Part II: Using a Digital Archive for Teaching and Research

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Building on Part 1 on "Creating A Disaster Digital Archives in Real Time," Part 2 draws from over a decade of research and experimental teaching with the Japan Disaster Digital Archive (JDA) to highlight the possible uses of the archive as both a research tool and teaching resource. Not only Tohoku University's Michinoku Shinrokuden but also other disaster archive projects in Japan, most of which were initiated by disaster-stricken prefectures and municipalities, focused on collecting and organizing data on the ground. They typically prioritized the collection of digital and digitized material over its use, hoping that future users would find ways for the past data to be usable. The collaboration with JDA, which required partner organizations to share links to their dataset to be accessed through the JDA platform, attracted many projects in Japan since JDA excelled at making their data usable. At the outset, and in fact, as it has turned out over time, JDA envisioned three types of users: academic researchers, educators and students, and local citizens—in this last case, especially but not only those in the regions impacted directly by the disaster. Here, we introduce one exemplary scholarly use case—a 2024 Japanese language book by Sato Keiichi titled *Intersection of Disaster Response and Modern History*(災害対応と近現代史の交錯), followed by examples of educational use at Harvard and Tohoku University in which the authors took part in directly.[1]

JDA as a Research Tool: Qualitative Data Analysis and "My Collection"

Around ten years after the 3.11 disasters, Sato Keichi, a professor at Senshu University, began a new research project asking, "What are the lessons of 3.11?" He began by searching on Google and JDA and then expanded to newspaper articles, interviews with experts in Japan and the United States, and the impact of the disaster on thought and culture. The project also broadened its focus to include other historical disasters, and was published in book form in 2024. As Sato pursued his research, he realized that writing a book about disaster response in the digital age required a different way of conducting historical research. This led him to experiment with an unconventional method. He organized all the digital information used in the book as a set of JDA Collections (Sato 2024). Because the items in collections are preserved in the JDA, readers can easily access the digital resources that are the foundation of his book in a more stable and enduring form available to the public. Below, Sato briefly details how he used JDA for his research and shows its benefits and potential for disaster researchers.

1. Use of qualitative data analysis

The available information about 3.11 is vast. Looking back at what has been recorded and what has been said is a painstaking task for both the general public and researchers alike. In Part II of Sato's book, "Tracing Records and Narratives of the Great East Japan Disaster," he attempted to analyze as much diverse information as possible using a qualitative analysis software, NVivo. NVivo allows its users to perform complex tasks such as organizing and analyzing data (coding, aggregation, case classification, etc.) in various formats such as documents, online information, audio, and video, and visualizing the data in charts, diagrams, maps, etc. (Figure 1).

1 For a partial list of other courses taught with JDA: https://jdarchive.org/en/resources/teach/jda-classroom.

It also allows users to create codes while viewing data, generate higher-level concepts from the codes created, and adjust the codes and concepts while returning to the data.

Figure 1: Overview of qualitative data analysis using NVivo

Using this method, Sato analyzed the top 10 results of each search for "東日本大震災　教訓/Great East Japan Earthquake Lessons" in Japanese and English using both Google and JDA (see Sato 2024, section 6.1). In this process, he carefully read all the collected information and manually assigned codes to summarize the contents. 579 codes were created for the Google information and 724 for the JDA information, for a total of 1303 codes.

Information obtained through Google and JDA searches included many descriptions of post-disaster social conditions and structures and scattered descriptions of information technology. Social networking services (SNS), such as X (formerly Twitter) and Facebook, were widely used in 3.11. Yahoo! Japan set up an information page for disaster victims, Google Japan set up a safety information sharing service, and other information support activities were conducted.[2]

JDA demonstrates the intimate connection between 3.11 and information technology. Such a connection was not so prominent for the Hanshin-Awaji Earthquake, which occurred sixteen years prior. In discussing the changing technologies and a more digitalized world, Dinmore and Gordon (2012: 6-7) discuss the aims of JDA and the implications for future historical research, "Most records of historical events in the world today are 'born digital,' and many print media are also available in digital form. To understand major world events, not only disasters but also political upheavals, and to preserve their records and memories for survivors, scholars, politicians, and the general public, we inevitably need to preserve this digital information and make it creatively available." Designed with an eye toward the changing landscape of information, JDA helps integrate systematic analyses of digital information required by researchers.

2. JDA My Collection

One of the unique features of JDA is its ability to allow users to build their personal mini-archives using the JDA collection function (Gordon and Morimoto, 2018). In his book, Sato took advantage of the collection feature by using the existing JDA database and contributing additional online materials that he collected. He organized these materials into several collections to correspond to each section or chapter of his book (see also Morimoto 2022 for a similar use of JDA for research and writing. See here for the accompanying bilingual JDA collection).

Figure 2 shows a special page and one collection created. The special page includes chapter headings, each item linked to the relevant collection. Within some of the collections, he prepared an overview of the collection and added additional explanations. One advantage of using the JDA in this way is that collections can be updated after publication.

Except for the collection of JDA search results in Section 6.1 of his book, he uploaded most of the information in these collections into the JDA himself, using the bookmarklet tool. Another of the strengths of the JDA is that each user can add new data in this way, which was not already part of the database. Unlike many other digital archives where users must work with what has already been archived, JDA thus allows users to go beyond the existing information by adding data a researcher finds missing and need-

2 International Research Institute of Disaster Science, Tohoku University "HFA IRIDeS Review Preliminary Report October, 2013" https://irides.tohoku.ac.jp/media/files/archive/HFA_IRIDeS_review_pre.pdf.

ed for their individual research. Over time, as different users use the archive in this way, significant new data can be accumulated.

Many 3.11 disaster archives, such as the National Diet Library's *Hinagiku*, allow users to search large amounts of accumulated data freely. Still, they do not provide an integrated workspace where you can make collections and create stories with the data. Instead, users must work in their local environment, and sometimes, data analysis requires a third-party analytic tool to make collections and construct stories. When Sato used NVivo, it took a lot of time to convert each web page to PDF format, review the set data, sometimes hundreds or thousands of lines of coding, and consolidate the code, all before he could develop a storyline.

Thus, the most significant feature of JDA for researchers is that JDA allows users to search for vast amounts of data while easily curating data into individual collections by freely adding information. This process is like qualitative data analysis performed on an Internet browser. The information collected and added by the user is collected in the browser, notes are made (equivalent to coding), and the order of the information is arranged in the collection (story building). This mechanism conveniently encourages qualitative data analysis and retains the original information without getting stuck in a maze of coding.

Another essential feature of JDA as a participatory archive is the ability to publish user-created collections on the Internet. When Sato prepared his JDA collections for his book, he realized JDA offered valuable assistance in organizing and managing often cumbersome information online. He also found that JDA and its features aided his writing process, especially in checking the flow of information. Moreover, the viewers of collections can access reference information and see any supplementary information added after the publication. Sato, with all the authors here, hopes that the research use of JDA will be further developed and that there will be more opportunities for researchers to view and communicate with each other about their collections.

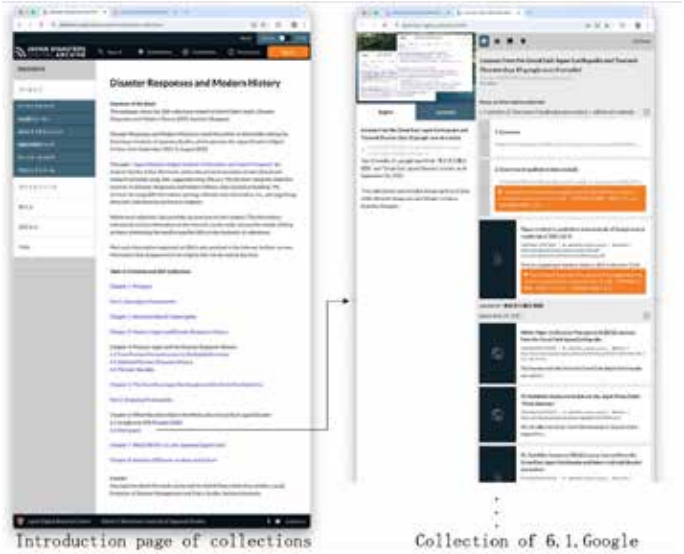

Figure 2: Created JDA collection, "Disaster Responses and Modern History"

A Decade of Teaching the JDA in the Classroom, 2013-present

Fostering new generations of researchers is vital, and the authors would like to highlight the JDA's significant potential in educational contexts. This section, therefore, turns to the classroom, examining how the JDA has been integrated into teaching practices and how it can be used to cultivate critical thinking, digital literacy, and collaborative learning among students.

The JDA staff is fairly sure (a user doesn't need to inform the JDA of the purpose of their use) that the first use of the archive as part of a college course came in 2013, when Gordon teamed with his Anthropology department colleague Ted Bestor, and Kyle Parry, a PhD student affiliated with MetaLAB, to teach a joint History/Anthropology course titled "Japan's 2011 Disasters and Their Aftermath: A Workshop on Digital Research."[3] In 2016, Gordon and Bestor were joined by Morimoto, at the time a postdoctoral fellow at the Reischauer Institute, to teach the course for the second time. Later, in 2023 and again in 2024, Gordon included a one-week unit in his course on the history of postwar Japan, during

3 See more information about the course here. https://hilt.harvard.edu/funding-opportunities/previously-awarded-projects/projects/the-digital-archive-of-japans-2011-disasters-as-a-teaching-tool-and-laboratory-course/.

which students used the JDA to prepare presentations on a disaster-related topic of their choice.

Both versions of the Gordon-Bestor course enrolled about 12 students, more or less evenly split between undergraduates and early-stage graduate students. The students began by reading classic social science works on the field of disaster studies in general before turning to recently published works on 3.11. In the second half of the course, students pursued independent projects on 3.11 related topics, using the archive and the collection-building tool to gather, organize, and annotate the materials and present the finished work to the class. We also asked them to write a paper reflecting on the process of creating this sort of digital project, as compared to more traditional research reports. The two iterations of the course were well received, although the collection function as it stood in 2013 was cumbersome to use, which frustrated the students. Not surprisingly, student interests reflected the current wider concerns in the United States (and elsewhere, we believe). For example, students' concern for global environmental challenges led many to focus their projects on aspects of the Fukushima meltdown and its aftermath. Concern with gender issues led several to focus on the impact of the disaster, specifically on women.

The 2023 and 2024 courses devoted only one week to the 3.11 disaster, so the presentations were not as deeply researched. That said, the incorporation of new functions that allow archive users to add text slides and topic breaks to their collections allowed the creation of presentations that are easier for readers to follow and more engaging. One discovery in these recent iterations is that the collections created in the past by other users can serve as excellent reference sources. There are now over 760 public user-created collections in the JDA. Although they are of uneven quality, they cover an extremely wide array of topics, and many contain large numbers of carefully selected digital sources. If users search collections using topic keywords, they will likely find at least one or several existing collections on that topic. As happened a few times in these courses, a student (or other) user can use these collections to gain initial familiarity with possible sources and build their own interpretation from that foundation.

Teaching the Japan Disasters Digital Archive with Tohoku University students, 2015-present

Since 2015, Harvard and Tohoku University have held annual seminars during which students at Tohoku University present to either an in-person or virtual audience at Harvard the results of several weeks of research using JDA in a course first led by Akihiro Shibayama and Sébastien Boret and later taken over by Julia Gerster. The 2015 edition of "Using the Digital Archive of Japan's 2011 Disasters in the Classroom: Collaboration between Tohoku University and Harvard University" kicked off the series with three presentations from graduate students and four undergraduates from Tohoku University (Images 1 & 2). Since then, a total of 56 students have made 37 presentations (some were team projects). The quality of the presentations and the discussions among the large audience spurred all teachers and partners to agree on the importance of renewing this experience and, through this, improve the practical exploitation of digital archives of the 3.11 disasters at both universities. Presentations were held in person at the Reischauer Institute of Japanese Studies (RIJS) at Harvard from 2015 until 2019, and since then, they have been mostly online until the time of our writing (2025) – initially a change due to the COVID-19 pandemic.

Image 1: Tohoku University students' presentation at Harvard University in 2015. Photo taken by the Reischauer Institute Staff.

Image 2: Group photo of the 2015 student presenters with Andrew Gordon, Theodore Bestor, Akihiro Shimayama, Sébastien Boret, and Ryo Morimoto at Harvard University. Photo taken by the Reischauer Institute Staff.

Although the Tohoku seminars vary yearly, the teaching principle remains unchanged. Students are instructed to explore disaster topics outside their field of study. For example, a medical student would be encouraged to select a non-medical topic. During the course, their main task is to search for all the materials available on JDA and build a collection. When they found material on the web that was not already part of JDA, students were invited to contribute it to the archive, something any user can do, as discussed in the previous section by Sato. This was especially common during the early days when much online data was still emerging. Once the necessary information was collected, students organized their findings and their analysis into presentations, which they discussed with their peers under the guidance of their instructors (Shibayama, Boret, or Gerster). In addition to allowing students to present their findings, the seminars provided feedback that the JDA team could use to improve the overall archive functionality and experience.

Regarding the topics chosen by the students, although "reconstruction and revitalization" and "disaster preparedness" remain more or less constantly chosen themes, we have observed a shift in students' interests over time. In order of popularity, the most common themes were disaster mitigation (7), reconstruction and revitalization (6), collective memory (5), nuclear disaster (6), religion (3), health (3), gender (3), disaster tourism (2), and arts and media (2). Collective memory, religion, and disaster tourism were among the most popular topics between 2015 and 2019. For instance, the topics of the first symposium held in 2015 included "Tsunami Memorials, Lore, and Lessons Learned" and "The Roles of Religious Leaders and Mental Care in Disaster Response." We observe a preference from 2020 for subjects related to the nuclear accident, such as discussions on "Radioactive Contamination Post-Fukushima: Impacts on Marine Life and Food Safety" and the contemporary issue of "The Nightmare that Followed: The Problem of Radioactive Waste Disposal." This shift might be as much about the singular relationship between the JDA students and the disaster as it reflects the "unsolved" and "relevant" concerns at its time.

Over time, it has become evident that many students gravitate towards the same data points, often influenced by the data readily available in the JDA, as well as the search and result algorithms that prioritize certain information based on settings and relevance. For instance, their research predominantly drew from newspaper articles published shortly after the 2011 disaster or during its immediate aftermath. Accessing more recent data, such as discussions surrounding the release of treated wastewater from the Fukushima Daiichi Nuclear Power Plant in 2024, proved challenging for the student users. This pattern is common in disaster archives, particularly digital ones reliant on news coverage. Also, even for a participatory archive like JDA, user contributions tend to decrease as the disaster becomes more distant in time.

In the context of JDA seminars, instructors monitored students' research choices closely and encouraged them to diversify their sources, broadening their understanding of the chosen topic. Additionally, sharing their findings in the archive was discussed as a way for individuals to contribute to a comprehensive representation of evolving events and discussions. For example, students could contribute photographs from their field trips to visualize the present situation in the disaster-affected areas. They could also contribute information related to the topics they

found missing or underrepresented in the archive. Adding material to the JDA helps keep the archive updated and influences the topics other users may see first when using the archive, thus addressing the limitations mentioned above.

Unlike the JDA courses taught by Gordon and others, where the students were typically from social science and humanities backgrounds, most students at Tohoku University studied hard sciences, including engineering, robotics, chemistry, and natural sciences. Interestingly, however, the vast majority chose topics we would associate with social sciences, humanities, or philosophy. In 2017, a graduate student in robotics researched and presented on the topic of "Mutual Influence of the Tohoku Earthquake and the Media: A Brief Overview." In the same year, an environmental and civil engineering student offered a thoughtful discussion of her collection, "Spiritual Comfort and Salvation when Facing the Tohoku Disaster – O-Jizo-san Project." As a social anthropologist, what was remarkable to Boret was the ease and maturity with which the students embraced both topics. Boret learned from discussions with the students that JDA's participatory design–the ability for its users to contribute new material–can motivate students to explore their diverse research topics both inside and outside the archive.

It is also notable that only a third of the students were Japanese. The majority came from neighboring Asian countries: China (PRC), Thailand, South Korea, and Taiwan. The small number of Japanese students was probably due to the requirement to make presentations in English as well as the concern of Japanese students that they might fall behind in their own experiments and research. Regardless of their nationality or motivation for taking the course, few had any direct experience of 3.11. Especially for international students participating in more recent years, 3.11 tended to be seen as a disaster that occurred in their childhood in a foreign land. This rather detached perspective gradually extended to Japanese students, who, over time, have increasingly less memory of the disaster, especially if they were not from the Tohoku region. For most students, participation in the JDA seminar was their first experience delving into the topic of disasters.

Gerster and Shibayama integrated their archival projects with field trips in response to this emerging issue. This effort intends to deepen students' connection to 3.11, their research findings from the JDA, and their current residence in Sendai. In 2021, students visited Ishinomaki City, exploring various memorial sites and engaging in guided tours, including one led by a bereaved mother at Okawa Elementary School, which had been turned into a disaster memorial facility after being destroyed by the tsunami. Subsequent field trips in 2022 and 2023 to tsunami-affected areas of Sendai City included guided tours of the Tsunami Ruins of Arahama Elementary School. In 2024, the field research was extended to a two-day trip to coastal towns in Fukushima Prefecture. The more extended field stay allowed the students to better understand the differences in recovery depending on the locations and distance to the nuclear power plant. Furthermore, it allowed them to discuss their questions with local residents more thoroughly. These encounters not only influenced student research topics but also fostered empathy and a more profound commitment to addressing the challenges of disaster mitigation and recovery, as you can see in the following two projects: Shifting Realities: "The Impact of the Nuclear Power Plant on Fukushima's coastal regions" and "Decontaminating Livelihoods in Fukushima."

The value of the field visit was augmented by the geolocation function of the JDA. This feature significantly enhanced students' understanding of the connection between the digital materials they studied in the classroom and the actual locations those materials represented. Places of memory can forge emotional connections and challenge visitors to envision the events that occurred there. Additionally, the guidance and presentations by disaster survivors aimed to help students realize that the disaster occurred close to them and that many people are still struggling with its aftermath. Although the coastal areas were not far from the university campus, students typically never visit these locations due to the scarcity of buildings or activities there. Noticing this, we took advantage of the fact that the same train line most of them take daily to reach campus also connects them to the coastal area, helping them

understand the connection between past events, the places they saw or read about in the JDA, and their lived experiences as residents of a city affected by the disaster. Students further reinforced these connections by taking photos at these sites and contributing them to the JDA collection or seeing their location indicator on the virtual map of the JDA surrounded by other data points. These field visits influenced the topic choices of some students, for instance, by discussing evacuation issues (at Okawa Elementary) or disaster cultural memory as presented through the memorials they visited during the trips.

Moreover, these field excursions addressed the above-mentioned difficulty of accessing updated data and biases in the search algorithm by exploring themes and issues not immediately apparent through standard online searches or not present in the material that appears first when searching the JDA. Some discoveries underscored the disproportionate media coverage during immediate aftermaths or anniversaries, with less attention directed towards long-term issues in recovery processes, such as reconstruction policies or survivors' physical and mental well-being. At Okawa Elementary School, for example, the students learned about the ongoing grief of the bereaved parents and discussions revolving around the memorialization of the school with the highest death toll in the 3.11 tsunami (74 children and 10 teachers). In Ishinomaki, the students realized that more than a decade after the disaster, reconstruction is still ongoing in places in Tohoku. Another group of students highlighted their concerns regarding the scarcity of public transit, making it more challenging for visitors to reach the Arahama area and learn about disaster preparedness.

During these field trips, the participatory features of JDA proved valuable in addressing the underrepresented data in many 3.11 digital archives: recovery as a long-term process. Students used the JDA's geolocation function to retrieve data about visited locations, facilitating deeper insights. Through the process, students were able to uncover material depicting post-disaster damage in areas heavily covered by media, such as the recovery park in Ishinomaki City. Having access to such material while being onsite in the recovering area turned out to be valuable, particularly in highlighting the transformation of former residential areas into commemorative spaces, as life before the disaster had been rendered invisible and difficult to comprehend due to the reconstruction process. Additionally, the JDA's participatory design enabled students to contribute photographs, enriching the repository with firsthand experiences and broadening the dataset on recovery and reconstruction, often marginalized in disaster archives.

Outreach to Educators

As time passes, maintaining the memory of the disaster becomes increasingly crucial as well as challenging. This known fact emphasizes the imperative of preserving its lessons. Although some regions in Japan experience few earthquakes, the archipelago overall is susceptible to recurring disasters, as seen most recently with the Noto Peninsula Earthquake on New Year's Day 2024 or the predicted Nankai Trough Earthquake with an expected death toll surpassing the 2011 disasters. The JDA, encompassing various disasters in Japan, serves as a vital repository for collective knowledge. Keeping students engaged in this endeavor is not just an academic pursuit but also a critical contribution to disaster risk reduction and their risk awareness.

To this end, the authors have for some time seen the need to do more than use the archive in their own classrooms. One strategy, undertaken in 2019 and 2020, but then interrupted by the pandemic, has been to bring together teachers and librarians in workshops offering guidance in a collaborative setting to encourage participants to use the archive in their own teaching or their work with library visitors. With the support of the Japan Foundation's Center for Global Partnership, the RIJS and IRIDeS co-organized two workshops with this goal, one each at Harvard (December 2019) and at Miyagi Kyoiku University, adjacent to Tohoku University's campus (February 2020). We end this section by describing these two events, which we hope to repeat in the future.

The workshop at Harvard took place on December 6 and 7, 2019. Preparations began in the late summer, with a call for applications through as many channels as we could find, asking applicants to describe their interest in Japan and their tentative plans for using the archive in their teaching.[4] We selected a balanced group of 25 participants from the 55 applicants: 2 librarians, 12 high school teachers, and 13 college teachers, spread across disciplines from science to social science to humanities. We sent participants pre-workshop homework, asking them to read some basic sources describing the disaster and its aftermath and instructing them on making initial use of the archive itself before coming to Cambridge, MA.

The workshop began with a morning presentation on how to use the archive by the Reischauer Institute's Digital Scholarship Librarian at that time, Kathi Matsuura. In the afternoon session, participants were divided into two or three-person teams. Each team decided on a topic for a classroom unit that would use the archive and then selected materials from the archive (or outside of it) to place in an annotated "collection" that would be made public in the archive, and that could be used in teaching. JDA and Tohoku University staff and faculty circulated among the teams, offering suggestions and troubleshooting occasional technical challenges.

The workshop concluded the following morning with members of each team presenting their projects to the entire group, explaining the focus of the planned teaching unit and introducing the particular digital resources that would be part of the unit. The range of projects was notable, including proposed units in science, social science, and humanities fields, both at the secondary school and college level. The quality of the proposals was high, and the excitement of the presenters for returning home and making use of the archive was palpable.[5]

The second outreach workshop took place in Sendai on February 28 and 29, 2020, in the shadow of the looming pandemic (Gerster et al. 2022b). It followed a similar format to the Harvard event, with some modifications reflecting the different character of an event held in Japan, where knowledge of the disaster was much greater, but sensitivity about teaching it, especially to young students, was high. Given the time demands placed on Japanese secondary school teachers, we packed most of the activity into one day.

Shibayama and Gerster sent out a call for applications both in Miyagi Prefecture and beyond and recruited a full group of 21 participants and 7 or 8 observers. We sent out similar pre-workshop homework, although we did not see a need to ask the Japanese participants to do reading about the disaster itself. The workshop began on Friday, February 28, with an optional bus tour of several disaster-related educational or commemorative sites in the vicinity of Sendai. The full workshop began with a presentation by Gordon on the history and present state, and hoped-for future uses, of the JDA, followed by a lively discussion.

Attendance suffered because the previous day (Thursday, February 27) Prime Minister Abe had requested all Japanese schools from elementary to high school to shut down from Monday, March 2, through the end of the spring vacation in early April. This sudden development forced about 6 of the 21 to bow out so they could prepare for this shutdown, but Shibayama and his staff convinced several observers (who either had prior experience with the archive or who simply had wanted to see how the workshop would unfold) to step in as active participants. This allowed us to maintain a full complement of 21 participants, divided into seven groups for the team activities.

As at Harvard, the workshop began with a little over one hour of presentations by JDA staff demonstrating the use of the archive, especially focused on pedagogical uses. The group then split into teams, with each including at least one person with teaching experience or currently being trained as a teacher. Two students joined the workshop along with their teacher from Maiko High School in Kobe, one of two high schools in Japan that offers a specialized track in disaster sciences (the other is in Tagajo city,

4 The National Consortium for Teaching about Asia was a particularly valuable recruiter of participants.

5 For one participant's comment, see here: https://www.hermon.net/article/171603.

near Sendai). The teams decided on topics for their proposed courses, selected digital resources from the archive or other sites, annotated and arranged those resources in "collections" to be made public in the archive, and organized a presentation to the group. The results were shared in sharply focused ten-minute presentations from each team and a wrap-up discussion of future possibilities and challenges.

Looking back, we see one important, although not surprising, difference in the focus of teachers in the two countries. The classroom units devised by participants in Japan focused on issues close to home (by definition), where the immediate relevance of thinking about the disaster was self-evident. Topics the teachers hoped to address in their classes clustered around media literacy to be able to understand better what constituted reliable information, the processes by which information was distributed and absorbed during and just after the disaster, the potential for high school students to play a significant role in the immediate or longer-term aftermath of a disaster, and the perception of disaster and recovery held by young (middle school or elementary school) children.

In contrast, the American teachers devised teaching units that (again, by definition) were one step removed from the disaster itself. This did not indicate a lack of concern or sympathetic engagement, which was intense. Rather, from the distance of North America, and with no immediate experience of the disaster itself, teachers were interested in using the disaster to help students understand issues such as changing roles of women in Japan and changing family structure, questions of public health and the impact of radiation, or the production of art and literature in response to a traumatic event such as the 3.11 disaster. For the US-based teachers, whether at high schools or colleges, these are issues both relevant to Japan and relevant and of interest to their own students. In addition, several of the teachers wanted to connect the study of the Japanese disaster to greater awareness of past and possible future disasters in their own communities, ranging from floods and tornadoes to earthquakes.

About the author:

We were pleased to see that the workshop at Harvard indeed led participants to bring the study of disaster and of Japan, using the JDA, into their classrooms. Within a few weeks of the gathering, one participant had already set his students to work on using the archive in an environmental sciences high school class. Over the following months and years, a good number of JDA user-created collections have been produced by students in classes taught by workshop participants, although we cannot precisely be sure of this number due to the privacy features of the archive.

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