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## **Collaborative Online Learning across Cultures: the Role of Teaching and Social Presence**

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# **Collaborative Online Learning across Cultures: the Role of Teaching and Social Presence**

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## **Abstract**

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Collaborative online learning (COL) has been associated with positive outcomes, such as critical thinking, shared problem-solving skills, and deep learning. Such outcomes require pedagogies that consider students' backgrounds, including the cultural context in which they operate. This study reflects upon the role of culture through the lens of the Community of Inquiry Framework (CoI) and the elements of social - and teaching presence. German and Thai students were selected due to cultural differences in values of power distance, collectivism, and femininity. 20 in-depth interviews on students' experiences with COL were conducted. Findings revealed differences in perceptions of and factors influencing social- and teaching presence across the two samples. German students were hesitant to initiate contact with non-familiar classmates through digital communication tools. The use of the camera overall supported social presence but also affected Thai students negatively, who were more concerned about the judgment, and emotions of classmates. Teaching presence differed as social media and messenger applications were more readily utilized for collaboration in Thai universities. While the presence of the lecturer in break-out rooms increased Thai students' voicing behavior, German students opened up as the lecturer was absent. The possible influence of educational-, national- and cybercultures is being discussed.

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**Keywords:** collaborative online learning, community of inquiry, culture, Thailand, Germany

# Aprendizaje Colaborativo en Línea entre Culturas: el Papel de la Presencia Docente y Social

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## Resumen

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El aprendizaje colaborativo en línea (COL) se ha asociado con resultados positivos, como el pensamiento crítico, las habilidades de resolución de problemas compartidos y el aprendizaje profundo. Estos resultados requieren pedagogías que tengan en cuenta los antecedentes de los estudiantes, incluido el contexto cultural en el que se desenvuelven. Este estudio reflexiona sobre el papel de la cultura a través de la lente del Marco de la Comunidad de Indagación (Col) y los elementos de la presencia social - y pedagógica. Se seleccionaron estudiantes alemanes y tailandeses debido a las diferencias culturales en cuanto a valores de distancia de poder, colectivismo y feminidad. Se realizaron 20 entrevistas en profundidad sobre las experiencias de los estudiantes con la COL. Los resultados revelaron diferencias en las percepciones y los factores que influyen en la presencia social y docente en las dos muestras. Los estudiantes alemanes se mostraron reticentes a iniciar el contacto con compañeros de clase no conocidos a través de las herramientas de comunicación digital. El uso de la cámara apoyó en general la presencia social, pero también afectó negativamente a los estudiantes tailandeses, que estaban más preocupados por el juicio y las emociones de sus compañeros. La presencia docente fue diferente, ya que los medios sociales y las aplicaciones de mensajería se utilizaron más fácilmente para la colaboración en las universidades tailandesas. Mientras que la presencia del profesor en las salas de descanso aumentó el comportamiento de los estudiantes tailandeses, los estudiantes alemanes se abrieron cuando el profesor estaba ausente. Se discute la posible influencia de las culturas educativas, nacionales y cibernéticas.

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**Palabras clave:** aprendizaje colaborativo en línea, comunidad de investigación, cultura, Tailandia, Alemania

The outbreak of COVID-19 has challenged institutions and lecturers across the globe to facilitate learning environments that encourage students to collaborate online. While on campus students were able to approach each other, share material, discuss class assignments and engage in person, classes conducted remotely online, now required collaboration via videoconferences, messenger applications, wikis, forums, and collaborative writing tools. Collaborative learning has been defined as a form of learning, where learners (1) mutually engage with a shared learning task, while (2) combining knowledge and skills to (3) reach a common goal. Scholars have argued that features of collaborative learning need to be approached differently online, stressing the need for intentional design to reach desired learning outcomes, such as shared problem-solving, meta-cognitive skills, and meaningful learning (Barkley et al., 2014).

Intentional design requires theoretical guidance. The Community of Inquiry framework (CoI) (Garrison, 2011), a socio-constructivist model, highlights the role of inquiry and the community of learners for deep learning, with a focus on elements of social-, teaching- and cognitive presence. Socio-constructivists have stressed the positive effects of maintaining mutual interactions when facilitating and designing learning (e.g. via discussions) to support knowledge construction (Ouyang et al., 2020). However, differences in national values (Hofstede, 2011), such as the degree to which members of a society expect and accept differences in power (power distance) as well as values to maintain relationships and social harmony (collectivism and femininity) can affect the relationship between students and lecturers and between peers and consequently the role of teaching- and social presence.

An intentional design thus further requires an understanding of the country context students operate in (Kumi-Yeboah, 2018), which gains importance with an increasing internationalization of education. Less developed regions, such as that of South East Asia (SEA), can benefit from distance learning programs if online learning prevents students from seeking education outside of their home country. Scholars have highlighted that, while collaboration across borders and in international classrooms can support the development of intercultural communication skills and shared-problem solving skills, educational stakeholders need to adapt their pedagogies (Tu & Corry, 2002; Vatrappu, 2008; Arndt et al., 2021). Studies have emphasized the need to consider cultural differences in such as thinking

styles (Gu, 2017), use of technologies (Grothaus et al., 2021) as well as course content (Mittelmeier, 2018) when designing COL.

Gunawardena and Jung (2014) pointed out that “culture impacts every facet of online learning, from course and interface design to communication in a sociocultural space, and to the negotiation of meaning and social construction of knowledge” (p. 1). Culture has been commonly defined as: “A set of attitudes, values, beliefs, and behaviors shared by a group of people, but different from each individual, communicated from one generation to the next” (Matsumoto, 1996, p.6).

Cross-cultural studies, such as the Globe Study (House et al., 2004), identified value clusters across regions and found significantly stronger values of collectivism and power distance among Asian countries (e.g. Thailand), as compared to Western contexts (e.g. Germany). Thailand, as a South East Asian country, has been further characterized as one of the most feminine cultures in the world (Hofstede et al., 2010), promoting values of social harmony and non-assertiveness.

Next to the importance of national cultural values, scholars need to further pay attention to emerging cybercultures or hybrid cultures, which fuse values associated with the online and offline world (Gunawardena, 2014). Scholars have argued that students may develop hybrid identities, being influenced by multiple frames of reference in online and face-to-face contexts (Ess, 2009). For example, while studies have associated collectivist cultural contexts with successful collaborative classroom learning (Ramburuth & McCormick, 2001), the question of if and how such collectivist values translate into online learning environments arises. Further, regulations as well as beliefs and attitudes towards teaching approaches and technologies can be introduced and reinforced by educational institutions, forming organizational cultures that can influence COL.

### **The CoI Framework and the Role of Culture**

The Community of Inquiry model (CoI) (Garrison et al., 1999), grounded in Dewey’s (1938) social constructivist theory, builds on values of participatory democracy and freedom of expression among participants in computer-mediated environments. It highlights the importance of the elements of teaching presence, student presence, and cognitive presence to encourage meaningful learning. Various scholars have utilized the model to further

conceptualize and discuss the interaction of its three elements and their relationship with other variables over the last two decades (Castellanos-Reyes, 2020).

Garrison et al. (1999) and Garrison (2007; 2011) defined and revised the different elements of the CoI over time. Cognitive presence can be defined as the extent to which learners construct, reflect, and confirm knowledge in meaningful ways in the online community. Knowledge construction happens in interaction with social presence, which has been conceptualized as the ability of learners to socially and emotionally perceive each other as real in online environments. It includes elements of affective expression (the expression of emotions, beliefs, and values), group cohesion (interpersonal communication to sustain a sense of community), and open communication (e.g. critical reflection). Teaching presence has been identified as lecturer instruction, course design, organization, and the facilitation of learning. This could express when being present and supportive in online discussions or when ensuring clarity and consistency of course organization. While all three elements of the model interact, scholars have also highlighted that teaching presence predicts social- and cognitive presence, particularly during times of Covid (Şen, 2022). Scholars have highlighted that the application of the CoI to students' online learning during Covid-19 is still under-researched (Homer, 2022).

Gunawardena (1995), who explored the construct of social presence, argued that social presence can be cultured as participants can project their identities as they communicate. Teaching presence also needs to be considered in the context of culture. While the socio-constructivist perspective (Garrison, 2011; Sawyer, 2014) stresses the importance of a more equal, collaborative partnership between lecturers and students, cross-cultural research has found that societies differ in the degree to which power is expected and accepted (Hofstede, 2010). High power distance societies have been associated with practices of rote learning and teacher-centered education, with lecturers discouraging critical discussions (Buraphadeja & Kumnuanta, 2011).

Systematic reviews on studies that discuss COL in SEA show that scholars have mainly reflected upon the role of collectivism and power distance (Hofstede, 2011) but that studies lack theoretical frameworks, such as the CoI. Further, in-depth qualitative investigation of the role of culture and comparative approaches are needed (Grothaus & Zawacki-Richter,

2020). Fiock (2020), who conducted a practical guide on how to design online courses based on the CoI framework, suggested practices to support social presence (e.g. open discussions, initial course activities to connect, real-time communication) as well as teaching presence (e.g. student-teacher interactions and tools to collaborate, such as discussion boards). However, there is a need to thoroughly investigate how CoI-based course design approaches are conducted and support learning outcomes across different cultural contexts. A paper (Castellanos-Reyes, 2020) on the 20 years' history of the CoI, emphasized that the model has been mainly applied and discussed in American and Canadian contexts.

### **The Cultural Context of Germany and Thailand**

The region of South East Asia differs from the rest of Asia with many countries sharing feminine cultural value orientations (Hofstede, 2010). Thailand, one of the most feminine societies, is characterized by low levels of assertiveness, increased cooperation, and modesty as well as motives to care for the weak and to maintain social harmony (Hofstede et al., 2010). Scholars have argued that the triarchy of the nation, Buddhism, and the monarchy in Thailand have supported the reinforcement of these values as well as values of conformity, and respect towards those in higher positions, such as lecturers (Komin, 1991). Collectivism and femininity may support social presence in COL.

However, feminine values have also been associated with the need for conflict avoidance, which could negatively affect open exchange via discussion boards or video conferences. On the other hand, scholars have highlighted the role of emerging cybercultures, with technologies influencing the way we communicate and relate, which may differ from national cultural practices (Gunawardena et al., 2008). For example, studies found students from high power distance societies perceiving the online medium as liberating in cases where it helped to equalize status differences (Gunawardena et al., 2009), which enabled critical discussions as students felt more encouraged to openly disagree online.

Few scholars have assessed collaborative online learning in the context of Thai culture. Studies mostly focus on collectivism and power distance and lack theory guidance and in-depth exploration of the role of culture, including cybercultures, and organizational cultures. A recent study (Yamo, 2022)

interviewed Thai students and lecturers to identify how cultural engagement can be integrated in online course design. The authors highlighted the role of community belonging, hierarchical but harmonious relationships with seniors, and communication. A study on the use of Facebook among Thai students' (Nawa, 2018), suggested that social media use reduced power distance and positively affected Thai students' attitudes. However, students also refrained from critical discussions and instead regularly used the like function to provide positive feedback. Tananuraksakul (2014) found that Thai students appreciated that lecturers could be more easily contacted via social media. Sarker (2005) concluded that, in a distance education course, US students, as members of individualistic cultures, transferred and shared more knowledge than Thai students, who avoided communication about new and difficult concepts.

Buraphadeja & Kumnuanta (2011) associated the Thai teacher with a parent figure, taking care of students and regularly following up with their work, which was assumed to affect communication and self-regulation and produce passive learners. However, they found that peer tutoring helped to reduce anxiety, and increased meta-cognitive skills, empathy, and a sense of community. Ngampornchai & Adams (2016) found that those Thai students who were more self-regulated showed a more positive attitude towards online learning. The role of scaffolding needs to be further reflected on to better understand how to support teaching presence.

Scholars centering the role of culture in collaborative online learning also assessed country context with strongly individualistic values. However, studies did so mostly with help of samples from the United States and have neglected to assess the role of many other country contexts, such as that of Germany. Spronk (2004), contrasted Chinese students, as members of a collectivist culture, with learners from European societies. She argued, while in China teachers would cultivate students' attitudes toward the advancement of the community, learning, and society, education systems influenced by the philosophical tradition of the European Enlightenment would promote stronger values for individual achievements. Approaches in the West would be often more egalitarian, which would encourage students to construct their own collaborative learning alongside their teachers. However, the utilization of such approaches for collaborative online learning was said to be lacking.

Furthermore, educational intuitions could influence the use of and preference for technology utilized for collaborative learning purposes. A

study comparing media usage of Thai and German students (Grothaus et al., 2021) revealed that Thai students used entertainment media, social media, and collaborative tools more frequently for their studies than German students, who, in comparison, showed higher acceptance of office tools. The Centre for European Policies Studies, which conducted the "Index of Readiness for Digital Lifelong Learning" comparing European countries, placed Germany in the last rank (CEPS, 2019). Further, in Germany, lecturers are not permitted to encourage the use of external communication tools, such as WhatsApp or Facebook for educational purposes. Use of as well as attitudes of students and lecturers towards tools could affect both, social - and teaching presence in COL.

Concluding from the above literature review, research is needed that focuses on (1) collaborative online learning comparing students' experiences across cultural contexts, particularly those that are understudied, and (2) applies qualitative approaches to explore students' perceptions and the influence of culture in-depth with help of (3) guiding theoretical frameworks. This study aims to fill these gaps by addressing the role of culture and the country context in COL in higher education in Germany and Thailand, guided by the CoI framework and the elements of social- and teaching presence. The study raises the following main questions:

- How do German and Thai students collaborate online and how do they perceive such collaboration and the role of relationships, communication and community?
- What role do lecturers play in supporting collaborative online learning with help of tools and exchange and how do Thai and German students perceive such support?
- What role do technologies and media play in supporting collaborative online learning and how are they perceived by Thai and German students?
- How can pedagogies be designed and technologies be selected, considering social- and teaching presence, to support collaborative online learning in Germany and Thailand?

## **Methodology**

### **Participants**

The principle researcher conducted 20 semi-structured in-depth interviews with nine German Bachelor students (one male, eight females) and 11 Thai Bachelor students (two males, nine females), aged 18-23. Classes were organized fully remotely due to the Covid-19 measurements. Thai students came from two international colleges and one local college. They were majoring in social sciences, natural sciences, media studies, business studies, and medical science. German students came from four different universities and studied educational science, tourism, philosophy, business studies, and natural sciences. Two Thai international colleges and three German universities utilized their own internal Learning Management Systems. All institutions further relied on external tools and services, such as video conferencing tools, collaborative writing tools, and/or messenger and social media applications.

### **Data Collection**

To recruit interviewees, the researcher announced the project at three international colleges in Thailand and four universities in Germany, asking lecturers to share the study announcement in their classes. The lecturer asked colleagues from different divisions (all Bachelor students) in order to ensure that students studied with different lecturers and came from different majors. The researcher assumed that this would allow for a greater variety of tools and group work formats that could be explored. Students could contact the researcher if they were interested in taking part in a 45-60 min long semi-structured interview, conducted with help of a videoconferencing tool.

Additionally, snowball sampling was applied. Five more students joined after the snowball sampling. Students who took part in the interviews were asked if they could identify any other potential interview partners (Bachelor students). Five more students joined after the snowball sampling. None of the students who were interested in taking part in the interview were rejected. The research project was approved by the Ethics Committee of the International College the researcher is employed at.

Before interviews were conducted, 10 Thai students (different from those interviewed) volunteered to participate in pilot interviews to reflect on how questions were understood and to then adapt them accordingly. Participants were provided with information about the aim of the study and its procedure. They were informed that they could interrupt the study at any time as well as that neither their name nor any information that could identify them would be disclosed. Interviews were conducted in German and English. The principal researcher viewed transcripts in both languages. Selected quotes were translated into English.

Questions focused on relationships between students and lecturers, students and technology, and peer relations in COL. Questions were conducted based on characteristics of teaching- and social presence, such as communication, relationship building, support, and use of tools for both, self-directed group work as well as group work during video conferences. Students were asked to share experiences with, perceptions of, and preferences for collaborative tools and instructional methods as well as challenges they experienced. They were encouraged to elaborate on the communication, relationship with, and support of lecturers and classmates. Interviews were conducted until saturation was reached and no more new phenomena occurred in the data.

## **Data Analysis**

This study applied a thematic analysis research design (Braun & Clarke, 2006) as to capture meaning within rich textual data sets. A systematic six-step process was applied, which helped to explore students' experiences, behaviors, and perceptions in-depth. The researcher familiarized herself with the data, generated initial codes, searched for themes, and reviewed themes to then finally name and define themes. This process was conducted with help of MAXQDA (Kuckartz & Rädiker, 2019), one of the leading data analysis software. The in Germany developed software primarily focuses on qualitative analysis but further allows for quantitative and mixed-method research.

During the familiarization phase, the researcher kept the main research questions in mind. The material was viewed to explore possible differences and similarities in collaborative learning across German and Thai students while considering the relationships and interactions between students, the

role of the lecturers as well as the possible influence of culture. Initial codes were generated, both, first inductively with no particular concepts in mind as well as deductively by paying attention to previously researched cultural values and concepts of social- and teaching presence. Codes were entered into the system and related text passages were highlighted. While viewing the material several times codes were organized and rearranged into code groups. Memos and comments added during this process with help of MAXQDA served to note down realizations that occurred during the data analysis.

After saturation, codes were organized into themes, by looking for patterns in responses or meaning within data sets, and more actively making meaning of the data. Finally, text passages that belonged to each theme were downloaded via the system and reviewed again to rearrange codes and themes once more, before writing up the results section.

As to become aware of the author's own judgment and possible biases due to her own experience lecturing in Thailand for 10 years, the author paid attention to staying self-critical during the entire research process, being conscious of and taking notes of her internal and external dialogue (Tobin & Begley, 2004).

## **Results**

Findings showed differences across German and Thai student groups in COL, which were divided into the two major themes of social- and teaching presence as well as several subthemes. Characteristics of social presence (e.g. feelings of connectedness, open and trusting exchange, affective relationships) were affected by factors such as readiness to contact unfamiliar classmates and to utilize different communication tools. The camera influenced feelings of connectedness but also increased self-awareness and feelings of being judged. Teaching presence in COL, particularly the use of various communication tools (social media, discussion forums, video conferences, chats) differed and was perceived differently across groups. Differences emerged regarding perceptions of feedback and critical discussions in forums, privacy protection, self-presentation through social media as well as the influence of lecturer presence in break-out rooms on voicing behavior. The above-identified themes shall be further explored in the following.

## **Social Presence in COL across Cultural Contexts**

### **Contacting unfamiliar classmates**

Several German students stressed that they collaborated and communicated more effectively with classmates that they knew well when organizing group projects, such as essays and presentations. Thai students more easily connected with unfamiliar classmates and did not highlight the importance of working together with friends. A German (female, 23) student elaborated: ‘On campus, you more likely sit together with others and focus on students whom you would like to talk to but now you do not just ask “Hey come on, let’s skype now”, especially not those you don’t know well.’ One Thai student (male, 19) explained how only students who generally had problems initiating contact would have better chances to do so on campus: ‘My close friend, when she sat like in a class where she doesn’t know anyone if she sat next to someone who is also alone, they end up being in the group or like become closer.’

German students felt more disconnected than Thai students as they overall communicated less with classmates. Several Thai students shared how they had been exchanging more via messenger applications during the online trimester to make up for the connection they missed. A Thai student (female, 22) described how she felt awkward working with people she had never met in person but highlighted how they had established a relationship via social media: ‘I don’t think we have a bad relationship though. I mean we follow each other on Instagram and stuff but yeah, it would be even easier in like a real class.’

### **Use of and familiarity with communication tools**

Thai students, who utilized various collaborative tools to support group projects conducted outside of class, stressed how they had already organized group work online, also when being on campus, except for the first phase when the plan was laid out. German students, on the other hand, mostly relied on the use of emails and experienced online collaboration to be ineffective, slow, and disconnected. A German student (female, 23) shared:

I have not said this directly to them but I wrote an email, asking them how we should organize our work, and then sometimes there was no response at all and then I would just finish and upload this by myself...I am all alone with this, it's just frustrating.

While students mentioned how they felt more connected during videoconferences using the camera and talking to each other, students across groups preferred written communication via messenger applications over voice or video calls. Thai students frequently communicated via the messenger application LINE, which also allowed them to post under particular topics and to gather feedback with help of polls. While Thais more often called each other, some shared how it was difficult to identify who could speak when and that they felt discouraged when interrupting each other. German students stressed that they did not want to interrupt others' private schedules, which Thai students seemed less concerned about. A Thai student (female, 23) described how they set up a time from 9:00 pm to midnight once per week to discuss assigned discussion questions in a group of five. Students could contribute at any time during that period.

Thai students often set up LINE messenger groups to help each other with class-related questions as well as with organizing group projects. They shared how opening up LINE groups was something 'normal', 'we always do', and that 'happens by default'. While none of the German students opened or joined chat groups, many mentioned that they would appreciate such groups. A German student (female, 19) referred to a 'First Help Group' that had been set up for her entire major at the time when she started her studies: 'If you are totally overwhelmed with a task and you feel you should have started with this much earlier, then it is super helpful to know how others see that and that they are maybe in the same position.'

While most Thai students regularly shared documents and collaboratively conducted papers with help of Google Docs, Google Slides, and Google Drive, only one German student (female, 18) mentioned the use of Google Docs. A Thai student (female, 20) shared:

Most of my friends, we all use Google Docs, like 90 percent of the time. We right away create a document page on Google Docs and then we write our plan on there and comment. That's useful to keep

track of everyone's contribution. It's default for me now... It works really well and feels like we are a team working on this together.

Another Thai student (female, 21) shared how she enjoyed group work during the online trimester, which, to her, was not much different from learning on campus. They met regularly via LINE: 'It felt close enough to normal interaction with students. We call to discuss and text about updates and tasks. Once we know what we are going to do we just go on Google Docs and work on the project.' Thai students, in many cases, used multiple collaborative tools at the same time. They, for example, talked via video chats while looking at a document shared via Google Docs.

### **Use of the camera – connected, real, and judged**

As students shared experiences in break-out rooms, the role of the camera was often addressed. Seeing each other felt 'closer', 'exciting', and 'almost as real as on campus'. Particularly German students, who had less time organized in videoconference formats, emphasized the importance of connecting via such formats. Students shared how the use of the camera increased their participation as they could better follow and process verbal contributions, observing others' body language.

Only Thai students regularly described how there was no interaction in break-out rooms, especially if cameras were turned off. Group members felt uncomfortable about initiating a discussion if it was not clear whether others were in front of their screens and alert enough to participate. A Thai student (female, 20) shared:

In real classrooms, you would see them and ask them directly and they have no choice but to respond but here we have to be like, "hey are you there", like maybe they aren't. This happens a lot. Students just don't participate. The camera is off, the sound is off and...silence. Then you just do something else and wait until the lecturer calls you back.

A Thai student (female, 20) preferred to see classmates to know whether they were listening to her as she spoke. Thai students described how they were afraid to speak up in the main video conference forum as it would be

impolite and not considerate of others' feelings to speak up without reassuring that other classmates did not want to speak up first. This was difficult as body language could not be properly observed or was absent in case cameras were turned off.

Thai students, however, also often referred to the stress experienced when being visible. A Thai (female, 19) student described how it was easier to “blame” students who did not participate and how they felt pressured and judged when being visible: ‘I think everything about opening the camera has to do with people judging us or we judge them. If you feel like somebody's watching you, you put a little bit more effort into it.’ Several Thai students, but none of the German students, shared how the use of the camera lowered their energy levels as they kept monitoring themselves. They would constantly look at their face, felt tensed, and acted less naturally. A Thai student shared:

Gestures and facial expressions are not in symmetry. I don't know it seems less authentic. It's like a mirror in front of your face for hours every day. In cases where we had an engaged group and people turned off their cameras, they discussed more friendly, as we were not constantly looking at our own faces and judging ourselves and others...Students like if others use those functions where you can change your face you know, like a bunny to make it more fun and connecting but less exposing. (male, 21)

## **Teaching Presence in COL across Cultural Contexts**

### **Forums and wikis – feedback and critical discussions**

Synchronous group work during video conference sessions initiated by lecturers was overall preferred over asynchronous collaboration via messenger apps, forums, and wikis. However, students also highlighted how forums and wikis allowed them to compare their work to see if they were still ‘on the right track’ as well as to receive feedback from classmates and lecturers. Further, when reading written contributions, one could pause and reflect, which was not as easy when listening to verbally shared content. A Thai student (female, 20) shared:

I think discussion forums were good and effective because I get to see other people's comments as well and read them. If we do it offline, in the middle of their sentence, I just drift off. However, if we do it online, we get to read it over and over again and it makes sense what their comment actually means and I can learn from it.

While sharing written content was seen as beneficial, German students disapproved when lecturers posted critical feedback publicly as well as when students gave lecturers negative feedback. A German student (female, 21) criticized a lecturer who responded to a student in a forum that, in case of little participation, the student would not pass the course: 'Then you think, yes okay, that's not what I wanted to know. Then you don't feel good that you know this now about someone in your class.' Another German student (female, 20) highlighted how students gave lecturers anonymous feedback in forums: 'It was anonymous and then people said, "I do it anonymously and then I will go full-on". That made me feel really bad. I felt sorry for the lecturer.' Thai students did not share any perceptions of inappropriate public feedback, neither directed at students, nor lecturers.

Further, Thai and German students mentioned how they often shared agreement with their classmates in discussion forums instead of arguing and responding critically. While Thais stressed how they agreed with classmates so as not to offend others, some German students explained that they were less critical as they were only graded for submitting comments and not for the quality of their comments.

### **Messenger applications – lecturer initiative**

A number of Thai lecturers supported or initiated collaborative learning by opening up messenger group chats, which they would sometimes also join. Thai students clearly relied on those groups. A Thai student (male, 19) shared how he experienced transitioning to online learning as challenging: 'There weren't literally any official LINE groups or anything so we have to like find each other. This was quite confusing. Only two of my four classes have big line groups.' If lecturers did not organize Line groups, Thai students often felt responsible to open up groups by themselves to be able to help each other. A Thai student stressed: 'When I don't understand something before the exam, then I would ask in the line group and then someone, you know a

lecturer or student, could like send a voice message to me and then the whole class can listen.’ (female, 20)

A Thai (female, 23) student also shared how messenger groups were more convenient as they could access such groups via their phone, while emails they would usually check and answer on their computer. German students used internal chat rooms via the university learning management platform to ask questions that lecturers would then read and answer at particular times. German lecturers did not open up or join external messenger groups as they were prohibited to utilize external applications for academic purposes. German students would have appreciated such groups:

If the lecturer decides to separate us into groups and open a WhatsApp chat and we have any problems or you just want to get in touch and interact, we could. That would have been great to get this social interaction but there was nothing like this. To be honest that would have been easier because no one wants to go online to go to study IP and do this big blue chat. (male, 20)

### **Use of social media – private, against my values, equal, engaging**

Some Thai students but few German students utilized social media platforms, such as Instagram, Facebook, or Twitter for their studies. While German lecturers were prohibited to use social media for academic purposes, many Germans clearly stated they would want to use it. They were concerned about privacy issues, feared that technology may dominate education and replace learning on campus and that content shared publicly may be not scientifically valid. While a German student (male, 20) stressed: ‘I think nobody would want social media, such as Facebook, for their studies, a Thai student (male, 21) shared: ‘I don’t use social media much, but most people would probably like to have that integrated for their study’.

A number of Thai lecturers utilized Facebook to post assignments and to form groups for project work. Two Thai students (female, 23) who studied medicine shared how they felt engaged as the lecturer set up Facebook groups for students to share their experiences of how they treated patients at the clinic. A student leader would be selected who was responsible to communicate with the lecturer and pass on questions from their classmates as well material. The only German two students who shared positive attitudes

were those few that had used social media or other new learning technologies for their studies before. A German student (female, 19) shared:

It's all a bit dry in Germany with the tools we use for learning. It would be definitely really interesting to use social media and some creative tools. One of our lecturers did so and this was the most interesting class...We used a learning path as well and could regularly view our progress. This was a lot of fun.

Seven German students, but only one Thai student, expressed concerns about privacy issues, security, and data protection. Some Thai students highlighted the benefits of public visibility. A Thai student (S., female) shared: 'If the lecturer asks us to post, students will pay more attention to what they are writing because so many people will see it. So, they will be more engaged if there was a group with Facebook or Instagram.' Another Thai student (female, 23) elaborated: 'Maybe you share an abstract about social issues, such as gender roles. Lecturers would get to grade them and students as well as the general public see what is shared. It may help people understand social issues and change perspectives.'

Thai students described how Instagram and Twitter were designed to follow others and less so for collaborative work. Facebook and LINE would allow for a more equal status among students. In LINE groups students could post notes and album files, even if they were not the administrator/account holder of the group. A Thai student shared how (female 21) she used Instagram for a media marketing class to conduct an online campaign and enjoyed sharing her creativity. It felt collaborative as students of her team had access to the password for their specific accounts and discussed what they would post. Some German students expressed clear criticism regarding the use of Instagram for study purposes. A German student (female, 21) shared:

I don't think lecturers could just require us to use social media here. That would be just wrong...The values promoted on Instagram are really bad. I don't like how people constantly upload photos and pretend how great their lives are and how beautiful one is. There are these influencers that just earn money because they post a photo of themselves being fake to promote things that do not make a difference. (female, 21)

### **Break out rooms - lecturer influence on voicing behaviour**

Students across groups appreciated lecturers organizing synchronous group work in break-out rooms during video conference meetings, which were offered more frequently at Thai colleges. Lecturers would sometimes join break-out rooms to see how students progressed, moderate discussions, and be approachable for feedback and questions if needed. German and Thai students experienced and reacted differently as lecturers joined break-out rooms.

Several Thai students shared that they exchanged less or stopped talking altogether when the lecturer was not present but started to discuss as the lecturer joined the breakout room. A Thai student (female, 21) elaborated: ‘When teachers tell us to use breakout rooms, most of the time, we just sit in silence. When he asks: ‘Why aren’t you guys discussing and what are you guys talking about’, that’s when we speak up and interact.’ Another Thai student (female, 20) stressed that student leadership would be necessary to encourage classmates to speak:

If nobody talks and it's just going to be quiet like you have to step up. Leadership is much more important when you are online because everybody tries to act very anonymously. They don't feel they're being judged and that's why I have to call their names to make them talk sometimes. That is a little bit challenging.

Some Thai students shared how they appreciated it if the lecturer randomly allocated members to groups, which was only possible with some video conferencing tools. That way they would not risk being stuck with group members that did not participate. None of the German students mentioned that the presence of the lecturer would be necessary to encourage students to speak up. Some German students, in contrast, shared how they exchanged more openly when the lecturer was not in the room and felt more inhibited as the lecturer joined the breakout room. A German student shared: ‘We worked well together. Then the lecturer came in. Then we went silent.’ German students also shared how lecturers joining messenger groups was mostly not appreciated: ‘I think it is good that they don’t join. In that case,

many students would probably not feel comfortable writing something' (male, 20).

## **Discussion**

This study compares Thai and German students' collaborative online learning perceptions through the lens of the CoI framework and in particular social- and teaching presence. Findings revealed several differences across the two samples. While it cannot be concluded that country contexts can explain such differences, assumptions are made regarding the possible influence of national cultural value orientations, emerging cybercultures, as well as the role of institutional cultures.

Characteristics of social presence, such as feelings of connectedness, openness, feeling "real" and establishing trusting exchange (Garrison, 2011) were influenced by different factors across the two groups. Overall, Thai students felt more connected during self-organized group work phases and supported each other frequently. They helped to set up messenger groups for classmates, readily utilized various tools to collaborate, and mentioned how such virtual connections felt "real" to them. This led to more effective collaboration. German students, on the other hand, relied mainly on e-mail communication. A previous study, which compared media usage of Thai and German students, also found the regular use of and preference for office tools among German students (Grothaus et al., 2021) German students utilized email communication, particularly as they contacted classmates with whom they were not already friends with, which reduced exchange, and feelings of connectedness. It slowed down their group performance and thus showed how lack of social presence negatively affected cognitive presence.

Thai students' support, willingness, and ease to connect with various classmates and their openness to utilize various collaborative tools may be related to Thai collectivist and feminine cultural values (Hofstede et al., 2010). These values have been associated with the motivation to maintain relationships, increase cooperation and offer help. Studies have related collectivism in Asian countries to group success (Phuong-Mai et al., 2005), effective use of collaborative software (Chung and Adams, 1997), and social community building online (Subramaniam, 2008).

German students' tendency to contact mostly friends via messenger applications and in their private time seemed to be influenced by their values

not to interrupt classmates' privacy. They mentioned that those challenges were only experienced in online learning settings, which may point to the role of emerging cybercultures. Thai students did not mention such challenges and regularly contacted each other via chat, also late in the evening. Scholars have identified Thailand as a polychronic culture, where members feel more comfortable having private and work life overlap, as compared to monochronic cultural contexts, such as Germany (Hall, 1973; Hall & Hall, 1990).

Social presence in COL was further affected by the use of the camera and body language. Seeing each other increased feelings of being connected and "real" across groups. Only Thai students referred to the importance of interpreting others' body language to understand when to speak up and to consider each classmate's feelings. Scholars have emphasized the role of body language in high-context cultures, such as Thailand, where much of the message is encoded in the context (Hall, 1973; Hall & Hall, 1990).

However, several Thai students also reported how they felt exhausted, judged, and not themselves as they kept monitoring their appearance and expressions when using the camera. Collectivist values have been associated with conformity (Kim & Markus, 1999), which may explain why Thai students tried to fit in and did not want to be the center of attention, being so visible.

Further, institutional cultures played a role, as Thai universities required regular participation in videoconferences and in a number of cases the use of the camera. Thai students explained that universities would adapt to Thai culture, with Thai students not being used to self-directed learning. Videoconferences would keep students accountable. This shows a relationship between national culture and institutional culture. Despite its advantages, German students did often not turn on the camera as German lecturers did not encourage them to do so. A recent study (Bedenlier et al., 2021) surveyed webcam usage and perceptions of a large sample of German students from one university and found that the majority of students did not or only rarely turned on their cameras. Students referred to privacy reasons and feelings of discomfort. The author stressed that remaining invisible may reduce the chance for students to develop social presence during video conferences.

Teaching presence, such as scaffolding and use of tools, differed and was perceived differently across groups. Research has shown that teaching

presence predicts social- and cognitive presence, particularly during the time of Covid-19 (Şen, 2022). Findings revealed that German students required more lecturer guidance to better connect to classmates and utilize tools when organizing group projects outside of videoconferences, which shows the importance of teaching presence on social- and cognitive presence. Thai students, on the other hand, required teaching presence to increase cognitive presence during break-out room sessions. Assumptions that self-study periods work better in individualistic, low power distance societies, such as Germany, thus need to be reflected carefully. German students regularly highlighted that they felt left alone and needed more lecturer scaffolding and contact.

On the other hand, while studies have referred to Thai students as passive and teacher-centered learners, highlighting the value of power distance (Buraphadeja & Kumnuanta, 2011), this study showed how Thai students organized collaborative work outside of the classroom successfully without much lecturer guidance. They further preferred social media as it would allow them a more equal status as administrators of groups. The emergence of cyberculture, serving as an informal and non-hierarchical space, as well as their familiarity with and readiness to use communication tools, may explain Thai students' proactive behaviour.

However, during video conferences, power distance and teacher-centered learning became apparent among Thai students, who participated more readily as lecturers joined the breakout room. German students, on the other hand, discussed more openly when lecturers were not present. A study (Castellanos-Reyes, 2020) on the application of the CoI framework reviewed literature that suggested that lecturers should not be overly present in online discussions but facilitate interaction instead. Such suggestions need to consider the context of culture. Thai students may have been more passive due to the absence of the authority of the teacher, whereas for German students' obstacles such as self-directed choice of tools or the necessity to initiate contact were removed.

Power distance (Hofstede, 2011) may further explain why only German students responded to their lecturers with critical comments in forums. However, German students stressed how such direct negative feedback would not be common on campus but may have been encouraged online due to the anonymity of the space. This also suggests that such behavioral changes may be associated with the formation of new cybercultures. Lastly,

lecturers' attitudes and support towards certain tools seemed to be influenced by the organizational culture. While in Thailand lecturers encouraged students to open up messenger chat groups for the entire class or opened up groups for students and in some cases joined chats, German lecturers were not allowed to utilize external applications for study purposes. However, as German students expressed strongly negative views towards the use of social media for their studies, such as the lack of security, privacy, and the promotion of wrong values, national culture may have played a role next to institutional cultures.

### **Conclusion and Recommendations**

This study suggests that national cultural values as well as emerging cybercultures and organizational cultures seemed to influence German and Thai students' perceptions of social- and teaching presence in COL. In particular, cultural values, such as power distance, collectivism, and femininity as well as high- and low-context communication and values of work-life balance may explain identified differences.

The findings of this study can support educational stakeholders to consider cultural differences when implementing collaborative online learning. Lecturers working with students from country contexts characterized by individualistic values, such as in this study German students, should pay closer attention to challenges students may face when trying to initiate contact and when utilizing communication tools to organize self-directed group work. Institutions and lecturers could guide students in identifying group members for project work during video conferences. Break-out rooms with different group constellations could help students to get to know each other and increase trust and opportunities to build groups. Further, the use of collaborative learning technologies for communication outside of videoconferences should be guided, which could include the exchange between lecturers and students on attitudes toward tools.

Educators operating in countries with stronger collectivist, feminine, and power distance value orientations, such as Thailand, should think of approaches that help to encourage students to discuss during videoconferences in break-out rooms, also if the lecturer is not present. They could introduce incentives or find ways to increase accountability of individual group members, such as when asking members to share their

work, e.g. via discussion boards, virtual pinboards or videoconferencing chat. A group moderator could be identified to encourage discussions. Further, findings showed that collectivism and the need for social harmony affected voice as students were worried about affecting classmates' feelings. Lecturers could utilize rules, such as using a virtual indicator before speaking up. They could further organize contributions by having students take turns in presenting their ideas.

Next to practical applications that can be drawn from this study, future research could further investigate the role of cognitive presence. Further, while this study did not focus on exploring particular learning outcomes, it was noticeable that engagement was more clearly affected than performance, though antecedents of engagement differed across groups. Moreover, follow-up studies could investigate possible changes in perceptions and behavior over time as acquired skills and familiarity with media could influence collaborative online learning and possible cybercultures may emerge that differ from national cultural values. Lastly, the possible influence of the subject of study when discussing collaborative learning across cultures could be explored in future studies.

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