

Crisis Communication Strategies After the Fukushima Nuclear Disaster

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福島第一原子力発電所事故後の通信の危機

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Abstract

Following the earthquake and tsunami on March 11th, 2011, Japan faced the largest nuclear disaster since Chernobyl. The outdated crisis communications strategies used by Tokyo Electric Power Company and the Japanese government in the aftermath of this disaster led to a growth in public panic and outrage. This could have been mitigated with more effective communications strategies. Issues regarding the accuracy, timeliness, and clarity of the information released via mass media led to a loss of public trust that made acquiring reliable information all the harder for a population already facing life-threatening crises. Meanwhile, the Japanese and global publics stepped up by using the new media resources that had evolved in recent years to make accurate information more readily available. In the aftermath of the disaster, the traditional media channels took a hit in credibility in Japan. In order to restore credibility and effectively manage future disasters, Japanese organizations need to develop crisis communications strategies that center on the safety of the public, utilizing the strengths of both mass media and new media.

Introduction

On March 11, 2011, Japan was struck with a 9.0 Richter magnitude earthquake. This was the largest earthquake to strike Japan in recorded history, and the devastation was enormous. Aside from the initial destruction the earthquake caused, mere minutes afterwards a tsunami struck which was, in places, over 30 meters tall. Destruction following these natural disasters was beyond anything that the country had prepared for. Fukushima Daiichi, a nuclear power plant only 80 kilometers from the epicenter of the earthquake, was particularly brutally hit by these events; in the aftermath of the tsunami three of the six reactors suffered meltdowns. By the conclusion of the crisis, the Fukushima Daiichi Nuclear Disaster (福島第一原子力発電所事故) was the largest nuclear meltdown since Chernobyl.

The immediate crisis following the meltdowns was the containment of the nuclear disaster and insurance of public safety. However, a secondary crisis faced the Tokyo Electric Power Company (TEPCO), the company in charge of the Fukushima plants, in the aftermath of the meltdowns: the public's panic and outrage regarding this preventable disaster. Crisis communication, ordinarily fairly low down on the company's list of priorities, became suddenly the thing that would make or break the nation's support of nuclear power, and the only thing that could stem the tide of growing panic. The methods of crisis communication that occurred in the aftermath of the Fukushima Disaster were unprecedented in Japanese history. The advent and viral growth of social media such as Twitter, Facebook, and blogging, on top of the ongoing evolution of mediums such as newspapers and television, led to the public getting information in ways that nobody had foreseen. In order to effectively communicate in any future crisis in Japan, natural or

otherwise, it is necessary to understand how these evolving information sources have affected public perception. Eventually, it should be possible to construct a new model of crisis communication in Japan, one which allows timely, confident communication with the public. These strategies could effectively control public perception of the crisis – not just to protect the company’s image or reduce panic, but ultimately to ensure the safety of the public as much as the organization is able.

The first step of looking at the crisis communications in the wake of the disaster is to look at the traditional, formal avenues of communication which the company used to disseminate information. This included nearly daily press conferences, press releases, and interviews with reporters for features in various newspapers and television news programs. Historically, Japanese trust in traditional media such as this has been high, and companies have largely not bothered developing any other means of communicating with the public. Before the 2011 crisis, around 80% of Japanese people tended to get all of their information from the mass media and viewed that information as generally trustworthy and reliable (Yokoyama). Additionally, communication is often “the last thing considered by Japanese companies,” and so even those existing means of communication may have been poorly developed and the spokespeople poorly prepared (Batyko). It is unquestionable, in light of this, that the public was getting information from sources other than the company and traditional media; therefore, in order to get a full picture of where people were getting information, it is necessary to look elsewhere.

In the wake of TEPCO’s massive loss of credibility and a huge public disaster, new media stepped in to provide information to the public. “New media,” in this case, refers primarily to social media – most prominently Facebook and Twitter – but also

refers to blogs and online newspapers which are used to disseminate information. In the wake of the earthquake, tsunami, and nuclear meltdown, there were thousands of Tweets, Facebook posts, and blog posts made from those both in the region and outside of it. This spread of information – and misinformation – provided a whole new avenue of keeping people informed that is unique to this decade. While it is obviously impossible to look through all of these, an overview of the general trends and some of the most influential social media posts should give a fairly good idea as to what the public was using these information sources for.

The final step in understanding how information was disseminated in the wake of the Fukushima disaster is to survey a group of Japanese people who were in Japan at the time of the disaster, and who followed the developments of the situation. The results of this survey give a cross-section of how people from a variety of demographics and regions received information about the disaster. This will allow us to ascertain which media people were choosing and how they viewed the reliability of each source. Of particular interest in this survey is whether the outcome of the Fukushima disaster affected Japanese people's perceptions of media reliability in the long-term. My expectation is that this event will have affected the overall perception of traditional media's reliability, and many people will be more skeptical now than they were before.

Because of the incredible amount of information that was released in the wake of the Tohoku earthquake and specifically after Fukushima, my research has some limitations. First of all, only public communication – that is, communication that was targeted specifically at the public, either through mass media or being made publically available online – will be examined. Although there is much to discuss regarding internal

communications both within and between TEPCO and the Japanese government (and failures of crisis planning there), that is a separate topic. Additionally, as much as possible, only communications that were released within about a month of the beginning of the Fukushima disaster will be examined and critiqued. Although communications continued after this, it is in the first days or weeks of a disaster that the strength of a crisis communications plan is truly tested. This also limits the amount of information that needs to be sifted through. Of course, sources released later will be used to clarify and give context for the disaster, including documentaries and retrospective articles.

The conclusion of this analysis is that a crisis communications plan which focuses on the wellbeing of the public can no longer be treated as a secondary, one-dimensional priority by Japanese organizations. In addition to information being timely and accurate – which TEPCO struggled with in this circumstance – media must now be immediately accessible online. It is also necessary for organizations to acknowledge that online social media and similar sources are now a direct competitor for the ears of the people – but also potentially a massive asset. A truly complete crisis communications plan, from this point forward, cannot underestimate the power of viral social media in supporting or undermining other efforts at controlling the situation. An understanding of all of these factors will give a company the ability to create a crisis communications plan which best protects the health and wellbeing of the publics that rely on them – and thus, in the long run, best protect the company as well.

Traditional Media

Immediately after the beginning of the Fukushima nuclear disaster, the nation's media was inundated with coverage of the event. Alongside news about the other

destruction wrought by the earthquake and tsunami, news about Fukushima grabbed headlines and caused public concern. Despite the fear that the public displayed about the disaster, however, the communications efforts by TEPCO (and, secondarily, the Japanese government) were uncoordinated and unable to satisfy the public's need for information. As Edelman, a company doing research regarding Japanese trust in the media, summed it up: "Facing one of its largest environmental and political crises ever, Japan failed to deliver the leadership and protection its people needed" (2012). According to their findings, immediately following the disaster, trust by the Japanese people in the government and the five largest industries in Japan was at an all-time low because of these failures in communication and management of the crisis.

The press conferences held by TEPCO in the days after the advent of the disaster were the first signs that there were going to be problems in communication. The press releases were referred to in the American media as "vague and optimistic," but might more appropriately be called inaccurate or misinformed (Friedman, 2011). At the press conference on March 16th held by TEPCO, executives in the company took questions regarding the events of the disaster and the development of the crisis. The executives had little information, and what they did have was delayed and lacking; for example, they couldn't even answer how the fires at the plant had begun, how severe the disaster was at that point in time, or how many employees were being evacuated because of the disaster (Batyko. 2012).

This failure to appropriately communicate information was indicative of an overall failure in the company's structure and a misunderstanding of the purpose of the media in this circumstance. Far from being an opportunity for the company to apologize

and repair its public image (which is what the company appeared to be focusing on), any crisis communications strategy must focus first and foremost on the wellbeing of the public. In this case, that meant getting them as much accurate information as possible, including the worst-case scenarios of what could happen at the plant. The company's failure to provide information which could have compromised public safety would eventually lead to such an outcry that several key managers in TEPCO would be forced to resign, and protests regarding TEPCO and nuclear energy would continue on for years after this event (Batyko). Similarly, the Japanese government used their power in the press to minimize public panic and downplay the scale of the disaster, rather than being honest with the information that they had. At one point during the disaster, the Japanese government considered the possibility of having to evacuate Tokyo because of a possible chain reaction of nuclear disasters while simultaneously telling the public that the situation was under control (Fackler). Both organizations treated media as a tool to manipulate public opinion rather than communicate honest information, a strategy that was at the root of many of the communication problems in this disaster.

Even when released information was accurate, however, it was often confusingly reported on and poorly explained. On March 15th, TEPCO went to the press announcing that the disaster was a level 5 on the International Nuclear Event Scale, indicating that its severity was similar to that of Three Mile Island, another nuclear crisis that had occurred in America. This rating would indicate that, while there would possibly be damage to the local environment and severe health risks to those who had been near the plant, there would be limited wider implications. By the end of the month, however, it was announced that the official rating would be bumped up to a 7, the highest possible rating;

the only other level-7 nuclear disaster in history was Chernobyl, a disaster that led to the death of thousands from side effects of radiation (Jung). Clearly, the public panic over this announcement was significant, especially since it came several weeks after the advent of the disaster; the perception was that the disaster was getting worse, not better, and that nuclear destruction was looming ever closer. The reality was much different. Previous investigations of the nuclear disaster had been performed by TEPCO, rather than an outside source, and the company wanted to minimize the perceived severity of the disaster. Once the situation was more effectively in hand, the Japanese government was able to evaluate the situation with the appropriate unaffiliated experts and release a rating of the situation as a whole. This rating did not indicate an escalation of severity, but rather a better and more honest understanding of what was happening (Saoshiro, 2011). The misunderstandings came from poor reporting on the subject matter by reporters who did not understand the circumstances surrounding the rating change – a problem exacerbated by the reluctant release of information by the government.

In addition to the difficulties in clearly communicating complex issues, traditional media could not keep up in pace with the speed of developing events. This problem is inherent to the medium; once- or twice-daily updates to information are not sufficient when dealing with a time-sensitive crisis of this nature. In a nuclear crisis, the situation may change by the hour or by the minute, and a failure to account for these rapidly-changing events leads to ambiguity and misinformation in communication. For example, in one instance, TEPCO released a press release to national newspapers late during the night of March 13th claiming that “the containment of the reactor is sound.” Several hours later, in the early hours of March 14th, the third reactor suffered an explosion that led to

another cascade of containment issues. This led to the early-morning edition of the *Yomiuri Shinbun* on March 14th having a headline that read “Explosion at the Third Reaction: Flame and Great Amounts of Smoke”; however, on the same page, further down, was a printing of a press release from TEPCO reassuring the public of the containment of the reactor (Batyko, 2012). Closer reading could reveal the reality of the situation, but TEPCO’s credibility took a hit that it did not need and could not afford to because of the speed at which traditional media moves. While a faster-moving medium may have been able to clarify the sequence of events better, the structure of traditional media which does not permit up-to-the-minute coverage of a crisis led to several instances of confusion and frustration such as this one. The ambiguity of information made it nearly impossible for the citizens to truly understand what was happening in the crisis through traditional media.

Finally, issues existed with the government and media failing to recognize their own limitations and the developments of media in recent years. In the days after the disaster, there were too many things happening for the traditional media to effectively report on all of them, and many important things got missed. For example, evacuations of some areas surrounding the plant – many of which had also been devastated by the tsunami – were not reported on by the local or national media in a timely manner. This meant that people in that area had to turn to different media sources to get effective information. It took days for the media to catch up, for example, on the damage of and evacuation of Chiba; citizens filled in the gap before the traditional media could get coverage and awareness raised, with citizens tweeting, “Lifelines are not sufficiently set up and food shortages exist. #save_chiba” (Jung). In cases like this, the lack of media

coverage was possibly due to an inability to cover everything on top of an inability to quickly get information through traditional channels when infrastructure was so destroyed and resources were spread so thin.

Despite the clear failure of the media infrastructure, however, the Japanese government and TEPCO failed to take advantage of new forms of communication. Doors were closed to “internet reporters,” even those certified through the Free Press Association of Japan. The information that was available online was largely press releases which had been sent out to national papers, which had the same problems of timing and credibility as the traditional media that they were designed for (TEPCO Press Room). This created a bottleneck of information, where all media was getting its information from a very limited number of sources – in some cases, just a few spokespeople from TEPCO – and the lackluster management of crisis communications at the company’s end turned into widespread problems in the national media. These problems included the inaccurate information and the limited number of events that were being reported on. While some traditional media turned to personal interviews to try to fill in the information gaps, the number of internet reports which were used was still minimal (Chong).

Not only was limited information complicating the issue, but nuclear disasters are inherently science-heavy events that require a large amount of technical jargon and scientific understanding to truly grasp the nature of them. Few reporters, even well-known ones, have the kind of expertise necessary to report in an informed way on the technical side of the information being released by the company. The technical complexities in understanding how a nuclear power plant runs – and, far more

importantly in this context, how a nuclear power plant can *fail* - are just too great. By limiting the number of media gatekeepers, TEPCO was actually hurting themselves. Leagues of scientists and nuclear specialists online were interested in the events and willing to help in the interpretation process (a role they were able to fill in later, as the disaster developed). However, for the critical parts of the disaster they were blocked out by the exclusiveness of the media. One blogger who was trying to gather information on the developments of the disaster tweeted:

Urgent request to people who are in key positions in the government. The ways in which people communicate have changed significantly. Please open the door to Internet journalists and Free Press Association of Japan. This is an emergency.
(Jung)

Repeated failures to acknowledge the ways in which communication had evolved resulted in faultier reporting and difficulty keeping up with and reporting on all the developments. The information which was reported on was sometimes misunderstood by either the reporters or the public, and dissatisfaction with the media's coverage of the events understandably rose quickly.

Even considering the historical competence of the media in Japan, clearly the reporting on the nuclear disaster event served to increase public panic more than decrease it; information was not coming out quickly, was being released by people who did not have the full story, and was changing too fast for the media or public to keep up. In the face of these failures, it is obvious that the public would turn to other sources for information. As the disaster developed, alternate media sources stepped in to stop up the gaps where traditional media was failing.

Social & New Media

ソーシャルメディアのことは、インターネットで人間と人間のコミュニケーションという結果のことである。伝統的なメディアは（新聞・テレビニュース・ラジオなど）よく会社が全部のメディアのことが決めている。伝統的なメディアは放送するが、ソーシャルメディアは対話させる。危機の時に、ソーシャルメディアの序列がない体制は肯定的も否定的な面もある。

福島事故の後、人々のソーシャルメディアを使ったの目的は家族や仲間の命のことを調べることであった。地震の後電話を使えなかったし、携帯でもよく連絡しにくかった。それに、一、二日後地震と津波の損壊がまだ分からなかった。したがってよく東北地方に住んでいた人の家族と友達はソーシャルメディアで「大丈夫ですか？安全ですか？」などのメッセージを送った。そのようなメッセージは地震の日にソーシャルメディアの使う比率は七十パーセントである。他のタイプは東北に住んでいた人は自分のことを家族に返信するものである。「私は安全だ。心配しないで」などのメッセージは四十七・三パーセント（Jung）。当然に、そんなことは伝統的なメディアでできなかった。そのようなことは日本でソーシャルメディアの利用の主な部分であった。しかし、他の目的のためにも使われた。

ソーシャルメディアの他の大事な利用はニュースを集めることである。地震の日に「出来事を調べる」というの比率は五十三・六パーセントであった。それで、地方公務のツイッターやインターネットの記者の記事を調べたら自分の意見を表せる。好意的な面は様々の見方が見える。それで、新メディアを使う人が全部の

報道や場合が分かりやすく、自分の考え方を選べる。しかし、否定的な面は様々な報告があるのでどっちが事実なのは分かりにくいかもしれない。ソーシャルメディアでは内実もうわさも人気になれる。その理由で人々はよく地震と福島
の事故の事項を調べる時に伝統的なメディアもソーシャルメディアも使った。

ツイッターと関すれば、福島の事故が始まる時ぐらい突然にユーザが増えた。一週間後ツイッターのユーザは三十パーセントに増えて、ポストの頻度が百パーセントにも増えた (Jung)。事故が進んで、ソーシャルメディアを使うことは絶えずに高まった。その理由は、新メディアが特集なことができることであった。

The use of social media in the aftermath of the earthquake and nuclear disaster had its own distinct benefits and challenges, separate from those of traditional media. Since social media is, by definition, media curated from a variety of sources and from many different “levels” of media – personal, local, and mass-media, with distinctions in between – it made available a number of perspectives and sources that could never have been available in a purely traditional-media focused response to the event. On the positive side of this, people with unique knowledge that worked outside the press – such as nuclear specialists, government officials, and regular citizens who lived in the affected areas – were able to chime in, giving a more complete picture of the situation and making more in-depth analysis available to people who cared to search for it (Friedman). On the other hand, social media's greatest strength – a lack of media gatekeepers – has also always been its greatest weakness. Without fact-checking entities in place ensuring that inaccurate information didn't get spread, rumors and misinformation were able to go viral unchecked. Although social media fared better than traditional mediums in handling the

media fallout of the Fukushima disaster, there is still plenty of room to reduce confusion and use both modes of media in conjunction to create the best possible information distribution.

Curating information from a variety of sources in one place is at social media's very core. Although interpersonal communication – discussed in the previous section – is what most commonly comes to mind when “social media” is mentioned, its purpose is actually much more abstract. Everybody from individual citizens to local city halls and the national government has a presence on social media, and often the ways these accounts are utilized vary widely. Jung (2011) labeled the different “levels” of social media as micro-, meso-, and macro-levels of communication. At the micro level is interpersonal communication – private or targeted personal messages that may or may not be visible to the public, but regardless are not meant for them. Meso-level social media is media targeted at a small, specific community; in the context of the Fukushima disaster, this was things like the Korean embassy using social media to get information to Korean nationals who were in Japan at the time of the disaster. Macro-level social media is equivalent to mass communication. It is things like news media sources such as the Asahi Shinbun posting information for all Japanese residents and the world to see. This unique feature of social media is what Jung and Moro referred to as the “multi-level functionality of social media.” In essence, this “functionality” refers to the fact that the average user of social media is often seeing all three of these kinds of communication in one place. Additionally, the interactive nature of social media allows – if the parties involved are open to it – for people to traverse across these levels in their messages. For example, via viral sharing, individuals were able to send out mass messages that would otherwise be

restricted to macro-level communication. One such message that went around the days after the quake was: “Please do not tweet or retweet the death toll. It raises everyone's anxiety, particularly those in areas where there are victims” (Jung). Social media is flexible in a way that traditional media could never be, both in terms of the purposes it can be used for and for the way it merges those purposes in unexpected ways.

The benefits of this flexibility in the context of the Fukushima disaster were many. In any nuclear disaster, the crisis is multi-faceted and difficult to understand. Not only is the general public not educated regarding how nuclear power plants work but, quite often, even the reporters assigned to cover these incidents are not sufficiently educated either. Social media allows for voices of people who do understand these issues— for example, bloggers such as Dan Yurman, who specializes entirely in covering nuclear issues – to provide information alongside the mainstream media. While the government and TEPCO were providing only the bare minimum of information at their press releases via traditional media, online their reports were “interpreted, supplemented, and contradicted . . . by scientists, government personnel, nuclear industry or anti-nuclear sources, and private individuals” (Friedman, 2011, p. 56). As the crisis continued and a lack of information frustrated the public, they began to search online for further information about the disaster. Friedman's research on media coverage confirms that many of the articles that went viral in the aftermath of Fukushima were “explanatory articles by energy, science, and health reporters,” which did not provide any new information about the disaster – since they could not – but rather helped people better understand what was happening and the possible consequences (61). Peter Sandman, a specialist in nuclear crisis communications, further asserts, “The best technical

explanations were online, prepared pro bono by unaffiliated experts” (2011). Although this research was specifically referring to American coverage of the event, a similar phenomenon could be observed on online Japanese newspapers. The Asahi Shinbun, a week or two out from the advent of the Fukushima crisis, began running online-exclusive articles from guest reporters with titles like “Radiation contamination can be dealt with” and “Radiation levels in food and health” (Asahi Shimbun, 2011). This is in particularly stark contrast to paper newspapers, who were running many more articles about personal stories rather than pieces helping people understand the crisis better (Chung, 2012).

Another way that the internet was able to open up flexible avenues of communication not open to traditional media was through crowd-sourced information. When it became clear that TEPCO was suppressing and sugar-coating information about possible nuclear contamination, sites sprang up all over Japan allowing people to measure and report their own radiation readings (Glionna, 2011). Such sites included the Radiation Defense Project (now inactive) and The Fukushima Project on simplyinfo.org. Other people, such as Hajime Shiraishi, made their way into Fukushima despite the risks in order to provide live video and unbiased analysis about what was happening. Many of these efforts gained thousands of followers as people began to view them as more reliable than traditional media (Glionna).

Social media's greatest strength – its lack of gatekeepers – is inextricably linked to its greatest weakness, however. Peter Sandman clarified the issue: the problem with Fukushima coverage “wasn't *getting* expert sources; it was *vetting* expert sources” (2011). Social media allowed a greater variety of voices to be heard than traditional media ever could, and people shared the ones that they found most useful; however, useful did not

always equate to accurate. For example, early in the Fukushima crisis, a blog post by Josef Oehmen asserted that the nuclear threat was minimal and that East Asian countries were looking for a reason to be worried. Although Oehmen's arguments and credentials were quickly debunked, the reassuring and professional tone of the post meant that it was spread much more widely than the sources refuting it, and the misinformation spread rapidly (Elliot, 2011). On the reverse side, viral posts regarding the nuclear threat or the potential death toll would often create public panic where none was warranted. Personal commentary on the nuclear crisis was discouraged by experts, who explained that many who were commenting were “in over their heads” regarding knowledge of the nuclear disaster and that “scare tactics . . . increased the public's nuclear phobia” (Leahy, 2011). Although social media made accurate information from expert sources more readily available to the public than mass media did, it also made misinformation more available, and allowed misinformation to spread more quickly unchecked – even after that misinformation had already been debunked.

As with any media source, social media coverage in the aftermath of the Fukushima disaster had both its strengths and weaknesses. It came through most obviously in terms of providing niche, expert information to the public and reducing ambiguity where the traditional media failed; however, it is possible to argue that the rapid spread of rumors and misinformation that the very same structure made possible undoes much of that work. Even today it can be difficult to determine exactly what information that came out through social media regarding the Fukushima disaster was true, and what was misinformed or entirely fabricated. However, people are generally intelligent, and that which is well-supported and credible tends to rise to the top in the

end (as demonstrated by the fact that, three years later, Oehmen's blog post is now commonly known as misinformation). Therefore, the important thing when developing a crisis communication plan is not any kind of objective measure of reliability (for example, trying to compare the number of rumors spread of social media versus the number of unclear or outdated news reports published by traditional media). Instead, what is important is understanding how the successes and failures in the Fukushima disaster crisis communication affected how the Japanese people view media. Attempting to prescribe how and from where people should get their information on a crisis was one of the greatest mistakes that TEPCO and the Japanese government committed during the crisis. If a company, organization, or government can understand where people are looking for information and how, then they can optimize how they are releasing information to suit that – and therefore can most effectively ensure public safety. Thus, the next logical step is to find out how the Fukushima nuclear disaster affected the Japanese public's perception of reliability.

Survey アンケート

手立て

このアンケートの目的は福島第一原子力事故が日本人のメディアの信頼度への影響を検討することである。福島事故の間に日本に住んでいる人はこのアンケートの参加者であった。アンケートの問題は 10 問しかないが、幅（はば）広い質問なのでよく測定できると思う。

アンケートの参加者は年齢に制限なく、日本に住んでいる人であればいい。もちろん地方によって経験が違うが、日本に住んでいたならメディアでこの事故を調

べたことあるだろうと考えられる。それでも、「事故のとき、どこに住んでいたか」、また、「事故の時、何歳だったか」と聞いた。この疑問の回答で他のことを結論できるだろう。例えば、沖縄に住んでいたら伝統的なメディアの方に信頼度が高いか・若人の方が新メディアを使うかなど示してくれる。それに、将来にこの論文は他の研究にも参考になれる。アンケートの問題ができあがってから、私の日本人の友達・ホストファミリーに送り、そして、「他の友達にも送ったり、ソーシャルメディアでシェアしたりしてくれませんか」と頼んだ。カセージの先生も先輩も配ってくれたので、幅が広がった。

アンケートが計ることは四つあった。まず、人々は事故の初めの時にどのメディアから報告を調べたか。選択肢は伝統的なメディアは新聞・テレビ・ラジオで、新メディアはインターネット新聞・ソーシャルメディアであった。「他」という選択もあった。次は事故が進んで、主なメディアが変わったかと聞いた。それに、古いソースも新しいソースの信頼度を計った。その信頼度は1から6まで順位（じゅんい）をつけてもらった。その目的は初めのソースと新しいソースを比べて信頼度が違うかどうかを調べることである。最後の疑問は「事故は日本公衆のメディアの信頼度に影響したと思うか」、また、それはどうしてか、と自分の意見を書いてもらった。この問題はとても重要な役割がある。本論文の問題意識（もんだいいしき）は「将来へ、一番効果的な危機通信管理は何であるか」なので、日本人の経験と意見ほど大事なことはない。

アンケートの質問で他の結論できるかもしれない。例えば高い信頼度のソースから低い信頼度のソースに変わる人がいるかどうか、とことが調査できる。理由のことを聞かなかったのでなぜか分かれませんが、ここから新しい研究できる。そして、事故の初め時からソーシャルメディアを始めて使う人がいるかどうかを調べられる。

アンケートの結果は半分ぐらいの人はメディアのソースが変わらなかった。しかし、変わる人の中で大事なことがある。アンケートを比べる前に、私の仮説では、変わる人が伝統的なメディアから新しいメディアに変わるのではないか、若者の中で新しいメディアから伝統的なメディアに変わる人があまりいないだろう。そして、他のことは若者の中にソーシャルメディアをもう使う人が大分が、中高年者の中にソーシャルメディアを始めて使う人がいると、などであった。アンケートの年齢によって違うが、全体として新メディアを使う人わりと高い。

アンケートの結論

十三人しかアンケートを取らなくて、アンケートの規模（きぼ）は小さすぎると思うが、この十三人の意見がよく分かったので、アンケートのことはもう役に立ったと思う。アンケートの参加者の中、いろんな地方・性別・背景の人がまざったので、違う意見が多かった。

参加者の中に事故の始まった時に、八十五パーセントはテレビニュースを使った。半分ぐらい新聞やインターネット新聞を使った。五人（38%）しかソーシャルメディアを使わなかった。平均の信頼度は3.8だった。この報道によると、日本

人の意見は主なメディアはテレビニュースだが、信頼度が高くなかったということが分かった。ソーシャルメディアはあまり使わない。私の研究の結果は先行研に似ている。伝統的に日本人は主にテレビニュースと新聞を使って、インターネットのメディアがあまり信頼しない。

しかし、事故が進んで事情が変わった。参加者の中、四人は事故が進んでいて報道を調べることが変わったと言われた。私の仮説の方がこの数より高いが、回答が面白かった。変わった人はインターネットソースに進んだらしい。変わった人の中、一人しかテレビニュースを使わなかった。それに、新しいソースは全部インターネットソースだった。そのなか、三人はインターネット新聞を、三人はソーシャルメディアを、一人はテレビニュースを使った。このソースの平均の信頼度は3.75に少し増えた。したがって結果を比べて私の予測の数は少し低い、結論は同じぐらいだ。事故が進んで数人は伝統的なメディアの信頼度が減って、インターネットソースを使っていった。

最後の発見は事故の影響についてだった。八人は「事故は日本公衆のメディアの信頼度に影響したと思うのですか」という質問に、「はい」と答えた。これは私の予測より案外に高い。この報道から五人は自分のメディアソースが変わらなくても影響があると思うことが推測できる。（一人は自分の使ったソースが変わったが影響がないと思った。）人々の「どのように影響したか」の返事はすごく面白かった。二人は「伝統的なメディアは全ての報道が発表されないので仕方がない」などと答えたが、ほかの答えもあった。特に、一人は「新聞やテレビは

マスメディアとしての責任より、情報を都合の良いようにコントロールすることの方が大事なのだと実感しました。」と答えた。「今では、信頼しているテレビと新聞はありません。」このように、他の人も「本当のことをどのまで国民に発信していたのか今思えば疑問に残る点もある」や、今も「結局は、本当の実情が分からない」と答えた。

まとめとして、強い結果ではないが、面白いことを習った。人々は本当に事故が進んでインターネットソースを使っていった。それを使わない人も伝統的なメディアの信頼度を思い直した。このアンケートで事故の方法をまだ分からないないが、日本人の本当の意見が見えて来た。

Conclusion

It is impossible to look at the full picture of how crisis communication regarding Fukushima was handled, and not see that there were ways that things could have been handled better. Even more than that, it is abundantly obvious that there have been permanent effects on how Japanese people seek out crisis information because of the handling of this disaster. While the company and government stuck largely to their tradition-rooted methods with press releases and conferences, the people had, in many ways, moved forward. Both my and Jong's surveys show that more than half of the younger generation was getting their information on the crisis from social media by the end of it. What this meant is that TEPCO and the Japanese national government had *no voice* in one of the primary sources of information regarding this international disaster. The consequences of this were far-reaching for both the organizations, the public, and the

relationships between them. Future handling of disasters like this in Japan must incorporate these sources and take into account how the public is searching for information, rather than how the company is most comfortable delivering it. Only in this way can the organizations restore their reputation and ensure that poor communication no longer contributes to panic regarding major crises.

Although my survey was too small to draw broad conclusions from, some facts can still be taken from it. First of all, all but one person found out about the disaster from traditional media. Additionally, everyone except one person used some form of traditional media – either news, radio, or TV – in finding information about the crisis at the beginning of it. From this we can at least guess that most people are still inclined to get the majority of information from traditional media. With the strong history of media reliability in Japan, this is not surprising. We can also see from this survey, corroborated by other broader surveys, that people moved away from traditional media as the situation progressed. Logically, this would suggest that some of the public had needs for information that traditional media was not satisfying. Finally, a decent majority in my survey did believe that this event had an impact upon how reliable people perceive the media to be. As the elaboration proved, even within this small group, there were a variety of reasons for why people believed that. Some people believed that news media is inherently limited, but that they do their best to convey the important information. Others expressed that the media seems self-serving and more concerned about their own reputation. Still others said that while they do not know whether they can believe what the news media says, they see no alternatives. All of these answers have one thing in common; they believed that the traditional news media did not fully meet the needs of the

disaster. If a single thing can be concluded from this survey, it is this: TEPCO's communications did not make people feel confident that they understood what was happening and what the threats to their safety were.

The company's response was based on all of their past experiences, but those experiences had not prepared them for a disaster on the scale of Fukushima. TEPCO responded to the Fukushima nuclear disaster through (albeit frequent) news releases and press conferences run by people who were not high up in the power structure. This hierarchical structure had worked for them in the past, particularly in terms of controlling their public image. The Japanese government's responses were similarly limited; their news releases regarding the disaster were mostly parroting of the TEPCO party line and they released little independent information. Only when there were public outcries and the extent of the crisis began to become clear did TEPCO take steps forward, making their news releases available online and having the CEO come forward to make a statement. Even then, it was too little too late. The disorganized, inaccurate, and untimely information that TEPCO released – whether the fault of their misunderstanding of the purpose of crisis communications, or a flaw inherent to traditional media, or both – had damaged their reputation on top of the damage already done as a result of the crisis.

Meanwhile, in TEPCO's place – speaking for the company, essentially – were a score of online resources. People were able to post their own radiation measurements online, search for help and broadcast crisis information, and talk about events around the TEPCO plant which the company did not release to the media. The perceived reliability of these sources was not significantly higher than that of the news media, but nevertheless the use of them went up over the course of the crisis. Experts chimed in even

when the official media had not contacted them, sharing their expertise. Rumors ran wild, and even when those rumors were managed, it was by sources on the internet – as in the case of Oehmen’s post – rather than by official sources.

Therefore, TEPCO’s crisis communication needs two-fold development in order to truly move into the modern communication sphere and be prepared to deal with a crisis of this scale in the future. First, they must improve their handling of traditional media. Information needed to be timely, accurate, and relevant to the people affected by it. The fiascos of untimely press releases and questionable information – as in the repeated assurances of the stability of reactors before they had another malfunction – were huge hits to the company’s reliability that cannot be fixed by anything other than consistent honesty and a community-safety-centered crisis communication strategy. This includes the company taking responsibility for the accurate reporting and public understanding of the crisis. Second, the organizations in power need to come to a better understanding of how the public is getting information, including new media, and then need to use those channels. Despite Twitter’s not-insignificant role in communicating information regarding Fukushima and surrounding disasters, there was no significant presence from either TEPCO or the national government on those platforms. In fact, both organizations had only a cursory online presence. People had to openly plead with the government in order to get open access to information online, and none of the organizations involved fully utilized the internet. Only through the combination of these two methods – traditional and new – can major organizations begin to effectively deal with a crisis on this scale.

Therefore, we are able to draw several broad conclusions from the mistakes and successes of Fukushima's crisis communication. First of all, traditional media is still most people's primary source of information. TEPCO and the national government were appropriately aware that the best way to get information out regarding the disaster was through those channels. If TEPCO had handled traditional media in a way that gave timely and honest communication to the public from the start, many of the problems they later encountered with reliability and conflicting information from internet sources may have been avoided. Second of all, they must understand that traditional media is inherently limited, and the structure is not going to move backwards. New, internet media is a voice in crisis communications, and the company and government's failure to add their voice to that platform decreased their accessibility and left space for less credible sources to take up that space. It is not enough, either, to look at the results of the studies done on Fukushima – for example, the key role that Twitter played – and base crisis communications solely on that. Just as communications are constantly evolving, so too must crisis communications strategies evolve with them. Organizations must remain aware of how people are communicating and communicate with them through those methods, and learn how to use them effectively so that people can get the information that they need. Finally, companies must come up with strategies to integrate traditional and new media in order to best communicate information. This would involve prioritizing information and having specific flows in place in order to get information from those who have it in the company to those that need it. In all, as Utz concludes in their study of the crisis communication strategies used in Fukushima: “the need for more complex models of crisis communication” is clear (2012, p. 40). The Fukushima disaster was a terrible

crisis that was caused by a natural disaster, but the global panic that was caused by it and the permanent damage to the reputation of nuclear power and TEPCO were not natural disasters; they were consequences of outdated systems, poorly handled communication, and misplaced priorities. On a fundamental level, TEPCO misunderstood the purpose of crisis communication: to ensure the safety and wellbeing of the public. With the public at the center of a crisis communications plan, it becomes clear that the best – indeed, only – path forward is to bring them accurate, relevant information, in the way that the public best receives information. Such a crisis communications plan not only improves the company's reliability in the long run; it can save lives.

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Appendix A: Full Survey Content

福島第一原子力発電所事故のアンケート

皆さん 私は現在カーセージ大学日本語学科4年在学中です。現在、卒業論文のテーマとして「福島第一原子力発電所事故のメディアの反応」を研究しています。この研究調査用データとして日本人の方を対象にアンケートを実施させていただくことといたしました。アンケート結果はすべて個人のお名前が出るようなことは一切ございません。お忙しいところ恐れ入りますが、回答にご協力いただけますよう、よろしくお願い申し上げます。

個人情報

性別

- 女
- 男

福島の事故の時、年齢は何歳ですか。

福島の事故の時、どこに住んでいましたか。

どのメディアから福島第一原子力発電所事故を知りましたか?*Required

- テレビニュース
- ソーシャルメディア（ツイッター、フェイスブック、ミクシイなど）
- 新聞
- インタネットの新聞
- ラジオ
- Other:

事故が始めた時に主にどうやって調べましたか？（使ったソースを全部選んでください）*Required

- テレビニュース
- ソーシャルメディア
- 新聞
- インタネットの新聞
- ラジオ

そのソースの中で、どっちは使用頻度が一番高かったですか。（一つだけ選んでください）*Required

- テレビニュース
- ソーシャルメディア
- 新聞

- インタネット新聞
 - ラジオ
- そのソースの信頼度はどう思いましたか。*Required
- 1 2 3 4 5 6

低い 高い

事故が進んでから(例えば、一、二週間後)、調べる時に使った主なメディアが変わりましたか。*Required

- はい
 - いいえ
- 事故が進んでから、主にどうやって調べましたか?
(使ったソースを全部選んでください)

- テレビニュース
- ソーシャルメディア
- 新聞
- インタネットの新聞
- ラジオ

そのソースの中で、どっちは使用頻度が一番高かったですか。(一つだけ選んでください) *Required

- テレビニュース
- ソーシャルメディア
- 新聞
- インタネット新聞
- ラジオ

そのソースの信頼度はどう思いましたか。*Required

1 2 3 4 5 6

低い 高い

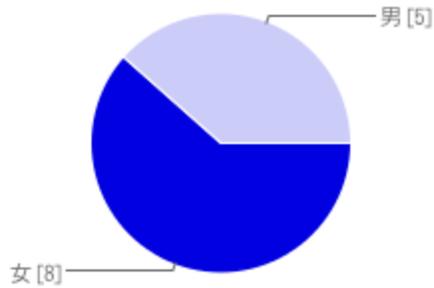
事故は日本公衆のメディアの信頼度に影響したと思いませんか。*Required

- はい
 - いいえ
- 「はい」と答えた方はどのように影響したか個人の意見自由に書いてください。

Appendix B: Full Survey Results

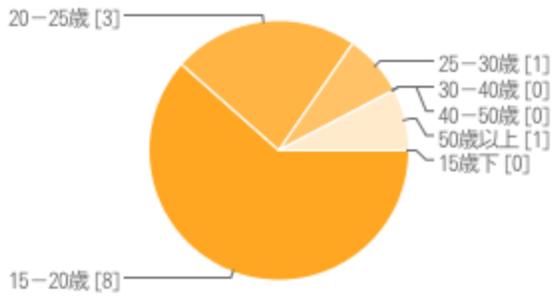
個人情報

性別



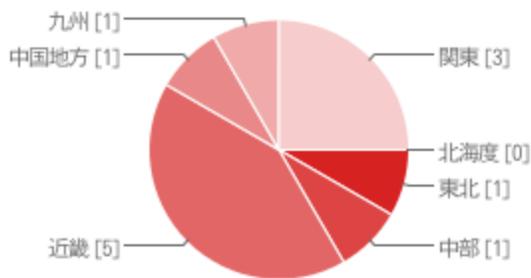
女	8	62%
男	5	38%

福島事故の時、年齢は何歳ですか。



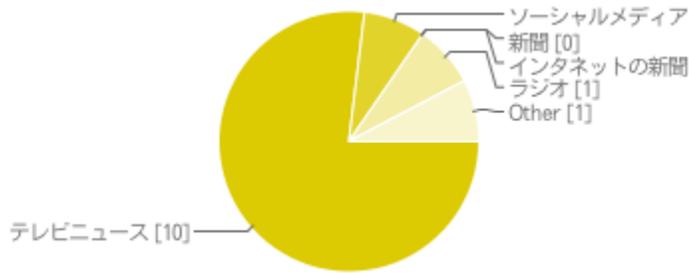
15歳下	0	0%
15-20歳	8	62%
20-25歳	3	23%
25-30歳	1	8%
30-40歳	0	0%
40-50歳	0	0%

福島事故の時、どこに住んでいましたか。



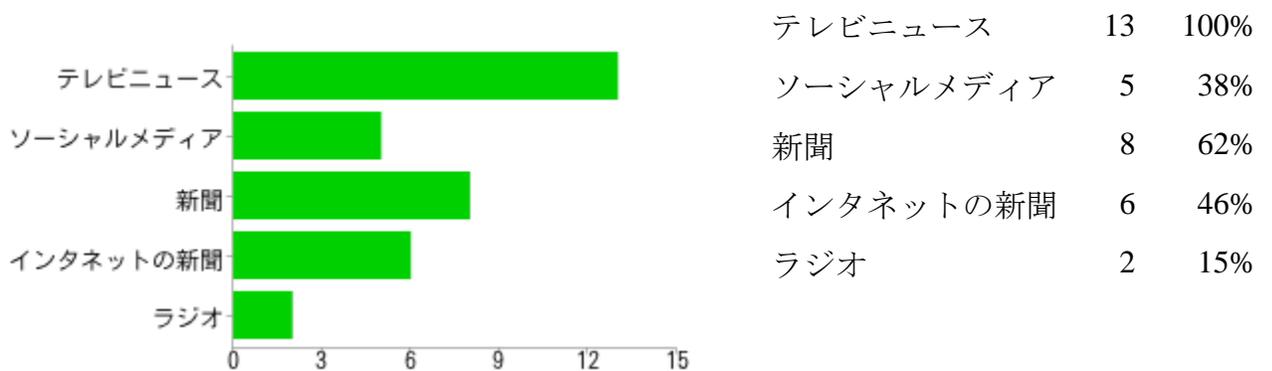
北海道	0	0%
東北	1	8%
中部	1	8%
近畿	5	38%
中国地方	1	8%
九州	1	8%
関東	3	23%

どのメディアから福島第一原子力発電所事故を知りましたか？

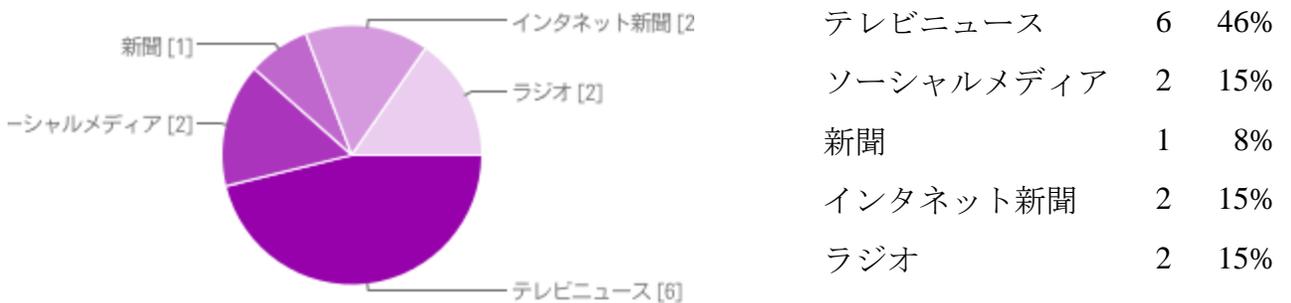


テレビニュース	10	77%
ソーシャルメディア (ツイッター、フェイスブック、ミクシイなど)	1	8%
新聞	0	0%
インターネットの新聞	0	0%
ラジオ	1	8%
Other	1	8%

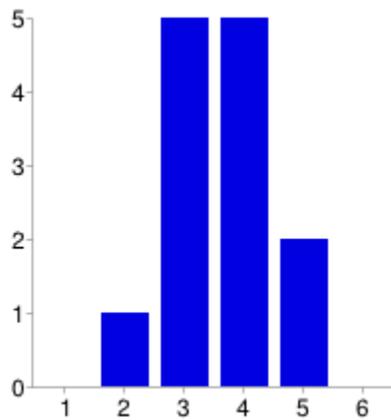
事故が始めた時に主にどうやって調べましたか？ (使ったソースを全部選んでください)



そのソースの中で、どっちは使用頻度が一番高かったですか。 (一つだけ選んでください)

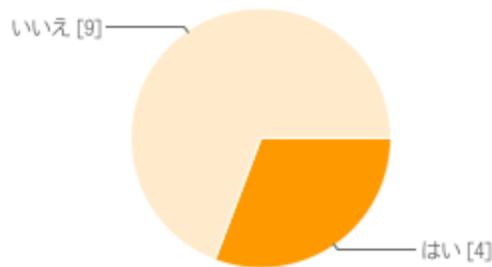


そのソースの信頼度はどう思いましたか。



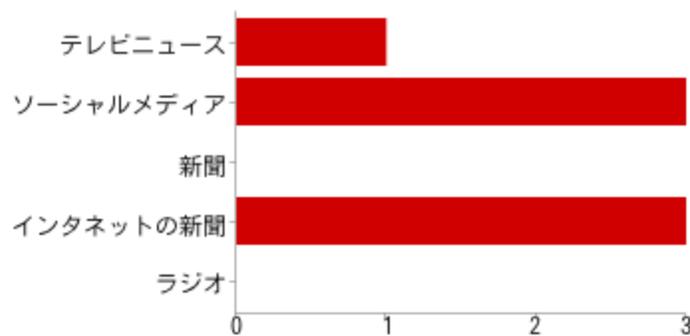
1	0	0%
2	1	8%
3	5	38%
4	5	38%
5	2	15%
6	0	0%

事故が進んでから(例えば、一、二週間後)、調べる時に使った主なメディアが変わりましたか。



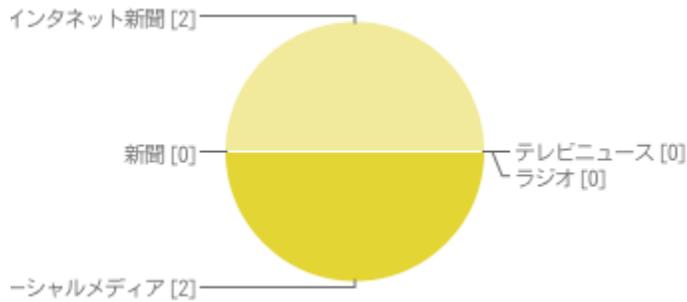
はい	4	31%
いいえ	9	69%

事故が進んでから、主にどうやって調べましたか? (使ったソースを全部選んでください)



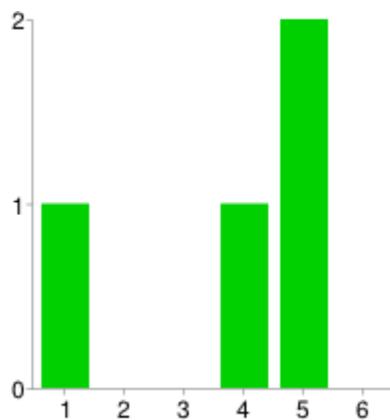
テレビニュース	1	8%
ソーシャルメディア	3	23%
新聞	0	0%
インターネットの新聞	3	23%
ラジオ	0	0%

そのソースの中で、どちらの使用頻度が一番高かったですか。(一つだけ選んでください)



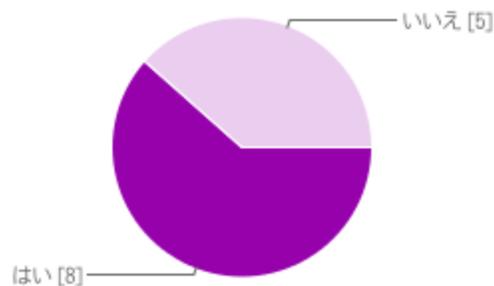
テレビニュース	0	0%
ソーシャルメディア	2	15%
新聞	0	0%
インターネット新聞	2	15%
ラジオ	0	0%

そのソースの信頼度はどう思いましたか。



1	1	8%
2	0	0%
3	0	0%
4	1	8%
5	2	15%
6	0	0%

事故は日本公衆のメディアの信頼度に影響したと思いますか。



はい	8	62%
いいえ	5	38%

「はい」と答えた方はどのように影響したか個人の意見自由に書いてください。

日本のメディアが様々な理由から、すべて事実を公表していないということがわかった。

いろいろな媒体から多様な情報があり、多くの事実が発表されていないことを実感しました。特に、今年の朝日新聞の誤報問題に取り上げられるように、新聞やテレビはマスメディアとしての責任より、情報を都合の良いようにコントロールすることの方が大事なのだと実感しました。今では、信頼しているテレビと新聞はありません。インターネットのような、多くの意見や情報が加工されずに集まる媒体をみて、総合的な意見や見解をあつめるようにしています。

当時私は高校生で、完全にメディアの情報を信頼していました。確かに現地の生の映像が見られたので嘘はなかったと思います。しかし、本当のことをどのまで国民に発信していたのか今思えば疑問に残る点もあります。だからといってメディアに対してはまだ一定の信頼はしています。

事故は私たちの生命に関わる重大なことだったので多くの人がメディアが発信した物に注目していたと思う。でも、情報の伝え方によって煽動されている感もあった。

嘘と事実がどちらか分からなくなった

発電所について、教授の推測や東京電力の説明によるものだけで、結局は、本当の実情が分からない。

本当のことが報道されていないのではないか、という不安は今でもあります。