A trip around the world: Accommodating geographical, linguistic and cultural diversity in academic research teams

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Abstract

Those working within the academy are drawing collaborations, both within and across their home institutions, to undertake increasingly complex and sophisticated research questions, a trend supported by the granting agencies. Advances in computers and telecommunications have facilitated these collaborations by allowing teams to recruit the right person and expertise, regardless of location. To ensure that they are able to achieve their research objectives, these teams must find methods and means to maximize the benefits associated generally with collaboration while minimizing challenges and to also address those challenges more specifically associated with the geographical, linguistic and cultural diversity. This article contributes to this understanding by reporting on interviews conducted with individuals with experience in teams that cross geographical, linguistic and cultural boundaries and focus on understanding the benefits and challenges associated with collaboration with membership and the strategies used to strengthen them. Whereas these teams benefit from these collaborations, they experience many challenges, including language and cultural differences, differing access to and comfort levels with technology, and often conflicting requirements from funding agencies and stakeholders. These teams have devised strategies at project and individual levels, with clearly articulated project plans, project liaisons, flexibility and other soft and language skills, multiple communication channels, and others, to mitigate these challenges. The article concludes with recommendations for funders, projects and individuals.

1 Introduction

In response to the increasingly complex and sophisticated research questions, those working within the academy are turning to collaborative approaches, both within and across their home disciplines, to answer these (Newell et al., 2000; Hara et al., 2003). At the same time, funding agencies are encouraging this trend with granting programs that fund larger scale research initiatives requiring team approaches at both national and international levels (Newell and Swan, 2000; SSHRC, 2005). By way of example,
funding agencies from Canada, USA and the UK have partnered together with the Digging into Data Challenge to fund research projects based in at least two of the participating countries (Office of Digital Humanities, 2010). Advances in computers and telecommunications have facilitated these collaborations by allowing teams to recruit the right persons and expertise, regardless of location (Cramton and Webber, 2005).

The Digital Humanities (DH) community is one example of a community of practice that is embracing collaboration (Siemens, 2009a) and becoming increasingly international in focus. New national associations in Australia and Japan are hosting their first conferences (AADH, 2011; Japanese Association for Digital Humanities, 2011) and the upcoming 2012 international DH will focus on culture, languages, and methods (ADHO, 2011). In addition, the Digital Humanities Summer Institute at the University of Victoria has had participants from every continent, except the Antarctic (Meloni, 2010). Finally, several large-scale consortia, such as the Text Encoding Initiative Consortium, DARIAH, CLARIN and centerNet, have members spanning national borders (centerNet, nd, CLARIN, nd, DARIAH, nd, TEI-C, 2010). The end result is collaborations with team members spanning country, language and cultural divides.

To ensure that they are able to achieve their research objectives, these teams must find methods and means to maximize the benefits associated generally with collaboration, whereas minimize challenges and to also address those challenges more specifically associated with the geographical, linguistic, and cultural diversity (Kraut et al., 1987; Setlock et al., 2004; Shore and Cross, 2005). However, protocols to prepare individuals to work in these types of research team are only now being developed. This article will contribute to these efforts by exploring the experiences of individuals working in DH teams with memberships drawn from a variety of countries, cultures, and language groups in order to identify their benefits and challenges, and the strategies used to support these collaborations. The results will enable those who work in such teams to recognize those factors that tend to predispose them to success and perhaps more importantly, to avoid those that may lead to problematic interactions, and thus make the project less successful than it might have otherwise been.

2 Context

Although there is a growing knowledge base of the benefits and challenges inherent in academic research teams (Kraut et al., 1987; Bracken and Oughton, 2006, Choi and Pak, 2007), little knowledge exists about the ways in which teams with memberships across universities and disciplines work together (Garland et al., 2006), much less about teams with members from multiple countries, cultures, and language groups (Setlock et al., 2004, Shore and Cross, 2005). Challenges for these latter collaborations exist at several levels.

At a practical level, geography presents relatively simple challenges. As the number of time zones increases, the flexibility in scheduling meetings decreases, whereas the cost of face-to-face interactions increases. A space of as little as 30 m, much less across country borders, can significantly limit the amount of interaction needed for creativity and innovation (Olson and Olson, 2000, Kraut and Galegher, 1990). Although advances in technology and telecommunications have made strides to support communication, distance still matters and continues to impact team interactions (Olson and Olson, 2000; Cummings and Kiesler, 2005; Lawrence, 2006). Further, these advances have not been equal across all countries due to infrastructure gaps or government policy (e.g. the Great Firewall of China).

At a more complex level, cultural1 and linguistic differences can impact various aspects of team work such as structure, management, communication, conflict expression and resolution, decision making, and appropriate team behavior. Disciplinary and academic cultural differences may further complicate interactions (Dafoulas, 2002; Setlock et al., 2004; Shachaf and Hara, 2007; Fry and Talja, 2007; Dekker et al., 2008; Lee-Kelley and Sankey, 2008). At a very basic level, the teams must decide a working language, a decision that
may be political in nature (Bournois and Chevalier, 1998; Butler, 1998; Deepwell and King, 2009). And even with a seemingly common language, members may find that they must still translate terms (Siemens, 2009b). For example, institutions in different countries define a research assistant (RA) in a variety of ways. In Canada, a RA is generally a graduate student who works on a research project on a part-time basis, whereas in the UK, a RA is a post-doctoral fellow who is on a full-time contract for a specified period of time. This may be complicated further by different understandings of words when viewed from a disciplinary perspective (Bracken and Oughton, 2006; Siemens et al., 2011b). As a result, confusion can occur among team members when they use common terms in different ways.

Research suggests that several factors may minimize the impact of the above challenges. First, education and training may mitigate the impact of cultural differences when team members share professional norms developed from common educational experiences (Nason and Pillutla, 1998; Dafoulas, 2002; Lee-Kelley and Sankey, 2008). Teams may also find it beneficial to spend time in members’ cultures to create an understanding of differences and similarities (Nason and Pillutla, 1998; Bagshaw et al., 2007). This can be further supplemented with cross-cultural awareness (Cooper and Mitsunaga, 2010). Finally, teams may also consider creating a cultural profile, both by country and professional/discipline culture (Dafoulas, 2002; Zakaria et al., 2008). This profile can be combined with team norms to articulate understandings of time, deadlines, language, communication channels, conflict resolution mechanisms, and other issues (Saunders et al., 2004). However, in order to understand the support and research preparation that is required to ensure effective collaborations in teams with memberships from many countries, cultures and language groups, more research is needed.

3 Methodology

This article is part of a larger project examining research teams with multi-country, -culture and -language representation, led by a team based in Canada, UK, and Germany (For more details, see Siemens, 2010b; Siemens et al., 2011a). The larger study uses a combination of data collection methods, including an ethnomethodological approach with diary/log studies of research teams in the midst of their collaboration (Garfinkel, 1984) and semi-structured interviews with individuals who have experiences in the types of teams under investigation (Marshall and Rossman, 1999). This article will report on the interview findings.

The participants were asked questions about their experiences working in the types of teams under investigation, the benefits, and challenges associated with these collaborations and the strategies used to ensure effective and efficient research results. These interviews allow the researchers to explore topics more fully and deeply with probing and follow-up questions, whereas the participants reflect on their own experiences and emphasize those issues that are important to them (McCracken, 1988, Rubin and Rubin, 1995; Marshall and Rossman, 1999). For the most part, interviews were conducted in the interviewer’s language. For those interviews conducted in a language not spoken by all in the team, one of the team members translated relevant quotes into English, this team’s working language, for analysis.

Data analysis involves a grounded theory approach, which focuses on the themes that emerge from the data. This analysis is broken into several steps. First, the data is organized, read, and coded to determine categories, themes, and patterns. These are tested for emergent and alternative understandings, both within a single interview and across all interviews. This is an iterative process, involving movement between the data, codes, and concepts, constantly comparing the data with itself and the developing themes (Glaser and Strauss, 1967; Marshall and Rossman, 1999).

4 Findings

The following section will present findings from the eleven interviews, which have been analyzed so far. The themes include the benefits and challenges associated with this type of collaboration and the
strategies used to maximize benefits, whereas minimizing the challenges.

4.1 Respondent demographics
Of the eleven interviews in question, seven were based in North America, three in Europe, and one in Asia. All individuals are members of DH teams. Although the predominant working language within the teams was English, over fourteen languages were represented across all projects under discussion. Further, over twenty countries are represented in the teams. The projects varied in budget size from fairly small ($45,000 US) to large ($4.5 million US) with membership ranging from four members to large-scale consortiums with more than ten partner institutions and fifty individuals involved, including primary researchers, doctoral students, research assistants, staff, and others. In terms of communication channels, these teams tended to rely on email and regular Skype and in-person meetings. The regularity of face-to-face meetings depended on the needs of a particular project and on financial means available and ranged from once a month to yearly. Table 1 summarizes the interview respondents’ demographics.

4.2 Reasons and benefits of collaboration
As the participants outlined, significant benefits are gained through these collaborations. For some, the very nature of the project itself requires this type of diversity. For example, the data under exploration and its analysis may be housed in different countries or available in different languages, requiring individuals with the necessary access to data and expertise, which may not be available at the home institution. Others indicated that the funding agency requirements dictated participation from other countries. Finally, there was also a realization that a ‘group is smarter than your individual’ (NAIR5).2

In other cases, these collaborations provided opportunities to develop skills and to experience new perspectives. One of the European interviewees stated that ‘international team work allows you to learn a bit of the language’3 (EIR1). For others, they found it ‘very exciting to work in such an international context and to get to know different kinds of vision, i.e. not just the [their home country] one. Before that I was not conscious that I had a [their home country]4 vision of research processes and research structures above all with respect to infrastructures for the Humanities…’ (EIR1).

Table 1 Interview respondent demographics

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4.3 Challenges

Notwithstanding these benefits, these research teams faced challenges. First, given the diversity within these teams as seen in Table 1, they faced challenges flowing not only from the language diversity, but also from cultural differences. As one North American stated, ‘So, it’s not just showing up and speaking Arabic, it’s showing up and knowing how to interact with people and dealing with what is a very different culture with different codes and expectations’. (NAIR5) One of the Europeans who is collaborating with Europeans and North Americans further found that different countries/cultures had varying perspectives on deadlines with some more oriented to precise delivery as scheduled than others.

Other challenges derive from differences in the level of formality required within different cultures. Some countries and cultures have more formal senses of hierarchy that are expressed through titles and clearly defined communication channels. For example, ‘Sometimes it seemed that on the [European country] side hierarchies were stricter. We had the feeling that email communication between doctoral student (in one country) and doctoral student (in the other country) was not just possible but that the project leader had to be consulted first and that this needed time’ (EIR3). Another participant elaborated further, ‘there’s expectations about this different kind of seniority and every day. My [African] colleagues would shake my hand and they are always very formal. They were amazed to see how informal I was with students for example’ (NAIR5). Further difficulties ensued when individuals from less formal cultures did not use professional titles as required by those in more formal cultures. As one of the Europeans outlined,

‘We had a web portal where the names of all colleagues were listed. The Americans were against using titles...I tried to tell the American colleagues that in Germany the title is part of the name. It was nearly an offence for somebody who was Prof. Dr., i.e. a very important man, also a library director, that we called him just [by his first name]5. On the other hand, as the Americans didn’t want to list the titles it looked as if none of the colleagues had a doctorate’. (EIR4)

In many cases, team members experienced frustration and confusion in these situations, particularly when they evaluated these differences as ‘strange’ and did not follow the culturally required protocol.

Teams also found that members had different access to and comfort with technology, including email, Skype, bandwidth, server capacity, scanners and others, despite the apparent ubiquity of these. For example, one respondent found that their partner based in another country could not meet the ‘quality level for scanning of the material’, nor the server capacity to store the materials because they did not have the resources (NAIR2). As a result, the partner could not host the repositories as planned. In other cases, a research project was delayed due to technical and equipment procurement issues. In one case, ‘it took a very long time for our [other country] partners to get the computers which were needed to do the work, because there had to be a public call for bids and different offers had to be taken into account. This put the project back about 6 months straight away’ (EIR3). Further, this project was not able to use videoconferencing because of uneven access to the technical equipment. Further, some partner institutions did not provide access to Skype, meaning that teams could not take advantage of the associated cost savings. In those cases where everyone did have access, some teams could not take full advantage of it because of different comfort levels. One interviewee discussed that a lack of knowledge with conference call etiquette and sound quality problems became some of the ‘biggest hindrances’ associated with conference calls (EIR1), even when they could be scheduled across multiple time zones, another daunting challenge. Finally, as the Asian interview respondent indicated, character incompatibility between Asia and North American/European key boards and computers complicated email communication.

The number of stakeholder organizations involved with these projects increased with the geographical dispersion and introduced often conflicting policies and procedures for teams to address. For example, several interviewees indicated that challenges and tensions resulted when projects
were funded from multiple granting agencies. In many cases, these funders provided varying levels of resources, which became a particular issue for those projects with members located outside North America and Europe. ‘But there isn’t really any money to speak of in there for the [African] colleagues’ (NAIR5). Further, granting agencies lack common reporting requirements, rules and procedures, and criteria for allowable expenses and operate on different decision-making timelines. As one respondent indicated, they stopped working on a proposal for joint funding from both the American National Science Foundation and the UK’s Joint Information Systems Committee because ‘the requirements on the UK partners were very different than on the US partners. So it made it really difficult to come up with a common project . . .’ (NAIR2). One of the Europeans echoed this with:

“You have certain goals, for example, to find a new funding basis for the project, and this is done differently in different countries. Even if structures are similar and you need to go to the ministry, that the way in which you approach the ministry, for example, is different in different countries, that you need to find different ways of communication, and that that partners who get this done in a faster way need to wait for the others without becoming impatient’. (EIR1)

These difficulties carried through to reporting where funders have different forms and expectations for level of detail. Finally, the various granting agencies fund associated expenses at different levels. For example, an UK postdoc is likely to get ‘at least a third more than [a Canadian one]’ (NAIR6).

Some projects also encountered different legal frameworks for the access and use of cultural materials and other forms of intellectual property. For example, as one of the Europeans outlined:

‘the project became more complicated also because of copyright questions. We are testing the system with Open-Access-Repositories in Germany and LOCKS in America and England. Our hypothesis was that the system fits well with copyright. Now we are asking ourselves whether the simple user rights which the repositories got from the authors here in Germany are really adequate. This would not be a problem in the United States or England under the Common Wall-Copyright-Law, but the German copyright is different, I would say’. (EIR4)

In other cases, the research teams experienced challenges negotiating access to the material itself. As highlighted, ‘If we had just contacted [the holder of the materials] and tried to do this ourselves we would never [have] had those materials . . . because we would not have known who you have to go through their work [and] things that, a lot of it was relationships that have to be built so that there is a level of trust, we are not trying to steal these materials’ (NAIR2).

As these projects involved multiple institutions, teams interacted with multiple administrative offices, each with their own specific policies and procedures. They found it trying to learn these often conflicting rules and then explain them to others. For example,

‘There is a huge amount of administrative work as three institutions are linked with each other. The problems regard above all the financial side as all three partners have a certain amount of funding and this has to be administered. Communication in this respect is very difficult between the individual universities. There is not really any help from the single administrations. The single administrations do not communicate with each other, all come to us. We are no experts in administrative or financial affairs. This causes problems’. (EIR3)

This individual went on to say that ‘instead of coordinating collaboration with respect to questions of content we have to take on financial and organizational tasks’. Further, the teams encountered large amounts of paperwork associated for expenditure reimbursement, a process that could be complicated by cultural differences. As the Asian respondent outlined, ‘and another thing is in the western countries we . . . signed forms, you use signatures, but in [Asia], sometimes not . . . most of the time we have to use a seal . . . this research institute doesn’t feel
comfortable accepting the forms without seal’ (AIR1). This might be further complicated when these stakeholders may not have knowledge of the collaboration’s working language.

Additionally, teams needed to navigate varying fiscal and academic calendars, which complicated the ability to meet. The Asian participants experienced this quite acutely. Given their academic and fiscal calendar, their ideal window for traveling was in February; however, their North American partners were not available due to their own academic obligations at that time. As a result, meetings were often schedule at times that were not ideal for anyone.

4.4 Strategies

The interview respondents outlined a variety of strategies at the project and individual levels to address the above challenges.

4.4.1 Project level

These teams employed a variety of project-level strategies to mitigate their challenges. First, the respondents noted the importance of project planning with a clear articulation of responsibilities, deadlines, and participating institutions’ administrative structures. ‘My proposal is to make everything as transparent as possible. This is not always easy above all with international projects. What are the goals, the real goals, what has to be done, what depends on what, so that one knows what has to be delivered at which moment and that one learns to listen…’ (EIR4). One European further suggested: ‘[i]t might be good to get insight into the functioning of partner institutions (study system, institutional conditions, infrastructure). If the research exchange office or similar had such databases, where you could find information on things like how accounting functions at a certain institution, who are the important people one should contact. To have a better understanding of processes there, and that the others can understand better what is requested in [institution]⁹…and how hierarchies are organised in different institutions…. perhaps also get some knowledge about…where things are more relaxed with professors, doctoral students and research assistants, where concepts are more rigid, who is allowed to present facts and such stories…if such information was available that would be certainly good’. (EIR3)

Further, many teams used someone, either already present within the team or brought in specifically, to assist with language issues and liaise with outside stakeholders. For example, ‘[a]n associate was brought onto the project to essentially ghost all our emails and ghost all of our telephone conversations to kind of assist. And she wasn’t a translator, I think she was just kind of more there to help us through the nuances of the conversation’ (NAIR7). This individual may also negotiate with government agencies for access to cultural materials. For example, NAIR2 used an individual fluent in English and Spanish, and knowledgeable about government in order to provide reassurances that ‘we are not trying to steal these materials’. The Asian participants found themselves playing this role as they translated English correspondence for their Japanese stakeholders. In other cases, teams employed a project manager to assist with planning and coordination.

These teams also found that flexibility at a team level was important when responding to differences in access to and comfort levels with technology. In one case, where JPEGs of images were clogging the partner’s email system, the interviewee ended up ‘posting all of my pictures and questions online’ (NAIR7). In other cases, team members provided technical tutorials, such as making PDFs, using digital cameras and Skype and other topics. Finally, compromises on technical standards were made to accommodate a partner’s capabilities. ‘We had further challenges to what we had set as a level of, a quality level for the scanning of material that they weren’t able to. They just didn’t have the resources. Rather than saying sorry, you can’t meet the scanning requirements. We compromised so that we could get black and white images which is what they were able to deliver’ (NAIR2).

Advances in telecommunication further mitigated some challenges. Email was heavily used when the number of time zones made regular meetings difficult to schedule. Further, given the costs
and burdens associated with travel, face-to-face meetings were supplemented by conference calls through telephone, Skype, and video conferencing. Finally, interview respondents used tools such as basecamp, drupal commons, dropbox, and google docs for document and data storage and exchange and project tracking. However, the respondents stressed the need for support from systems administrators to ensure that these systems were compatible between locations.

While the amount of travel was identified as a challenge, teams still felt that these face-to-face interactions were necessary. These in-person interactions were more than work time, though they acknowledged the importance of having time for direct project work. These meetings were also for talking, eating together, or even just ‘walking campus’ (NAIR5) and ultimately, an occasion to build trust and the personal connection that sustained a team between meetings. These interactions may be for a couple of days and occasionally longer. ‘I sent one of our Computer Scientists to [American Institution] so that he could work together with the colleagues there for two weeks’ (EIR4). Recognizing the difficulty in scheduling a full team meeting, particularly if the team is large, the respondents found partial team meetings beneficial. Conferences and other trips created these meeting opportunities when dedicated trips were not possible.

4.4.2 Individual level

Besides project level strategies, individuals also drew upon their own experiences, understandings and training in other cultures, and languages. By being able to understand another’s culture and attempting to speak a team member’s language, some challenges could be mitigated. Graduate training in other countries also provided the necessary exposure to other cultures. One North American stated that they were ‘...collaborating with people in the [Asian institution] right now and that’s because it’s the English language university. And one of our collaborators was a post-doc with us and he had a PhD from MIT and he went back home...’ (NAIR5). Some participants also found building teams with people with whom they had worked before and thus had knowledge about their cultural context and language was easier than forming teams with people they did not know.

The respondents also stressed the importance of ‘soft skills’. For example, patience was key, especially with those teams where there was differing levels of comfort with the working language. ‘...for me it was very positive that the English native speakers showed big consideration for the non-English native speakers. That there was no grumbling when something was not well expressed. On the other hand they also spoke very slowly and in a very clear way, that was really a good contribution’ (EIR1). Strong listening skills were also important. ‘...[A]nd that one learns to listen. If team colleagues do not listen to each other and think I do my own thing, then the team does not work...’ (EIR4). Finally, the respondents suggested the need to be friendly, open and humble:

‘When you enter an international team for the first time the best thing to do is to be friendly, look at what the others do – at least this is my style – and then try to fit in slowly. Above all, when you work internationally in a team with countries you have never had any contact with and you do not know, you need to find out something about the rites or norms of communication – how you address people, how frequently you get into contact...It was also a challenge for me to learn to choose the addressees according to the task – to find out whom you address with an email, whom you put CC or even BCC’ (EIR1).

5 Discussion

This research contributes to a larger discussion regarding the nature of project teams within an academic setting with particular emphasis on those teams with membership that draws from a variety of countries, cultural, and language groups (Setlock et al., 2004; Shore and Cross, 2005; Garland et al., 2006). As expected, Digital Humanists are working within teams that are no longer bound by location. In some cases, the nature of the research requires expertise that exists beyond the local institution. People are also working together because they
enjoy learning new perspectives and skills and find that these collaborations create richer projects than can be created by an individual (Flory, 1998; SSHRC, 2005; Bagshaw et al., 2007). In addition, teams are also harnessing advances in technology to work with the ‘best’ person, not merely the ‘closest’ person. Finally, funders are encouraging these collaborations through granting programs.

At the same time, these teams experience similar challenges to academic disciplines, with reference to geographical distance, access to and comfort with technology, and cultural differences Olson and Olson, 2000; Setlock et al., 2004; Dekker et al., 2008). Further, the respondents also draw upon many of the previously identified strategies to minimize these challenges (Nason and Pillutla, 1998; Saunders et al., 2004; Zakaria et al., 2008).

Several conclusions about these collaborations can be drawn from these findings. First, in order to be successful, individual teams must take into consideration their larger context. As can be seen in Fig. 1, each research team interacts with a variety of stakeholders, who often have conflicting rules, policies, procedures, and strategic objectives, all grounded within the context of their own country, culture, and language. As these participants found, significant amounts of project time and costs must be applied to address stakeholders’ requirements, before the ‘real’ research work happens (Cummings and Kiesler, 2005; Bagshaw et al., 2007). Finally, those teams who ignore these factors do so at their own peril, given that differences can impact the way teams interact and accomplish their goals (Dafoulas, 2002). As these collaborations found, team members must work to understand each other by asking questions and being prepared for differences. The potential of offence due to cultural and linguistic misunderstandings can impede the ability of a team to meet its objectives.

As noted above, these teams navigated different institutional administrative rules in which each individual became an expert in order to ensure timely completion of tasks, reimbursement of expenses and other issues across various institutions (Garland et al., 2006). Further, academic calendar differences complicated teams’ ability to meet and coordinate project work (Cummings and Kiesler, 2005; Cooper and Mitsunaga, 2010). Finally, varying technological infrastructure availability and associated comfort levels with it impacted on a group’s effectiveness (Olson and Olson, 2000; Cummings and Kiesler, 2005; Martins and Shalley, 2011).

These participants also reinforced the importance of understanding differences between funding agencies in terms of amount of paperwork, success criteria, fundable expenses, and other factors (Easterby-Smith and Malina, 1999). This echoes the experiences of a three-country project, funded through Digging into Data10. In that case, the team developed a legal agreement that addressed the various criteria for acceptable research outputs, success measurements, dissemination outlets, copyright, intellectual property, and project liabilities (Simeone et al., 2011).

These results confirm the importance of learning about other countries, cultures, and languages, either by traveling to partners or by exchanges. At the project level, face-to-face meetings at the partner’s locations can create ‘common ground’ and a shared understanding of the research, each other as individuals and their respective cultural and language contexts, which ultimately contributes to
the development of the trust necessary to facilitate group interactions (Olson and Olson, 2000; Bagshaw et al., 2007; Martins and Shalley, 2011). Further, teams can clarify key words and terms and resolve any confusion (Flory, 1998; Siemens, 2009b; Siemens et al., 2011b). However, as these teams found, these meetings can be difficult to schedule given the distances, travel time, and costs often involved. Using conferences where members might already be present can be one strategy, even if it results in a meeting of a partial team (Thomas et al., 2009). Finally, teams might supplement their own knowledge of another country, culture, or language with a ‘cultural’ liaison who knows the local people and their customs and can translate the cultural differences to the larger team (Olson and Olson, 2000). These liaisons might perform other roles with governments, cultural material holders, and stakeholders.

6 Implications for Practice and Conclusions

The following recommendations, at the individual, project, and larger stakeholder level, are designed to support and reinforce the already strong team work processes that are in practice.

First, at a general level, as they encourage more international collaborations and jointly fund projects, granting agencies must continue to align policies, procedures, and associated paperwork, including application and reporting forms, and eligible costs to reduce the paperwork burden (SSHRC, 2005). Further, these funders should also ensure that teams have financial resources and time to meet to develop project proposals (Cummings and Kiesler, 2005; Garland et al., 2006; Rice, 2008; Simeone et al., 2011). The use of tools such as the Diversity–Complexity Assessment (Koster, 2010) and Hofstede’s five dimensions (Hofstede, 2001) can facilitate discussions around cultural differences and allow a team to determine if a cultural facilitator is needed (Olson and Olson, 2000). Koster (2010) poses a series of criteria that teams should consider to determine the level of diversity and complexity that exists within the teams. These evaluating members on the number of national cultures, organizations, languages, time zones, and currencies involved, competency level in one common language, the degree of heterogeneity in education backgrounds and the degree of physical distance/distribution, among other factors. By conducting these discussions in advance and identifying when a team may be very complex and culturally diverse, the team can design strategies to maximize benefits and minimize the challenges or even decide whether to undertake the proposed collaboration. The role of soft skills, including patience, flexibility, negotiation, and cultural awareness and second (or more) language skills, cannot be underestimated in supporting these discussions.

As noted, communication through a variety of channels is important for effective team work. Whereas advances in technology have clearly enabled collaborations across time zones, languages, and cultures, the ‘old-fashioned’ methods of face-to-face communication, with time for planning, working, and merely being together, have not been replaced (Lawrence, 2006; Bagshaw et al., 2007; Siemens, 2010a). Upon reflecting on the importance of trips to meet with their Middle Eastern collaborators, one North American said

At the project level, recognizing that significant amount of time is needed to develop these types of collaborations in advance of the ‘real’ research work, teams should discuss and understand the different institutional contexts, funding parameters, available technology infrastructure, and cultural and language differences, and the potential impact that these may have on the partnership as part of the project development (Bagshaw et al., 2007). In some cases, formal agreements may be needed to ensure that projects run as planned (Cummings and Kiesler, 2005; Garland et al., 2006; Rice, 2008; Simeone et al., 2011). The use of tools such as the Diversity–Complexity Assessment (Koster, 2010) and Hofstede’s five dimensions (Hofstede, 2001) can facilitate discussions around cultural differences and allow a team to determine if a cultural facilitator is needed (Olson and Olson, 2000). Koster (2010) poses a series of criteria that teams should consider to determine the level of diversity and complexity that exists within the teams. These evaluating members on the number of national cultures, organizations, languages, time zones, and currencies involved, competency level in one common language, the degree of heterogeneity in education backgrounds and the degree of physical distance/distribution, among other factors. By conducting these discussions in advance and identifying when a team may be very complex and culturally diverse, the team can design strategies to maximize benefits and minimize the challenges or even decide whether to undertake the proposed collaboration. The role of soft skills, including patience, flexibility, negotiation, and cultural awareness and second (or more) language skills, cannot be underestimated in supporting these discussions.

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that ‘it essentially was a team building, a trust building for us and that was very important, by the first few days we were meeting at the [kosher] coffee shop...and by the last night we were drinking beer in some dive hole in the wall’ (NAIR7).

As these results show, the DH community is collaborating across countries, cultures, and language groups. These teams are reaping many benefits while developing strategies to address the challenges that face them. This article’s recommendations and conclusions are designed to support the already strong team work processes that are in place.

**Funding**

This work was supported by Social Science and Humanities Research Council of Canada (SSHRC) through the International Opportunities Fund.

**References**


Notes

1 Within this article’s context, culture is defined as a ‘system of collectively held values’, which is expressed in social and decision-making structures, language, education, and other institutions within a particular country and/or region (Hofstede, 1980, p. 24). Issues surrounding differences in disciplinary culture can also impact teams (Birnbaum, 1979, 1981; Bagshaw et al., 2007; Strober, 2010); however, considerations of this nature are beyond the scope of the article.

2 The interview respondents are indicated by region (NA for North America, E for Europe and A for Asia), IR and then a number.

3 All interviews from European participants have been translated into English by the researcher.

4 The home country is removed to protect anonymity.

5 The institution name has been removed to protect anonymity.

6 The individual’s name has been removed to protect anonymity.

7 The name of the institution removed to protect anonymity.

8 A seal is a stamp with the individual’s name carved into it and used on official documents in place of a signature.

9 Institution name removed to protect anonymity.

10 Digging into Data is a joint initiative between the National Endowment for the Humanities, National Science Foundation, Social Sciences and Humanities Research Council and Joint Information Systems Committee. More information can be found at www.diggingintodata.org.