Abstract

This paper examines sustainability discourse on the websites of four universities in one region of Japan. The universities represent four different tiers of the Japanese higher education sector. We explore the prominence of sustainability discourse in comparison to other dominant discourses, and consider the roles of language and other forms of representation related to campus sustainability in Japanese higher education. Our multimodal discourse analysis identified four main discourses: internationalization, technological innovation, pastoral campus life, and contribution to the community. Amidst these discourses we demonstrate the different ways that three of the four universities effectively employ the discourse of campus sustainability to appeal to the communities within which they exist and demonstrate commitment to the environment and social good.

Keywords: Campus sustainability, multimodal discourse analysis, Japanese higher education

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1 This work is a revised and expanded version of a paper presented at the Hawaii International Conference on Education held in Honolulu, Hawaii from January 3-6, 2017.
Introduction

In many higher education (HE) sectors throughout the world, campus sustainability has become a key organizing concept for mission-driven research and the coordination of faculty, administration, and student action around environmental and energy challenges (Cortese, 2003). There is broad recognition that universities have a significant role to play in creating sustainable campuses that serve as models for the communities they serve. Koester et. al (2006) have pointed to the value of a “whole-systems approach” to campus sustainability, and many North American institutions have started to adopt integrative sustainability measures.

But how has campus sustainability discourse been translated and transformed for use in other places? This paper offers a brief examination of the use of sustainability discourse on the websites of four universities in Japan.

We begin with a discussion of the concept of campus sustainability and its place in North American HE. We compare this to the way the concept has been gaining prominence in Japan. Next, we introduce our research questions and methods, and further explore the landscape of HE in Japan. Finally, we discuss the results of a preliminary survey of multimodal discourse on Japanese university websites and offer some plausible interpretations of the way campus sustainability discourses can be seen to intermix with other discourses pervasive in Japanese HE.

The Concept of Sustainability and Campus Sustainability Movements in Higher Education

The concept of environmental sustainability upon which many Western campus sustainability organizations, initiatives, and plans are built relies heavily on what is known as the Brundtland Report (Brundtland, 1987), which defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”\(^2\) (p. 41). That “campus sustainability” has become a key organizing principal for many universities in North America over the past decade is evident by the growth in membership of inter-university organizations such as the Association for the Advancement of Sustainability in Higher Education (AASHE). AASHE was founded in 2005, and now has approximately 749 member higher education institutions in North America, and 29 international member universities (History of AASHE, n.d.). AASHE serves to promote and support

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\(^2\) For a full discussion of the conceptual history of the concept of Sustainable Development, see Du, 2006
institutions that invest in sustainable building, renewable energy, recycling activities, awareness-raising, and many other “green” initiatives. They also allow member universities to participate in their Sustainability Tracking and Assessment System (STARS) program which offers universities silver, bronze, and gold “medals” (digital badges) for their campus sustainability achievements. The AASHE website features exemplar universities, and many universities use their sustainability bona fides in their own web and print marketing initiatives. Many other international, national, and regional university campus sustainability consortia and organizations exist in the United States – Europe, as well – and these serve similar functions for their member universities.

In Asia, though there is a growing movement towards more integrated approaches to campus sustainability, Ryan et al. (2010) have noted that examples of successful whole-institution approaches to campus sustainability are still rare. In Japan, the growth of a campus sustainability movement has lagged behind prominent initiatives at many universities in North America and Europe. This is evident from the relative youth of Japan’s inter-university campus sustainability organization, CAS-net Japan, which was founded in March of 2014 by just eight major Japanese universities (Mikami, 2016). However, CAS-net’s institutional membership has increased more than four-fold since its founding,³ and this indicates growing interest in the discourse of campus sustainability at universities across Japan. Though no survey has been undertaken to ascertain universities’ motives for joining CAS-net Japan, it is reasonable to believe that the 2011 Tohoku earthquake, tsunami, and ongoing environmental disaster at Fukushima Daichi nuclear plant spurred some universities into action. The events have likely raised awareness of the important roles that universities can and should play in raising sustainability awareness and literacy and modeling the creation of a more environmentally sustainable society.

Research Questions

In this paper, which narrates a preliminary investigation into campus sustainability discourse at Japanese universities, we sought to explore the following research questions about the four representative university websites we studied:

³ 36 institutional memberships and 97 individual members as of April, 2017
What are some common design and organizational characteristics shared by these universities’ websites?

How prominent is discourse about campus sustainability on the websites of the four Japanese universities?

How are notions of campus sustainability being adapted to the needs of Japanese universities in their local contexts?

What cultural values can be seen in the Japanese university discourses on campus sustainability?

The first two of these questions are largely descriptive in nature, but they offer an initial attempt to focus attention on the overall ecology of multimodal discourses that inform university web presence in Japan. The second two questions are more critical in nature, but they stop short of trying to empirically ascertain the mix of motives and intents that inform the university websites. Such questions are very important and would point to the sincerity of universities’ environmental concerns (or lack thereof), but they are beyond the scope of this preliminary analysis.

Methods

Our main data source is the websites of two public universities and two private Japanese universities that are leaders in Japan’s growing campus sustainability movement. Each university is representative of a different tier of Japan’s higher education hierarchy in one geographical region. We explore the prominence of sustainability discourse in comparison to other dominant discourses, and consider the roles of language and other forms of representation related to campus sustainability in Japanese higher education.

Following a grounded theory approach (Strauss & Corbin, 1998) the methodology of this research was for two bilingual researchers to identify four suitable university cases, collect (Japanese language) text and image data from these universities’ websites, open code this data independently for themes related to our research questions, and to then collaboratively analyze and synthesize our findings.

We employ Stibbe’s straightforward definitions of discourses as “standardized ways that particular groups in society use language, images and other forms of representation” (Stibbe,
2015, p. 22). While remaining cognizant of our broader research questions, we used the following three additional questions to guide our data collection:

- How is the university using text and images related to the environment and sustainability on its website?
- What other discourses are prominently referenced?
- How are specific audiences addressed in messages related to sustainability?

These sub-questions functioned as a heuristic device designed to focus the type of media we sought to observe and collect from the websites we examined.

**Selecting Universities**

Without the time or resources for a comprehensive survey of sustainability discourse at all of Japan’s higher education institutions, we designed this study to instead capture examples of sustainability discourse at four Japanese universities operating in a single geographical region. Though we deliberately chose universities representing each of the four main tiers of Japan’s higher education system (explained below), the four universities chosen for this project were gathered as part of a “convenience sample” of universities in a single region that were engaged in significant campus sustainability activities. Whereas the scope of our findings will be limited by the small number of universities involved in our survey, our qualitative focus on sustainability discourse at these four universities aims to identify some of the unique, context-specific factors that influence various types of sustainability discourse in Japanese higher education contexts.

**Context: Contemporary Japanese Higher Education**

As of 2012, the higher education sector in Japan contained approximately 1,133 institutions, 781 of which follow a four-year structure resembling many American universities (MEXT, n.d.). In describing Japan’s four-year institutions of higher education, one could speak in terms of a wide variety of typological distinctions including those related to size, location, prestige, competitiveness, student demographics, faculty characteristics, etc. MEXT divides Japan’s 781 four-year universities into three main organizational categories: national universities, public (prefectural and local) universities, and private universities. The following table indicates the division of universities in these terms.
<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>Public</th>
<th>Private</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities</td>
<td>86 (11%)</td>
<td>92 (12%)</td>
<td>603 (77%)</td>
<td>781</td>
</tr>
<tr>
<td>Students</td>
<td>612,147 (21.4%)</td>
<td>147,981 (5.2%)</td>
<td>2,094,821 (73.4%)</td>
<td>2,854,949</td>
</tr>
</tbody>
</table>

In the table above “national” universities represent the line of universities originating with the Imperial University system established in 1886. After the Asia Pacific War, these elite and prestigious universities came to be managed by Japan’s Ministry of Education, and efforts were made—based on occupation authority (GHQ) requests—to create a more egalitarian higher education system (MEXT white paper, p. 2). National universities exist in each of Japan’s 47 prefectures. The universities were centrally managed under the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) and its predecessor until a 2004 law incorporated all national universities. A MEXT white paper explains that the incorporation of national universities “… aims to improve their independence and autonomy, revitalize education and research activities, and thus make universities more unique and attractive” (Higher Education in Japan, p. 8).

National universities are highly selective, and acceptance to one of these institutions, in one’s own prefecture or another, constitutes a significant achievement for a graduating high school student. There is also a small group of top-tier private universities spread throughout the country—but mostly in Japan's largest urban areas—which are highly competitive and well-respected. These attract top students who can afford to pay tuition fees which are two or three times that of national universities. Often, the second-tier university in an area is one administered by the prefecture or municipality (listed as “public” in the MEXT chart), and these institutions are also highly selective, though the applicant pool is usually slightly more local than the applicant pool drawn upon by national universities. Below this tier are local private universities, which may be distinguished by the strength of their individual faculties, but nonetheless garner less prestige and respect in the community, and are thus also forced to maintain lower admission standards. Our categorization of universities in Japan thus adds one additional distinction to the three provided by MEXT in the table above. We divide the private university category into two
in order to account for the difference between top-tier private universities and local, non-elite private ones.

**Results & Discussion**

**Website Design and Navigation**

That the four universities we examined vary in many ways, particularly in terms of size and access to financial resources and cultural capital, could be seen from the quality of the websites of each institution. The four websites we examined used varying combinations of text, photographic and design imagery, and video for promotional purposes. The smallest university’s homepage—that of a local, non-elite, private university—was a mostly static page with a clickable slideshow containing six poster-like images. Other universities’ websites featured more expensive design elements such as a self-launching image or video slideshows and an embedded promotional video.

As would be expected of websites serving similar purposes and audiences, all four of the university websites had several menu items in common. The table below summarizes the main menu categories but elides the slight variations in terminology and emphasis (〇 indicates the presence of a menu item).
Common Discourses

Below, we will discuss some of the ways in which the individual universities use text and imagery related to the environment and sustainability to communicate with different constituencies via their websites. Here we are referring to text and imagery that directly represents campus sustainability initiatives, activities, and achievements; but before moving to this individuated analysis we will present four of the common discourses that all four universities can be seen to instantiate via their websites: internationalization, scientific innovation, contribution to the community, and what we have termed a discourse of “pastoral campus life.” Naturally, in much of the still and video imagery we found on the four universities’ websites, and
in text throughout these websites, these four discourses are interwoven with each other, but here we treat each of these discourses as distinct in order to make them clear before moving to our analysis of the role of campus sustainability amidst these dominant discourses of contemporary Japanese higher education. An example of the mix of discourses can be seen in the screenshot below (Fig. 1) from the elite national university’s website.

![Figure 1: The mix of discourses on an elite Japanese national university’s website.]

**Internationalization**

Internationalization, or *kokusaika*, is a discourse that pervades all levels of Japanese education, and is visibly employed for various purposes in Japanese higher education. Kubota (2002) describes the discourse of *kokusaika* as aiming “to understand people and cultures in the international communities through various social, cultural, and educational opportunities. It also aims to transform social and institutional conventions to adapt to the international demands” (p.16). Kubota (2002), also notes that *kokusaika* is a Japanese discourse that frequently goes hand-in-hand with two parallel discourses: those of nationalism and Anglicism, arguing that “*kokusaika* reflects Japan’s struggle to claim its power in the international community through
Westernization (Anglicization in particular) and to affirm Japanese distinct identity rather than local ethnic and linguistic diversity” (p.17). Kokusaika can be considered a modern extension of the rapid Westernization of higher education that took place during the Meiji Era.

At the level of higher education institutions, Anglicized kokusaika is employed to attract students to universities that offer access to Western cultural capital and “world-class” education. Mok (2016) has argued that this push, which is related to globalization, the massification of higher education and countries’ desire to compete in international university league tables, has led to several negative consequences in Asia. Mok (2016) examines programs across Asia, including the Japanese government’s “Flagship University” program, and explains that:

In their drive to improve national competitiveness and elevate their position in the world market, governments in this region have endeavored to reform their HE systems. The major features of the reforms can be summarized as the massification and privatization of HE to generate additional resources for development, the eager pursuit of world class university status, and the internationalization of student learning by engaging in transnational HE (p. 2).

The push for internationalization of university campuses has different motivations and effects for universities at different tiers of the Japanese HE system. As Yonezawa (2009) explains:

…‘internationalization’ at top universities tends to be narrowly focused on cutting edge research activities, and is therefore not directly related to the international student market. In contrast, the majority of Japanese private universities define internationalization as the provision of international experiences for domestic students mainly at undergraduate level (p. 216).

Here we see a final discourse thread of neoliberalist competition on a so-called global playing field, with universities serving to prepare students for such competition. In Japanese HE, Mok (2011, 2016) has noted that Japan’s push for competitiveness on the global higher education playing field has also led to increasing disarray in the stratification of the country’s HE sector.

The discourse of internationalization and the associated discourses discussed above are visible in the text, images, and videos that greet visitors to each of the university websites we studied. For example, one university’s website slideshow features a link to the university president’s essay about the value of studying abroad. Other slides on the same and other
universities’ websites show Japanese students and researchers collaborating or socializing with Caucasian (read Western/International) interlocutors.

The option to view these university websites in other languages shows something about the target audiences of these universities. Whereas the national university offers only English as an additional viewing language, the public, private (elite), and private (local) universities offer versions of their websites in additional languages. For these universities, providing information in additional languages offers a chance to extend the reach of their brand to members of other cultures and also to offer recruitment and admissions information to these constituents.

**Scientific Innovation**

A second discourse that was prevalent on three of the four university websites was that of scientific innovation. The images associated with this discourse included scientists in laboratory coats and protective goggles, test tubes, beakers, petri dishes, microscopes, robots, MRI machines, and virtual reality devices. Such images were prominently included on the websites of the three universities with science faculties, but were absent from the website of the small private university in our study that only houses faculties related to the humanities.

The discourse and the actual reality of scientific innovation in Japan could be considered closely related to an ideology of technological utopianism and the “soft power” that technological advancement imparts on the economies of certain countries. Japanese society, for example, clearly benefits from the basic scientific and technological research provided by universities across the country while simultaneously reaping economic benefits from developing and manufacturing consumer electronics and industry equipment for global markets. With this crucial role recognized as part of universities’ missions, it seems natural that websites display various texts and imagery related to scientific and technical innovation in order to appeal to the communities they serve.

**Contribution to the Community**

Both public and private universities in Japan are regulated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), and all are essentially mandated to contribute to the communities within which they exist. For public universities, this mandate is a broadly defined goal of serving the public good, whereas private universities are called to make unique
contributions based on the unique missions for which they are recognized by MEXT and accreditation agencies. In reality, both public and private universities engage in similar activities to engage the public and win respect and appreciation from the local, regional, and national communities they serve. All four universities’ websites thus featured announcements of upcoming lectures and other events open to the public, reports from such events, and news of linkages with local business and governmental groups involving teachers, students, and community members. One indicative example of this discourse was found in a short video introduction to the public university we studied. While the camera panned over preserved flowers from one of the university’s research facilities, a narrator said, “The university has many facilities for promotion of exchange with people outside the university” (Video Introduction of TMU, n.d.).

**Pastoral campus life**

A final discourse that we identified on all of the universities’ websites was that of what we term “pastoral campus life.” This primarily visual discourse is marked by images of young students strolling to class amidst open campus spaces (e.g. a university “quad”) and greenery. This discourse has the potential to connect to discourses of campus sustainability, but it is also connected to the broader discourse of Western higher education that Japan imported during the Meiji Era.

In land-poor Japan, universities frequently settle for compact campuses in disparate locations rather than single consolidated campuses as is common for Western universities. Still, all four universities websites included imagery that seemed to appeal to the pastoral campus ideal; this despite the fact all campuses exist in and around urban centers where green space is actually quite limited.

**The Prominence & Uses of Sustainability Discourse**

Given the four interlocking discourses discussed above, we now turn to a discussion of how discourses of environmental and campus sustainability factor into the website communications of the four universities in our study. Here we see significant variation that is likely based upon the position of each university vis-à-vis the market of potential students and its perceived competition.
The national university we examined used sustainability discourse as one of its main selling points. Along with conspicuous discourses of internationalism, and cutting-edge scientific innovation, environmental sustainability and the tackling of environmental challenges were mixed with the images of a pastoral campus to feature prominently on both the Japanese and English versions of the university’s main homepage.

Slideshows on the main Japanese and English landing pages (accessed October, 2016) contained seven and five slides respectively. Five of the slides were common to both slideshows, and four of these slides were photos overlaid with text. One such slide featured in the English language page slideshow, as well as the Japanese page, pictured students walking on a campus path surrounded by trees and greenery. This image of pastoral campus life was overlaid with text that proclaimed that the university’s environmental initiatives, including its ISO14001 and 150001 acquisition made it a leader in sustainability efforts. This slide was the sixth of seven slides in the slideshow on the Japanese site, and occupied the fifth and final position in the slideshow on the English site. The slide included a link to more information where website visitors could read more information about the university’s sustainability initiatives which included facilities’ investments in greener buildings and also curricular reforms that allow students to earn credit for partaking in campus sustainability assessment activities.

This national university’s focus on campus sustainability via international standards (ISO) can be seen as part of efforts to connect to global cultural capital via the interdisciplinary global conversation about campus sustainability in higher education.

The public university we analyzed utilized its own version of sustainability discourse holistically as a part of its mission, “the pursuit of the ideal urban society” (Video Introduction of TMU, n.d.) The university, which was formed through an amalgamation of four urban universities in 2005, boasts this mission in its English and Japanese-language video introductions with text overlaying a close-up image of a tree and its leaves bathed in sunshine. The video continues to introduce the university’s three urban campuses, its student learning, recreation, and living facilities, and research facilities. All four of the discourses outlined above (internationalism, scientific innovation, pastoral campus life, and contribution to the community) are also prominent in the introductory video, in the website’s main page slideshow imagery, and throughout the site’s many pages. A link on the university’s campus introduction page leads to a page outlining “eco-campus” and “green campus” initiatives. This page is only available in
Japanese, but includes a list of achievements, annual environmental reports, energy saving initiatives, and a link to a page that displays energy usage data. It is clear that the university takes sustainability seriously, and makes efforts to inform the public about its efforts. Here, though, we see a focus on a local audience rather than the global one aimed at by the national university’s ISO publicity.

Sustainable campus discourse was least prominent at the elite private university we studied. Despite the fact that the university is engaged in various campus sustainability activities, including participation in an international sustainable campus standards regime (as a member of International Sustainable Campus Network), it was very difficult to locate information about these efforts from the university’s homepage. Whereas other the university homepages of this study seemed designed to simply and directly communicate information about university activities to various constituents, this private university’s homepage provided visitors with an immersive multimedia experience that emphasized its elite traditions, its pastoral campus, its modern facilities, and its leadership in scientific and technological innovation. The landing page presented a video slideshow panning across the university’s historic buildings and modern facilities. Scrolling down from the video slideshow leads visitors to images of researchers engaged with high-tech equipment, an image of a black and white photograph of a team of athletes representing Japan at the Olympics many years ago, students and faculty posing at a TEDx event hosted by the university, and a picture of the university’s crew rowing on a local river. Overall, the homepage matched what one would expect of an elite university in America or Europe. Though a visitor could—of course—access the same information that is provided on the websites of other universities, in this case, the homepage design seemed more oriented toward brand maintenance than information flow.

The website of the local private university was the simplest, but it was notable for the prominence of information it provided related to campus sustainability. As discussed above, the site included standard navigation items directed at various types of visitors, with a particular emphasis on recruiting prospective students. A simple slideshow announced upcoming and recently completed events, including those related to recruitment. Paralleled only by the national university we studied, this small, local, private university also included prominent links to information about the university’s efforts to maintain an environmentally sustainable campus. From the university’s main page, large, rectangular, sidebar image-links connect visitors to the
university’s annual environmental report, a live status update of the university’s current energy usage, and a link to information on the university’s energy-saving efforts. These sustainability-related links constitute about 23% of the homepage’s right sidebar space (3 of 13 links), which is a significant amount of screen real-estate.

Conclusion

Our analysis of four university websites found significant variance in the prominence of campus sustainability discourse amidst the primary four discourses that we identified: internationalization, technological innovation, contribution to the community, and pastoral campus life. Of the four different types of universities we studied from one geographical region, we found that the national university and the local private university employed discourse about campus sustainability most prominently on their websites. The public university we studied also included information about campus sustainability as central to its mission, and provided easily accessible (though not as prominent) information about “eco-campus” or “green campus” activities. Information about campus sustainability was least prominent on the website of the elite private university included in our study despite the fact that this university is one of a small group of Japanese universities that is a member of an international campus sustainability network.

It is beyond the scope of our study to offer definitive conclusions as to the motivations for the varying degrees to which each of these four universities have or have not emphasized their campus sustainability efforts on their websites, but it is notable that universities as different as the elite national university and the local private university studied deployed discourse about campus sustainability as a means of appealing to the local community. Both universities include information about their considerable efforts to create more sustainable campuses on the Japanese versions of their websites, with the national university also providing this information in English.

Campus sustainability has become a global discourse in academia and it is increasingly serving as a cross-disciplinary trading ground for cultural capital among elite universities. At the local level, however, universities such as the small private one studied here are able to leverage their campus sustainability efforts to appeal to the communities they serve, and also to mark themselves as internationalized through their attempts to tackle global problems locally.
In Japan, memories of the March, 2011 earthquake, tsunami, and subsequent nuclear meltdowns at Fukushima continue to have a lasting effect on all sectors of society. It was in the aftermath of these crises that calls for energy conservation became prominent on university campuses throughout the country. It seems likely that campus sustainability efforts at some of the universities in the region studied—which was affected by power black-outs in the months following the nuclear crisis—were at least partially motivated by an effort to show leadership in tackling energy issues in the post-Fukushima era. Further investigation is needed to determine the network of motives driving campus sustainability efforts at the universities studied and other universities throughout Japan.

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