	0	2	1	0	0	17
		% dentro de Type of SM application	29,4%	35,3%	17,6%	0,0%	11,8%	5,9%	0,0%	0,0%	100,0%
		% dentro de When was the last time the food agency posted anything?	55,6%	60,0%	42,9%	0,0%	40,0%	20,0%	0,0%	0,0%	29,8%
		% del total	8,8%	10,5%	5,3%	0,0%	3,5%	1,8%	0,0%	0,0%	29,8%
	YouTube	Recuento	0	0	0	1	1	2	4	1	9
		% dentro de Type of SM application	0,0%	0,0%	0,0%	11,1%	11,1%	22,2%	44,4%	11,1%	100,0%
		% dentro de When was the last time the food agency posted anything?	0,0%	0,0%	0,0%	14,3%	20,0%	40,0%	36,4%	33,3%	15,8%
		% del total	0,0%	0,0%	0,0%	1,8%	1,8%	3,5%	7,0%	1,8%	15,8%
	LinkedIn	Recuento	0	1	0	0	0	0	1	0	2
		% dentro de Type of SM application	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%	50,0%	0,0%	100,0%
		% dentro de When was the last time the food agency posted anything?	0,0%	10,0%	0,0%	0,0%	0,0%	0,0%	9,1%	0,0%	3,5%
		% del total	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	3,5%
	Issuu	Recuento	0	0	0	1	0	0	0	0	1
		% dentro de Type of SM application	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	100,0%
		% dentro de When was the last time the food agency posted anything?	0,0%	0,0%	0,0%	14,3%	0,0%	0,0%	0,0%	0,0%	1,8%
		% del total	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	1,8%
	Pinterest	Recuento	0	0	0	0	0	0	0	1	1

		% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	100,0%
		% dentro de When was the last time the food agency posted anything?	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	33,3%	1,8%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	1,8%
		Recuento	0	0	0	0	0	0	2	1	3
	Flickr	% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	66,7%	33,3%	100,0%
		% dentro de When was the last time the food agency posted anything?	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	18,2%	33,3%	5,3%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,5%	1,8%	5,3%
		Recuento	0	1	0	0	0	0	0	0	1
	Blogger	% dentro de Type of SM application	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
		% dentro de When was the last time the food agency posted anything?	0,0%	10,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
		% del total	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%
		Recuento	0	0	0	0	0	1	1	0	2
	Slideshare	% dentro de Type of SM application	0,0%	0,0%	0,0%	0,0%	0,0%	50,0%	50,0%	0,0%	100,0%
		% dentro de When was the last time the food agency posted anything?	0,0%	0,0%	0,0%	0,0%	0,0%	20,0%	9,1%	0,0%	3,5%
		% del total	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	1,8%	0,0%	3,5%
		Recuento	9	10	7	7	5	5	11	3	57
Total		% dentro de Type of SM application	15,8%	17,5%	12,3%	12,3%	8,8%	8,8%	19,3%	5,3%	100,0%
		% dentro de When was the last time the food agency posted anything?	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		% del total	15,8%	17,5%	12,3%	12,3%	8,8%	8,8%	19,3%	5,3%	100,0%