Remote Interpreting in Japan :
Current State and Future Implications

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日本における遠隔通訳：現状と今後の展望

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Abstract

Remote interpreting (RI) is a relatively new mode of interpreting that is used increasingly in Japan due to the financial benefits and convenience that it brings. Interpreters work in isolation from other meeting participants, using a telephone and sometimes a videoconferencing or online system to share meeting materials and participate in the meeting. However, due to the lack of any overseeing organization for the interpreting industry in Japan there are currently no technical standards established or requirements defined for RI. As a result, working conditions vary greatly and are in many cases unsatisfactory. This research investigates the current situation of RI in Japan through two surveys: a survey of interpreters involved in RI and a survey of RI users. The surveys highlight the obstacles currently encountered in RI meetings, and also gauge the level of satisfaction with RI among the two groups.

The introduction of any new technology or method needs to be accompanied by training and education, to ensure that the said technology or method can be used efficiently. In the same way, the effective and efficient use of RI is premised on client education and understanding. The aim of this study is to initiate dialogue and further research on the obstacles that need to be overcome for RI to be used as a sustainable interpreting style in the areas where there is demand for this mode of interpreting.

Key words: Remote interpreting, current state, future implications, technical standards

要　　旨

比較的新しい通訳手段である遠隔通訳は、コスト面でのメリットと利便性により、日本においても徐々に普及しつつある。本稿における遠隔通訳とは、通訳者が他の会議参加者とは別の場所から、電話などの通信/会議システムや、資料共有用のオンラインシステムなどを使いながら通訳することを指す。しかし日本では、通訳業界の基準を監視する機関や団体が存在しないため、遠隔通訳に関する技術的要件や基準が存在しない。その結果、遠隔通訳の実施環境にはばらつきがあり、適切な通訳環境が確保されていないケースが散見されるのが現状である。本研究では、遠隔通訳経験を有する通訳者とその利用者を対象に、二つの調査を実施し、日本における遠隔通訳の現状を把握しながら、遠隔通訳が直面している問題を明確化し、調査対象者のニーズとその充足度を確認することを試みる。

新たな技術や手法を導入する際、それらが効果的に利用されるためには、利用者側の教育や研修が不可欠である。遠隔通訳においてもそれは同様である。本研究は、現在導入段階にある遠隔通訳に関する問題提起を行うことにより、今後の更なる研究や実施環境の改善および、ユーザー教育に資することを目的としている。これにより、今後遠隔通訳の需要増が予想される分野において、その効果的且つ持続可能な運用が促進され活用されることを期待している。

キーワード：遠隔通訳、現状、今後の展望、技術基準

Remote interpreting (RI) is the term used to describe interpreting situations where the interpreter is not at the same location as any other meeting participants, and interpreting is conducted using a videoconferencing system or telephones. An online document sharing system may also be used. RI has been the subject of numerous studies and experiments in Europe since the 1970s, such research addressing both the technical challenges of RI as well as the physical and psychological issues posed for interpreters. RI has also been increasing in frequency in Japan over the past few years, in the business, health and legal fields. However while RI is receiving greater attention, there is still relatively little literature or guidance on the subject in Japan. This paper provides an overview of the current state of RI usage in Japan and a preliminary exploration of the level of acceptance of RI among interpreters and clients, through questionnaire-style surveys conducted using an online survey format. The aim of the study is to initiate dialogue and further research on the obstacles that need to be overcome for RI to be used as an effective and sustainable interpreting style in the areas where there is demand for this mode of interpreting.

The paper will present the reasons for the growing use of RI as a mode of interpreting, clarifying the issues faced by users of interpreting services in the current economic climate and the benefits of RI as a possible solution. The paper will then explore past research on RI, firstly in Europe as a point of comparison for the current study, and then research conducted in Japan on the use of RI primarily in community interpreting settings. The results of the two surveys conducted for this study will be presented, together with a discussion of the results from RI users' and interpreters' perspectives. The paper concludes with some thoughts on possible implications for the interpreting industry in Japan in the future.

Unfortunately there is no overriding organization in Japan to manage or organize professional, ethical or technical standards for interpreting, and RI in its current state is being developed on an ad-hoc, 'as needed' basis. In light of this situation the current study does not cover technical standards required for effective remote interpreting, which are the subject of important and ongoing research in Europe. The study also does not allude to sign-language interpretation, where remote interpreting is increasingly used. This in fact may currently be the largest area for use of RI in Japan. While remote interpreting has generally been defined in Europe as interpreting in the simultaneous style, the current study focuses on remote interpreting performed in the consecutive interpreting style, as this was the most common style reported in the surveys conducted. This is not a comprehensive study of any particular field (business, legal, public services) of RI, and the surveys conducted did not identify the fields in which the interpreters are working. The RI users' survey covers business interpreting only. It should also be noted that the sample size of the two surveys conducted for this study is small (interpreters: 19, RI users: 10), and, subsequently, conclusions drawn are limited.

In contrast to 'live' interpreting, where the interpreter is working face-to-face with some if not all of the meeting participants, remote interpreting is defined in this study as interpreting situations where the interpreter is not located in the same meeting venue as any of the other meeting participants. In other words, the interpreter is working alone or with another interpreter, physically separated from meeting proceedings. This is not the same as an audio or videoconference where the interpreter is in the same room as some of the participants, who are holding discussions with other participants at a different location using an audio or videoconferencing system. In an RI situation, a videoconferencing and/or online document system is often used to allow the interpreter to listen to the meeting content and view the materials being used (for a detailed discussion of definitions of remote interpreting and similar interpreting modes, see the International Association of Conference Interpreters' (AIIC) report to the PRIMS Panel on Remote Interpreting (AIIC 2013).

2. Background

2.1 Post-recession economic and social changes in Japan

The effects of the worldwide economic recession that started in 2008 are still being felt in Japan, despite the recent change in administration and resulting optimism. Pressures on businesses are evident. The manufacturing industry, in particular, is continuing to record negative growth in earnings: revenues are down 3.9% for the industry overall in the period from April-June 2013 compared with the same period in the previous year, and a 9.1% fall was also recorded in capital investment over the same period (MOF 2013). In view of the fact that Japan's manufacturing industry has accounted for up to 90% of Japan's exports (METI 2010), the demand for language services in this industry can be said to be high and, in fact, Japan's manufacturers have been some of the foremost employers of in-house and outsourced interpreters. It is natural, therefore, that outlays for interpreting services are being considered as a target of corporate financial austerity measures, and the results of the survey of RI users conducted for this study seem to back this up. When RI is used, there is no need to pay travel expenses for interpreters to attend meetings as they can work from home or any other location. This creates potential for cost reductions, which in fact was reported in the RI users' survey as one of the major benefits of using interpreters remotely.

The 2008 economic crisis also brought about social changes. While the number of non-Japanese residents has dropped slightly since 2008 and again after the Great East Japan Earthquake in 2011, the number of social welfare recipients of non-Japanese nationality had increased to a monthly average of around 73,000 people in 2011, up from 69,000 the previous year and 61,000 in 2009 (e-Stat 2009, 2010, 2011). This in turn has led to an increase in public and health service consultations by non-Japanese speakers, sparking demand for remote interpreting services. Michiru Sugisawa, Project Coordinator at the Tokyo University of Foreign Studies (TUFS) Center for Multilingual Multicultural Education and Research, reports that since the

1990s, requests by non-Japanese residents to health, legal and public services seeking consultation services have become increasingly complex and diverse (Sugisawa 2013), and there is a concomitant need for interpreting services to cater to this growing group of people. Interpreting services play a crucial role in the resolution of the medical, educational or legal issues that such residents face. Using audio-visual telecommunications systems, RI is a means for non-Japanese people living in rural areas to obtain access to interpreting services not available in their immediate proximity, and also has the potential to help speakers of minority languages not currently catered for by accessing interpreters anywhere in Japan or the world.

2.2 Multilingualism and infrastructure issues in Europe

The history of remote interpreting in Europe is longer than that of Japan and literature on the topic is more extensive, although limited compared with other interpreting-related topics. The growth of RI in Europe had its origins in the expansion of the European Union, as a means to handle 23 languages and at the same time avoid the complication of redesigning conference rooms to accommodate more languages and therefore a larger number of interpreting booths (Mouzourakis 2006). Barbara Moser-Mercer's extensive work on the human factors implicated in RI has shed light on the psychological difficulties of working in isolation, as well as highlighting the technical requirements that need to be fulfilled to create a workable RI environment for interpreters (Moser-Mercer 2003, 2005a). As noted earlier, these studies focus on RI in the simultaneous mode, and experiments have most often been conducted at international organizations such as UNESCO and the European Parliament (Moser-Mercer 2003; Mouzourakis 2006). The International Association of Conference Interpreters (AIIC) has been instrumental in efforts to ensure that appropriate technical levels are met when RI is used. These include the *Code for the Use of New Technologies in Conference Interpreting* (AIIC 2000) and more recent studies that aim to clarify some of the common misconceptions about RI and ensure that requirements are understood and met (AIIC 2013).

2.3 Past RI research in Japan

One could say that remote interpreting in Japan began with one of the most 'remote' locations of all: Sen Nishiyama's interpretation of the telecasts of the Apollo flights to the moon from 1968 to 1972 (Nishiyama 1988). In 1968 Nishiyama worked in a booth at NHK, the national broadcaster, to simultaneously interpret the communication received from Apollo 7 into Japanese for the NHK commentators. This was an historic instance of remote interpreting broadly defined—the interpreter separated from all other participants (later Apollo flights, including the Apollo 11 landing on the moon, had Nishiyama in the live NHK studio together with commentators). Nishiyama's fascinating account of this event highlights an issue still encountered today: unstable audio quality affecting the interpreter's ability to interpret (for instance,

Armstrong's 'one giant leap for mankind' was inaudible). This issue is discussed later as part of the results of the surveys conducted for this study.

In contrast with Europe, the majority of research on RI in Japan has focused on sign language interpreting and community interpreting, rather than the use of the RI mode for events or meetings that use simultaneous conference interpreting. Future surveys of interpreting agencies, which control the bulk of conference interpreting services in Japan, and conference interpreters, could be used to further explore this area. In addition to sign language interpreting, community interpreting is one of the growing fields for RI services in Japan. Defined as interpreting services in health care, public service, education and legal areas, community interpreting has been the subject of extensive research by TUFS Center for Multilingual Multicultural Education and Research, which offers a training course in community interpreting as well as community interpreting internships.

TUFS' Minoru Naito provides a detailed and vivid description of some of the problems faced by community interpreters when using the RI mode (Naito 2013), many of which were also identified in the surveys conducted for this study. These include timing issues (difficult to discern when to interpret) and a lack of visual information in many cases (including facial expressions of participants). With no interpreter 'presence' on such RI occasions, which tend to be consecutively interpreted, speakers may speak for a great deal longer than they would when an interpreter is located in the same room, increasing the burden on the interpreter who is then required to remember larger amounts of information for interpretation. The difficulties of little or no visual information and lack of interpreter presence are also discussed in greater detail in relation to the survey results below.

3. Survey of RI interpreters and users

3.1 Survey method

An online questionnaire system was used to survey interpreters who have performed RI and users of RI services in two separate surveys. The questionnaires included a mix of single-choice, multiple-choice and free comment response sections. The aim of the surveys was to ascertain, at a very general level, the degree of acceptance of RI in Japan, based on responses regarding RI working conditions, convenience and quality. Questionnaires were sent to interpreters through The Japan Association for Interpreting and Translation Studies, and to interpreters and regular employees at a Japanese company that frequently uses the RI mode. The surveys were conducted over a period of one month from August 16 - September 16, 2013.

3.2 Survey results

The results of the survey of interpreters provided some insight into common working conditions when the RI mode is used. Nineteen interpreters provided responses to the survey; of

these, fifteen indicated that they had some experience in remote interpreting, although one of the fifteen was not aware of the term 'remote interpreting' per se. Of those with no experience in RI, two were aware of the term 'remote interpreting' and three had not heard the term before. The majority of interpreters (79%) reporting experience in RI had experienced it more than once, and 89% of all respondents said that they know one or more interpreter(s) with RI experience. 73% of interpreters with experience in RI reported that they had been involved in RI more than ten times, with a further 13% reporting 5-10 times.

The venues most commonly used for RI situations were varied in the survey results, with 29% responding 'in a company office', 50% responding 'at home', and 21% indicating other venues such as a hotel room. The most common style of interpreting reported was consecutive interpreting (80%), followed by simultaneous (7%), and a combination of both styles (13%). The majority of respondents (93%) reported interpreting in RI situations alone, and a smaller majority also indicated that they interpret for 1-2 hours under such conditions: 73% interpreting for 1-2 hours, with 27% interpreting for under 1 hour. The fact that none of the interpreters surveyed considers the presence of a partner to interpret with as a criterion for accepting an RI job would seem to indicate either a sense of resignation toward the conditions imposed or a pragmatic acceptance of the logistical difficulty of organizing a partner arrangement when many RI jobs are performed in the interpreter's home or at other locations not amenable to a partnering situation. One should also note that the reason this situation may be accepted is that the majority of RI experience reported in the survey is conducted in the consecutive mode, where working alone for a certain period is more common than when using the simultaneous mode of interpreting.

The survey showed that equipment used in RI meetings is varied, as indicated in Table 1 below.

These results show that a firm standard for equipment used in RI meetings in Japan has yet to be established, and also that RI conditions and requirements may be diverse. As indicated in later results, 67% of respondents report using a computer during RI meetings, a figure that seems low given its implication that for those interpreters not using computers, meeting materials are not being shared online and no visual information (including images of other participants) is available.

Table 1. Q12: What kind of equipment do you use when performing RI? (multiple selection)

Headset with mike attached	53%
Headset and mike separate	13%
Cellphone	33%
Landline phone	60%
Cellphone and landline phone together	6.7%
Computer	67%
Other (conference systems)	7%

This is corroborated by responses to the question on how meeting materials are shared for RI situations, with 53% reporting that materials are not shared online, but instead received in advance of the meeting. 13% of respondents reported that usually no materials are used.

It is the author's experience that in some cases meeting organizers and/or participants (in other words, the users of the RI service) are not aware of the need for interpreters to be able to see the same information as the other meeting participants, whether it be materials shared via an online system or sent in advance. In the same way as 'live' interpretation situations, client education in the form of an explanation of the requirements for effective interpretation are essential in the RI mode as well. It should be noted that while 50% of respondents said that they thought clients do not understand the nature and/or difficulties of RI, only 18% reported that they are often able to influence clients' understanding of RI (through client education, for instance). Of the remainder, 59% said that they can influence clients' understanding 'sometimes', 6% said 'rarely', and 18% said 'never'.

The need for visual information (non-verbal cues) when interpreting has been well documented (Besson et al 2005). Is the speaker being ironic? Are participants nodding in agreement or shaking their heads in disbelief at what is being said? Are jokes being understood as jokes? Is the speaker finished and waiting for a response? These are examples of instances that are automatically processed and understood by the interpreter when visual cues are available. This is no longer possible in a situation where the interpreter is participating from a remote location with little or no visual information. Moreover, according to the communication concepts first proposed by Edward T. Hall in *Beyond Culture* (Hall, 1976), Japan's culture is defined as 'high-context'; in other words, communication in Japanese contains many implicit messages, extensive use of nonverbal communication, and a need to 'read between the lines'. In an RI meeting where there are no images of other participants and therefore no way of viewing their facial expressions, reactions, or any other gestures, the job of interpreting becomes even more difficult. One may say that in a high context culture like Japan's, such visual information becomes even more important.

The importance placed on visual information by interpreters was demonstrated by responses to the question regarding the possible impact of not being in the same room as other meeting participants (see Table 2).

Table 2. Q21: Does not being in the same room as other meeting participants impact you in any of the following ways? (multiple selection)

Miss out on important visual information because you cannot see participants' facial expressions	79%
Difficult to intercept a conversation to interpret	50%
Difficult to discern what should be interpreted and what is 'internal'	50%
Difficult to ask for clarification	29%
Feel less motivated because not 'active' participant	0%

In contrast with the results of several European studies where motivation appears to be an important factor in acceptance of RI (Moser-Mercer 2005b), in this survey motivation or lack thereof resulting from working in isolation from other meeting participants was not cited as an issue. Rather, and in line with results elsewhere (Buhler, 1985), the inability to monitor the facial expressions of meeting participants was raised as a problem by the majority of respondents (85%).

Visual issues were also reported amongst the technical challenges of RI indicated in the survey (see Table 3).

Table 3. Q14: Have you experienced any of the following visual issues when sharing materials online with other participants? (multiple selection)

Cannot see the same screen as the other participants	43%
Screen suddenly disappears	21%
Screen does not change in line with meeting proceedings	21%
Not given access to online screen	37%
None of the above	37%

These problems deserve serious consideration. Issues such as lack of any online screen or other visual information such as meeting participants' expressions or gestures, and the interruption of such visual information when it is provided, pose a further burden and possible stress and fatigue on the interpreter performing a task that is already challenging. Moreover, although not covered in this survey, the quality of the images provided, when provided, is also a cause for concern. This has been the subject of extensive experimentation in Europe (Mouzourakis 2006) and requires urgent attention to secure a workable environment for interpreters and the acceptance of RI as a feasible mode of interpreting.

In any interpreting situation, audio quality and stability are the crucial factors in determining interpreting quality and maintaining a favorable interpreting environment. In Japan at the current time there are no standards established for sound or video requirements for RI meetings, and results of the RI user survey suggest that issues are dealt with on an ad hoc basis. Sound-related difficulties were reported by the majority of interpreters (see Table 4).

Table 4. Q16: Have you experienced any of the following sound difficulties when performing RI?

Cannot hear the main speaker clearly	60%
Cannot hear some participants clearly	73%
Participants cannot hear me clearly	13%
Static	80%
Sound breaks up/is disrupted at times	67%
None of the above	7%

Of those who responded, 93% said that technical issues (audio and visual) have affected their ability to interpret effectively, for the following reasons: difficult to hear (86%), difficult to concentrate (57%), and difficult to see the materials (14%).

Other issues identified in the interpreters' survey relate to difficulties arising from not being in the same location as the other meeting participants. As indicated in Table 2 above, the physical separation of the interpreter from meeting proceedings, and therefore the increased likelihood of participants forgetting about the interpreter, creates new difficulties for the interpreter, including judgments on when to start interpreting, how to discern what needs to be interpreted and what is intended as an 'internal' discussion, and how to ask for clarification when required. These issues also exist in live interpreting situations, but increase in complexity when the interpreter has no visual presence. Lack of personal interaction with meeting participants is also an important factor that should not be overlooked. 87% of respondents reported less personal interaction with participants in RI settings, and of these 69% said that this adversely impacted their ability to comprehend the discussion (see Table 5).

Table 5. Q23: **What kind of impact does this lack of personal interaction have on the interpreting experience and performance? (multiple selection)**

More difficult to concentrate	15%
More difficult to comprehend meaning, nuances, irony, jokes	69%
More tiring	46%
No particular impact	15%

The overall level of acceptance of RI by the interpreters surveyed may be described as 'cautious': while benefits such as reduced need to travel and safety when interpreting criminal cases were noted, numerous issues were also reported (see Table 6).

Table 6. Q26: **What are the disadvantages of RI for interpreters? (multiple selection)**

Technical issues	78%
More difficult to concentrate	22%
More tiring	39%
More stressful	50%
Late/early hours	56%
Feel isolated	22%
Lack of control	56%
Less travel	0%
Other	6% (difficult to obtain support when meeting extended, hard to regulate speaker length)

With technical issues raised as a concern by 78% of respondents, it is clear that the further progress of audio and video technology will be crucial to improving RI conditions. Other issues noted such as 'more tiring' and 'more stressful' also require technical advancements to be alleviated. In Japan, unlike Europe, there is no regulatory body presiding over the interpreting industry, and, thus, little likelihood in the near future of developing RI standards in the spirit of AIIC's technical standards (AIIC, 2000). Interpreters in Japan must therefore wait for further technical improvements and their adoption by companies and organizations using the RI mode.

The second survey conducted for this study was a survey of users of RI services. The subjects of the survey were regular employees in a company in Japan that frequently uses the RI mode. The company is a joint venture with a partner company located in the United States, and has plants and business offices in Germany and China, in addition to Japan and America. The company has a need for frequent meetings with the overseas partners, but faced the challenge of arranging interpreting services for such meetings using the small number of interpreters working on site. The company is currently dealing with the situation through employment of freelance interpreters who work 'off-site' (either at home, in a hotel room or another office) using the RI mode. The company's in-house interpreters also work in the RI style when interpreting for late-night or early-morning meetings, often from their homes.

The RI users who responded to this survey are all relatively frequent users of RI: 40% reported using RI several times a week, 20% once a week, 30% once a month and 10% several times a year. 60% of respondents have participated in RI meetings more than ten times. The majority (80%) reported using an online system to share meeting materials, indicating that an online screen sharing system is a standard method used at this particular company. In terms of interpreting style, 80% said that they most frequently use the consecutive interpreting style, with 20% indicating 'other'. No respondents reported using the simultaneous interpreting as the most frequent style for RI meetings.

In line with the results of the interpreters' survey, RI users also indicated, unsurprisingly, that there are technical issues to be resolved (see Table 7).

Table 7. Q8: Have you ever experienced any of the following technical issues when using remote interpreting? (multiple selection)

Trouble connecting with the interpreter via phone	57%
Cannot hear interpreter	29%
Interpreter cannot hear meeting participants	29%
Interpreter cannot see online screen	14%
Meeting participants cannot see online screen	14%

Of these, 23% reported that the issue encountered could not be resolved, and 44% said that the issue had disrupted the meeting.

Also in line with the interpreters' survey, the respondents to the user survey indicated that they are not completely satisfied with the RI mode, both in terms of convenience and quality of interpretation. As shown in Table 8 below, 90% of respondents said that they find the RI mode either 'slightly inconvenient' or 'sometimes inconvenient'.

Table 8. Q11: **How do you feel about not having the interpreter in the same room as you during RI meetings?**

Very inconvenient	0%
Slightly inconvenient	30%
Sometimes inconvenient	60%
Not much difference	10%
No problem	0%

Of those who reported some level of inconvenience, 78% said this was because they are not able to have direct interaction with the interpreter, and 56% stated that it was because it is difficult for the interpreter to differentiate 'internal discussion' from comments that require interpretation (see Table 9).

Table 9. Q12: **If you answered 'Very inconvenient', 'Slightly inconvenient' or 'Sometimes inconvenient' to Q11, please select the reason(s) from those given below (multiple selection).**

Cannot speak directly with the interpreter	78%
Sometimes the interpreter's voice is difficult to hear	22%
Difficult for the interpreter to identify 'internal discussion' that does not require interpretation	56%
Sometimes the interpreter does not fully understand the discussion	11%
Other	11% (Difficult for interpreter to know when to start interpreting, difficult to provide explanations to interpreter required when a non-agenda item comes up)

In light of the results of the experiment conducted by the University of Geneva and the International Telecommunication Union in Europe where no significant difference in quality was reported by users of RI (Moser-Mercer 2003), one unexpected result of the second survey in this study was that the majority of respondents (60%) indicated that the level of interpretation quality seems lower for RI than when conventional 'live' interpretation is used. Despite this, lower interpreting quality was only mentioned as one of the disadvantages of using RI by 10% of respondents; rather, the inability to speak directly with the interpreter (70%) and technical issues (60%) seemed to be of greater concern (see Table 10). It should be noted that 83% of respondents in the interpreter group also said that they felt that interpreting remotely may adversely affect

interpreting quality.

Table 10. Q16: For a meeting organizer/participant, what are the disadvantages of using RI?
(multiple selection)

Sometimes there are problems with the sound	50%
Sometimes there are problems with the online document sharing system	10%
Preparation takes time and effort	0%
Interpretation quality is lower	10%
Not being able to speak directly with the interpreter is inconvenient	70%
Other	10% (We try to reduce the amount of English-Japanese interpreting so as not to interrupt meeting proceedings, but this means that we cannot understand meeting content adequately)

Nonetheless, 89% of respondents said that RI is an acceptable mode of interpreting and all predicted that demand for RI will increase in their workplace in the future. The benefits stated were the possibility of cutting costs (90%) and ease of arranging interpretation (80%). One may conclude that although not completely satisfied with the quality provided through RI, the level is judged to be acceptable and the RI mode is attractive because of the cost savings achieved by eliminating the need for interpreters to travel to the meeting location.

3.3 Summary of results

The two surveys conducted for this study highlighted technical issues as the major obstacle to a more trouble-free, sustainable RI experience for all involved. Sound issues such as unstable telephone connections and static were identified as one of the main areas of concern for both interpreters and clients, and further advances in technology and their adoption by companies and organizations are eagerly awaited. Visual issues, including lack of any visual information, were highlighted by interpreters as a factor in their ability to understand meeting content. The importance and value of non-verbal information needs to be included in client education to ensure that the creation of a workable interpreting environment is treated as a priority when RI is used. Other issues raised by the user group included interpreting quality, which was estimated to be lower for RI meetings than when 'live' interpreting is used, and the inability to interact directly with the interpreter when using the RI mode. While interpreting quality was also indicated as a concern by the interpreter group, the respondents in both groups did not appear to regard this as serious enough to discount RI as a feasible mode of interpreting. Both the interpreter and the user group said that they see RI as an acceptable mode of interpreting: the former for its convenience (ability to work from home), the latter for its positive financial contribution (potential to address

cost pressures). The majority of both groups said that they expect that demand for RI will grow in the future.

4. Conclusion

Remote interpreting is still in its infancy in Japan. While simultaneous conference interpreting has not been included in this study, anecdotal evidence suggests that there is little or no use of RI for conference interpreting in Japan and significant opposition to it by conference interpreters. Whether or not demand will grow in this area may be dependent on progress in Europe, but more likely on further cost pressures and the accompanying demand for RI among users of interpreting services. In any case this is an area worthy of further exploration. The absence of technical standards for RI is also likely to present a bottleneck for further adoption in Japan in the simultaneous conference interpreting arena, and future research on the ongoing technical difficulties and their resolution may provide a starting point for the establishment of such standards, particularly for use in simultaneous interpreting mode. In contrast, the use of RI in the consecutive interpreting style in the fields of business, health and public services has been increasing in Japan and the surveys conducted for this study provide some preliminary insights into the level of acceptance among interpreters and users in these groups. Further surveys using larger sample groups are expected to build on the significance of these results.

Economic, social and technological developments will always have an impact on any industry. Simultaneous interpreting was once viewed by interpreters as "impossible" (Nishiyama 1988: 64); yet demand, technology and experience ultimately led to its acceptance. The cautious acceptance of remote interpreting in business and community settings in Japan is premised on the current need to sacrifice a certain level of interpreting quality and accept a certain level of inconvenience. Only when these matters are resolved will the doors be opened to any realistic discussion of the potential of remote interpreting in other fields in Japan.

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