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Underlying structures of power in online learning: Lessons from early adopters

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ABSTRACT

This paper explores underlying power structures in an online learning environment through the lens of the community inquiry framework. By drawing on interview data from 22 students and 12 module leaders across three programmes at one higher education institution (HEI) in the UK, the study explores how technology enhances or inhibits cognitive presence, teaching presence, and social presence in an online learning environment. The results show that the pedagogical or psychological characteristics and approaches to online learning can enhance learners' experience or silence them, diminishing their experience in an online learning environment. This paper's core argument is that online learning occurs in a virtual space aided by 'technology' in which learners can access, engage, and interact within a community for a meaningful learning experience. However, a degree of bias can arise from the asymmetries of power underlying a technology-aided environment. This bias is shaped by 'access' to the online environment, 'skills, and expertise needed to take advantage of opportunities in the virtual environment, the nature of 'curriculum design' and module 'delivery plan' that determine learners' ability to become reflective autonomous learners. These biases have the potential to enhance or inhibit the student learning experience. The paper sets out what this means within the broader context of higher education policy and practice.

Keywords: forced transition, power, online learning, Community of Inquiry framework, early adopters

COVID-19 and transition to online learning

The coronavirus pandemic and government policies such as lockdown measures have forced higher educational institutions (HEIs) worldwide to transition to and accelerate academic support for online learning (Mpungose 2020; Henriksen, Creely & Henderson, 2020; Imsa-ard & Raheim 2020). This forced transition raises a set of interesting questions around institutional, staff and students' readiness, motivation, and understanding of the online learning environment (Alea et al., 2020; Henriksen et al., 2020; Zalite & Zvirbule, 2020). We refer to 'forced transition' as the hurried move to online learning, which has given rise to concepts such as 'emergency remote learning' (Hodges, Moore, Lockee, Trust & Bond, 2020) and 'pandemic pedagogy' (Schwartzman, 2020). A lingering debate in educational innovation literature is how technology shapes the student learning experience and how students can shape their online learning experience (Balacheff, Ludvigsen, De Jong, Lazonder, Barnes & Montandon, 2009; Goodyear & Retalis, 2010; Kirkwood & Price, 2014; Daniela, Visvizi, Gutiérrez-Braojos, & Lytras, 2018). There are questions about how to design technology to enhance student learning and the extent to which we can measure that enhancement (Kirkwood & Price 2014). There are also debates around the co-production of curriculum design that determines who makes decisions on key learning outcomes (Carey, 2013, Elliott, Robson & Dudau, 2020). There are further questions around when, where, and how much information, views, and opinions are exchanged in an online learning environment.

The current COVID-19 forced transition to online learning has more than ever amplified the need to understand underlying power structures that shape the online learning environment, as HEIs are transitioning key aspects of 'students' learning to the virtual learning environment. For this reason, Hodges et al. (2020) and Nordmann, Horlin, Hutchison, Murray, Robson, Seery, and MacKay, (2020) argue for the need to differentiate between emergency remote learning and well-planned online learning experiences designed in normal times due to available support, skill development, and resources. This study lies within the latter, and from this perspective, we define online learning as a form of learning aided by technology (Conrad 2002, Carliner 2004). It is a learning experience that is not dependent on the physical environment (Singh and Thurman, 2019) but where technology provides accessibility, connectivity, and flexibility to promote various interactions (Ally, 2004).

Glasgow Caledonian University (GCU) has been invested in online and distance learning for over 20 years. This means that GCU as an institution is an 'early adopter' of online learning (although not all educators are early adopters). However, insight from early adopters at GCU can play a pivotal role in helping the wider HEIs understand the potential implications underlying power structures can have on the students' learning experience in an online environment. GCU has accelerated support for all its programmes as part of COVID-19 emergency response to learning and teaching. As part of the University's strategic response to COVID-19

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emergency remote learning, GCU developed and implemented the Going Digital Framework (GDF). The framework has four enabling pillars with 12 pedagogic principles. These four pillars are - Enabling Pillar 1: Guidelines for quality and standards of digital learning; Enabling Pillar 2: Key tools to support digital learning; Enabling Pillar 3: Building digital learning capabilities; and Enabling Pillar 4: Evaluation strategy. This suggests that GCU are taking strategic steps to advance their digital learning capabilities. Hence, GCU provides a highly relevant context to carry out this research.

The aim and focus of this paper is to explore underlying power structures in an online learning environment through the lens of the Community of Inquiry (CoI) framework (Garrison, Anderson & Archer, 1999). To achieve this aim, the paper's objectives are two-fold: a) to understand the role that technology can play in enhancing or inhibiting students' digital learning environment, and b) to understand underlying power-structures that shape online learners' experiences. Understanding underlying structures of power in an online environment is essential because it can reveal salient factors that shape learning behaviour and student experience, which would otherwise go unnoticed or unscrutinised in ways that may benefit or disadvantage the online learner.

Conceptualizing the community of enquiry framework within the power context

The Community of Inquiry (CoI) framework (Garrison, Anderson & Archer, 2010) describes three pedagogical or psychological characteristics (cognitive presence, teaching presence, and social presence) that promote student engagement and learning. Cognitive presence highlights the importance of critical thinking and learners' ability to reflect and engage in critical discussion. Social presence is the ability to identify and relate within a learning community and communicate meaningfully in a trusting environment (Garrison, 2009), both face-to-face or online. The teaching presence is about the teacher being present and how they scaffold the students' online learning for a worthwhile learning experience (Anderson, Liam, Garrison & Archer, 2001). The CoI is a recognised framework that makes a genuine attempt at providing a coherent understanding of creating a meaningful learning experience (Arbaugh, 2007; Cleveland-Innes, Gauvreau, Richardson, Mishra & Ostashewski, 2019) through open and purposeful communication (Garrison, 2009). However, scholars such as Stenbom (2018), have argued that the framework is often used in a narrow field of study, especially around original research. This study adopts the CoI framework to understand power relations in an online learning environment from both theoretical and practical perspectives, as CoI is recognised and generally accepted as a key influential framework in the field of educational innovations, see for example, Garrison and Arbaugh (2007) and Garrison, et al. (2010). The study provides an objective application of the CoI framework within a UK Business school and across undergraduate and postgraduates levels.

Power as a concept has been a subject of considerable debate and explored in various academic fields. Power is often framed around the concept of 'control' or 'influence.' It is defined as one person's ability to control another's behavior through overt or covert means (Dahl, 1957; Lukes, 2004 Bachrach and Baratz, 1962). Lukes (1974) moving from the obvious to the less obvious forms of power presents a three-dimensional view of power. These include decision-making, non-decision-making, and ideological power. Decision-making power, as proposed by Dahl (1957), sees power as a 'relational among people' where the systems of ruling elites enable one person to shape another's behaviour. This perspective recognises the central role that technology plays in online learning and underpins the fundamental requirement of an online space termed in this study as 'virtual presence' (Goodyear & Retalis, 2010). Adekola, Dale, Gardiner & Fischbacher-Smith (2017) explain that only when students have access to the online learning environment can they engage, interact, and ultimately open their minds to the online learning possibilities. Understanding virtual presence as a form of power is also timely in a cancel (or callout) culture where an individual is thrust out of social and professional circles or communities, silencing powerful voices. For example, Facebook and Twitter's decision to temporarily ban or permanently suspend Donald Trump's account at the end of his term "due to the risk of further incitement of violence" highlights how an actor can control the behavior of another by curtailing their virtual presence (Goodman & Carmichael, 2020).

Non-decision-making power is exercised through decisions made, for example, by setting the agenda (Bachrach & Baratz, 1962). In the online learning environment, such power may be expressed through the design of the curriculum, module delivery, and setting of the learning outcomes. An interesting question to ask here is who decides what is taught on a course and what learning outcomes will be achieved? The decision-making power is reflected in the CoI teaching presence. The ideological form of power (Lukes, 1974) is manifested through everyday socialisation processes that allow views, opinions, and understanding to be exchanged. An example of this in an online learning environment is learners' interactions with other learners and teachers either in a face-to-face or through written texts in what is termed as synchronous or asynchronous forms of learning (Branon & Essex, 2001). Interesting questions in this context are who interacts with who, and how are views, opinions, or ideas exchanged? What is the nature of interactivity and flexibility? How, where and when does critical and reflective thinking takes place?

In relating the CoI framework to Lukes' (1974) dimension of power (see Table 1), teaching presence consists of curriculum setting, methods of learning and teaching, and focusing discussions, and this can be linked to the non-decision making dimension of power (Bachrach & Baratz, 1962). This teaching presence has powerful influences that shape learners' cognitive and social presence experiences (Stenbom, 2018). The social and cognitive presence can both be linked to an ideological form of power (Lukes, 1974). While social presence is extrinsic in nature by means of our social interaction, cognitive presence is intrinsic and deep-rooted in nature, termed in this study as 'deep-ideological power'.

Table 1: Power dimensions and online learning environment
 Aadapted from the literature after Garrison et al. (2010); reflecting Lukes (1974)

Aspects of Learning	Online power dimension	Manifestations	Questions
Virtual presence	Decision-making power	The nature of technical infrastructure. No access due to internet, skills or disabilities (e.g. poor eyesight or hearing).	What technologies are used to access and support online learning? Synchronous or asynchronous? What is the quality of infrastructure e.g. internet, devices? Do users have the necessary skills and expertise to take advantage of opportunities in the online environment?
Teaching presence	Non-decision making	Setting curriculum, methods. Sharing personal meaning. Moderating discussion.	Who decides what is taught on the course? What are the learning outcomes?
Social presence	Ideological	Free expression. Collaboration. Boundaries of personal/professional identities.	Who interacts with who, How are views, opinions, or ideas exchanged? What is the nature of interactivity and flexibility?
Cognitive presence	Deep Ideological	Exchange of information. Capacity to interpret information. Connecting ideas. Knowledge creation. Applying new ideas.	How, where, and when does critical and reflective thinking occur, e.g., use of case studies, frameworks/ theories? Do students have the capacity and opportunity to apply new ideas?

Table 1 reflects the different dimensions of power in an online learning environment. Drawing on the insight in Table 1, Figure 1 adapts Garrison et al., (2010) Col framework and sets out an additional underpinning element of an online learning environment. The four online learning elements presented in Figure 1 reflect Lukes’ (1974) three-dimensional view of power.

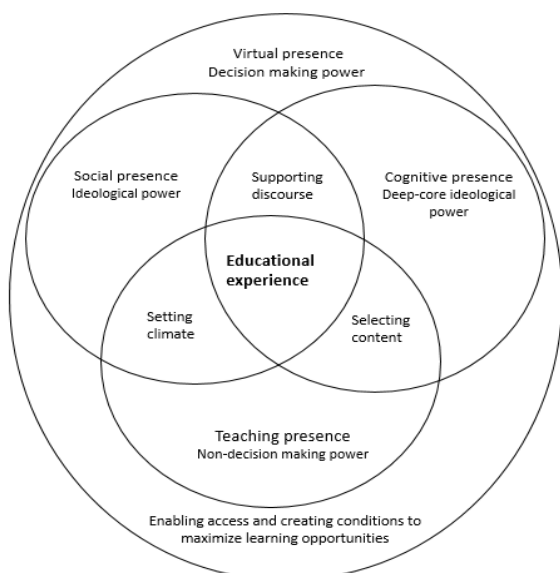


Figure 1: Power dimensions in online learning
 Adapted from the literature Garrison et al. (2010); reflecting Lukes (1974)

The first element of online learning is the virtual presence. Virtual presence is a fundamental online learning requirement. Here, access to the technology (e.g. the internet, device ownership, or compatibility) and online learning resources, skills, and expertise are required to maximise opportunities within the online learning environment (Adekola et al., 2017). Garrison et al. (2010) identify

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three elements of online learning - teaching, social and cognitive presence that are contingent upon this virtual presence. Teaching, social and cognitive presence is also reflective of non-decision, ideological, and deep-core ideological forms of power. These dimensions of power shape our online learning behavior and experience.

One core argument of this paper is that online learning occurs in a virtual space aided by technology in which learners can access, engage and interact within a community for a meaningful learning experience. However, a degree of bias can arise from the asymmetries of power underlying a technology-aided environment. This bias is shaped by the nature of technical infrastructure, the required skills and expertise (including disabilities) to take advantage of opportunities in the virtual environment, the curriculum design, and the nature of module delivery that determines learners' ability to become reflective and autonomous learners. These biases have the potential to enhance or inhibit the students learning experience.

Having understood potential avenues of power in an online learning environment, the remaining aspect of this paper presents the empirical study in this research to understand further how power in an online environment shapes the students' learning experience. A key research question here there is: *How is power manifested in an online learning environment?*

Methodology and Method

This research was approved by Glasgow Caledonian University Ethics Committee. The study examined three programmes in the University, including the Graduate Apprenticeship in BA (Hons) Business Management, GCU African Leadership College Mauritius undergraduate programmes in Business, and the MSc Risk Management online. The GA in BA (Hons) Business Management offers a mixture of technology-enhanced induction over a two-day period followed by a mix of online learning and distance learning. The majority of the students are in their 30's and 40's; all are UK students and working full time. The ALC programme offers blended learning by two GCU partner institutions. They are mainly mature students with an average age of 23 years. The Risk Management online programme is mainly distance learning and tends to have a mix of UK/EU students working full-time and typically in their 30's and 40's. Hence, the programmes and sample extend the application of Col framework beyond the topic of e-Learning and across a range of study levels (Stenbom, 2018).

This study is underpinned by the Col Framework and power dimensions. The community of enquiry framework 34 quantitative survey questions was adapted into 11 qualitative research questions. There are three sections to this study research questions (see Appendix 1&2): (i) Introduction – this section has three questions with a focus on definitions, and the process of online development; (ii) the Col section has 11 questions focused on the framework and (iii) Reflection section has one question. We asked questions about pedagogy, technology, interface design, interactivity, and the online learning community in its broadest sense.

We conducted semi-structured interviews (Cohen & Crabtree, 2006) with 34 participants from across the institution, including 12 module leaders and 22 students. The participant sample was experienced in online, blended, and distance learning environments. Appendix 1 reflects the representative research questions asked. We used purposive sampling to identify participants based on prior experience of online or blended learning. The data collected was analysed using thematic analysis (Braun & Clarke, 2006) and presented below.

Findings and Discussion

The findings and discussion will follow the aspects of learning and power dimensions presented in Table 1.

Technology

Participants were asked what technologies are used to support learning at GCU and what tools and technologies appear to work well or not work well in online learning. It emerged that the GCU virtual learning environment called "GCU Learn" is the technical means by which students are provided access to online learning resources and materials. In terms of tools and technology used, it was found that GCU tends to rely on commonly used technology framed as "nothing too fancy". This is based on the recognition that students access learning materials from various places (including the workplace) with different security requirements and variability in technology capability.

Lectures and seminars are typically provided on GCU Learn in the form of narrated PowerPoint slides. Additional support videos and readings are used in some instances. Collaborate Ultra is used for synchronous interaction with students and is particularly used for live interactive sessions. Padlet walls, discussion boards, videos, podcasts, formative blogs, and polling software (to judge students' understanding) are also used. A more comprehensive list of tools and technologies used for blended and online learning activities at GCU is articulated in Table 2. Ultimately, these technologies aim to enhance connectivity, collaboration, communication, innovation and evaluation either in a synchronised or asynchronous way.

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Table 2: Tools and technologies for blended and online learning activities at GCU

Source: GCU internal training document

Connect	Collaborate	Communicate	Innovate	Evaluate
Twitter Skype IM Blogs Wikis GCU Learn Google+ F2F	Wikis Vimeo GCU Learn YouTube Dropbox Video Project groups Online discussion forums	Blogs Wikis Twitter Microblog GCU Learn Padlet Podcasts Skype IM FB Video Discussion forums	QR codes Gamification Leader boards Flipped classroom	Socrative Quiz Peer-assessment Turnitin Grade Centre E-portfolios E-feedback

A key lesson here is that decision-making power may be expressed in the selection of learning technologies as it determines the nature of access, communication, and interactivity within the VLE which shapes the student learning experience. The quote below is the reflection of one of the module leaders with regards to social and mobile media:

The use of social and mobile media such as Facebook and WhatsApp group discussions provides informal communication channels and interaction with the students. It can help keep students up to date with information and events. (Module lead participant - MLP)

There is also the need for necessary technical skills and expertise to maximise the learning experience in a VLE. Hence, 'the selection of technology and "technical expertise" help to create meaningful learning in a VLE, and this virtual presence should be considered the first dimension of power.

Teaching presence

Questions around how decisions were made on curriculum design, key learning objectives, and how these were communicated were raised. The data suggest that students were not directly involved in curriculum design and learning objectives setting. This is interesting, given the strong focus in recent years on staff-student partnership working (see, Little, 2010; Jarvis, Dickerson & Stockwell, 2013; Deeley & Bovill, 2017). It was noted that student feedback through module evaluations and available technologies drives the pace and design approach to online learning.

It is most important to consider students' background when developing a module as well as their experience with prior learning. Applications from the students are very important as they identify that (and help in understanding the level of students' academic discipline). (MLP)

Feedback from previous years, if possible, is incorporated in the module accordingly and the change is clearly communicated with the students. (MLP)

The advantage here is that modules delivered online can be developed over time. But this means that modules are developed based on past students' learning experiences, which may not reflect current learners' preferences. In such an instance, non-decision-making power may be exercised through the teacher's perception of their student background and the historical provision of feedback through the end of module evaluations. Co-production requires that students are seen as partners in the curriculum design (Healey, Flint & Harrington, 2014) and the importance of such engagement has been long recognised in the literature (see Dewey, 1916) to include increased confidence and more responsiveness from students involved in curriculum design (Garcia, Noguera & Cortada-Pujol, 2018). However, the 'Emporium' and the 'Buffet' online learning models (Twigg, 2003) enable students to have more say on the timing, pace and type of learning depending on their individual preferences. The Buffet model, for example, enables the student to choose from various offerings that are then customised to fit the learner's needs (Twigg, 2003).

We asked participants if they were provided with clear instructions on how to participate in each module's learning activities. It emerged that learning outcomes and expected engagement were communicated at the start of the module through module handbook, module announcement and lecture slides. Module handbooks, for example, provide information, deadlines, and explained instruction of assessments provided.

In the start of the lecture slides, we have clearly stated learning objectives. (MLP)

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At the start of each module we have everything clearly laid out on the module page and in the module handbook, blackboard. It was very clear. (Student participant - SP)

We asked student participants how they were encouraged to focus on key learning objectives and learning outcomes within each module. Our data show that key learning points were identified through engagement with lecture slides, videos, quizzes, and Google classroom. Such communication is essential as it enables the students to have a clear expectation of what is required of them and this is a means of actualising the teaching presence in online learning.

Social presence

We asked participants what made them feel part of an online learning community. Participants pointed to group events and group activities (e.g. Wikis) which helped in peer-to-peer learning. WhatsApp was used due to convenience and provided students with an opportunity to communicate with others. Participants were asked to describe how they were encouraged to engage with other students on each module. It emerged that while offline engagement opportunities (e.g. Padlet) did not offer much live interaction, they were useful for peer-to-peer engagement and learning.

The Padlets and the online discussion forum makes you feel like you are in the online learning community but this is not like you are on campus... you don't really know who you engaging with online. (SP)

The feedback [from the tutor and other students] on Padlet wall on our presentations were very good in fact and should be encouraged. (SP)

The different time zones of GCU students proved to be a challenge in how the students interacted with one another leading to low engagement.

Encouraging participation in online learning can be difficult due to time zones. This sometimes affect the timing and interest in the feedback received for further interaction communication to take place. (SP)

Participants were asked the extent to which they are able to collaborate with others on each Module. Students communicated on WhatsApp and Google hangouts as it can be challenging to meet online due to connectivity/power. However, it was noted that technologies were not exploited to the extent to which was possible for interactivity according to one MLP due to issues such as workload challenges.

An emerging insight from our data is that the nature of interactions and the extent to which technology enables certain interactions can enhance and inhibit social presence, which can act or serve as avenues of power to shape the experiences of online learners. Synchronous learning enables the exchange of views and opinions in real-time. However, issues of connectivity, power supply, time-zones, and students' availability can impact the ability of the student to participate in this environment. On the other hand, asynchronous learning, which can be text-based communication, audio and/or video is advantageous in terms of material reuse, but the interval between communication and feedback can impact the flow in the exchange of views, opinions and expertise as noted by one of the participants in this study.

The suggestion here is that synchronous and asynchronous forms of learning influence certain behavior. While our study does not aim to prioritise one mode of learning over the other, care must be taken to consider the choice of tools and technologies used and the suitability of synchronous or asynchronous forms of online learning to particular cohorts of students. Availability of resources (access to the internet and devices), learning outcomes, student background and demographics, the nature of student study (part-time or full-time), the applicability of content to the audience should guide the nature of discussions around curriculum design and learning interface for online learning. This allows us to pay attention to issues of access to technology and teaching presence which ultimately shapes the learners' social and cognitive presences.

Cognitive presence

We asked participants to describe the extent to which examples were used to encourage learning within each module. Additional videos and weblinks were useful and regarded as a key benefit of online learning over the traditional classroom. Real-life case examples were found to be interesting and enabled the students to develop critical thinking. The online library was also found to be useful and easy to use.

The online library was key for me. It was exceptionally good and I used it extensively and good in giving access to a third party website. (SP)

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Participants were asked how effectively they felt they were encouraged to participate in online discussions to appreciate different student perspectives. It emerged that students were regularly encouraged to have online discussions, share experiences, and learn from each other, but this did not always work out well due to lack of participation.

We had a lot of material and we were encouraged to engage in online discussions. (SP)

Participants were asked to describe the extent to which they felt that the learning activities were designed to help them develop solutions. What emerged was that learning activities were linked to help them develop solutions. However, this varied across modules.

I find the essays very good to go through and to be able to apply what I learn from the module and undertake research. I go through businesses and account from a company's perspective and go in more depth and knowing what you are looking for from the business documents was very good. (SP)

I work in insurance and risk and having the opportunity to apply my learning ...for me there is a lot to gain and take from my learning. (SP)

This suggests again that the choice of case studies and the students' ability to link their learning to their own context influences their deep-core learning experience, as noted in Table 1. Also, it emerged that students would not do the activities if they were not graded, which aligns with findings in the literature that links grading student participation and increased participation levels, see for example, Rovai (2003).

Drawing on the study findings, several lessons can be learned in relation to understanding the underlying power structure in online learning:

- Decision-making power can be expressed through the selection of technology and tools in a VLE.
- Access to and the nature of technology, skills/expertise, and (dis)abilities can create asymmetries of power that enhance or inhibit student learning experience.
- Non-decision-making power may be expressed through who makes the decision about what is thought through current or historic module evaluation or feedback.
- The choice of synchronous and/or asynchronous technologies influences certain behavior, social interaction, and ultimately, the student experiences.
- The choice of case studies and the students' ability to link their learning to their personal and professional contexts influences their deep-core learning experience.

The interaction of power dimensions in these four online learning presences - virtual (non-decision making power), teaching (decision-making power), social (ideological power) and cognitive (deep-core ideological power) - create conditions that enable student participants, engagement with other participants, engagement with the content, and engagement with goals and direction, all of which contribute to students online learning experience.

Situating the study findings within the current context of emergency remote learning due to COVID-19, there are questions around how the Governments and HEIs' responses to the coronavirus pandemic have reinforced power differentials in education. For example, there are issues around digital equity concerning (a.) uneven distribution of devices and quality internet (b.), access to locally relevant resources, and (c.) skilled teachers/students who know how to use digital tools and resources. Lockdown also led to merging personal/professional spaces with students taking part in synchronous sessions from their bedrooms or homes. The issue here is potentially around the challenges around shared spaces that may effectively undermine the student's ability to engage in online learning.

Conclusion

This research sought to understand the role technology can play in enhancing or inhibiting students' digital learning environment and appreciation of underlying power structures that shape our digital learning behaviour through conceptual understanding and theoretical research. Understanding underlying structures of power in an online environment is vital as it enhances the prospect of revealing salient factors that shape online learners' experiences, which otherwise would go unnoticed or unscrutinised in ways that may benefit or disadvantage the learner.

Our study's wider implication is that stakeholders (tutors, HEIs, Governments) must make an effort to understand dimensions of power in an online learning environment. There should also be awareness-raising on the part of the students on how they can have a greater level of powerful influence over individual online learning experiences. Figure 1 will be useful in helping module leaders understand the concept of power in their design of online learning. The study also extends the CoI framework from the power perspective and on how technology can enhance or inhibit power differentials. In particular, module leaders should be provided

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with the right training, support and guidance to understand underlying power structures in online learning and how best to use technology to create an enhanced online learning experience for different student cohorts.

Biographies

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Alexis Barlow is currently an Assistant Head of Department in LT&Q and a Senior Lecturer within the Department of Management & HRM. She is an HEA Senior Fellow and has a particular interest in online learning and teaching and enhancing the student experience.

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Appendix 1: Research Questions – Staff

Questions for Academic staff		Prompts
(i) Introductory Questions	1. How would you define online teaching learning?/blended learning? differences?	Traditional. Technology enhanced, blended learning, mostly online, completely online
	2. Explain your process in developing your online Module	Level of training/participation in workshops e.g. online module development 2015; external workshops, webinars etc.
	3. What model structure have you adopted? (3 main influences on the design, presentation, structure and range of technologies used)	e.g. weekly classes, units, range of tools selected – rationale; established format, pace student engagement
(ii) Focus Community of Enquiry Framework		
Teaching Presence		
Design and Organisation	4. How did you provide clear instructions on how to participate within module learning activities??	e.g. learning outcomes; participation expectations; dates for completion of online activities.
Facilitation	5. How did you guide the class to encourage student engagement?	e.g. understanding of concepts and frameworks; keep students engaged in online dialogue; encourage the exploration of new concepts; develop a learning community within your Module? e.g. online activities, quizzes, videos
Direct Instruction	6. What instructions did you provide to encourage students to focus on key learning issues?	e.g. provide guidance for completions of key activities such as videos, Quizzes; opportunities for formative/summative feedback
Social Presence		
Affective Expression	7. Explain how you guided the students to feel part of a learning community?	e.g. number of participants contributing to an online discussion forum, use of padlet wall? Did you get a sense of the different student personalities? How?
Open Communication	8. To what extent do you think online teaching and learning is a good medium for social interaction?	How do you feel with interacting, participating and conversing through GCU Learn?
Group Cohesion	9. To what extent do you feel students were collaborating with others on the Module?	e.g. Group pages; 'reference's to off line meeting/private chat/email
Cognitive Presence		
Triggering Event	10. To what extent were problems posted to encourage learning? e.g. case studies	Use of course materials to raise curiosity and interest e.g. bonus materials, vidoes, weblinks etc.
Exploration	11. To what extent did you ensure that there was a wide range of resources to encourage student research?	
	12. How effectively did you feel you encouraged online discussions to help student appreciate different perspectives? (e.g. did you encourage students to read and post supplementary questions?)	
Integration	13. How did you develop learning activities to ensure that students could develop solutions? e.g. did the online activities feed into assessments?	Did you encourage student reflection to enhance understanding and learning?
Resolution	14. How do you think students can apply knowledge learned in other modules/workplace?	

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<p>(iii) Overall reflections of the online experience</p>	<p>15. Reflections on teaching and learning of the online Module (teaching presence)</p> <ul style="list-style-type: none"> • What appeared to go well with the online learning? e.g. activities students appear to like? • What aspects of modules did students find most useful and what aspects did they find least useful? • What could be improved for the students in providing an engaging student experience? • How did you feel you were supported throughout the development, teaching and learning process regarding online learning? • How would you describe the GCU online teaching and learning experience? 	<p>Activities students appeared to like? What tools did they like using e.g. articulate, padlet boards, online quizzes, discussion boards, videos, podcast etc.</p> <p>Examples of good practice?</p> <p>Opportunities for training? team learning? What challenges did you face? How were these overcome? E.g. training, IT support,</p>
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Appendix 2: Research questions student

Students must have completed Two Modules of Online/Blended Learning.

Questions for Students	Programme: Semesters Completed:	Prompts
(i) Introductory Questions	1. How would you define online teaching learning? / blended learning? differences?	Traditional. Technology enhanced, blended learning, mostly online, completely online
	2. What was your expectation of online or blended learning before you started the programme?	
	3. What kind of induction did you have at Programme Module	Some programmes have 2 days f2f induction on campus; some have induction on location (ALC) and others have online induction
(ii) Focus Community of Enquiry Framework	For this section only, please reflect upon your learning experience to date and compare and contrast you two modules: Two modules are:	Please provide examples of your learning experiences in relation to each question within this section
Teaching Presence		
Design and Organisation	4. Were you provided clear instructions on how to participate within each 'module's learning activities?	e.g. learning outcomes; participation expectations; dates for completion of online activities – was this information made clear at the start of the programme/module
Facilitation	5. How were you encouraged to engage with other students on each module?	e.g. did student discuss understanding of concepts and frameworks; were you encourage to engage with other students online? how were you encouraged to explore new concepts; develop a learning community within your

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		module? e.g. online activities, quizzes, videos
Direct Instruction	6. What instructions were you provided with to focus on key learning issues within each module?	e.g. were you provided with- guidance for completions of key activities such as videos, Quizzes; opportunities for formative/summative feedback
Social Presence		
Affective Expression	7. What kind of activities on the module made you feel that you were part of a learning community?	e.g. number of participants contributing to an online discussion forum, use of padlet wall? Did you get a sense of the different student personalities? How? (use of emojis?)
Open Communication	8. To what extent do you think online teaching and learning is a good medium for social interaction for each module?	How do you feel with interacting, participating and conversing through GCU Learn?
Group Cohesion	9. To what extent did you collaborate with others on each module?	e.g. Group pages; 'reference's to offline meeting/private chat/email
Cognitive Presence		
Triggering Event	10. To what extent were examples used to encourage learning within each module? e.g. case studies	Use of course materials to raise curiosity and interest e.g. bonus materials, videos, weblinks etc.
Exploration	11. To what extent did you feel there was a wide range of resources to encourage your research/learning within each module?	e.g. academic papers, links to library resources
	12. How effectively did you feel you were encouraged to participate within online discussions to help you appreciate different student perspectives? (e.g. were you encourage to read other students posts and ask supplementary questions via an online discussion board?)	e.g. did students interact with each other within learning tasks
Integration	13. To what extent do you feel that the learning activities were designed to help you develop solutions? e.g. did the online activities feed into assessments?	Were you encouraged to reflect upon questions and responses to enhance your understanding and learning?
Resolution	14. To what extent did you feel that you could apply knowledge learned in your professional/personal capacity/workplace?	
(iii) Overall reflections of the online learning experience	<p>15. Reflections on teaching and learning of programme model (teaching presence)</p> <ul style="list-style-type: none"> • What are the potential benefits and challenges of online and blended learning experience? • What aspects of modules did you find most useful and what aspects did they find least useful? • What activities did you feel contributed best to your online learning? e.g. activities students appear to like? • What could be improved in providing you with an engaging experience? • How would you describe GCU online teaching and blended learning experience? 	<p>Examples of good practice?</p> <p>Activities students appeared to like? What tools did they like using e.g. articulate, padlet boards, online quizzes, discussion boards, videos, podcast etc.</p> <p>e.g. self-pacing? All materials available at the start of the module? Did it meet with expectations? Exceed or disappointed with the experience? would you recommend others to GCU? Consider your response to the introductory questions (ii)</p>