Article

A Japanese Local Community in the Aftermath of the Nuclear Accident:

Exploring Mothers' Perspectives and Mechanisms for Dealing with Low-dose Radiation Exposure

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Through the case study of the Association to Protect Abiko Children from Radioactive Contamination in Abiko City, Chiba Prefecture, this paper examines the process by which the problem of low-radiation exposure has been dealt with in a community outside Fukushima Prefecture after the Fukushima accident. By utilizing what Charles Tilly calls the "repertoire of collective action," we argue that the internet, in a post-disaster community, is an arena in which new ideas concerning governance are formulated, networks are constructed and supported, and citizens' self-education is carried out. While observing how people from a radiation-contaminated community have overcome fatalism, and have engaged in an action, and what the role of the internet in this process was, this research gives insight in capacity of a modern community to deal with unpredictable human-made accidents, through the extension of previously known scenarios of post-disaster management[1]. This paper uses the typology of communication functions which are central to social movements. In addition, analyzing the Association to Protect Abiko Children from Radioactive Contamination weblog, this paper also explores whether the weblog demonstrated features associated with certain communication functions. The results illustrated that this association could not take full advantage of the web due to various reasons including organizational obstacles, cultural objectives and resource shortage.

Keywords: Post-disaster community management, Women activism, Computer-mediated communication, Weblog content analysis

Introduction

On March 11th, 2011, at 2:46 p.m. local time, a magnitude-9.0 earthquake occurred off the Sanriku coast of Japan's Tōhoku region. The temblor caused a tsunami on the Pacific Ocean that pounded Honshu's coastline, most notably in the Tōhoku region in northeastern Honshu, destroying towns and villages, and flooding areas up to ten kilometers inland. The so-called triple disaster took 19,225 lives, and up to the present 2,614 people are still missing[2]. The tsunami also brought about a nuclear accident at the Fukushima Daiichi Nuclear Power Plant that forced tens of thousands of people to evacuate the wider region around the nuclear plant. At present, 199,000 residents continue to live as evacuees[3]. Many businesses, properties, and livestock were damaged,

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[1] An earlier version of this paper was presented at the XVIII ISA World Congress of Sociology, July 14, 2014. Section on: "From Disaster to Lessons Learned: Citizen Resilience and Government Accountability in the Aftermath of Disasters".

[2] http://www.fdma.go.jp/neuter/topics/houdou/h27/03/270309_houdou_1.pdf. Retrieved: May 15, 2015.

[3] http://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20150828_hinansha.pdf. Retrieved: July 18, 2015.

everyday lives were disrupted, while trillions of yen was spent on cleanup, reconstruction, and compensation. Many believed that the government had failed in its fundamental duty to protect its citizens, both before and after the disaster (Samuels, 2013). The nation was traumatized and dismayed.

This triple disaster provoked extensive discussions regarding the nature and limits of Japan's democracy. One of the important debates was related to the awakening of the civil society in Japan through the wave of the anti-nuclear protest that erupted after the 3.11 (Aldrich, 2012, pp. 7–10). The insufficient coverage of the problem by major news channels and the lack of information, with permanent assurance by leading governmental and academic elites that everything was safe, led to the feeling of anxiety, undermined trust towards governmental and local authorities which culminated in the birth of a civil initiative. Thousands of protesters marched in Tokyo's Nagatacho district, Fukushima, Yokohama, Nagoya, and many other places, waving signs saying "Sayonara Nuclear Power!", "We are against Nuclear Power" (Gonoi, 2012). Anti-nuclear activists used demonstrations, citizen-initiated referendum campaigns, concerts, conferences, art exhibitions, social media (Slater, Nishimura, & Kindstrand, 2012), and petitions in order to achieve greater control over Japan's nuclear industry.

Since the early days of the crisis, women and mothers in particular, have been active in measuring radiation levels, calling for decontamination and putting efforts into securing safe food. As a result, they have emerged as effective antinuclear spokespeople. West and Blumberg (1990) underlined that potentially life-threatening contexts, such as environmental pollution, or natural disasters have historically attracted women into the protest. Driven by the desire to protect themselves, their children, families and communities, women have mobilized collectively to stop offenders. Ruddick (1989), in examining the role of women in Argentina and Chile, proposed that the myth of "maternal peace politics", which portrayed women as "peacemakers without power" engaged in the "business of life" in contrast to men's involvement in the "business of war", has been "shattered by history". Using the contradictions between their prescribed roles of passive nurturers and extending their roles beyond the family to society, women have struggled to resist a threatening social order (Ruddick, 1989, p. 34).

This paper examines the process by which the problem of low-radiation exposure after the Fukushima accident has been dealt with by concerned citizens, primarily mothers, in the city of Abiko,[4] Chiba Prefecture, a community located outside Fukushima Prefecture. The Association to Protect Abiko Children from Radioactive Contamination is of special interest for this paper. The case of Abiko City was chosen due to the city's location in the Tokatsu region which is the northeastern part of Chiba Prefecture. Hot spots of relatively intense radiation level were found in seven cities in the Tokatsu region, and were designated by the central government as "areas subject to strict monitoring of radioactive contamination."[5]

Jasper (1998) discussed "moral shock" as the first step to recruitment into social movement describing it as the information or event that helps a person to "think about her basic values and how the world diverges from them in some important way" (p. 409). The Fukushima accident that led to the contamination of the safe and quiet neighborhood forged the local community to some sort of collective action. Thus, women and mothers living in Tokatsu region, alarmed by the unprecedented level of radiation and the scope of destruction, began collecting information related to the disaster, organizing meetings, conducting radiation measurements, and asking municipal and prefectural authorities for decontamination of irradiated areas.

The second reason for choosing the case of Abiko City was its geographical distance from the Fukushima Prefecture, and therefore between affected people and the responsible entity (Tokyo Electric Power Company, TEPCO[6]) which served to insulate the community from pressure by the company. Activists from Tokatsu region, living outside Fukushima Prefecture, did not work at the company. Thus, they were not subject to its

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[4] https://www.city.abiko.chiba.jp/ Retrieved: September 12, 2015.

[5] http://www.mext.go.jp/b_menu/hakusho/html/hpaa201201/detail/1322695.htm Retrieved: September 12, 2015.

[6] http://www.tepco.co.jp/en/index-e.html

direct influence which in turn alleviated mobilization and facilitated dialog between local authorities and the contestants.

The third reason why this paper pays particular attention to the Association to Protect Abiko Children from Radioactive Contamination is that, while this association was formed soon after the Fukushima accident and was actively fighting against the risks of radiation, it was overlooked by the civil society and the social movement research literature due to its distance from Fukushima prefecture, nonradical and local nature. By examining the way Abiko mothers participated in the policy-making process, this research elucidates the repertoire of collective action that could be used in the case of emergency, when the human-made calamity threatened the peaceful and healthy life of local citizens. Furthermore, this paper examines to which extent mothers of post-Fukushima activism embraced the capacity of the web to affect local authorities' disaster-management decisions. I argue that Japanese women have influenced local politics towards more openness using the capacities of the blogosphere.

1. Literature Review

(1) Post-Fukushima Antinuclear Activism

Recent research on antinuclear activism in post-Fukushima Japan can be divided into three categories depending on its geographical focus and type of activism. The first type of movement includes the research on local movements in the immediate proximity to the crippled Fukushima nuclear plant. Activists from these local communities are usually farmers who have occupied the land there for generations and centuries. Their life depends on the land's productivity, and has been significantly damaged by the earthquake, tsunami, radiation contamination, and harmful rumors, *fōhyō higai,* that followed the accident (Slater, Morioka, & Danzuka, 2014).

The second type of movement is the urban movement (Tamura, 2015), consisted of women activists (Holdgrün & Holthus, 2014), young precariat, students, ordinary working man, *salaryman,* famous intellectuals and scientists (Morioka, 2014). They marched in Tokyo and other metropolitan areas of Japan, most of which were not directly affected by the accident. Their focal points were: the closure of active nuclear plants, the abolition of nuclear power or *datsugenpatsu, sotsugenpatsu, hangenpatsu,* and the prevention of nuclear plants' restart, *saikadō hantai.*

Relatively limited attention has been paid to the third type of activism which has taken place in the urban areas of Japan. These urban areas were not directly damaged by the earthquake and tsunami. Instead, they were contaminated by the fallout soon after the accident (Takahashi, 2014). Among those were northern localities of Tochigi, Ibaraki, Chiba and Saitama prefectures. The scope of the damage was not enough for local authorities of these prefectures to take immediate precautionary actions, for example evacuation, even though it was deemed big enough to alarm local residents, usually parents, which made them worry about their children's health and their future. The connections between activists were loose. Indeed, there were few in terms of numbers, and the organization was non-bureaucratic. However, from my observation, these local residents succeeded in solving several issues related to food and urban planning.

This paper utilizes the definition of social movement that Sidney Tarrow provided in 2011. He defined the social movement as "collective challenges, based on common purposes and social solidarities, in sustained interaction with elites, opponents, and authorities" (p. 9).

The data used in this research paper included materials presented on the weblog of the Association to Protect Abiko Children from Radioactive Contamination[7], and interviews with activists' representatives, in a total of six hours of interviews. The weblog of the Abiko Group[8], includes archived information about different aspects of

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[7] http://profile.ameba.jp/abiko-mamorukai/. Retrieved: September 13, 2015.

the organizational development and multiple activities that the group performs: official reports, notes about protests, personal comments, announcements regarding upcoming events and reports about their results, links to friendly group's sites.

The reason why the weblog data has been chosen as the main source of analysis lies in the fundamental characteristic of any social movement which is the communication process. Being integral to the movement's success, the communication process faces difficulties posed by mainstream media in the form of information distortion, and in the underrepresentation or disdain of social movements' viewpoints (Stein, 2009). In this regard, the internet, specifically weblogs, is seen as one of the possible instruments in getting one's opinion heard by a large number of people, through avoiding the mass media and industry gatekeepers (Boyd, 2003).

Commentators in Japan, who analyzed the Japanese anti-nuclear movement, have often mentioned the limits of representative democracy and have asked for more direct and participatory forms of democracy. They concluded that the closed political opportunity structure of the Japanese political system has separated the grassroots antinuclear movement from the national energy policy-making process, making the movement pay more attention on the mobilization of public opinion rather than on the manipulation of the institutional access to the policy-making process (Tabusa, 1992).

Kawato, Pekkanen and Tsujinaka (2012) also affirmed that even though the local civil society groups in Japan who have relatively strong social capital, have had only a "weak advocacy role," (p. 80) meaning that they were not able to effectively monitor government policies and industry actions, and could not impose efficient barriers for policy makers to prevent the disaster of 3.11. Holdgrün and Holthus (2014), stated that main reasons behind the weak advocacy, among others, included the small size of organizations and their equally small budgets, the limited number of professional advocates and the local character of the action.

Examining the possibility of the participatory democracy in the context of environmental campaigning, Pickerill (2004) argued that activists organizing small-scale autonomous groups could use ICTs more effectively than more established lobbying organizations. Additionally, Sheffield (2010) argued that weblogs could be "a powerful rhetorical tool" for social movements. In this regard, this paper discusses how the weblogs embrace Japanese post-Fukushima movement's rhetoric and to what extent social movements utilize the web to engage in those types of communications that are considered to be central to the movement's existence and success.

Furthermore, for a long period of time, Japan has been considered the blog nation with more blogs written in Japanese than in any other language[9] (Pontin, 2007). Kobayashi (2011) argued that there are some cultural patterns that motivate blogging in Japan. Among those, a possibility to share emotions and experience that would be difficult to share in the real world, taking into consideration the complicated structure of social rules that restrict individual manifestations. There is also a tendency to avoid identifiability and to prefer anonymity (Kobayashi, 2011). Tabuchi (2011), by discussing the relative lack of popularity for Facebook in Japan, emphasized that weblogs "let members mask their identities, in distinct contrast to the real-name, oversharing the hypothetical user on which Facebook's business model is based". He argued that "Japanese Web users, even popular bloggers, typically hide behind pseudonyms or nicknames."[10].

In May 2011, when the Abiko Group activity began, a poll about internet usage in Japan conducted by Research NTTcom,[11] revealed that people spent the most time online reading/writing blogs, shopping or watching streaming content (Table 1).

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[8] From here and after I will be using "the Abiko Group" name to refer to the Association to Protect Abiko Children from Radioactive Contamination.

[9] http://www.washingtonpost.com/wp-dyn/content/article/2007/12/05/AR2007120502751.html? sid=ST2007120502854. Retrieved: September 16, 2015.

[10] http://www.nytimes.com/2011/01/10/technology/10facebook.html?_r=0. Retrieved: September 14, 2015.

[11] http://research.nttcoms.com/database/data/001350/. Retrieved: September 13, 2015.

Table 1. Internet Usage in Japan. 2011 Survey Results

Access Type	Service	Percentage
PC Access		
1	Online shopping	15.4%
2	Private blogs	13.6%
3	Watching/Downloading videos	12.5%
Mobile Phone Access		
1	Community websites	19.8%
2	Private blogs	16.0%
3	Miniblogs	13.8%
Smartphone Access		
1	Miniblogs	13.8%
2	Private blogs	10.7%
3	Community websites	10.7%

By the end of 2012, the time this research had started, the "White Paper on Information and Communications in Japan" published by the Ministry of Internal Affairs and Communication,[12] revealed that most frequently cited purpose for internet utilization was "receiving and sending emails", followed by "browsing websites and weblogs" and "purchasing and trading goods and services" (Table 2).

Table 2. Internet Usage in Japan. 2012 Survey Results

Access Type	Service	Percentage
PC Access		
1	Receiving and sending emails	63.2%
2	Browsing websites and weblogs	62.6%
3	Purchasing and trading goods and services	59.9%

Many researchers underlined that the main reason for writing personal blogs in Japan was to discuss personal topics rather than to promote professional or political gain, or raise visibility of some social issues or injustices (Kobayashi, 2011, p. 11). The situation has changed after the Fukushima nuclear accident, and the blogosphere created a convenient space to share concerns, find information, mobilize and create a network that could influence the state of affairs.

(2) Japanese Women in Social Movements

Eto (2008) emphasized that "male-dominated Japanese politics" has excluded women from the policy-making process. Sherry Martin (2011) argued that the concentration of women in temporary, part-time, and lower-status jobs made the cost of political participation for women a burden, consequently forcing Japanese women "to exert their influence on politics through collective activities that bypass the established political channels" (p.117). Martin (2011) called these activities "women-centric networks" and asserted that they have been downplayed by social scientists and political participation researchers. She argued that "Japanese women have political resources that men lack or use differently" (p. 13).

Martin (2011) proved that local communities and study groups could significantly influence the community

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[12] http://www.soumu.go.jp/johotsusintokei/whitepaper/h25.html Retrieved: November 25, 2015.

discourse by changing public opinion patterns towards a more active political participation at the local, prefectural, and national levels. While analyzing women involvement in the Japanese policy-making process, it is important to present the research of Mikiko Eto (2005, 2008), who argued that women's direct actions have changed the Japanese political scene through expanding the public sphere and democratizing political institutions. Eto (2008) divided contemporary Japanese women's movements into two types from the perspective of "gender consciousness", distinguishing feminist and non-feminist movements. She defined feminists as "all female activists who see that women deserve equality to men and who struggle to improve women's socio-economic and political status, even if they do not attempt any radical change of the male-dominated society" (p. 121). Concentrating on the group's leadership Eto (2008) further separated the movements into two categories: "the elite-initiated movement and the participatory movement led by ordinary women at the grassroots" (p. 121). She concluded that the post-war women's movement history of Japan could be categorized into three types: "the elite-initiated movement of feminists, the second wave participatory feminist movement, and participatory non-feminist movement" (Eto, 2008, p. 121).

At the beginning, the movement consisted of non-working, middle-class married housewives, who, on the one hand, were educated enough to distinguish social problems that emerged in their everyday life. On the other hand, being housewives, these women were unaware or unconcerned of gender problems in the workplace (Eto, 2005; Hasegawa, 2004). Furthermore, studies on social movements revealed that biographical availability is an important factor that could explain variation in the mobilization of individuals (McAdam, 1986). Biographical availability can be defined as "the absence of personal constraints that may increase the costs and risks of movement participation" (p. 70). In addition, social movements appeared to be a specific space where women could obtain an individual experience, and status different from those of wives and mothers. On the other hand, their social activities corresponded to their university social circles, while being more socially valuable, and therefore, more satisfactory than housework (Eto, 2005).

One of the first types of participation was in the form of a consumer-oriented social movement, *seikatsu clubs,* founded in 1965. Leung, Zietsma and Peredo (2013) discussed that it started as a "community-based voluntary group of 200 Tokyo housewives whose aim was to buy better-quality milk at lower prices". Very soon, the Seikatsu Club evolved into "one of the most successful social enterprises in Japan, with 30 consumers' cooperatives, over 300,000 members (99.9 percent of whom are women), and sales of approximately US$1 billion in 2008" (p. 427). They introduced an innovative purchasing system that traded directly with producers. Moreover, consumer club's members developed the Seikatsusha Network, a grassroots political group which placed women representatives in local assemblies (Leung, Zeitsma, & Peredo, 2013; Eto, 2005).

Numerous authors (Hasegawa, 2004; Eto, 2005) concluded that the main catalyst for the movement lies in the maternal role that promotes love for children and the desire to protect them, ensuring them a better future. In addition, Broadbent (2011) emphasized that, despite the fact that most movements and social activities arise from the confrontation between material interests, they usually get "its real dynamic from the existing cultural ontology of the place" (p. 8). consequently, in the society, that values the dedication of mothers to their children, their altruism and self-sacrifice, mother's activism is accepted and mothers' voices are socially and politically valued.

Thus, this paper discusses the last type of participatory non-feminist movement which included highly educated women who, working part-time or being housewives, had enough time to dedicate their efforts to the activities of a movement, including meeting, measurement and decontamination measures, internet networking and research tasks. On the other hand, all of them had children which made them worry about the situation related to the Fukushima accident.

(3) Internet Studies

Numerous definitions of a weblog have been provided in the literature on internet-based communication. The

genre began to emerge in the 1990s, and the term itself was suggested by the weblog writer John Barger in 1997 (Miller & Shepherd, 2004). The software developer and the pioneer weblogger Dave Winer suggested the following definition of the weblog:

> *"Weblogs are often-updated sites that point to articles elsewhere on the web, often with comments, and to on-site articles. A weblog is kind of a continual tour, with a human guide who you get to know. There are many guides to choose from, each develops an audience, and there's also camaraderie and politics between the people who run weblogs, they point to each other, in all kinds of structures, graphs, loops, etc.*[13]*" (Winer, 2002).*

Miller and Shepherd (2004) emphasized that blogs have three primary characteristics: chronological organization, lateral linkage and the opportunity to make comments (Gurak et al., 2004; Miller & Shepherd, 2004).

While sharing many characteristics with ordinary writing, blogging allows the type of communication that is based on generating new content, by assembling various sources into new ones. Consequently, through linking, counter-linking, commenting and responding, the process of the new meaning making takes place (Sheffield, 2010). Nowadays, blogging does not require programming knowledge, since many types of weblog software are easily available. Most blogs are free and open source software, allowing users to blog without having to install special application (or system). Blogs make the discussion between writers and readers easier, allowing them to comment anonymously, thus reducing psychological barriers (Kobayashi, 2011).

The motivation for blogging varies, starting from the desire to connect with others online, expressing one's opinion, sharing one's experience, making money, and becoming a citizen journalist, to the desire of forming and maintaining the community forum, and mobilizing action. As a result, there are different blog genres which classifications are based on various characteristics. Nowson (2006) underlined three predominant types in the blogosphere: news, commentary, and journal, diary-like, blogs. On the other hand, Herring et al. (2006) classified blogs into five genres: filter blogs, personal journals and knowledge blogs so called k-logs, a combination of two or all of the first three types. Filter blogs are blogs that select content from the web, evaluate or comment on it by directing readers in the Web; personal journals are about bloggers' private lives, thoughts and internal states (Blood, 2000), and k-logs are used by institutions, organizations or small groups that focus on an external topic or project.

Blogs can be multimodal or textual, and there are different combinations and variants that feature photos and/or video files which poses difficulties when analyzing the blogosphere. In the 1990's and early 2000's, the majority of researchers considered blogs as single-authored websites and blogger's writing "as a solitary act" (Gil de Zuniga et al., 2010), while multi-author blogs did not obtain significant attention. In 2009, Hearst and Dumais were among the first who examined multi-authored blogs finding them significantly different from single-authored ones. Cammaerts (2015), on discussing social media and activism, emphasized the characteristic feature of the internet that allows one-to-one, one-to-many, and many-to-many types of communication. Thus, using this classification, group blogs are those written by many for many others. Furthermore, Van Laer and Van Aelst (2010), while discussing social movement action repertoires, also made a distinction between internet-supported practices versus internet-based ones. The former "exist only because of the internet" and emphasizes the "internet's creative function of new and modified tactics expanding the action toolkit of social movements", whereas the latter "refer to the traditional tools of social movements that have become easier to organize and coordinate thanks to the internet". However, the distinction is blurred since both spheres are heavily

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[13] Winer, D. (2002). The history of weblogs. from http://www.userland.com/theHistoryOfWeblogs. Retrieved: May 3, 2015.

interdependent (p. 1148).

In the study of political participation, there exists a hierarchy of political action, since some action forms entail more risk and higher activists' engagement than other tactics, providing lower and higher thresholds for people to participate (Tarrow, 1998). The internet helps to reduce some risks related to identity and privacy disclosure, and reduce violent confrontations with the police or activists from opposing groups. It also cuts down the cost of participation (Van Laer & Van Aelst, 2010) and diminishes time and space constraints. Van Laer and Van Aelst (2010) argued that, while deliberating the "digitalized" action repertoire, the internet provides new assets for activists by offering advantages in terms of information dissemination, easing money donation process, enhancing the coordination and the mobilization of people, and making transnational demonstrations, meetings and summits possible. The internet also enables various types of internet-based actions as online petitions and public comments campaigns, email bombs and virtual sit-ins (Van Laer & Van Aelst, 2010). Thus, on the one hand, the internet enables activists to mediate movement goals and frames more easily through transmitting text and visual discourses. On the other hand, social media tools as online forums and mailing lists can facilitate internal debate and decision-making processes among activists.

Cammaerts (2015) also suggested that the social media capacity to archive texts and audiovisual symbolic content "enables the symbols embedded in these [artifacts] discourses to be culturally transmitted, feeding struggles and contributing to collective memory of protest" (p. 4). He suggested that social movements could transfer knowledge influencing future movements through so-called "movement spillover."

As mentioned above, weblogs make networking easier, affecting the ability of a movement to sustain, coordinate social action and advocate movement interests. The ability to have easy and free access, the capacity to chronologically archive previously posted messages and comments, the possibility to share links, upload pictures and videos make weblogs an inevitable tool for social movement activists. Diani (2000), providing a comparison between different types of social movement organizations and their utilization of web, related it to their "resource mobilization strategies". Those focused on organizing professional resources, e.g. WWF, Greenpeace or Friends of Earth, are more concerned in mobilizing membership at low cost rather than supporting strong identities. Therefore, the internet does not significantly influence their activities being secondary tool, to circulate news, to be involved in a modest debate regarding organizational issues (p. 393). On the other hand, other organizations that are focused on participatory resources are more likely to use the internet to enforce the feeling of solidarity and share their understanding of the problem that would ensure the continuity of collective action. In this case, the internet may generate communication and new networks or reinforce existing ones (p. 394).

This paper examines the local activists' group use of blogosphere, identifying the repertoire of collective action. Tilly (1993) determined the repertoire as "a limited set of routines that are learned, shared, and acted out through a relatively deliberate process of choice" (Tilly, 2003, p. 264). He emphasized that repertoires are cultural patterns that, rather than being formulated by some abstract philosophical doctrines or political propaganda, are formed in the course of struggle at a particular time in history. He proposed that "people in a given place and time learn to carry out a limited number of alternative collective-action routines, adapting each one to the immediate circumstances and to the reactions of antagonists, authorities, allies, observers, objects of their action, and other people somehow involved in the struggle" (p. 265). Thus, repertoires label various means of interaction between involved actors and are limited by certain society expectations, and certain historical and economical formation. This research identifies the repertoire of local activists' action in the post-Fukushima reality.

2. Methodology

The study utilizes the qualitative content analyses of activists' weblog, supported by the information

obtained through open-ended questions' interviews with the Abiko Group activists (4 interviews with 6 people in total), and through participant observations of group meetings.

In January 2015, all weblog entries (173 entries in total) and comments (10 comments) from March 11th, 2011 to December 31st, 2014, were extracted from the Abiko weblog by using the Evernote Web Clipper's article mode. Subsequently, all the entries were saved as a Word document, and were given an appropriate identity (related to the name of each entry). Multiple copies of each source were created to ensure that an original was saved on file. Screenshots of the opening pages and peripheral data that were found on the main blog page were also collected. This included "About me" entries, and contact information.

The analytic process started with the quantitative content analysis of entries posted on the Abiko weblog. This paper used the typology of the social movement communication elaborated by Laura Stein (2009). The typology included 6 categories: information; action and mobilization; interaction and dialog; lateral linkage; creative expression; and fundraising and resource generation (Stein, 2009). One blog entry was considered to be a content unit, thus, 173 content units were identified and coded. The coding scheme included 6 categories and all units were categorized according to whether they provided information; engaged in action and mobilization; promoted interaction and dialog; made lateral linkages; hosted creative and cultural works; and attempted fundraising and resource generation. Due to the spontaneous character of the internet communication and the weblog's content in particular, one entry could be subsumed under two or more categories. For example, one entry could be classified as information provision, promoting interaction and dialog, and creating lateral linkages at the same time.

Stein (2009), while analyzing 64 US based social movement organizations (SMOs) repertoire, provided an explanation of all categories and all features that appeared during the analysis of every category. During the content analysis, she expanded the categories making the explanation of the movement character more exhaustive. In this paper I followed the Stein (2009) tactics by looking to the content of every category.

Information

The internet disseminates the information regarding a particular movement, its purposes, views, activities and its results. It communicates collective identities through the organization history, and provides the information in the way of reports regarding measurement results, other activist's groups' introduction. It also includes information regarding useful goods to buy and further research suggestions. Moreover, it incorporates important notices regarding local schools, the city, prefectural or governmental decisions, meetings, disaster management measures and actions.

Action and Mobilization

The internet serves as the instrument of mobilization. In 1973, McCarthy and Zald formulated the economic vision of protest, indicating that SMOs behaved as firms, accumulating resources, hiring staff and promoting their ideas. This is known as "resource mobilization theory" and approached protesters as rational and intelligent activists. The movements operate outside the political process and need to rely on non-institutionalized means to achieve political influence. To reduce the cost of political participation modern groups effectively use the internet's capacity through the coordination of real world events, electronic petitions, the spreading of action alert and campaign materials, forcing electronic public comments campaigns, and engaging in virtual civil disobedience. The blogosphere also enables the spreading of reports from important meetings, steps that have been done so far, including video reports, and their results to encourage readers and let them know that the civil initiative and action are likely to be effective.

Interaction and Dialog

The internet functions as the site for interaction and dialog between several different actors based on their

"shared definition of themselves as being part of the same side in a social conflict" (Diani, 1992, p. 2). Diani's key point was the collective identity notion. This concept appeared in regards to the new social movement studies. Instead of representing collective "class interest" or ideology, participants of new social movements tried to articulate their subjective experiences and interests and share their values with one another to create a collective identity (Lievrouw, 2011). New social movements are usually involved in a wide variety of issues related to the urban spaces, such as a neighborhood or a city, and physical environment such as body, health and sexual identity (Offe, 1985). The main values that connect different types of social movements are autonomy and identity. Furthermore, the internet provides space for movement identity and ideas contestation, through participatory forums, chat rooms, and bulletin boards.

Lateral Linkages

Diani (2003) emphasized that "established social settings are the locus of movement emergence" (p. 7). Usually, even before the development of collective action, activists were linked through various types of ties including private ones such as friendship and kinship, and public ties presented by colleagues, and neighbors. Individuals may also be linked through indirect ties which are generated through the involvement in various activities, which do not necessarily suppose face-to-face interaction. These networks enable actions through the distribution of information regarding on-going activities, and introduce new actors, organizations, and people in order to contact and make the process of social organization independent of power centers (Castells, 2009). In addition, organizational networks "facilitate the circulation of meaning and mutual recognition" (Diani, 2003, p. 10). The blogosphere can link activists by unifying communities across one nation or connecting various transnational organisations. Hyperlinks can connect organizations, carry movement supporters to news portals, elite blogs of professionals, and international SMOs.

Creative Expression

Jasper (1998) emphasized that "emotions have disappeared from models of protest" (p. 397). He concluded that most researchers during the last 30 years have avoided the issue of emotions as they were considered irrational and dangerous, associating with Nazis and violent crowds of the early 20th century. Jasper argued that emotions permeate all aspects of people's lives and cannot be ignored while discussing social protest and civil activism. He examined emotions as part of movements' dynamics and proved that emotions could explain the origin, the spreading and the continuation or decline of the social movement. The internet can function as a site to express emotions in various forms. Social movements could use the internet to display art, videos, music, parody or cartoons to draw readers' attention, by employing emotional appeal rather than a rational one.

Fundraising and Resource Generation

The SMO's depend heavily on outside contributions and fundraising efforts. In this regard, the internet could facilitate fundraising and resource generation through requests for donations, selling activists magazines, books, movies or any mascot characters related to group activities (Stein, 2009).

3. The Abiko Group and Its Activities

This section provides an overview of the activities the Abiko Group was engaged in during the last four years, members' perspectives on the group activities and results of the content analyses of the Abiko Group weblog.

(1) The Course of Events

In March 2011, Japan's Ministry of Health, Labor and Welfare set safe limits for radiation in various products

for human consumption. The prescribed safe limit for Iodine-131 in vegetables was set at 2,000 Becquerel (Bq) per kilogram and 500 Bq/kg for radioactive cesium[14].

> *"The dose we get is equivalent to the dose that nuclear plant workers get for a year work at the nuclear power plant. However, they have chosen this work; they get free health checks and salary for working in such dangerous conditions. Our children have not chosen condition they live in. They do not get the salary for it. Why should they be exposed by the radiation every day? What expressions should we use to convince city mayor, what tactic? (almost crying)" (interview with an activist from the Abiko Group, July, 2013, Abiko).*

Lay people encountered science and needed particular knowledge to understand the meaning of 0.591 mSv/hr, the difference between micro Sievert and Becquerel, the possible risks of this or that particular dose and how to protect their children and families. They started organizing meetings, inviting mothers from their neighborhoods and famous university professors, who could explain the physical impact of radiation on people's health. Numerous activists' groups were formed. The internet, i.e. Mixi, Twitter and weblogs, became one of the major tools that helped people to find and share information efficiently.

By analyzing the activities of concerned mothers, I counted the numbers of weblog posts of the Abiko weblog. It appeared that the starting point for the group activity was in October 2011. The activity itself started in June 2011. The period after March to June 2011 could be called a silent period or "collective moral confidence" (Petryna, 2013), demonstrating people's beliefs that the existing system would overcome the disaster. Most of the group activity occurred in June 2011, by the time the high level of cesium was found in Chiba mothers' breast milk and their results became widely known. Joso Seikatsu Club[15] played a crucial role in alarming mothers of the Kanto region, connecting them to each other and involving them in the life of community. Having professional equipment, knowledge and materials at their disposal, Joso Seikatsu Club obtained breast milk samples from several mothers living in Chiba and Ibaraki Prefecture several days after the accident (Tani et al., 2015). Furthermore, they were among the first who performed soil and air measurements, sharing information on the internet, warning residents, particularly parents of neighboring localities and organizing educational meetings.[16] In addition, by June 2011, high levels of radiation were detected in incinerated ash at various waste disposal sites in Chiba Prefecture. Feelings of desperation and disorientation about the actual risk became dominating and mothers in Abiko City organized a meeting on June 1st, 2011, to learn about the radiation and exchange their opinions. The organizers invited friends and family members, and approximately twenty people attended. On June 8th, 2011, they created petitions to respective city mayors and started a campaign to collect signatures, alongside mothers from Kashiwa, Matsudo, Nagareyama, Noda and Ryugasaki. By July 6th, 2011, more than 10,000 signatures were collected and submitted with petitions to the Abiko City Mayor. In cooperation with Abiko City council member, they managed to submit a demanding letter directly to the City Mayor and arranged a meeting to exchange opinions. From July to October 2011, the main activities of this group included measuring soil, air and food contaminations and the decontamination of school gardens and parks.

In October 2011, Abiko City mothers submitted a second petition to the Abiko City Mayor. During the elections for the city councilors in Abiko, in November 2011, the group sent an open-question survey to all candidates. Fourteen candidates replied and their answers were published on the Association to Protect Abiko Children from Radioactive Contamination weblog after the election campaign was finished. In December 2011, the Abiko City Mayor replied and a new letter was sent to him by the Abiko Group mothers demanding more

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[14] http://www.mhlw.go.jp/stf/houdou/2r9852000001558e-img/2r9852000001559v.pdf Retrieved: September 2, 2015.

[15] https://www.coop-joso.jp

[16] http://www.coop-joso.jp/radioactivity/radioactivity.html#phase01. Retrieved: September 2, 2015.

detailed explanations.

In response to mothers' requests, Abiko City conducted the following measures and published all the information on the Abiko City's website. The city authorities monitored the radiation level measurements of tap water, school lunches, crops, food, drinking water, soil, incinerated ash, incombustible trash, etc; the measurement of radioactivity in the air: public facilities, temporary depositary of side ditch sludge, and private land. A system of lending measuring instruments was created. Decontamination procedures were organized in parks, children's playgrounds, and school yards. Consulting services were arranged for neighborhood associations assisting them in conducting decontamination by themselves (manuals, guidelines), decontamination of private land, of private universities and schools. City radiation control measures, decontamination plans, and the latest news were announced on the city website. Furthermore, the city's requests to prefectural and state government, and to TEPCO for compensation were also made available on the city website.

While activities in 2011 were concentrated on influencing city council members and the City Mayor, activities undertaken by the Abiko City mothers' group in 2012 switched their focus to prefectural and state levels. Several bigger NGOs started inviting physicist, psychologists, radiologists, ecologists and other specialist from Ukraine, Belorussia and Russia to share the experience of the 1986 Chernobyl reactor explosion in Ukraine, and to provide lectures to concerned citizens in various areas throughout Japan.

By that time Chiba Prefecture's temporary disposal sites for incinerated ash containing radioactive cesium were operating at near-capacity levels. Radioactive ash, generated during the incineration of trees and other waste laden with cesium, was impossible to reprocess. Finding the alternative storage sites was under the authority of the central government, yet Chiba prefectural government faced challenges trying to find additional protected storage sites. In Kashiwa, Chiba Prefecture, temporary radioactive ash depots suspended operations after reaching its full capacity. As a result, the Chiba prefectural government came up with a plan to temporarily store the ash at the Teganuma final disposal plant[17] operated by the Chiba Prefectural Sewerage Management Public Corp. However, senior officials of Abiko and Inzai cities criticized that proposal being dissatisfied with the idea of accommodating highly radioactive ash in their neighborhood.[18] To pressure the Prefectural government to take measures and to find another storage place for incinerated ash, senior activists went through mediation, while in February 2012, Abiko City mothers submitted a petition to the City Mayor requesting health checks for children and the prevention of disposal of incinerated ash containing radioactive cesium from other prefectures, and to find another storage place. The city council agreed with the activists' requests. In March 2012, the same petition was submitted to the Ciba Prefectural Governor and a note of protest was submitted in June 2012, making a strong objection to the Prefectural decision regarding Teganuma Disposal Plant.

In June 2012, the National Diet of Japan[19] established the Nuclear Disaster Victims' Support Act[20] (Official name: Act on Promotion of Support Measures for the Lives of Disaster Victims to Protect and Support Children and Other Residents Suffering Damage due to Tokyo Electric Power Company's Nuclear Accident. Law No. 48 of 2012, June 27, 2012[21]). The Act aimed to provide assistance to those who have been displaced from the contaminated areas of the Fukushima Prefecture and those who have been living in the Fukushima Prefecture up to present. This act recognizes the right of evacuees to move from the affected area and defines the support that should be provided to the victims of the nuclear accident. Among them are regular health check-ups and

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[17] https://www.pref.chiba.lg.jp/gs-teganuma/jigyou/gaiyou.html. Retrieved: September 4, 2015.

[18] http://ajw.asahi.com/article/0311disaster/fukushima/AJ201202290063. Retrieved: August 28, 2013.

[19] http://www.sangiin.go.jp/eng/.

[20] From here and after I will be using "The Act" name to refer to the Nuclear Disaster Victims' Support Act

[21] http://www.reconstruction.go.jp/topics/main-cat2/20140526155840.html. Retrieved: September 2, 2015.

reduction of medical costs for victims in general and children in particular.

The Act set the framework for the government support, however, concrete measures and details, including the target areas, the implementation methods, and the assistance plan, were not determined. Those measures were supposed to reflect disaster victims' opinions. Therefore, the Japan Federation of Bar Associations (JFBA)[22] and other NGOs formed the Nuclear Disaster Victims' Support Network and organized forums to collect victims' opinions.[23]

In December 2012, Abiko City activists made a request to the City Mayor demanding that Abiko City children be included under the jurisdiction of the Act. The Abiko Group decided to enter the Kanto Network[24] in December 2012, after realizing that their resources were limited. *Let's protect children from radiation. Kanto network (Hōsyanō kara kodomo wo mamorou kantō netto)* is a lobby group that includes 41 groups from nine cities in Chiba, localities in Saitama and Ibaraki Prefectures. Their purpose was to negotiate with Diet members, relevant ministers and agencies, issues related to the Act. Those 41 groups included two consumer clubs[25], one parent-teacher association (PTA) group *(Matsudo shi PTA mondai kenkyūkai)* and 26 active groups from Chiba, Ibaraki and Saitama. The remaining nine groups had stopped using their blog spots by 2015. It has already been stated above that most activists who started their activities 4 years ago, in 2011, had some experience and networks through consumers' clubs' activities and activities of PTA. Therefore, two consumer clubs and one PTA were present in Kanto network and were hyperlinked with numerous blogs.

Even though the City Mayor and City Council members were relatively cooperative in terms of mothers' demands, Chiba prefecture's government rejected mothers' initiative of the Abiko City to be included under jurisdiction of The Act. Prefectural officials explained that being included in the target area of The Act would lead to the official confession that the territory of Chiba Prefecture was contaminated, that in turn, would negatively affect the image of Chiba Prefecture as an agricultural supporter of the region.

The period for public comments was extended up to September 2013, and mothers of Abiko, seven irradiated cities in Chiba Prefecture, and other localities' groups started gathering comments. They were requesting the right to be included in the jurisdiction of this Act, and their children to receive free regular medical exams, financial support and/or the chance to move far from irradiated places permanently or for a while, for example, summer camps, resorts, health centers. The last post published on "Protect Abiko children from radiation" group weblog was one informing that the Abiko City Mayor submitted his comments regarding the Act with his name on it.

Figure 1 summarizes the number of entries per months, showing the dynamics of the Abiko Group Activity with several peaks. The first peak reflects the start of the activity when the Abiko City mothers started submitting the official requests to the Abiko City Mayor, and conducting open-question surveys among all city council candidates. The second peak in March 2012, one year after the Fukushima accident, mirrors the salience of debris management issues including the issue of handling the contaminated debris from Fukushima Prefecture and the issue of temporary disposal sites for incinerated ash in Chiba Prefecture. The third peak in June 2012, could be explained by the fact that at that time Prime Minister Noda proposed the decision to restart two of the 50 nuclear reactors which have been idled in the previous month in Japan. 70 percent of Japanese were against the decision to restart the Oi Power Plant reactors and a wave of protests erupted all over the country. The Abiko Group activists shared various petitions, mobilizing action videos and songs which made all of the Abiko weblog content at that moment. The forth peak was in September 2012, when the activists of various groups started discussing The Act and assessing what kind of effects the low-dose radiation may have

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[22] http://www.nichibenren.or.jp/en/. Retrieved: September 14, 2015.

[23] http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205403351_text. Retrieved: August 13, 2013.

[24] http://kodomokanto.net/. Retrieved: September 10, 2015.

[25] http://www.coop-joso.jp/index.html; http://www.s-coop.or.jp/. Retrieved: September 6, 2015.

on their children's health. The fifth peak was in December 2012, when Abiko Group activists requested the City Mayor to make a demand on their behalf for the Abiko City children to be included under the jurisdiction of The Act. The last peak in September 2013 demonstrates the attempts of the Abiko activists to attract the attention of the blog readers to The Act, and make them write public comments (the guidelines of how to write public comments were issued and spread among various groups in the Kanto Region).

Figure 1. The Dynamics of the Abiko Group Activity
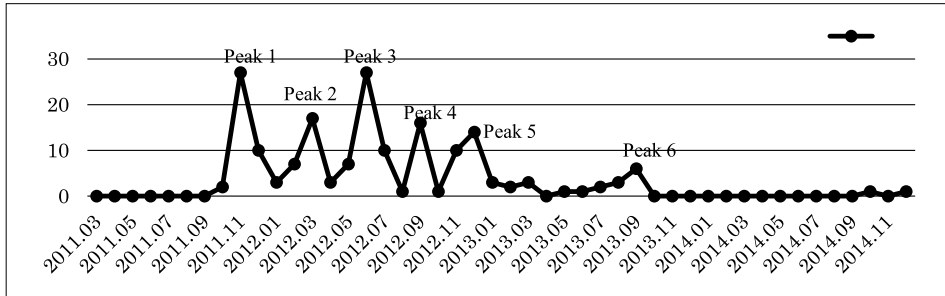
Looking through the dynamics of post numbers during the four years following the disaster, it can be observed the change in intensity of the group activity from 3 posts in 2011, 10 posts in 2012, 2 posts in 2013 to 1 in 2014.

One of the reasons of the groups' activity decline may be explained by the high percentage of people moving out of Chiba Prefecture. According to the Internal Affairs and Communications Ministry, the number of people who moved out in 2012 exceeded newcomers for the first time in 55 years, by nearly 4,000[26]. After moving out, people were faced with various relocation difficulties and could not continue with their group activities. One of the group members, for example, was leaving Abiko City a few days after our interview in July 2013.

What has become clear from the numerous interviews with the Abiko Group members is that the additional explanation may be found in the fact that protesting mothers were seen as disturbing the harmony of the community, and sometimes were ignored by neighbors and friends. It has become psychologically difficult to continue the activity. Moreover, they were treated by the authorities as hysteric mothers and some of them faced problems with their husbands and in-law relatives, being accused of publishing their names (which are always husbands' names) and disobeying authorities. This situation was termed as part of the radiation issues or "perception gap" (*ondosa*), which appeared between close relatives regarding food and water safety related issues, when, on the one hand, mothers were overconcerned about the issue, and, on the other hand, other family members were indifferent, saying that the situation in the region was safe.

One more possible reason may be the fact that small local activist groups became members of bigger NGOs and NPOs like those that united activists from the Kanto region. The Abiko Group stated on their weblog that they became members of the Kanto Network and continued their activities as a part of a new entity.

4. Results

Through the examination of all entries, this research identified the repertoire of local activists' action in the post-Fukushima reality. The results are presented in Table 3.

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[26] http://www.japantimes.co.jp/news/2012/03/23/national/fear-of-radiation-creeping-south/#.U65vMvl_uZg Retrieved: April 16, 2014.

Table 3. The Content Analysis Results

Feature	Frequency	Percentage
Provided Information	50	29%
Engaged in Action and Mobilization	129	75%
Promoted Interaction and Dialog	5	3%
Made Lateral Linkages	86	50%
Hosted Creative and Cultural Works	11	6%
Attempted Fundraising	1	0.6%

Information

The information category included the information provision. It demonstrates how a movement defines a problem and convinces others when a problem needs to be addressed. It was found that information about the Abiko Group perspectives was relatively short. As explained above, the group includes more than 60 members who exchange information through the mailing list service. Members consist of children protectors and guardians (which include mothers and fathers), grandfathers and grandmothers. In the "explanation of the group" section, was written that mothers, concerned with the radiation effect, spontaneously gathered soon after the Fukushima accident to share their worries and anxiety. They emphasized that mothers form the core of the movement and their narratives should be familiar to the audience. Since October 2012, they continue their activity as a part of the Kanto Network.

As shown in Table 4, the information did not include personal data about members or leaders, personal histories or any other information that could help make the communication in the blog more intimate. The main information that Abiko Group provided includes notices regarding forthcoming events and reports of actions made up to present. On the other hand, a critical analysis of laws and policies is absent. Relatively limited attention, only two percent of the content, has been paid to the mainstream news[27] articles. *Tōkyō Shinbun* was cited three times and The Nikkei, (*The Nihon Keizai Shimbun,* Japan Economic Newspaper), once. *NHK* (*Nippon Hoso Kyokai,* Japan Broadcasting Corporation), Japan's public broadcaster, was cited twice. The local TV station from Chiba, *Chiba Terebi,* was mentioned twice. On the other hand, alternative sources of information (on-line TV channels, alternative internet news portals and friendly groups' weblogs and websites) made a significant part of the content. Suggestion for further research that would include links to professionals' blogs, were also underrepresented. Videos or audio reports that would contain the critique of mainstream media coverage were absent (Table 4).

Table 4. Information

Features of Providing Information	Frequency
Mainstream News Articles	4
TV Channels	3
Alternative News Reports and Notices	21
Stream Video Reports	3
Introducing Video Content	10
Introducing Goods to Buy	1
Further Reading Suggestions	0
Self-Published Articles/ Reports	0
Law and Policy Analysis	0
Media Critique	0

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[27] http://www.tokyo-np.co.jp/, http://www.nikkei.com/, http://www.nhk.or.jp/, http://www.chiba-tv.com/

Action and Mobilization

Hewitt and McCammon (2005), underlined that recruitment is a key task for social movement. The mobilization and action category should be understood as the propagation of group initiatives and the diffusion of group aims and viewpoints in a way that could spur the interest and trigger public attention. A relatively large part of the weblog content featured descriptions of reports related to offline events, for example measurements, meetings, demonstrations, requests to authorities, etc. In addition, the four-fifths of the content were related to requests to participate in online petitions, solicited public comments campaigns, activities related to writing letters, etc. (Table 5).

Table 5. Action and Mobilization

Features	Action and Mobilization	Frequency
Call for actions	Collecting Public Comments	5
	Collecting Signatures	11
	Demonstrations	4
	Others	8
Actions Results	Petitions Activity	28
	Questionnaire	20
	Others	5
Information about offline events	Study・Lecture Meetings	21
	Explanatory Meeting	2
	Exchange of Opinions Meeting	16
	Others	1

Interaction and Dialog

Interaction and dialog is an additional set of characteristics which defines the social movement as a two-way communication among group members and its supporters. It is said that interaction is the fundamental characteristic of social movement, since it allows members to share the meaning, being bounded up "in a vernacular language and a set of common beliefs, values, and ideas" (Sheffield, 2010, p. 77). However, only a few blog posts contained comments, three percent of the content. Therefore, the blog itself resembled information boards. To continue a dialog, the Abiko Group provided their contact information. All important information and opinions exchanged took place through the mailing list. Everyone who visited one group meeting or was acquainted with someone from the group could be included in the mailing list. At present, the mailing list contains 130 members, including Abiko City Mayor and several Abiko City council members. All discussions of organizational strategies were also achieved through the mailing lists' forum, and only final decisions regarding meetings and upcoming events appeared on the blog.

Lateral Linkages

Social movements foster lateral linkages on their weblogs to create networks among social movement members and to guide supporters to sources of news that mirror the views of the group. This research employed the analysis of hyperlinks to other SMO sites, alternative and mainstream news, and elite weblogs of professionals as lateral linkages.

As shown in Table 6, out of 91 links to various sources 41% were links to SMO sites of other movements at the national level. On the other hand, links to international SMO sites made only five percent of all links. This demonstrates that the character of their activity is local and the networks between them is relatively dense. Links to local politicians' websites and weblogs support the interviewees' conclusions that the group activity would not be so successful without local politicians' advocacy and support. There were relatively few links to

traditional media portals. This may be explained by the fact that the movement activity was local and did not attract a lot of attention. On the other hand, numerous respondents underlined that state agencies hardly admitted the existence of radiation contamination in the Kanto region and whether it affected residents' health. This resulted in national media silence about the situation related to the Fukushima accident and actions of activists' groups (Table 6).

Table 6. Lateral Linkages.

Features of Lateral Links	Type	Frequency
Links to Mainstream News	NHK	1
	Tokyo Simbun	3
Links To alternative News	Magazine 9 - Opinion Web Magazine	1
	Mail Magazine	1
	FN holding Co. ltd business web newspaper	1
	Bulletin Board	1
Link to International SMOs	Greenpeace	2
	FoEJapan	3
Links to Stream Video Reports	www.youtube.com	8
	http://www.ustream.tv/	2
Links to Pages in SNS	Facebook	1
	Twitter	2
Links to Administrative Sites	Abiko City	7
	Kagoshima Prefectural Website	1
	Tokushima Prefectural Website	1
	MLIT[28]	1
	Information site regarding disaster waste disposal	1
	www.e-gov.go.jp/index.html	1
Link to Politicians Websites/ Weblogs	Chiba Prefectural Assembly Member (Mizuno Yuki)	2
	Member of the House of Councilors	1
	Abiko City Council Member	1
	Former Abiko City Council Member	1
	Ota City Council Member	1
Links to Shops/ Consumer Clubs	Joso Consumer Club	1
	Kyushu Grocery	1
Links to Scientists' or Professionals` Weblogs	Medical Practitioners	2
	University Professors	2
Links to Journalists Webpages	Nagai Kenji (Nihon Terebi former Journalist)	3
Link to SMO Sites of Other Movements		38
Links to Search Engines	http://news.yahoo.co.jp/	1

Creative Expression

This category deals with features that appeal to people's emotions by using various creative features without relying on rational argumentation. This category was underrepresented since cartoons or comics were absent. Music appeared once and visual art features appeared six times in the form of leaflets and election labels.

Fundraising and Resources

The last set of features related to fundraising and resource generation was absent. The group did not make any effort to solicit donations via weblog, and there was only one attempt to advertise a third party on the weblog.

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[28] Ministry of Land, Infrastructure, Transport and Tourism. http://www.mlit.go.jp/en/index.html

5. Discussion

Increasing accessibility and the ability to communicate simultaneously with numerous others made the internet a valuable tool for activists all over the world. In the case of Abiko mother activists, the internet was used for reporting the results of group activities, announcing scheduled events and providing links to the supplementary sources of information. The blogosphere created a space in which activists could find a place to connect, an area where their experience could be congregated, while constructing the meaning for participants and empowering them. By additionally spreading the network, the internet brought together otherwise unconnected actors: mothers, lawyers, consumer groups, farmers, and politicians, thus contributing to the expansion of network that included concerned citizens. Concerned mothers became a part of a bigger entity consisting of more than forty groups, the Kanto Region Network, and they further connected to the Network of Parents to Protect Children from Radiation[29], *Kodomo Zenkoku Netto,* which consisted of more than 300 groups and associations.

What makes this disaster different from other man-made and natural disasters is its triple character: an earthquake, tsunami, and nuclear accident. Persistent criticism of the utility, the government, and the "nuclear village" elites; the scope of the tragedy, the nature of radiation contamination, which is invisible to our senses, encouraged local residents to see the accident from a unique perspective. In the case of the Fukushima accident, local activists no longer had a sense of security and trust in political and technical authorities. By overcoming the feelings of desperation and disorientation about the actual risk, Abiko City activists, while writing numerous petitions, requests and notes of protest, managed to achieve a dialog with city authorities and ensured the City Mayor's patronage.

As discussed before, there are numerous components that are important for the civil initiative to be successful. Among those are networks, resources, actions, the provision of information and the emotional appeal to recruit supporters. As Tilly (1978; 1993) suggested, the repertoire of collective action is determined by economic conditions, the political situation, and cultural patterns. In Japan, blogs predetermined the choice of activists as the blogs are one of the most important sources of information, and the only way to express one's opinion while being incognito. Blogs allowed numerous members to publish information, to share links and to express their opinions without publicly introducing their names, thus, not involving other family members (husbands, in-law relatives) in the process, and this is important because their lives and careers would likely to be affected.

The interviews showed that most group members did not have any activists' experience before the Fukushima accident. Additionally, they were indifferent to politics or any civil initiative projects. However, their parental status made most of them worry about their children's future and health spurring the action. Some of the interviewees even admitted that if, by the time of the accident, they had not had children, they would have never started any action or, if they had been concerned about the contamination in their neighborhood, they would have rather moved to some safe place.

At the beginning of this paper I argued that Japanese women have influenced local politics towards more openness using the capacities of the blogosphere as well. Numerous respondents admitted this emphasizing that after four years of activity, they realized how close local politicians were to ordinary citizens, to their needs and their interests; and how important it is to let politicians know about their concerns and fear by using petitions, organizing discussions and collecting public comments, and campaigns. Furthermore, the open dialog that was achieved between the authorities and activists continued not only in the city hall, but also on the blogosphere which open nature allowed activists to publicly share their opinions. Open nature also allowed city

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[29] http://kodomozenkoku.com/

council members to collect this information, to post latest city news and guidelines on the blog, thus in turn, supporting the image of the leaders that were sensitive to the demands of its contestants.

The data supports the literature which has been discussed so far, showing that Abiko Group activists employed mother's image using parental wording, e.g. mothers, children protection, mothers' knowledge and mothers' intuition, *kan,* when they discussed their children's health, and the high level of awareness regarding the issue of neighborhood contamination. The starting point of their activity was testing breast milk samples for radiation, while breastfeeding is always considered as an exclusively mother's duty which implies mother-child bonds, mothers' responsibilities and attachment. The analysis of bigger lobby groups would probably show that the image of "mother" was vastly employed.

Networks not only support the civil initiative but are also considered to be significant for the Japanese society in general. As the content analysis results showed, the lateral linkages made a significant part of the Abiko weblog content, providing readers with valuable information regarding events in other locations and professionals' opinions on issues that the Abiko Group was mostly concerned about.

However, the role of the internet should not be overestimated, since community activism is still based on traditional campaign methods and weblogs' networks have not been substituted for real social linkages and face-to-face meetings, given that the analysis showed that these meetings where primarily venues for mothers to exchange their opinions and to release their stress by talking to each other. The data also supports this statement, showing that notices regarding forthcoming events and actions, reports about actions achieved so far, and alerts make almost 100% of the content. The weblog was used as an information board, news archive, and a mobilization tool.

The very nature of the internet implies a two-way communication, where the author writes and receives replies or comments. However, Abiko weblog did not apply this function. Abiko activists did not maintain the dialog online, but facilitated it through the mailing list or during meetings and lectures. Furthermore, it did not spur emotions' sharing and interaction online. The group underestimated emotional constituent of the mobilization context. Creating cartoons, posting various types of visual art could significantly increase the popularity of the blog and influence the mobilization and lobbying efforts.

In addition, to sustain their activism for a long time, the group should have received some funds, otherwise they would have to stop their activity sooner or later. Selling goods, advertising, organizing charity festivals and other fundraising events would help make their activity salient and increase the scale of their activity. However, the fundraising activity was absent from the weblog.

The representative of the Abiko Group argued that the internet contributed a lot in the group activities in times when the number of blog readers reached 100 per day. Concerned mothers, who were being persuaded by school authorities that nobody else was worried about the radiation contamination of the school yard or school breakfast, were happy to find the weblog of this group, to visit one of the numerous meetings and to find the support, and psychological relief. Further research of friendly groups and other neighborhood communities could reveal the differences between communities that were directly affected by the accident and communities that were indirectly affected by the accident. By delving into interviews with weblog creators, more research could shed light on the correlation between group size, its goals, and strategies on one hand, and the organization of the weblog on the other.

One more reason why the Abiko Group did not fully use the capacity of the internet was that the number of members was relatively small, the structure was unstable and the workload was steadily increasing albeit negatively influencing the performance of group members at home, making them sacrifice some family duties. In addition, lack of money and knowledge did not allow them to create relevant online content and use the internet capacity efficiently enough to address their goals and needs. However, during these four years, group members have learned a lot by becoming members of numerous other groups and participating in various citizens' initiative projects.

6. Conclusion

Information communication technologies, in particular the internet, significantly affected the way people interpreted, perceived, and responded to risks. Easy access and efficient sharing of risk information through the internet has enhanced public awareness of the accident consequences and facilitated citizen's participation in risk management efforts. However, due to the lack of control over the the flow of information and content, a lot of false, or biased information became available through the internet soon after the Fukushima accident, leading people to amplify the risk, and affecting public response to the issue. Taking into consideration the symbolic connotations of nuclear power in the Japanese society and the long history of contention and anti-nuclear activism, the collective process evolved into citizens and women's movement.

In 2011, after the Fukushima catastrophe, a new movement that embraced the femininity and corresponded to motherhood emerged. In post-Fukushima precarious (Allison, 2013) conditions of the Japanese society, when authorities neglected the influence of low-radiation exposure on children's health, women/mothers decided to make their voices heard. Most of these activists live in metropolitan areas, have high education in natural sciences, and most of them are mothers of more than one child. The present research made an attempt to analyze the repertoire of the potential internet usage by the Association to Protect Abiko Children from Radioactive Contamination group members. The content analysis of the Abiko Group weblog suggests that the group was not using the web to its full capacity and proposes the number of reasons why this might be the case, including organizational and human resources, group strategies, and cultural particularities.

This paper, by being a part of a bigger project that analyses and compares numerous groups web repertoire, proves that using communication methods in the study of social movement would broaden the theoretical and empirical horizon in the study of movement communication. Further research includes a comparison of the repertoires of various groups of the region; more intensive interview work to investigate opinions, intentions and strategies of various website producers and website readers. During the interviews, one of the activists stated that one reason to continue the activity was to create some artifacts that would record all activists' efforts and scenarios that could be employed in a similar case of human-made disasters and this research proves that blogs would be an inevitable tool to do so.

Acknowledgements

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