

# Social Media and Government Responsiveness: The Case of the UK Food Standards Agency

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**Abstract.** Social media are often regarded as a set of new communication practices which are likely, if deployed effectively, to make public sector organisations more responsive to the various stakeholders with whom they interact. In this context, responsiveness is usually approached as an administrative function of establishing additional channels of information and responding faster to citizen queries. Notwithstanding the importance of these objectives, this study aims to reconceptualise the relationship between social media and government responsiveness. Drawing on current literature and the case of the Food Standards Agency in the UK, the study identifies new dimensions of social media responsiveness. The findings of this study can provide useful insights both for researchers in the area and those in the process of developing social media strategies in government.

**Keywords:** Social Media Adoption, Government Responsiveness, Open Government, UK Government, Food Communication, Case Study.

## 1 Introduction

Although a responsive government is praised by everyone, the various aspects of this concept are not always clear [22]. Broadly, being a responsive government could mean "responding easily to any and all demands" or entail democratic dimensions such as "reflecting and giving expression to the will of the people" [20].

As a growing number of government organisations are in the process of social media adoption, the anticipated benefit of improved responsiveness is usually an important motivation. In this context, social media responsiveness is likely to be centred on administrative functions such as increasing direct interactions with citizens, replying faster to queries and providing opportunities for stakeholders to access, share and comment on government information [10], [21], [24].

The aim of this paper is to examine the relationship between social media and government responsiveness. While the paper does not challenge the positive impact of social media on government responsiveness *per se*, it posits that this relationship requires a more comprehensive examination. Government responsiveness is not just administrative aspects of information provision or responding to public demands for

information and action. Complementary views of responsiveness emphasise the ability to listen to the public and respond in a collaborative and consistent manner, e.g. [26], [27]. Few studies of social media in government have so far touched upon these aspects of responsiveness [14], [17].

The paper reports on the case of the Food Standards Agency (FSA), which is the government body responsible for food safety and food hygiene across the United Kingdom. The FSA's approach illustrates how social media can contribute to responsiveness with initiatives that promote positive behavioural change to the public, reach specific target audiences and demonstrate proactive commitment to food safety. The next sections develop a more detailed conceptualisation of government responsiveness after positioning the concept within current work. Following the methodology and case background, the paper discusses the FSA's approach to social media. The outcome of this discussion provides a springboard for future research in the area, as well as assisting policy makers in delineating the value of social media in this context.

## **2 Background: Social Media in Government**

Broadly, the use of social media in government has been associated with openness, transparency and even anti-corruption e.g. [2], [3], [4]. When it comes to impact on micro-interactions between citizens and governments, social media bears high expectations in terms of responsiveness. This includes expectations to reply instantly to queries, provide continuous updates of information and be prepared to engage with the public on emerging issues. While this potential might be fulfilled in certain cases, high expectations of responsiveness have mostly proven unrealistic. Such expectations may be a key reason explaining why government organisations do not generally use social media, as specific incidents of government non-responsiveness on social media can be explicitly highlighted by the disappointed public [18]. In turn, even if government organisations appear responsive, the public might not always respond as intended. This phenomenon has been identified as a form of technical rationality, which assumes that citizens will engage more if the government finds them where they are, online [1].

At the strategic level, looking at the processes of social media adoption in government points to why responsiveness remains an important aim that is difficult to conceptualise and practice. Social media practices are likely to be initially diffused in government organisations as an outcome of entrepreneurial activities launched by actors who seize sparse opportunities [17]. At the beginning of such initiatives, social media are likely to be used to complement existing channels of information dissemination before becoming spaces of interaction and more standard practices. As this process matures and interactions via social media increase, information policies and regulatory frameworks usually struggle to cope with the public's expectations for responsiveness [2], [4]. The volume, complexity and fast pace of social media interactions require not only more formal policies but also an adaptation process that is likely to be in tension with bureaucratic structures of governance [18].

A balanced account of responsiveness also needs to consider that social media cannot be treated as a single entity or even a set of tools with interchangeable properties. The value proposition of different social media applications usually conveys different expectations of responsiveness in different government domains. Each value proposition matches the use of tools and channels of interaction with different engagement audiences and intended added values [19]. For example, microblogging applications such as Twitter are usually considered a catalyst of increased responsiveness due to their immediacy and real-time nature [29]. Other tools such as blogs serve diverse purposes of more in-depth engagement with the general public or specific groups of experts [15].

### 3 Conceptualising Responsiveness

In the business world, responsiveness to the communication needs of different stakeholders - including consumers - has been at the core of how organisations leverage value. Meehan and Dawson [16] emphasise that responsiveness is about getting it “fast and right”. The route to demonstrating timely and effective responsiveness requires certain elements of learning - such as the ability to balance risk tolerance and speed - that cannot always be found even with major consumer-focused organisations. Zaheer and Zaheer [31] note another important dimension by explaining that alertness as proactive attentiveness to information is closely related to responsiveness. Research has also shown that website design features can have a direct impact on organisational responsiveness to stakeholder information needs [11].

That government responsiveness is an objective worth pursuing is generally accepted since it relates directly to citizen’s perceptions of being able to influence government decision making [12]. A variety of policy and cultural factors can shape people’s perceptions of government responsiveness [28]. Vigoda [28] synthesises different views of responsiveness that focus on performance or the ability of large bureaucracies to apply general management practices in their effort to serve the public. Bureaucrats could be considered responsive because of choosing business-like methods to fulfil their responsibility to the public [26].

Current literature tends to emphasise that high levels of social media maturity in government are associated with the ability to enhance information dissemination, timely responsiveness to the public and, at later stages, to engage with them e.g. [13]. High expectations of responsiveness are commonly reflected in measures of interaction (e.g. Twitter mentions) and reach of information shared (e.g. retweets). For example, exercises labelled as crowdsourcing, whether invited by governments or conducted in a less mediated way, are usually approached as complicated technical challenges where massive input from the public can provide useful insight e.g. [25]. Similarly, use of social media is related to the government’s ability to monitor and respond to public safety or emergency issues in a timely fashion e.g. [10].

Notwithstanding their importance, these uses of social media in government usually account for an administrative view of responsiveness or improving the government’s ability to react to the public. A complementary view of responsiveness

emphasises the capacity to listen, facilitating an understanding of the audience and promoting new ways of engaging [26]. Commitment to listening not only improves the government's ability to react but also enhances its role to create public value. This marks what Vigoda describes as a shift from administrative to collaborative responsiveness [27]. Collaboration not only in terms of increasing direct interactions but also in terms of the government's ability to change behaviours and engage proactively.

So far, few studies of social media have explored this potential of government responsiveness or linked it within practical contexts of use. Linders [14] draws on a similar perspective by discussing new models of interaction where social media support the government's efforts to be proactive, monitor public wellbeing and promote positive behavioural change. Mergel reports [17] on empirical data gathered from social media directors in the USA federal government who identify the potential for networking as a desirable goal that could support a "highly interactive and bidirectional" type of responsiveness (p.6). However, interviewees were not able to point to the specifics of how such a networking strategy can take place. Therefore, beyond using social media to support administrative functions, other forms of government responsiveness merit further attention and empirical investigation.

## 4 Case Background and Methodology

To empirically examine how social media can make public organisation more responsive, a single case study approach was selected based on a critical or unique case [30]. The case of the Food Standards Agency (FSA) was selected due to its distinctive features in relation to the aim of this study. This relates to the structures and communication needs of the FSA, combined with its approach to social media which takes into account different aspects of how the agency could enhance its responsiveness to the public.

Given that everyone has a stake in food, it is not surprising that the communication structures and needs of the FSA are quite complicated and multi-layered. The agency has departments in Scotland, Wales and Northern Ireland and is responsible for communicating with the public about a variety of issues related to food consumption, transportation, storage, safety and hygiene. As the principal food governance body in the UK, the FSA interacts with a wide range of stakeholders who have professional interests in food, for example, experts in nutrition, health scientists, journalists and organisations in the food industry (e.g. supermarkets). Also, the FSA collaborates with other national and European food governance authorities, as well as local government authorities about the hygiene rating of eating facilities. Finally, the agency organises consumer surveys about eating habits across the UK.

Further to the more routine aspects of food monitoring, inspection and regulation, the work of the agency often requires the handling of food safety crises, which are becoming very important in Europe e.g. [9], [23]. A high-profile crisis in which the FSA has been recently involved is the *Escherichia Coli* outbreak in Germany and other parts of Europe (summer 2011). Also, since the beginning of 2013, the agency has been involved in a crisis stimulated by the detection of horsemeat traces in beef

products. The ‘horse meat crisis’ at the UK and European level has been raising significant public interest about food safety issues and the activities of the FSA to support and protect consumers.

Due to these diverse and broad communication needs, the FSA’s approach to social media was, *a priori*, a significant challenge. The agency needs to demonstrate responsiveness in communicating with the diverse audiences with which it interacts. Evidence of the FSA’s online presence indicated that due to its specific conditions, the organisation was using social media to be responsive in many different ways. For example, the agency was using its YouTube and Twitter accounts to promote healthy eating habits and advise the public about food safety. Therefore, there was scope to examine the formulation and course of this approach as a case that can inform future practice. Data collection for this study included the following sources:

- Documentary data related to statistics about questions received by the FSA, the remit of the FSA in food governance, its broader role, strategic mission, history and stakeholder groups. This included statements about communication needs and structures using offline and online channels. Most of these sources were available online through the FSA’s website or other UK government sources.
- Online data sources from websites and social media sites, with an emphasis on YouTube, Twitter and Facebook. This included examples of responses and content monitored by the agency, audience characteristics, online critics, supporters of the FSA’s work, etc.
- Four interviews with officials from the FSA including a research presentation focused on consumers’ perceptions of food information. The interviews were conducted in 2012 and were complemented by further telephone and email exchanges. The interview findings were coded thematically and cross-examined with the documentary evidence and online sources. The focus of the interviews was on four main questions:
  1. What are the communication needs of the agency and what kind of questions and comments are usually received by the public?
  2. Which channels are used for receiving questions and comments from food consumers or initiating discussions with them? How are response processes organised?
  3. What is the agency’s commitment to answer questions related to food risks and benefits? How is this commitment affected by food safety incidents or crises?
  4. How have social media changed the way the agency communicates with the public?

## 5 Social Media and the UK Food Standards Agency

At the heart of the FSA’s communication activities is the aim to help protect consumers and improve food safety. Long-term food-related problems in the UK range from high levels of obesity to major food safety incidents. Apart from people’s

well-being, these issues can negatively affect the UK economy, as was the case with the BSE crisis in the 1990s (known as the “mad cow” disease). The work of the FSA is further complicated because, although everyone eats on a daily basis, food policies and regulations require elaborate scientific evidence, continuous monitoring (e.g. meat audit) and close collaboration with European food authorities. Despite these challenges, consumers have a legitimate interest in understanding, influencing and seeking explanations about food policy decisions. Consumers also require support in their everyday eating habits such as advice about food risks and benefits. One of the FSA’s main actions to support consumers is the Food Hygiene Scheme, whose ratings range from 0 (improvement urgently needed) to 5 (very good). All food premises are encouraged to display these stickers and certificates in a visible location. Further to routine support of consumers, the FSA needs to attend to specific seasons when eating habits change, for example, during Christmas or Easter holidays.

Before the use of digital media, the FSA’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.

## 5.1 Digital Media and Food Communication

Table 1 provides an overview of the main digital communication tools used by the FSA. The agency maintains a large variety of channels for information dissemination, social bookmarking and networking. Apart from the main website, the FSA has organised training websites and an open access repository for food-related documentation. Also, the agency has decided that all Board meetings that produce food policy decisions should be open to the public. Since 2003, Board meetings are available through live webcast including a public questions and answers section.

With regards to social media, emphasis has been placed on the YouTube channel and the Twitter feed. Twitter is used to alert about new content and invite people to provide feedback about specific issues. Conversations with other Twitter users take place regularly, on certain occasions even initiated by the agency’s account when relevant conversations are identified. An important part of the digital strategy is also the Chief Scientist’s blog which communicates about scientific issues (e.g. food sampling and testing).

Email alerts and RSS feeds have complemented traditional alerting systems about product recalls and allergy warnings. More recently, mobile applications have been used for hygiene ratings and allergies alerts. Social bookmarking and visualisation tools such as Pinterest and Thinglink have been explored as ways to support thematic campaigns around holiday seasons and provide interactive calendars. Finally, the agency uses the internal networking tool Yammer (about 900 people). Yammer is used for internal information sharing and collaboration between FSA employees and even external stakeholders.

**Table 1.** Overview of digital communications used by the FSA

<b>Communication channels</b>	<b>Use and objectives</b>
<i>Main website</i>	The main website <i>food.gov.uk</i> acts as a central point of information, contact and debate about wider issues related to food hygiene and safety.
<i>Training websites</i>	The website <i>allergytraining.food.gov.uk</i> provides training, facts and resources about food-related allergies. The website <i>vacuumpackingtraining.food.gov.uk</i> provides training for enforcement officers.
<i>Open access repository</i>	The open access repository <i>foodbase.org.uk</i> contains all documentation produced by the FSA including scientific studies and reports of research conducted with the public.
<i>Chief Scientist blog</i>	The agency's chief scientist maintains a blog named Hungry for Science. The aim of this blog is to communicate food-related scientific issues to the public such as and sampling and testing procedures.
<i>Facebook groups</i>	Facebook groups are used for regular communication and special thematic campaigns such as the "Food Safety Week" and the "Food Hygiene Rating Scheme". There is also a separate page in Welsh, or Cymraeg, for Welsh language speakers.
<i>Twitter feed</i>	The Twitter account is an important part of the agency's social media strategy with over 10,000 followers, many of which are food professionals and experts. Additional Twitter feeds might be used such as the @playitsafe food during the London 2012 Olympics or special hashtags such as the #FHRS for the Food Hygiene Rating Scheme.
<i>YouTube channel</i>	The agency has used YouTube since 2006 with over 70 videos and 210,000 views. Most videos are about food safety training such as hand washing for professionals and cooking safety advice. Many of these videos are embedded in the agency's website in specialised pages that include guidance and information (interactive training tools).
<i>Email alerts and RSS feeds</i>	RSS feeds and email alerts are used for food recalls, allergy warnings and stories related to the work of the agency in Scotland, Wales and Northern Ireland.
<i>Live streams</i>	The agency's Board meetings are broadcast and archived with the option for the audience to submit live questions.

**Table 1.** (Continued.)

<i>Social bookmarking and presentation tools</i>	The agency uses Pinterest as a visual bookmarking tool. Boards created centre around general food issues or galleries for family food planning, Food Safety Week and a food calendar for the Christmas season. Thinglink is another tool used for interactive images such as food calendars. Infographics are also used for thematic campaigns.
<i>Mobile applications</i>	The agency uses mobile applications for the hygiene rating scheme and allergy alerts. The applications are available on different platforms (Android, iOS and Windows).

## 5.2 Social Media Interactions

It is important to consider the impact of these channels on the agency's traditional interaction with the public. Online information channels make it easy to find factual information about policies, food issues and the work of the agency. As a result, previously simple questions have been replaced by more complicated queries which require evidence from multiple sources or even expert consultation in order to be answered. Consumers and food professionals use Twitter and Facebook to seek detailed information about policies or clarifications for regulations. Examples of such queries include nanotechnology, the labelling of specific ingredients and differences between product expiry dates.

Commitment to respond to questions is implicit but the responses are well communicated on social media channels. Usually, an immediate response acknowledges the issue and then a detailed response is provided after investigating the matter. This builds on a broader protocol of main principles about how to handle questions on each channel (Social Media Response Assessment). For example, phone queries are traditionally responded to within three days but social media demand more immediacy and flexibility. Commitment to respond and engage has been made explicit to the public through a social media use policy and guidelines [6], including a separate page for Twitter [7]. Questions are likely to increase when potential food safety issues, such as the horsemeat crisis, arise. On such occasions, social media can be effective and transparent as previously one-to-one questions on helplines can evolve into one-to-many or even many-to-many conversations.

Further to the response processes, an important part of the FSA's approach to social media is gaining an advanced understanding of the audience and building relationships with specific groups. This objective is directly driven by the mission to promote safe and healthy eating habits. A proactive approach to audience understanding and relationship building is emphasised in the organisation's strategy. At the operational level, it is enabled by the use of social media monitoring tools and dashboards, which provide the "listening" infrastructure to intervene and engage. Conversations about food take place on a regular basis and understanding the stakeholders involved and their networks is considered the first step to cultivate relationships with them. Relationships usually start with simple online actions such as

“retweeting”, “mention”, “like” or “pin”. These actions can then be escalated into more permanent ones such as “followers” or “friends”.

Whether these relationships are established on an ad hoc or regular basis, network effects can support the agency’s aim to share key messages and campaigns about food issues with a diverse audience. This relates to public awareness and building trust with different groups of key influencers such as allergen charities, consumer organisations and networks of food professionals. It also relates to reaching consumers with specific demographic characteristics such as students, the elderly, mothers and teenagers. Interviewees were able to provide specific examples of how the digital networks of key influencers were used as a platform to promote the FSA’s campaigns. Support comes from simple actions such as retweeting a message to more elaborate forms such as providing scientific evidence and expert opinions. For example, regional issues are addressed with the help of local government authorities and consumer organisations provide support for healthy eating. This networking tactic builds on the agency’s traditional authority over food issues that guarantees high visibility through digital channels.

Furthermore, monitoring and network alertness can support proactiveness when food safety incidents take place. A well-known case is when the agency used a dedicated social media dashboard to receive alerts over emerging risks during the London 2012 Olympics [8]. Following a rumour that the Australian and Canadian badminton teams were falling ill with food poisoning, the agency intervened quickly before the escalation of the incident. Eventually, the cause was not a virus from a food source and the cases were limited to five members of the Olympic teams.

## 6 Discussion and Conclusion

The aim of this paper is to examine the relationship between social media and government responsiveness. Current work suggests that social media have been related to different aspects of government responsiveness such as expectations to provide information and responses to the public. Beyond these aspects of administrative responsiveness, there are other dimensions of the concept where social media can be of added value.

The case of the Food Standards Agency provides insight into elements of social media responsiveness based on listening, networking and collaborative aspects [26], [27]. More specifically, the case points to the following directions:

1. *Managing expectations of responsiveness*: responsiveness requires keeping social media activities focused and consistent, such that it is clear for the public how and when interactions can take place. Apart from providing explicit policies and guidelines, this needs to be demonstrated in terms of commitment to, and consideration of, responding fast and responding right [16]. The FSA has managed to maintain a good balance, which will certainly be challenged if the volume of interactions increases.
2. *Audience and network awareness*: the FSA’s targeted approach to reaching groups of consumers and food professionals shows how responsiveness is

not about the volume of interactions but the ability to be responsive to specific audiences for specific purposes [22]. For example, 10,000 followers for the agency's Twitter account is not an impressive figure on its own but the added value of Twitter has been important in reaching the networks of contacts and promoting campaigns.

3. *Proactive monitoring and alertness*: using social media as information sources can inform the FSA about public sentiment and emerging issues, but only when they build on understanding specific audiences. General feedback mechanisms, no matter how technically sophisticated they might be, cannot provide useful and actionable insight if they lack understanding of the audience.
4. *Promoting positive behavioural change*: responsiveness to frame public perceptions through digital media suited well the FSA's existing communication style and mission. A wide range of means such as mobile applications, video sharing and interactive training tools are used to educate the public about food hygiene and safety. There is considerable scope to use social media for government activities that promote public education.

Despite its importance, the case of the FSA does not aim to provide an exemplar of responsiveness enabled by social media. Even if the FSA has not realised the full potential of social media, its emphasis on non-administrative elements and network awareness provides useful directions for practice. The FSA's rapid progress and well-considered social media development plan worth attention by government departments in similar processes. However, within the contextual limitations of this case and beyond, there are certain caveats to the concept of social media responsiveness that have to be made explicit.

An important limitation is that how citizens make sense of government responsiveness is a complicated matter [28]. Especially in the case of the FSA, people might assess decisions about food policies along single dimensions while the work of the agency involves complicated scientific and regulatory issues. For example, meat audit is not always within the remit of the FSA authority due to European regulations. As Mergel notes [18], the real challenge lies in assessing the actual influence of government initiatives beyond the number of people engaging with them. Brand reputation metrics used by commercial social media monitoring solutions are not likely to provide good indicators of responsiveness if not closely aligned with a public sector organisation's key mission to influence and engage.

Another inherent limitation to social media responsiveness is that those people most likely to engage on social media do not represent the general public. For example, in many of its initiatives, the FSA seeks to reach people with below average socio-economic status as they are more likely to have less healthy eating habits. Studies with the British population show that socio-economic status is associated with higher content creation in social networking sites than online means such as blogs [5]. Therefore, initiatives that focus on eating habits could be targeted accordingly. Not only it is difficult for government communicators to assess these new aspects, but also they have limited control over them.

As social media use in government matures, future work can elaborate on the dimensions of government responsiveness and examine what responsiveness means to

specific groups of the population who engage in social media activities. Social media users might not always represent the general public, but they do open significant opportunities to improve citizen-government interactions and inform policy development.

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## References

1. Bannister, F., Connolly, R.: Forward to the Past: Lessons for the Future of e-Government from the Story so Far. *Information Polity* 17, 211–226 (2012)
2. Bertot, J.C., Jaeger, P.T., Grimes, J.M.: Promoting Transparency and Accountability through ICTs, Social Media, and Collaborative e-Government. *Transforming Government: People, Process and Policy* 6, 78–91 (2012)
3. Bertot, J.C., Jaeger, P.T., Grimes, J.M.: Using ICTs to Create a Culture of Transparency: E-Government and Social Media as Openness and Anti-Corruption Tools for Societies. *Government Information Quarterly* 27, 264–271 (2010)
4. Bertot, J.C., Jaeger, P.T., Hansen, D.: The Impact of Polices on Government Social Media Usage: Issues, Challenges, and Recommendations. *Government Information Quarterly* 29, 30–40 (2012)
5. Blank, G.: Who Creates Content? *Information, Communication & Society* 16, 590–612 (2013)
6. Food Standards Agency: Terms and Conditions for Blogs and Social Networks (2012), <http://food.gov.uk/about-us/data-and-policies/aboutsite/termsandconditions/tcssocial/> (accessed March 15, 2013)
7. Food Standards Agency: Twitter Policy (2013), <http://food.gov.uk/about-us/data-and-policies/aboutsite/termsandconditions/tcssocial/twitterpolicy> (accessed March 15, 2013)
8. Government Communication Network: How the Food Standards Agency are using Social Media (2012), <https://gcn.civilservice.gov.uk/page/5/> (accessed March 15, 2013)
9. Jacob, C.J., Lok, C., Morley, K., et al.: Government Management of Two Media-Facilitated Crises Involving Dioxin Contamination of Food. *Public Understanding of Science* 20, 261–269 (2011)
10. Kavanaugh, A.L., Fox, E.A., Sheetz, S.D., et al.: Social Media use by Government: From the Routine to the Critical. *Government Information Quarterly* 29, 480–491 (2012)
11. Kent, M.L., Taylor, M., White, W.J.: The Relationship between Web Site Design and Organizational Responsiveness to Stakeholders. *Public Relations Review* 29, 63–77 (2003)
12. Kim, S., Lee, J.: E-Participation, Transparency, and Trust in Local Government. *Public Administration Review* 72, 819–828 (2012)
13. Lee, G., Kwak, Y.H.: An Open Government Maturity Model for Social Media-Based Public Engagement. *Government Information Quarterly* 29, 492–503 (2012)

14. Linders, D.: From e-Government to we-Government: Defining a Typology for Citizen Coproduction in the Age of Social Media. *Government Information Quarterly* 29, 446–454 (2012)
15. Mahler, J., Regan, P.M.: Federal Agency Blogs: Agency Mission, Audience, and Blog Forms. *Journal of Information Technology & Politics* 8, 163–176 (2011)
16. Meehan, S., Dawson, C.: Customer Responsiveness: Getting it Fast and Right through Impatience and Intolerance. *Business Strategy Review* 13, 26–37 (2002)
17. Mergel, I.: Social Media Adoption and Resulting Tactics in the U.S. Federal Government. *Government Information Quarterly* 30, 123–130 (2013)
18. Mergel, I.: The Social Media Innovation Challenge in the Public Sector. *Information Polity* 17, 281–292 (2012)
19. Panagiotopoulos, P., Al-Debei, M.M., Fitzgerald, G., et al.: A Business Model Perspective for ICTs in Public Engagement. *Government Information Quarterly* 29, 192–202 (2012)
20. Pennock, J.R.: Responsiveness, Responsibility, and Majority Rule. *The American Political Science Review* 46, 790–807 (1952)
21. Picazo-Vela, S., Gutiérrez-Martínez, I., Luna-Reyes, L.F.: Understanding Risks, Benefits, and Strategic Alternatives of Social Media Applications in the Public Sector. *Government Information Quarterly* 29, 504–511 (2012)
22. Saltzstein, G.H.: Conceptualizing Bureaucratic Responsiveness. *Administration & Society* 17, 283–306 (1985)
23. Shan, L., Regan, A., De Brún, A., et al.: Food Crisis Coverage by Social and Traditional Media: A Case Study of the 2008 Irish Dioxin Crisis. *Public Understanding of Science* (in press)
24. Snead, J.T.: Social Media use in the U.S. Executive Branch. *Government Information Quarterly* 30, 56–63 (2013)
25. Sobkowicz, P., Kaschesky, M., Bouchard, G.: Opinion Mining in Social Media: Modeling, Simulating, and Forecasting Political Opinions in the Web. *Government Information Quarterly* 29, 470–479 (2012)
26. Stivers, C.: The Listening Bureaucrat: Responsiveness in Public Administration. *Public Administration Review* 54, 364–369 (1994)
27. Vigoda, E.: From Responsiveness to Collaboration: Governance, Citizens, and the Next Generation of Public Administration. *Public Administration Review* 62, 527–540 (2002)
28. Vigoda, E.: Are You being Served? the Responsiveness of Public Administration to Citizens? Demands: An Empirical Examination in Israel. *Public Administration* 78, 165–191 (2000)
29. Waters, R.D., Williams, J.M.: Squawking, Tweeting, Cooing, and Hooting: Analyzing the Communication Patterns of Government Agencies on Twitter. *Journal of Public Affairs* 11, 353–363 (2011)
30. Yin, R.: *Case study research: Design and methods*, 4th edn. SAGE, California (2009)
31. Zaheer, A., Zaheer, S.: Catching the Wave: Alertness, Responsiveness, and Market Influence in Global Electronic Networks. *Management Science* 43, 1493–1509 (1997)