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Reasoning about the value of cultural awareness in international collaboration

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Abstract

As international collaborations become a part of everyday life, cultural awareness becomes crucial for our ability to work with people from other countries. People see, evaluate, and interpret things differently depending on their cultural background and cultural awareness. This includes aspects such as appreciation of different communication patterns, the awareness of different value systems and, not least, to become aware of our own cultural values, beliefs and perceptions. This paper addresses the value of cultural awareness in general through describing how it was introduced in two computer science courses with a joint collaboration between students from the US and Sweden. The cultural seminars provided to the students are presented, as well as a discussion of the students' reflections and the teachers' experiences. The cultural awareness seminars provided students with a new understanding of cultural differences which greatly improved the international collaboration. Cultural awareness may be especially important for small countries like New Zealand and Sweden, since it could provide an essential edge in collaborations with representatives from more 'powerful' countries.

Keywords

Cultural awareness, international collaboration, open ended group projects, professional skills

1. Introduction
With globalization, the incorporation of international networking alliances has become an "essential mechanism for the internationalization of higher education" (Teather, 2004). Teather's statement is not unique in contemporary discussions about what demands need to be met in order to equip students for their individual careers as well as contribute to a prospering society as a whole. Bartell elaborates on this:

_In the past decade, there has become an increasing pressure for universities across the world to incorporate intercultural and international understanding and knowledge into the education of their students. International literacy and cross-cultural understanding have become critical to a country's cultural, technological, economic, and political health. It has become essential for universities to educate, or more importantly, "transform", to function effectively and comfortably in a world characterized by close; multi-faceted relationships and permeable borders. Students must possess a certain level of global competence to understand the world they live in and how they fit into this world. This level of global competence starts at ground level- the university and its faculty- with how they generate and transmit cross-cultural knowledge and information to students" (Bartell, 2003)._ 

This paper discusses the introduction of an external lecturer in cultural awareness into two courses where computer science students from the US collaborate with computer science students from Sweden in a joint project. After the seminar, the computer science students are encouraged to reflect on cultural differences and cultural awareness, and these reflections give some insight into how the seminar was interpreted and incorporated in the professional understandings of the students. The two courses, one at each school, have a focus on computing in society.

Some students entering the courses have previous experience from international collaborations during their education, and are aware of the challenges that such a course setting provides. This was also one of the main reasons why an external lecturer, an expert on cultural awareness, was introduced for both cohorts. One of the students describes his expectations in the following way, revealing that the previous experience with international collaboration had been somewhat frustrating:

_I didn't have very high hopes of this project because I have done it before and we also have tried international collaboration. Not in the same manner as this but something similar._

The purpose of this paper is to share our experiences from working with cultural awareness in an international collaboration, which we see as especially important for students from "peripheral" countries like New Zealand and Sweden. Inspiration for our work stems to a substantial part from the workshops on international collaboration held in Auckland 2009 and 2010. Work from the 2009 workshop is presented as a special issue of ACM Inroads (Clear et al., 2010), and especially the articles by Casey (2010), Clear (2010), Daniels (2010), and Hitchcock, Vu, and Tran (2010) are relevant for this paper.

The paper first includes an extensive description of the cultural awareness seminar provided for the students; this is followed by a presentation of the students' experiences with examples from the written reflections assignment given and the overall experience from the teachers of the course. Finally suggestions for further development of these projects are made.

2. The Course Setting

The two courses are in many ways similar and we will in this section describe the Swedish course, IT in Society (Laxer et al., 2009), to provide the reader with some necessary background information.

The course runs during the first semester of the fourth year and accounts for half of the study load for a student during that semester in the IT engineering degree program at Uppsala University, Sweden. Since 2005, the course has been intimately linked with the Computing in a Global Society course offered at Rose-Hulman Institute of Technology, Terre Haute, Indiana, USA. This course is an elective for both 3rd and
4th year computer science and software engineering students at Rose-Hulman. Both courses are based on the Open-Ended Group Project (OEGP) concept (Faulkner et al., 2006) and are practical examples of dealing with global collaboration.

One goal of the IT in Society course is that the students should be able to constructively participate in a project dealing with a complex and multifaceted problem set in a real environment. Since 2002 the setting has been to have an external client at the Uppsala Academic Hospital and the number of students has varied from 20 to 45 over these years.

In 2008 the client at the hospital introduced a new area of investigation where patients were to be able to access their medical records over the Internet, which was made possible by a change in the Swedish law two months before the course started. Students from both Uppsala and Rose-Hulman were initially asked to gather information relevant to this topic. The American students visited Sweden during the 3rd week of the course and at the end of this week the two student cohorts produced a project design (in collaboration with the client), as well as reaching an agreement on how to collaborate. The main course deliverable was initially conceived as a report on the issue, but after discussions with the students and the client a white paper and a process report were agreed upon as revised deliverables. The white paper was to be used by the client as a means to draw attention to the issue at the European Union council in Brussels, and the process report was to be a reflection upon the process of engaging in the collaboration itself.

In 2009 the students continued working on this issue of electronic patient records, but the areas of investigation were somewhat altered. For example, this course instance addressed the question of cultural differences in relation to usability of such a web based system.

Since 2007 the students have participated in a seminar on cultural awareness presented by one of the authors of the paper. The lecture is presented in further detail below.

3. Method

This paper is written jointly by the cultural awareness expert, the two Swedish lecturers on the course, and the American lecturer.

The presentation of the contents of the cultural awareness seminar was made by the cultural awareness expert. The student experiences presented in the paper were based on the written reflections provided by the students after the cultural awareness seminar, and the written reflection handed in at the end of the course. Moreover, the individual meeting with all students at the end of the semester has provided data, as well as the participatory observations made during the course by all three lecturers.

Our research is carried through with an action research methodology which includes research as well as change, as described by McKay and Marshall (2001). Action research is a suitable research methodology as it has the dual aim of solving research questions at the same time as solving problems and improving the learning experience in practice.

Action research is a research approach with a cyclical process in contrast to traditional research, which is often presented as proceeding from research question via method to results and discussion, as a linear process. Hence, this research process is not linear, but circular and the empirical data and previous results drive the research as it evolves. The typical action research cycle includes at the minimum plan-act-reflect, and the action researcher has the choice of how many cycles to engage in, and how to balance reflection and action in the different cycles, which is discussed by Reason (2006).

4. Cultural Awareness Seminar

4.1 Format
The cultural awareness seminar is approximately two hours long. Given this relatively short time, we have chosen a teaching method of a teacher-led lecture, which is interactive throughout, with discussions and opportunities for self-reflection for the students. Ideally, the introspective and interactive part would be given room to grow, but as the American and Swedish students' time together is very limited and a lot of things need to be covered as regards the collaborative project tasks ahead, this is the format we have found works with the existing time restrictions.

The cultural dimension is however not abandoned after the initial seminar, but taken into consideration in discussions throughout the collaboration and is highlighted again in the process report at the end of the project.

4.2 Objectives

The main objectives for the Cultural Awareness seminar are for the students to acquire:

- A raised awareness of culturally inherent values (general and Swedish/American in particular) and their implications for successful communication.
- A more clearly defined picture of their own national identity, including inherent Swedish and American values and how these manifest themselves in communication patterns, decision making and choices made in work situations.
- A better understanding of the cultural profile and preferred communication style of their colleagues in the project, thus paving the way for a smooth collaboration and strengthened internal relationships.

In addition to the above objectives is also, perhaps obviously, our desire for the students to see the value of possessing such awareness and skills, for themselves and the world to prosper.

4.3 Contents

The topics addressed in the Cultural Awareness seminar are grouped under the headlines of

- Culture
  - Why Cross-Cultural Competence?
  - Values and worldview
  - Swedish values and worldview
  - American values and worldview
  - Communication
  - At work

Briefly summarised, these sections encompass:

I. Culture

When talking about Cultural Awareness, defining what we mean by this term is essential at the beginning of the course. As for the term culture, we refer to a description by UNESCO in 2002:

"culture should be regarded as the set of distinctive spiritual, material, intellectual and emotional features of a society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs" (Teather, 2004, p. 3)

"CQ" - Cultural Intelligence

Many people claim that a critical core competence needed in business today is "cultural intelligence". The concept is reasonably new and builds on the already established ideas of "IQ", the intelligence quotient, and "EQ", emotional intelligence. "Cultural intelligence (CQ) incorporates the capability to interact effectively across cultures" (Thomas and Inkson, 2003). Talking about Cultural Intelligence with the students seems to evoke a certain status for this topic, supposedly due to its name
containing the word "intelligence" and the association with the established concepts of IQ and EQ. These reasons are just speculations, and it would be interesting to further study what terminology would best aid promoting the topic of Cultural Awareness as something valuable for students in general.

Different Levels of Culture

Nations, i.e. the political units into which the world is divided, is a relatively recent phenomenon. Societies, however, are historically and organically the form in which people are socially - and therefore often - culturally organised. Sometimes these societies cross over national borders, sometimes they are more or less synonymous with the latter, and often several societies or cultures exist within a nation. However, as Hofstede and Hofstede (2005) point out:

"A strong reason for collecting data at the level of nations is that one of the purposes of cross-cultural research is to promote cooperation among nations."

(Hofstede and Hofstede, 2005, p. 19)

For this reason, and for reasons of trying to make meaningful comparisons between cultures in general and the American and Swedish cultures in particular we do use generalizations about national characteristics when describing cultural differences. However, we also look at different levels of culture that may exist within the same national culture, and in which way these additional cultural dimensions may affect interaction and communication. In addition to the national cultural patterns, these levels incorporate regional, corporate, functional, project/team and individual patterns.

Intercultural or cross-cultural?

Today, there is a varied fauna of terminology related to understanding and overcoming cultural differences, and two common terms are Intercultural and Cross-Cultural (communication/awareness/skills etc). These terms are often used synonymously, but sometimes a distinction is made pointing to 'cross-cultural' applying to something which covers more than one culture, and 'intercultural' also implying interaction between the cultures in question. In our experience, different cultures sometimes show a preference for one of these two terms, but equally, we have seen speakers from the same culture use the terms interchangeably. In our course, we tend to use the term 'cross-cultural', stressing, however, the aspect of interaction.

When planning the cultural awareness part of the global collaboration program, we also needed to consider what would be an achievable level of knowledge and skills. Even if the ideal scenario is that the students consider every step of the course in the light of cultural aspects together with other factual and collaborative phenomena, as well as leave the course with a complete tool box of cross-cultural skills, the actual time allocated to the "cultural" part of the IT in Society course is limited. We have therefore chosen the title "Cultural Awareness" for the seminar, indicating a desired raised understanding of and insight into the subject. The next level would be "Cultural Skills", which would point to - in addition to the valuable understanding and awareness - the ability to successfully interact and operate on a global arena, possessing the necessary tools and experience to do so confidently.

II. Why Cross-Cultural Awareness?

Introducing a subject that may be perceived as "soft" in an environment where most areas are based around tangible structures and readily measurable mathematics, may meet with interest and curiosity, but sometimes also with indifference, reluctance or even resistance. Since we are convinced of the extensive benefits of cultural awareness and skills for the students, conveying the message that we believe in this is an easy task. In this section, we discuss how cultural awareness can benefit the students individually as well as in their work as members of a team, in this course and in their future careers. Among the "softer" benefits we discuss are: self-awareness, mind-broadening, trust and people skills, and among those that may be seen as more "concrete" advantages, we talk about competence, efficiency,
employability, business success and career development.

III. Values and Worldview

Every culture has a set of moral and social values, which is part of the character of that specific culture and which will affect how people from that culture perceive the world, what they see as right and wrong, what is acceptable behaviour and what is not. These values and beliefs will affect all aspects of communication and interaction and when not considered or understood, can lead to misunderstandings, frustration or conflict.

Under this heading, we reflect together with the students on a number of values that may or may not be part of their individual set of values. We look at some cultures which are likely to cherish these values and historical reasons for this, as well as the impact some of these underlying values may have on interaction and communication, in general terms. The students are encouraged to look at their own personal sets of values and to reflect on how these affect how they communicate, make decisions, their time perspective, preferred leadership style, preferred learning/teaching style and social behaviour, in particular in the context of interaction with people from a different culture.

IV. Swedish Values and Worldview and V. American Values and Worldview

After the more general global discussion and individual introspection above, we here move on to the culture-specific analyses and discussions. This is one part of the course that has always reaped the strongest reactions from the students, i.e. strong in the sense of experienced "awakenings" or new-found awareness. Several students from both countries have expressed that they had not previously realised how, for example, their culture-related communication style can be perceived by the other culture in very unexpected and sometimes even negative ways, and the effect this may have on their cooperation.

For example, one American student writes in a course reflection:

"... the cultural differences between Americans and Swedes are both larger and smaller than I originally expected. There is much less of a communication barrier than I originally expected. The Swedes exceeded my expectations in both their verbal and written English. However the biggest differences, which have caused the most complications, are the differences in decision making and work ethic. Things proceed much slower when working with our Swedish counterparts. I expected this in part due to things like communication and time difference, but in reality those issues are miniscule compared to just the speed at which Swedes work. I am used to a much more brisk pace as both an American and a Rose-Hulman student, and it has been a difficult thing to adjust to."

V. Communication

Communication is indeed a complex endeavour and under this heading, we take a brief look at how individual and culturally inherent attitudes and beliefs permeate every aspect of our communication with the world around us, explicitly or implicitly in our choices, gestures, words and actions. In addition, we also explore how language can be used with different purposes in different cultures, different speech styles, turn-taking mechanisms, differences in listening patterns and the use of silence, as well as word bias (i.e. the same word having very different connotations for people from different cultures). We also briefly address some differences in the area of non-verbal communication, and the cultural awareness expectations that may be placed upon speakers of a foreign language, if their grammar and vocabulary are not at a high level.

VI. At Work

We regard this section as valuable both for the work the students do while still at university, in particular in the global collaboration project, as well as for their future careers.
One framework for understanding culturally influenced values in the workplace can be found in Professor Geert Hofstede's extensive study from the 60s and 70s (continually updated). Hofstede developed a model which identifies five primary dimensions to assist in differentiating cultures, specifically to benefit people working in international business and organisations: Power Distance Index, Individualism, Masculinity, Uncertainty Avoidance Index and Long Term Orientation (Hofstede and Hofstede, 2005).

In the light of these dimensions and of the previously discussed value systems and communication preferences, we here look at how the latter manifest themselves in meetings, decision-making, leadership styles and the concept of time (e.g. time perception, long-term thinking, punctuality etc).

5. Value of Cultural Awareness Seminar

This section contains a discussion and reflection made by the lecturers on the impact the cultural awareness seminar has had on the students. The reflections are illustrated by quotes from the written reflections.

5.1 A Common Language

The seminar on cultural differences provides a common understanding and a common language for the students when they discuss their experiences from working in the project. That is, the lectures on cultural awareness provide a shared terminology and framework for cultural differences that enables communication about values and cultures. Moreover, the seminars provide an early common focus on the impact of cultural differences.

5.2 Understanding of Value of Soft Skills

Some students expressed that they doubted if the cultural seminars would improve their work or their understanding. However, during the seminar most students were much inspired by the contents as this student expresses in the following quote:

"In the beginning I was doubtful of the whole thing and did not see where this subject would be useful to our goal. Anyway, as she started to talk I became more and more inspired by her words. As she went through the "Swedish" values I got this feeling of recognition. Most of these points are true for me and also for some of my friends with which I have discussed this."

One can notice that some students found cultural differences in relation to computer systems interesting, and they chose to work with this topic in the project. The impact of the seminar also lasted throughout the project, e.g. in discussions about how to engage both cohorts in issues that needed to be addressed.

5.3 Awareness of Own Culture

Many students express that they became aware of their own cultural values and beliefs as well as those of the students from the other country, as in the following quote from a written reflection:

"The lecture gave me some insight in the cultural differences between Sweden and America. For example, I've never realised that being quiet could be thought of as being stupid."

Some students even expressed that they were unaware of cultural differences before the seminar, as expressed in this quote:

"If we had not had them [the seminars], I would have assumed the cultural difference is fictional and not have thought as much about internal team structure."

5.4 New Insights into International Collaboration
Most of the students were inspired by the lecture, and offered comments indicating a new and more mature attitude to the international collaboration aspect of the course. It was not uncommon to hear and read in reflections about an eagerness to practice some of the aspects brought up in the seminar. Below are two explicit examples from the written reflections.

As Helena [Helena is the cultural awareness expert] said, the Americans and Swedish interpret behaviour and signs differently. So maybe if I sit quiet for a while they think that I am totally ignorant. Now that I know about this problem, I can do something about it.

Solution: I will be more communicative (I will talk more) than I would, had I been working with Swedish students only. Alternatively I could tell the Americans of our lecture from Helena and explain these differences. Then they will know that if I sit quiet, that doesn’t automatically mean that I am ignorant.

Of course working on international projects will have its limitations as communication will very often be slow and perhaps misunderstood when people don’t meet face to face. However there are also some advantages when working on these projects as we get to experience different approaches to problem-solving and how our different cultural backgrounds may affect our work methods. Overall I feel that the project will give good insight on how collaborations are done in real life? And will provide us with valuable experience that we will use later on in life.

6. Discussion

The first time the cultural awareness seminar was presented, in 2007, it was to the Swedish students only, due to timing requirements of the Americans’ and the expert’s travels to Sweden. However, the American lecturer was on sabbatical at Uppsala University that semester and participated in the seminar with the Swedish students. It was clear to the American lecturer that there was very valuable information in the seminar, information that would be beneficial to the American students as well. Although handouts were provided and copied for the American students (both in hardcopy and electronic form), there is much to be gained from participating in the discussions with both the cultural awareness expert and the other cohort of students.

We have addressed the issue of making the students take cultural awareness seriously and starting early in the course is an important factor in achieving this. Despite the fact that all the teachers in this course have extensive knowledge and experience in these questions, the fact that we have chosen to bring in an external lecturer, an “expert” on cultural awareness, seems to further aid in giving the subject credibility and importance in the eyes of the students. Thus, from 2008 onward, the Swedish and American lecturers have made every effort to bring the cultural awareness expert in to speak to all the students, American and Swedish, during the American students’ visit to Uppsala during the early part of the courses.

The collaboration between the American students and the Swedish students has improved significantly since the introduction of this seminar. However one must not forget that this skill is one of many skills needed in an international collaboration. Another skill needed is the competence to be able to work together virtually without physical meetings, and this is a true challenge. Clearly the work proceeds at a much higher pace when the students from the different countries meet and spend time together, which also makes it easier to overcome the cultural differences.

7. Future Work

In the following section, we will discuss some ways in which one can further examine and improve the learning experience from the cultural awareness seminars.

One improvement we suggest is to clearly present the theoretical framework of the course including the learning goals where cultural awareness is one part. This could help students understand the context of the course, and address the problems of the kind presented by this student:
"Another thing is that I don't know anymore what I want to learn or get from the project. Things I that one could learn are system architecture design or how the Swedish/German/American health care system work. Other things are inter-project communication, information distribution between groups, or teamwork. There is probably a lot more to learn which I don't see. But as told, at the moment I don't know what I want out of the project and what I want to learn from it."

In striving to achieve the above, i.e. clearly presenting the framework and objectives of the course and our expectations of the students’ learning outcome, it may be helpful to more explicitly explain how the value of the cultural awareness seminar will contribute in the course context. This could in our courses be done by pointing out, when introducing the seminar, that the students will be asked to submit written reflections on the contents of the cultural awareness seminar as well as the seminar per se, both just after the seminar and in the final reflection at the end of the course. It could further be mentioned that the teachers will return to the issues during the weekly meetings throughout the collaboration project, thus further emphasising the level of importance we place on this topic.

To further improve and develop the course, we could strive to more systematically share with the external cultural awareness lecturer the reflections of both students and teachers throughout the collaboration. This would allow for a deeper analysis of the actual effect of the seminar contents, possible gaps and desired improvements for future seminars. Another important area of future research is to explore cultural awareness as a part of professional skills and how these are examined. This is not least important in order to adapt to the trend of describing courses in terms of measurable learning outcomes, but also due to many students being very focused on the clearly examined aspects of a course.

Furthermore, as mentioned above, a desired development in this course and other similar intercultural collaborative projects would be to elaborate on the introspective and interactive parts of the Cultural Awareness seminars. Letting the students spend some time on defining their individual values and communication styles, exploring the effect of these through discussions, self-evaluation questionnaires, case studies, role play and other exercises and analyses, may allow not only for a deeper cross-cultural understanding, but also for the development of cross-cultural skills. This would be taking their Cultural Awareness to the next level, active skills as valuable tools for their future careers as global practitioners of computer science.

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