THE SOUND OF BAMBOO
RICOH CLICKABLE PAPER CASE STUDY

HOW RICOH’S CLICKABLE PAPER™ CAN HELP THE MUSIC INDUSTRY USING THE CLASSICAL JAPANESE SHAKUHACHI FLUTE AS AN EXAMPLE

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This case study is not sponsored or endorsed by Ricoh, but represents independent, generic research to explore the effectiveness of RICOH Clickable Paper in the music industry, using the classical Japanese shakuhachi flute as an example.

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ABSTRACT

This third of a series of three case studies focuses on how RICOH Clickable Paper™ enhances learning about and playing music using the classical Japanese shakuhachi flute as an example. It is also a tribute to Ricoh USA and Ricoh Company Ltd. in Japan for the rich Japanese heritage and culture that Ricoh represents.

Ricoh’s Clickable Paper app assists in converting traditionally static printed documents into interactive communication media that enable access to video and audio for providing information, for exchanging information, for answering questions, and for providing training. This application has the potential for the entire music industry in the way it promotes and demonstrates music and musical instruments.

Three research methods were used in this case study: Descriptive Research, Survey Research, and Case Study. Respondents who tried the app answered multiple-choice (quantitative) questions and had the opportunity to provide comments (qualitative).

The results showed that of four categories of responses, nearly three quarters (177) of the 240 responses (24 respondents answering 10 questions each. A 25th respondent provided comments only) gave the Clickable Paper technology and app the highest rating. Approximately one-fourth (57) gave the technology and app the second highest rating, and only two responses fell into the third rating. No responses were recorded in the fourth or lowest category. In sum, over 97 percent of the quantitative responses rated Clickable Paper in the two highest categories.

It is evident from the quantitative and qualitative results that respondents were introduced to a new interactive multimedia experience. From teaching to learning, to observing some of the world’s leading shakuhachi grand masters, teachers, players, and flute makers demonstrate their skill, nearly all respondents saw this as a highly positive capability of Clickable Paper. The vast majority expressed that the advantages of the technology are applicable to all of the music industry for a practical, educational, entertainment, and cultural bridge to the world of music, and to meet others of like interests.

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INTRODUCTION

This is the third of three case studies demonstrating how a major international digital printing Original Equipment Manufacturer (OEM), Ricoh, has evolved into a communication company as well, serving multiple industries.

The first case study was prepared and published in January 2019. Entitled "How a Graphic Communication OEM Is Also in the Communication Business," it featured Ricoh communications products and services to complement its hardware (printer) and software products. The first case study appears in APPENDIX A.

The second case study focused on how RICOH Clickable Paper enhances communication in the Long Term Care Ombudsman (LTCO) industry. It provides examples of how Clickable Paper facilitates training of LTCO staff and Ombudsman volunteers, provides updates on changes in the law, demonstrates how to handle difficult situations pertaining to long-term care residents and their families, and provides information on changes in overall administrative policies. The second case study appears in APPENDIX B.

This third case study focuses on the use of Clickable Paper for the music industry using the classical Japanese shakuhachi flute as an example. It demonstrates Clickable Paper as a resource to further promote the value of print when combined with Ricoh’s application. It assists the music industry in demonstrating music and musical instruments, teaching music and how to play musical instruments, and in promoting music as a medium for worldwide expression and entertainment. It is also a tribute to Ricoh, honoring the company’s rich Japanese heritage and culture.

THE SHAKUHACHI FLUTE BACKGROUND

On a rural homestead in the remotely populated hills of Mendocino County, 10 miles northeast from the small town of Willits, California, and 125 miles north of San Francisco, resides one of the world’s foremost manufacturers of shakuhachi flutes, Tai Hei Shakuhachi Flutes. See:
https://shakuhachi.com
http://shakuhachi.jp
http://shakulute.jp (Japanese Language)

The shakuhachi is a traditional Japanese end-blown bamboo flute originally introduced from China into Japan in the 6th century, later undergoing a revival in the early Edo period (1603-1868). This is an era of Japanese history characterized by economic growth, strict social order, isolationist foreign policy, a stable population, peace, and enrichment of traditional arts and culture. It is known as the beginning of the early modern period of Japan.

The shakuhachi flute was key to the enhancement of Japanese arts and culture, and experienced a renaissance in the latter part of the 20th century that continues today. Traditionally made from the root end of the bamboo, the shakuhachi was used by the monks of the Fuke sect of Zen Buddhism in the practice of meditation known as “blowing Zen.”
Tai Hei Shakuhachi
Tai Hei Shakuhachi flutes have been made continuously since 1970 in workshops in Mendocino County, California, as well as in Japan in the small farming village of Kitagawa in Tokushima Prefecture on Shikoku Island.

In 1984, Tai Hei Shakuhachi developed the Precision Cast Bore technology, enabling the creation of master-level shakuhachi flutes as well as affordable high-quality student instruments. Tai Hei Shakuhachi flutes are now being used by traditional players and teachers in Japan, and by professional musicians worldwide as their own personal instruments. Since its inception, this innovative method for making shakuhachi has been widely emulated by makers throughout the world. In 1992, Tai Hei Shakuhachi trained the late master craftsman Masuda Shuho in this process and helped to retool his workshop in Kawasaki, Japan, and is now sharing his knowledge with aspiring young makers in the United States, Japan, Europe, and China. See endorsements at: https://shakuhachi.com/Q-Endorsements.html

Significance in the Shakuhachi "Industry"
In the modern era, beginning around 1970, the instrument and its musical tradition witnessed a remarkable renaissance that took root outside of Japan. With the advent of the Internet, resurgence of interest in shakuhachi rapidly spread across the globe. Today, there are teachers and schools promoting the study of shakuhachi, and it is seeing use in more contemporary genres of the music all over the world, including the United States, Europe, Australia, and China. This development helped to reestablish the position of professional players and teachers in Japan as the core repository of this ancient musical tradition.

In 1998, five of the six great shakuhachi masters of the Post-World War II generation traveled to the United States to participate and teach at the first ever World Shakuhachi Festival in Boulder, Colorado. Tai Hei Shakuhachi conceived and organized the flute maker’s venue for this event. Since that time, international festivals have been held every four years at various locations around the world, including New York City, Sydney, Australia, Prague, Czech Republic, Kyoto, Japan, and most recently in London, UK. The next event will be held in Beijing, China.

THE RICOH CLICKABLE PAPER OPPORTUNITY

Enhancing Japanese Culture Through Music
Tai Hei Shakuhachi is the oldest and currently one of the main informational hubs of shakuhachi outside of Japan. In 2004, Tai Hei Shakuhachi Publishing was officially launched with the aim of preserving and expanding access to information worldwide on shakuhachi craft techniques and the Zen-inspired musical tradition. Several books and translations of rare masterworks, collections of sheet music, instructional guides, CDs and DVDs are produced and published at the Tai Hei Shakuhachi workshop in Willits, California. A complete listing of these resources can be found on the Tai Hei Shakuhachi website: https://shakuhachi.com/

Tai Hei Shakuhachi works closely with many prominent players and teachers in Japan toward this end. Many of these resources are print editions. Being able to access and link to the vast repository of audio and visual information available on the Internet directly from these print sources is an incredible boon to those wishing to learn more about shakuhachi and its musical tradition.

No other application more than Clickable Paper could clearly show via print, audio, and video, the sound and depth of shakuhachi music as demonstrated by some of the world’s leading artists and
performers. Demonstrations of “blowing” and playing techniques are also included via the Clickable Paper experience, as well as detailed information on the traditional craft showing how the instrument is made. It would set an example for music publishers in other fields worldwide of how to enhance the appeal of their printed publications with the use of Ricoh Clickable Paper technology.

There are very few current print projects published outside of Japan related to the shakuhachi flute and its age-old spiritual and musical traditions. Most new sources of information are Internet-based. It is a great step forward to create a link between printed Tai Hei Shakuhachi publications and the multimedia experience that Clickable Paper provides.

This case study will be of value to musical instrument makers and musicians worldwide in furthering and promoting the role of music as a universal medium for learning and entertaining. Clickable Paper provides this opportunity.

**RESEARCH METHODS**

Three research methods were used in this study: Descriptive Research, Survey Research, and Case Study. Descriptive Research and Survey Research are subsets of Case Studies.* All responses were held in confidence and all respondents, expert shakuhachi players and flute makers, are anonymous.

**Descriptive Research**

Descriptive research determines the nature of a situation that exists at the time of the study. It describes what exists under the conditions of a particular situation. For example, related to this case study, descriptive research explores questions such as: To what extent are shakuhachi flute experts and enthusiasts interested in learning more about playing and making the flute via interactive print media? To what extent would interactive printed publications about the shakuhachi flute encourage communication between flute experts and enthusiasts? What advantages would multimedia, such as videos, websites, voice instructions, social media, and so on, offer to shakuhachi flute experts and enthusiasts over traditional print media that can only be read? To what extent does Clickable Paper offer viable and user-friendly multimedia, interactive, communication that would be of interest to music experts and enthusiasts in general?

Much of the introductory material of this case study, covering the past and present of the shakuhachi flute, represents descriptive research. Additionally, the qualitative opinions offered as part of the survey research qualifies as descriptive research as well as survey research.

**Survey Research**

Surveys gather limited or focused data from a small to large number of cases. Typically, they attempt to measure what exists in the “here-and-now.” A survey covering the entire population of potential respondents is referred to as a census. One that studies only a portion of the population is known as a sample survey. This case study used a sample survey to gather the quantitative ratings and qualitative opinions of shakuhachi flute experts and enthusiasts on the use of Ricoh Clickable Paper as a means of sending and receiving information. Such information pertains to topics such as the history of the shakuhachi flute in Japanese culture, playing techniques, famous players, and methods of manufacturing the flute.
Surveys were administered to *shakuhachi* flute experts and enthusiasts across the world. More specifically, they represented:

**Grand Master**, Head of School or Lineage, Teacher, Recording and Performing Artist  
**Licensed Master**, Teacher, Recording & Performing Artist  
**Unlicensed Teacher**, Recording and Performing Artist  
**Advanced Student** (10+ Years of Study)  
**Intermediate Student** (5+ Years of Study)  
**Beginning Student** (3+ Years of Study)  
**Aspiring Shakuhachi Maker**  
**Shakuhachi Enthusiast** (Non-Player)

A total of 23 surveys were completed and returned. A 24th respondent provided only optional comments.

Entitled “CLICKABLE PAPER EVALUATION: *The Sound of Bamboo*, HOW RICOH’S CLICKABLE PAPER CAN HELP TO SPREAD JAPANESE CULTURE WORLDWIDE THROUGH MUSIC,” the survey instrument had an instruction page (how to download and use the Clickable Paper app), followed by two pages entitled “CLICKABLE PAPER EVALUATION questions.” There were 10 objective questions asked, followed by an optional comment section after each question. The 10 objective questions addressed the ease with which the instructions were understood, and then the perceived value of Ricoh’s technology to *shakuhachi* experts and enthusiasts.

These questions were on a scale of: Very Easy, Somewhat Easy, Somewhat Difficult, and Very Difficult, or Very Much, Somewhat, Not Much, and Not at All. The survey instrument appears in APPENDIX C.

Along with the survey instrument, each respondent received several “clickable” pages for experimentation from *The Sound of Bamboo*, which Ricoh’s team of experts uploaded to the Clickable Paper cloud. Each page was “clickable” if printed out and “clicked” with the Clickable Paper app. Respondents then completed the survey after completing the “clickable” process.

**Case Studies**  
A case study is typically an intensive investigation of a single situation, such as of one individual, a small group or special interest group, an organization, and so on. The emphasis is on attempting to understand the reasons an individual or group does what it does, and their beliefs and attitudes. In this case study, interests and attitudes about the potential advantages of Clickable Paper for communication within the *shakuhachi* flute community was explored. In sum, what was learned via descriptive research and survey research about the perceptions and values of Clickable Paper for the *shakuhachi* community became the undergirding of this case study.
RESULTS

The Sound of Bamboo – Quantitative

Number of Responses to Each Question Choice

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<th>Question No.</th>
<th>Very Easy</th>
<th>Somewhat Easy</th>
<th>Somewhat Difficult</th>
<th>Very Difficult</th>
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<td>Somewhat</td>
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Totals 177 57 2 0 4

Percentages 73.8 23.8 .008 0 .017

Summary of Quantitative Questions
Of the four categories of responses, nearly three quarters (177) of the 240 responses (24 respondents answering 10 questions each) gave the Clickable Paper technology and app the highest rating. (Again, a 25th respondent provided only optional comments.)

Approximately one-fourth (57) gave the technology and app the second highest rating, and only two responses fell into the third rating. No responses were recorded in the fourth or lowest category. Only four of the quantitative questions were not answered. Hence, over 97 percent of the quantitative responses rated Clickable Paper technology in the two highest categories.

The Sound of Bamboo – Qualitative – Optional Comments

The optional comments provided by shakuhachi flute experts and enthusiasts from around the world were tremendously and consistently positive and, as such, supported the quantitative responses to the ten objective multiple-choice questions.

For example, some wrote that the operational instructions to use the Clickable Paper app were very clearly written, easy to follow, and a “wonderful resource,” not only for knowing how to use the app, but to encourage interactive discussions among shakuhachi players, makers, and music listeners. One respondent wrote, “I downloaded onto my iPhone and Mac desktop. It worked well with sample pages in print and on the monitor. I found it intuitive and easy to navigate around, bookmark and share URLs.” This respondent wrote that the “hotspots” on the menu were easy to follow. “With the hotspots, you don’t know what you will come up with until you activate the viewer, which is different from choosing from a printed list of resources.” Another idea was, while the instructions were very easy to follow, “I suggest taking screenshots of each step for those that aren’t as familiar with using apps or consuming digital content.”
As with any evolving technologies, not everyone grasped the application immediately. Some of the respondents were native Japanese residing in Japan, and may have had a bit of difficulty understanding some of the instructions. One couldn’t find the app on the App Store and downloaded the app from a link instead, and then didn’t fully understand that the entire page was clickable as opposed to individual elements on the page. Once figured out, this respondent wrote that “the video links are very helpful,” and “depending on the outbound link,” the Clickable Paper application “has potential” to help encourage communication amongst shakuhachi players, teachers, makers, and enthusiasts around the world. Another respondent noted being “able to get the hang of it pretty easily,” but wasn’t clear about the difference between the link and the pop-up option that allows adding to the collection using the Clickable Paper app.

Yet, another respondent reflected the views of most and wrote that The Sound of Bamboo provides “so many fine examples and living exhibits of the finest artists involved in all aspects of shakuhachi.” This respondent felt that Ricoh’s Clickable Paper application assists in broadening a reader’s understanding of the history and evolution of the shakuhachi, its traditional music, and helps to perpetuate their existence in the future. And, especially with this technology, “the book can be continuously revised.” One respondent wrote: “What better examples than those presented could be used to help clarify a reader’s understanding of the relationship between shakuhachi honkyoku and Zen Buddhism?” Another respondent appreciated how easy it was to navigate back to the Clickable Paper clicker application when finished navigating different “clickable” menu items.

On the question about the Clickable Paper application being useful to those new or just starting out on the shakuhachi in understanding and appreciating the instrument and its musical tradition, one respondent wrote: “While this is just a section of the content, it gave me the sense that the information is very comprehensive. It’s great that the written content provides the historical context to the shakuhachi, while the videos and website provide additional supplemental information. It’s great that the content is curated so that the user doesn’t have to shift through an overwhelming amount of information on the Internet. It gives the user more confidence in their learning process.” Another wrote: “It is very useful in the sense that it gives the reader and shakuhachi beginner a broad scope of the instrument/tradition as well as actual videos of advanced and master players.”

When asked if the Clickable Paper app is useful to those just starting out on the shakuhachi and its musical tradition, one respondent expressed: “Very much. [It] seems to give a broad overview very easily, with more in-depth as you choose, and that the Clickable Paper application can help to encourage communication amongst shakuhachi players, teachers, makers, and enthusiasts around the world.” This respondent also wrote that it “seems the book itself provides useful and interesting information which is enhanced with the Clickable Paper technology. Seems like a good platform for learning/educational uses and sharing info amongst shakuhachi enthusiasts. The soundtracks are particularly helpful for music/sound. The video clips are quite stunning in providing a more vivid and in-depth historical context...does seem to bring a wealth of information...having available music/sound clips.”

Another comment was that the step-by-step explanation of material in The Sound of Bamboo cannot be better presented in broadening a reader’s understanding of the flute-making process, and the acoustical physics of shakuhachi, “except in a live carefully constructed demonstration.” One respondent commented that “marketing the Clickable Paper technology to educational institutions would be helpful towards teaching about music, and demonstrating the making and
playing of any musical instrument generally.” The thinking here was that the Clickable Paper app, “can be tailored as a fine resource for any instrument studied at any level, as well as any aspect of music: theory, musicology, composition, etc.”

An interesting comment came from a respondent who recognized the value of the Clickable Paper technology to younger generations who prefer the multimedia experience of accessing information instantaneously with a “click.” Hence, this application is “perfect” for that group. This respondent felt that communication among shakuhachi experts and enthusiasts could be enhanced through a “community online forum” accessible from one of the embedded links, allowing people to contact each other directly to share interests and questions. Other comments referred to how invaluable performance video files are in providing information and examples of Japanese music such as *honkyoku*, and how the book, *The Sound of Bamboo*, is even a better resource than Google for this purpose.

One respondent, who mistakenly thought that a “chat option” or “discussion group” was not included in the Clickable Paper app, wrote: “[It] doesn’t seem to have a chat option, discussion board, or comment section. Younger generations are used to being able to connect through social media, but I actually don’t think that’s necessary here. It might be nice for users of Clickable Paper to be directed to a website or social media platform that has a discussion group or interactive section to it.” Actually, these options are fundamental to the app. Perhaps this respondent did not explore all components of the Clickable Paper menu. Admittedly, the menu options are more easily identified on the expanded menu that appears on a tablet as opposed to a smartphone. However, all menu options can be identified with a bit of navigation. Another wrote that for communication purposes, Ricoh’s Clickable Paper technology “provides great exposure [to those] active in the [shakuhachi] community today…with the ability to update content.”

On Clickable Paper’s application’s utility in enhancing a reader’s understanding the Japanese sense of sound, structure of *honkyoku* music, and techniques for playing the shakuhachi, one respondent wrote: “Yes, very much! Even though this is just a preview, I’ve learned so much from the content. The written content is really informative and coupled with the videos and digital content, it’s very thorough.” Another wrote that “Clickable Paper [is] very helpful toward this end.” Yet, another respondent thought “it’s great that some of the video content directly addresses [the shakuhachi’s history and culture], i.e., carrying traditions into the future.”

On the Clickable Paper application being helpful in clarifying a reader’s understanding of the relationship between shakuhachi *honkyoku* and Zen Buddhism, one response was: “Yes! The section about Watazumido was my favorite. He’s [really an] unconventional guy and his approach is really appealing. I’ve always had this perception that Zen Buddhism was very rigid and ultra tradition[al], but Watazumido has pushed against that. I really appreciate his philosophy.” Another wrote: “Liked the Watazumido information on page 88…reading about him and watching the online video interview helped to more fully understand the relationship between shakuhachi sound and Zen practice.”

Another respondent thought that the Clickable Paper app can be somewhat helpful in clarifying a reader’s understanding of the relationship between shakuhachi *honkyoku* and Zen Buddhism, and wrote: “I have been addressing this issue directly myself through more than 30 years of playing shakuhachi, reading about it, thinking about it, discussing about it, performing, composing, recording, and teaching, etc. The conclusion I have come to is that this relationship between *honkyoku* and Zen can only be understood if you develop a personal, ongoing, authentic
relationship…a meaningful connection to the Buddha’s teachings…a certain type of character that has an instinctive understanding of what Zen means…a personal enquiry into the nature of sound/breath/awareness as they relate to musicianship, the role of the performer/composer, etc.”

On the usefulness of Clickable Paper facilitating access to information and resource materials to help learn to play the shakuhachi and its traditional music, one respondent wrote: “Yes, mostly in the web content provided. I’m confident that based on the information provided someone could find the resources they need.” Another wrote: “Having access to videos, sheet music, and information to aid in the learning process is excellent.”

On the Clickable Paper application being useful in broadening a reader’s understanding of the flute making process, and the acoustical physics of shakuhachi, one respondent wrote: “I guess this information would need to supplement the practical experience of making shakuhachi [and] handing the raw materials and the tools, etc.”

As far as Ricoh’s Clickable Paper technology being useful to the music industry and to schools that teach about music in general, and demonstrate the making and playing of any musical instrument, one respondent wrote: “As someone who regularly lectures about Japanese music and culture at several different local universities and who has access to the many survey texts of traditional music that the various ethnomusicology or music departments use, I can say that Clickable Paper music books, [such as The Sound of Bamboo], would definitely have a place at these schools.”

Another respondent wrote “very much” on the matter of Ricoh’s Clickable Paper being useful to the music industry in general. “The written text is informative, and the links really make the wealth of info come alive in sound/visual in a very easy to use format. It’s fun to read/play/watch/listen/work with. I am impressed with how much information I was able to access and learn about the shakuhachi in a relatively short amount of time. Particularly interesting was the cultural and historical aspects. This was greatly enhanced by the provided videos.” Another wrote: “The mere fact that you can access this vast repository of information from a single application combined with written text makes it very convenient for anyone wishing to learn about any musical tradition.” However, another respondent wrote that it would be “essential to have a teacher. The app could complement and support that relationship.”

Under the category of “Additional Comments,” one respondent thought Clickable Paper “is an interesting and useful application for shakuhachi teachers and researchers” in different ways to those having differing interests in the shakuhachi. Others thought that “the Clickable Paper application is a unique and powerful tool for education in any field [and] especially fine for use in studying music whether by an interested music lover, [or to an] amateur…training to enter the field as a professional because of [Clickable Paper’s] multi-dimensional nature.” The Sound of Bamboo is “an outstanding and unparalleled resource for all those interested in immersing themselves at any level in shakuhachi.”

Others wrote that the book, employing Ricoh’s Clickable app, “is really great, so well done and so easy to use. I looked at several of the pages including mine. Pretty neat and a great way to get into the tradition with so much energy from different people. Really impressive indeed.” One respondent said: “Bottom line, I enjoyed what I saw, the pictures and info and the links were great, [allowing] the deeper-interest folks to dig in very easily to interesting things...come a long way from the Whole Earth Catalogue! The whole project [is] way more interesting than I envisioned, and thanks for including me!”
One respondent wrote: “It’s impressive how quickly the app can read from the actual paper or on screen on my computer,” but wondered if there was a better design element to seeing which parts of a page would provide more information, for instance if certain words or phrases were highlighted to show that there is more information via video or web page or article available. Another wrote: “This is really an exciting evolution of how people can learn about shakuhachi. I can’t wait to get my hands on the finished product. It’s sparked a desire to learn more and deepen my own understanding of the craft and tradition.”

It was evident from some responses, but only very few, that a certain sensitivity to and knowledge of mobile devices (smartphones and tablets), software, hot links, and the “click and play” culture is helpful in navigating through and understanding the Clickable Paper process. One respondent wrote that it was a lot of information to absorb for a beginner, but did give the process very favorable ratings in the quantitative (multiple choice) evaluation. Many respondents thought that the multimedia that Clickable Paper provides is an “enhancement of lessons with a competent player,” but “could never replace [in-person] lessons.”

One respondent was very complimentary about the Clickable Paper technology but felt restricted by viewing the multimedia videos on a small smartphone screen, and may not have considered using a tablet with its larger screen for viewing. “The first thing to say, of course, is that the text is excellent, as is the choice of linked resources. Hearing the music reminds me of my first encounters with shakuhachi in my teen years, and what a revelation that was. [The app was] easy to install and easy to use. It seems to work quite smoothly, in my case at least, and a minimum amount of explanation seems to be enough to get the user going with it. So, no complaints; all looks good.” However, this respondent expressed that the “linked material is worth taking in on a larger screen and with better sound than the phone provides (I already intend to pull up some of those links on my desktop)...then again, headphones can conveniently go a long way toward a better listening experience through the phone.” The respondent continued: “So those are my thoughts on Clickable Paper: seems to work great and I’ve enjoyed it...[but prefer a] larger screen plus better audio. Thanks for including me in this and giving me a taste of Sound of Bamboo.”

An interesting comment was that, “the easy outbound links to video is critical to learning music, I think. I’d recommend refining the page display to condense the outbound links. It would be great if there was highlighting of the corresponding text, similar to hyperlinks. Yet another wrote: “The difficult question is whether or not it’s easier for someone to use Clickable Paper rather than simply Google the topic of interest to dive deeper.” [But], “I think using Clickable Paper would eliminate some steps for a reader and offers more information so [if] put together well like it is here, it could be very effective.”

Superlatives were expressed throughout the optional comments. Some expressed were:

“Bravo!”
“Genius!”
“Thanks for including me and sharing your new adventure. Keep it going!”
“It has been skillfully employed.”
“Nice job with the material. Whew, a lot of work.”
“So grateful to be included in this wonderful project. Thank you!”
“Cool app!”
“A marvelous contribution.”
"What a wonderful resource for Shakuhachi players and non-players alike. I can only describe the app as magical, a portal into another world!"

"Monty, [one of the book’s authors,] you continue to amaze. Your boundless energy in pursuit of all things shakuhachi is admirable."

One respondent summed up this case study as follows:

*This multi-genre, inclusive and "five senses" approach to learning and contextualizing a culture, and particularly a cultural item such as the shakuhachi, is fantastic. This kind of effort could help bring about an ascendency of "the better angels" of the Internet. It is fitting that it comes from Monty, who, if I understand correctly, was a witness to the early years of the World Wide Web, the anti-war movement in the ‘60s, the Whole Earth Catalog, and the start of shakuhachi.com. I hope this project will help keep his amazing website front and center where it belongs in the continuing renaissance of the shakuhachi, outside and inside of Japan!*

**CONCLUSIONS**

It is evident from the results of this case study that respondents were introduced to an interactive multimedia experience that they did not know previously existed. Not only that, but the vast majority were impressed with the ease with which the Clickable Paper app can be accessed, understood, and used. There were a few who experienced some difficulties, but it appears that they were easily overcome. Some of the difficulties may have resulted from those whose native language is other than English and that assessments were made on the basis of only a few pages of the book, as the book was not yet available in its completed form. These pages were arbitrarily selected to present visual as well as textual content that would appeal to the viewer. However, the intent of the evaluation was to provide respondents with a hands-on experience of how the Clickable Paper technology works, and this was achieved.

From teaching to learning, to observing some of the world’s leading shakuhachi musicians and flute maker demonstrate their skill, nearly all respondents saw this as a highly positive capability of Ricoh’s Clickable Paper technology. The vast majority expressed that the advantages of the technology are applicable to all of the music industry regardless of the musical instrument or artist involved. The Clickable Paper app was viewed as a practical, educational, and cultural bridge to the world of music, and an opportunity for shakuhachi enthusiasts to meet virtually and to share ideas, questions, and experiences.

This case study will be shared with the international music industry at large.

This case study is enthusiastically presented to Ricoh’s corporate leadership, with all publication and distribution rights given to Ricoh. Clickable Paper is one example of how Ricoh has expanded from one or the leading OEMs in the graphic communication industry to an OEM that also provides innovative technologies that help individuals work with more efficiency and productivity.

**ENDNOTE**