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Covid-19 pandemic and the technological impact on the work and life of women academics

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Abstract

During the pandemic, the Higher Education had to rapidly adapt to new ways of working with both staff and students having to swiftly work in a remote environment for a prolonged period. This research is focusing on how women in academia within the Higher Education environment in the UK have adapted to virtual working and online learning and in what way they were affected by the pandemic in their professional and home life. For the purposes of this study, the research approach is to investigate women in academia perspectives during the transitional period from face-to-face onto e-learning and the mechanisms that they have used and are currently still using, in order to endure the challenges of work and everyday life.

Keywords: Remote work, Pandemic, Women academics, Technology, Higher Education.

1.0 Introduction

Higher Education institutions have been enforced to rapidly move all their operations to a virtual environment, at the start of the Covid-19 pandemic. This has had an effect on technological developments, as institutions were forced to abruptly utilise platforms in such a way, with some of them never used before for specific purposes, such as teaching and learning, examinations, research activities, virtual meetings and most recently hybrid meetings and how these are applied or can be applied within a crisis period. The transition to online teaching and learning due to the pandemic has led to a wider conversation on flexible education amongst the Higher Education sector. This is creating opportunities for innovation and setting new parameters for delivering teaching, as well as remote working.

It is inevitable that this new virtual working era will generate the circumstances for new legislation regarding the processes and technology used for online learning (Basilaia & Kvavadze, 2020) and remote working. The concept of distance learning in virtual environments has existed previously and was established for years, but this had a specific use by a certain group of students that suited their circumstances of remote learning, with certain technology in place for them. The concept of a widespread online learning during a crisis brings along challenges in the quality of learning and the specific needs of the students.

The effects of the pandemic can be visible amongst students and academics, especially during the lockdown period and home-working era. Women academics, in particular, have had to find ways to cope during lockdown periods, in the midst of challenging situations they were called to phase working from home (Minello, 2020; Lutter & Schröder, 2020; Oleschuk, 2020). It is evident that women academics have suffered increased pressure during this period and the situation deteriorated when caring responsibilities, increased housework and high levels of emotional stress were affecting them. Even before the pandemic, the increased use of technology in academic work, had contributed to blurring the boundaries between work and home, especially affecting academics with young children (Currie and Eveline, 2011) but the lockdowns intensified all this and increased academics' work – home conflict (Adisa et al., 2022).

Prior to the pandemic, counter arguments of technological advances would focus on how the use of technology cannot replace face-to-face communications, the extreme reliance of data can be misused and that all employees must have access to such systems, in order for them to work effectively (Varma & Budhwar, 2011). The rapid shift to online and remote working has used, not only pre-existing technological advances but employers had to create new ones in order to identify ways of staff working together from a distance and in an effective way, in order to ensure that they are beneficial and accurate to serve their purpose. Remote working for women academics has had a negative effect, according to Marchiori et al.'s (2019) research, due to the widespread and constant exposure to technology, thus creating higher levels of techno-complexity and techno-uncertainty than men.

2.0 HE and the Covid-19 pandemic

Crawford et al (2020) conducted a desktop analysis and focused on the pedagogical developments of an extensive number of universities at the start of the pandemic, through a variety of sources, from news articles, university websites and communication, government information and higher education news articles. The research represents a number of countries from all regions of the World Health Organisation taking into account the extent of the pandemic and the different effect it has for these countries at the time of the research. The majority of the developed countries, as the authors categorise them, have made the decision to close university campuses and move to online learning, with minor exceptions while the majority of the developing countries have also closed universities, but did not all move to online learning. The countries that did not move to national closures resulted in localised ones, with some of them choosing to extend the academic term dates or start earlier.

In relation to the HE digital strategies, it has proven challenging for universities in countries where the appropriate infrastructure was not in place both for academics and students. The so-called lack of "home office" was critical as equipment, internet access, and remote locations and content restrictions may have been affecting the delivery of online learning, but equally important was the "skillsets needed to professionally design and offer online/virtual education" (Crawford et al, 2020, p.11). Some countries reported that the focus was on usage of freely available platforms to use which restricted academics in their lecture delivery. For the countries which transitioned easily to online learning, there was flexibility to focus on their "online pedagogy", which could consider best practices globally, in order to collaborate and share experiences. In summary, there was a variety of university responses to government guidelines from following the basic health and safety rules, to moving to fully online learning or, in one case, online learning was already offered to students prior to the pandemic.

The concepts of invention and innovation as two interrelated concepts are two elements that can play a pivotal role in staff development and online learning during the pandemic. Although one can argue that these can happen years apart, one cannot exist without the other, as innovation is simply "the first attempt to carry it (invention) out into practice" (Fagerberg, 2005, 4). A more technological explanation refers to innovation being the epitome and "synthesis of knowledge" while creating new

services or products (Leonard, 2011), whether these products are intellectual or physical. In the context of this research, creating new "products" can be seen in the way HE institutions adapted their practices and rapidly created a new way of operating their administration processes, as well as HR operations, teaching activities and training and development activities. The typical models of invention and innovation could be seen within the rapid shift to online learning and how HE staff have quickly adapted their practices. Women academics, which group is the main focus of this research, could be studied for the way they have to acquire the necessary mechanisms, in order to be able to progress with their demands at work and become resilient to cope with the additional demands of everyday life, especially during the lockdown periods.

One can consider the specific cases where staff training is needed to achieve high performance and motivation, but it is also a necessity for basic service provision (Prytherch et al, 2012). The rapid arrangements that have had to be put in place for training on academic delivery of hybrid teaching and professional services staff supporting students remotely has become the norm during the pandemic. Academics and students had to quickly adapt with the majority of the practical elements of their studies to be restricted or cancelled, such as travelling, fieldwork, on some occasions, lab work and practical sessions (Chertoff et al, 2020). The Covid restrictions have affected how teaching and learning is conducted but it was a cause of reflection (ibid, 2020), in order to adapt and ultimately adopt innovative teaching methods. In the meantime, the practical subjects such as in health and medical studies where face-to-face interaction is necessary have had to adapt the way students are taught from a distance and how to welcome new students but to also keep them engaged remotely.

The swift transition in which online learning occurred and the speed in which all parties involved had to adapt to new ways of working did not allow the opportunity for training and development or absorbing the new mode of "virtual" interactions at all levels. Both staff and students would need to have some experience of online platforms, in order to be able to use them positively for their learning (Aguilera-Hermida, 2020). The aspect of individual behaviour towards the technology and online teaching and learning is one that can be varied in people, and this could affect all aspects of engagement, resilience and motivation (Kemp et al, 2019). Aguilera-

Hermida's research has concluded that students prefer the face-to-face over online learning due to a variety of reasons in relation to lack of resources and support in an online environment. This is not an unexpected result due to the circumstances that the shift to online learning occurred and how prepared HE institutions were with the infrastructure in place or not. There is scope and room for improvement, as both parties, students and academics, had to make the transition simultaneously, without any prior preparedness and user testing practices. This experience would equip them with knowledge on usage of technological tools and platforms to use in future (Murphy, 2020).

The transition to online learning has brought significant changes to academics, not only in relation to the online environment but in relation to the flexibility and willingness to adapt and change their teaching practices (Quezada et al, 2020). Academics and educators are required, even prior to the pandemic, to keep themselves informed of recent developments and technological advances in teaching and learning, as the demands from students increase every year. The usage of technology in teaching and learning has become a necessity recently, so academics who were using traditional methods of teaching could be potentially battling to adapt to virtual learning due to its nature and complexity of the environment. The speed in which the changes had to be made and the type of resources available gave little time for academics to familiarise themselves with new technologies. In cases where academics were more digitally advanced, this can be seen as the opportunity to be innovative and develop teaching and learning environments to improve remote student experience.

As a result of the virtual learning, university staff had to learn to adapt and use new and innovative ways of working, without having the opportunity to receive adequate training in advance. People have different ways of learning, in the same way as there are different types of learning, such as learning in the workplace via collective knowledge sharing (Littlejohn et al, 2011) or learning on-the-job, as opposed to developing knowledge through training courses. In cases of learning on-the-job, institutions had to move this function remotely through virtual classes and using available remote desktop software (Chertoff et al, 2020). During the lockdowns, all types of formal training and conferences had moved to a virtual environment, but this requires IT support and involvement with the set up and arrangements, in order to

resolve connectivity or other technical issues for the smooth running of the development activities (ibid, 2020). The challenges university staff can be facing during online training may potentially prohibit them to engage fully and have the opportunity to actively listen and learn.

During the pandemic, the concept of work flexibility is amongst the highly important patterns for all employees in all sectors. Even prior to the outbreak of the pandemic, about 5% of the workforce had flexible working arrangements and working from home (CIPD, 2020). From the beginning of the pandemic and the lockdown period in the UK, the majority of the workforce in all different sectors was asked to work from home, with the rest being placed on furlough. This has brought insecurity and instability in many households, as working conditions at home were not ideal for everyone and furlough as a concept could bring financial worries to people, in case it means that furlough could extend for a longer period than anticipated or result in job losses due to financial constraints of their employers. This is coming at a cost for their work/life balance, as well as the additional pressures staff face in their home environment, such as childcare, home-schooling, caring for elderly relatives and so on (CIPD, 2020). The relevant flexible working policies would have to be updated during this time, on a short-term arrangement (ibid, 2020), and the possible return to the workplace, following from the pandemic, in order to reflect the current situation and the changes that may arise from it in the long term. Due to the innovative ways of working for professional and academic staff, universities will need to view the concept of flexible working from an innovative point of view.

Due to the rapid shift to home working, many employers have found themselves at a difficult situation for practical reasons. It is possible that the home working environment may not be suitable for full time working, as one may have suffered issues with internet connection and speed, technical issues such as having adequate equipment to work, and the space needed for the work. Academics could either use their own laptops and peripherals, which may not be suitable for the type of work they do. Additionally, using technologies for online teaching meant that they would need to use a camera and occasionally an additional device, such as a tablet, to be able to provide adequate teaching. Academics would also need the space necessary for such activities and this is not always possible, in a house with two full time workers and

family responsibilities, such as children in home schooling situations. It is of interest to investigate the support academics have received from the institutions and any further support following from the lockdowns and moving into a hybrid working environment.

With regards to academic work on research outputs, the pandemic has prompted academic researchers to submit an increased number of manuscripts, especially at the early stages of the pandemic, both Covid-related outputs in the health sector and Covid-related on other sectors affected by Covid, such as social, psychological, financial etc (Aspachs et al, 2021). This has created an additional challenge for journals to ensure they could cope with the additional workload that the increased journal submissions has brought (Palayew et al, 2020).

The social element in the process of learning in higher education has played an important role in students' experiences of learning. The students create communities of learning, which would have to be transformed to digital learning communities (Cano & Venuti, 2020) using similar methods digitally, as they would use in face-to-face learning. Cano & Venuti mention some practical behaviour trends that will need to be established early on but also the equivalent support necessary both for students and academics. The support constitutes both mental and technological support, as it is crucial to have the correct tools to facilitate online learning. The student-to-student and the student-to-academic interaction is adapted within an online environment and the peer learning system can be used in order to support student interaction further.

3.0 Crisis Management

The notion of crisis management is seen by researchers (Al-Dabbagh, 2020) as an administrative process to be able to deal with unexpected and out of the ordinary situations, to be ready and have the necessary mechanisms in place to confront, adapt and continue to operate within an institution. Crisis management as a science cuts across different fields and has become a separate science with relevant theories and frameworks (ibid, 2020). An and Cheng (2010) conducted an analysis of the crisis management published research in the Journal of Public Relations Review from 1975

to 2006, which provides a number of theoretical frameworks that are associated with crisis management, such as the situational crisis communication theory, the issue and crisis management theory, the image restoration theory, the apology theory, the attribution theory, the contingency theory, the situational theory, the organizational theory, the excellence theory, the diffusion and innovation theory, the self-disclosure theory, the chaos theory, the commodity theory, the stakeholder theory, the postmodern theory, the co-orientation theory, and Fink's stages of crisis (Zamoum and Serra Gorpe, 2018).

In relation to crisis management, the readiness theory can be seen as one of the administrative processes that focuses on the team and individual responsibilities, planning and preparing through training procedures and generally coordinating the actions of response teams, especially without optimism (Quarantelli, 1988; Landau & Chisholm, 1995). In this case, disaster management and recovery teams and decision makers have to deal with the situation without any false presumptions on the end result. Similarly to this approach, and in order to be able to better prepare for a crisis, the theory of complexity can be seen as an attempt to manage the complex situation of a crisis so that it can be controlled appropriately (Muffet-Willett & Kruse, 2009). Additionally, during times of crisis, there is a notion that individuals have to make sense of the situation they have to deal with, in order to be able to deal with events during a crisis and this is supported by the sense-making theory (Weick et al, 2005).

Al-Dabbagh (2020) also stresses the importance of the role of decision-makers in times of crisis and the need for quick decisions, taking the pandemic as an example to demonstrate that institutions not only have to maintain their day-to-day operations but continue to achieve revenues and preserve their employees avoiding newly found risks. The theory around decision-making processes during the pandemic is focusing on the concepts of the "meaning of decision, meaning of the decision-making process, stages of the decision-making process, crisis decision-makers' response, crisis management, crisis decision-making strategies, decision-making skills, which may constitute a starting point for developing training programs to develop decision-makers' ability to make decisions in times of crisis and disaster" (ibid, 2020, 10). This means that there are several elements that affect the way crisis management is

conducted in a global challenging situation such as the pandemic, while using the pandemic as a model.

4.0 Methods of study

This research was conducted one year after the latest lockdown within HE institutions in the UK. We focused on using an inductive approach in order to identify how women academics have adapted their work processes, teaching methods and home working environment from the early stages of the first lockdown and up to recently, in order to work successfully and fulfil their duties towards the institution and their responsibilities towards students and colleagues in the midst of the academic year. We have used semi-structured interviews to collect our data, so this research is focusing on one qualitative method; 31 women academics from a variety of disciplines were interviewed (ranging from Social and Life Sciences, Humanities, Sciences, Business and Management, Preforming Arts). The sampling method was initially convenience in order to identify academics from institutions familiar to the authors, but we also used the snowballing technique for access to academics from further institutions. We endeavoured to select a diverse sample of women in academia, varying from early researchers (32%), mid-career (40%) and more senior academics (28%) due to potential differences in their attitude (Pflaeger Young et al., 2019) and check reliability after the data collection.

In the same approach, we explore the ways on how women have adapted to virtual working and working from home for such a prolonged period and how they have coped during this period. We aimed to explore this phenomenon and identify themes/patterns (Clarke, et al, 2015) depending on individual circumstances but, at the same time, try to identify common themes that may arise from the data. In addition to the participants' professional background and seniority levels, we have also investigated their working patterns, and if the academics were formally working on a full-time or part-time basis (identifying 28 full time and 4 part time academics). Due to the circumstances and restrictions at the time of the data collection phase, the interviews were conducted online using MS Teams. Introductory communication was arranged directly with the participants, in order to explain the process and allow time

to reflect and consider their full participation and follow up interviews were arranged in three occasions due to the lack of time assigned for the initial interview.

In terms of the content of the interviews, participants were asked about their experiences on the broader areas of technology, well-being, resilience, and employer support. We did not provide any definitions for the key themes or terms but asked participants to discuss what they take them to be. The method exclusively used for this research is qualitative analytic, and specifically using thematic analysis (Braun & Clarke, 2006) to identify the themes and be able to draw conclusions based on the narrative. This type of analysis offers flexibility, as it is not linked to a specific theory, and it allows the researcher to use an inductive approach to the research. Within the themes of 'technology' and 'virtual work' we found that participants had similar ways of talking about it, mainly due to the numerous discussions they mentioned having at work about it.

To ensure research quality findings, we avoid making generalisations about our population. Finally, to ensure validity of the data, we clarified questions during the interview process, while constructing well-defined questions, so they can produce consistent findings, to ensure reliability. The focus was on the participants during the interview process, in order to ensure that they are at ease and not affected negatively by the interview process, from informing them on the confidentiality of the process, to maintaining anonymity and integrity during the data analysis and discussion phases. The issue of objectivity in all stages of the study was considered and we ensured that all relevant information was provided in advance to all participants.

5.0 Findings and discussion

5.1 Adaptability and flexibility of Workspace

The theme of home working space and issues with a dedicated area for academics to work, was one of the initial challenges that women academics faced at the start of the pandemic and the first lockdown. In this category, we have identified academics in a variety of situations, ranging from having no experience and dedicated working space

at home, to having an office (separate room), which they have used in the past to work from home. The importance of previous experience and the effect on their work is pivotal at the early stage of the pandemic, as this has initiated changes in the whole context of their working life and not just one element of it.

For a number of single academics, we identified a smooth transition to home working, especially where there was already a working area set up at home for them, from previous home working conditions. The fact that this group of women academics did not face any responsibilities in the form of dependents or spouses also working from home, has allowed them the space and the time to work undisturbed and without constraints. A number of academics in this category have faced a blur in the boundaries of their home and working life. In some cases, this influenced their mental health and wellbeing, due to specific circumstances with their medical situation or a family member who may have been affected by the pandemic.

Following from this category, women academics with different family situations have found the issues of workspace more challenging during the first lockdown. In a home environment with a partner working from home, there were issues with suitable working space when both the academic and their partner had to adapt to home working. The majority of the academics have reported that they have "offered" the study space they have at home to their partner to work, and they have adapted alternative areas in their house such as living room or kitchen to create suitable working spaces. There was an additional burden to this arrangement in cases where partners were also academics and technological issues, such as internet connection, was not adequate to use for online teaching and meetings. The academics that belong in this category have explained that a common problem was the boundaries of their working space with family living, as it interfered with the areas of relaxation and meal preparation. One of the participants, P07, reported with regards to having a dedicated space to work, both for her and her husband:

"...We did because we had a very big house andhad put two desks in two of the rooms. So that was really nice, you know? And that time was nice."

One case that has shown clearly that space was eliminated and working space was non-existent, was the case of an academic with children of a younger age (toddlers) who mentioned that she had to be with them constantly, as they needed her attention, and she would try to work during nap times and in the night. In such cases, the space boundaries were non-existent in the family home. It is worth noting that academics reported that they found it very hard to work with young kids at home, whereas another group reported that they had to have certain structure in their day, in the same way as they had during their office working period. This was easier for academics with limited responsibilities at home and with partners who took a very active role to look after dependencies during specific hours in the day, in order for the academic to be left undistracted to organise her teaching, where hours are non-negotiable, and her research and admin duties.

5.2 Technological impact and Personal circumstances

The homeworking environment, was, to an extent, challenging for specific academics who have very little or no previous experience working from home. In addition, a number of academics were not exposed to digital learning environments, and this was also depended on their discipline in some occasions. It was evident that some of them did not have the relevant technological arrangements to be able to seamlessly work virtually. In this case, the situation was somewhat affected by family circumstances at home. The family situation for single academics, living on their own, was certainly easier to manage and the transition from on site to home working was smoother, whereas challenges concentrated on technological issues (in terms of having suitable equipment, such as computers, laptops, headphones, printers and suitable desk). In the case of women academics with different family situations (husband working from home, children home-schooling etc) have occasionally found issues with technology more challenging during the first lockdown. In a home environment with a partner working from home, and with children using technology and internet for homeschooling, an academic reported that they had to upgrade their internet connection to a higher price and package, in order to cope with the demands. Academic work in its nature may be considered as more flexible whereas formal office work and school hours are set, so women academics gave priority to others at home, either their partners or their children, in order to make full use of the technology during the day (swift internet connection, equipment if there were not additional laptops or computers to use, headphones etc).

5.3 Previous knowledge and Experience of virtual working

In some cases, we have identified that a number of our participants were not prepared for the technological demands of the virtual working during Covid and had to learn all the relevant technology at a much quicker pace than others more experienced. A characteristic example of participant P08 is what she mentioned that "I would have prepared myself for the technological needs before I had to do them". The same participant also mentioned that "I learned by myself how to use Zoom and Teams. I was aware of these, but I hadn't used them much". There are cases of academics though that were a lot more familiar with the technology and virtual working, or remote working and those have found the transition from face-to-face to online work much easier. To be specific, participant P30 identified how "...it was easy for me to work from home during the lockdowns, I had already done this before, so I didn't have any problems with the technology".

One issue that we identified at the early stages of the interview process was the level of training some of the academics needed, in order to cope with the technology needed to work remotely and the source where this training and support was coming from. We identified three initial categories of support depending on academics' experiences:

- No previous experience, limited support given by the university and main support given by colleagues within the department
- Some previous experience, some support given by the University in the form of online resources and self-taught what they needed
- Previous experience with main support given by colleagues.

It became clear that some universities provided online training sessions for academics to attend in order to familiarise themselves with Teams and certain features, as they were being introduced, training on recording lectures and some general advice on wellbeing and working from home. It was overwhelming though, when some academics mentioned the support they received from colleagues, how this was extremely appreciated and the importance of that support for them. This was even more appreciated in case where academics had young children to look after at home and they were facing practical difficulties in terms of even finding the time to familiarise themselves with the new technology.

5.4 Working patterns

During the analysis of the data, we have identified differences between full time and part time academics working from home, but, at the same time, that pattern being affected by the family circumstances of each academic. As an example, one participant (P05) has a family with school age children who have been home schooling and a partner who is also working from home during the lockdowns. The academic has identified that although she is employed on a part-time basis, at a specific percentage, she realised that her work was taking over her daily routine and she ended up working on a full-time basis. The point she raised at that time of the interview is that she felt that she had to put the hours in order to provide for her students as she identified that her students were also suffering during this time. In essence, she felt that she had to work longer to try to support them in what they were also going through. On a similar note, another participant (P13) identified that when she realised that she was working a lot longer than her contracted hours, she realised that she had already been working in a similar pace even before the pandemic. The difference with the latter academic is that during the pandemic, she made a number of decisions to change her work/life balance, as she identified that she "was suffering for a while" and she wanted to "look after" herself.

5.5 Wellbeing and work/life balance

The issue of employee wellbeing and work life balance has come through strongly during the data analysis process, especially in connection to workload on the interview participants and overwhelming demands due to the additional work they had to do to be able to cope with the changes the pandemic brought to their teaching, learning and research activities, as well as student support demands during this time. 'Precarious labour, overwork, attacks upon educational and disciplinary values, attacks upon academic freedom, and pressure on academic identity' (Ferris, 2021 p.24). One academic (P08) mentioned that "I find hard to stop working when I am at home so I am being very strict with myself and turn everything off, so I don't have the temptation to look at it or answer an email etc." Balancing work while at home has been a challenge for the majority of the academics, with the exception of a small

group of academics who, living on their own, have managed to find a balance between work, break time and home time. Those academics did not have any dependencies or caring responsibilities and have mentioned, in fact that the pandemic period was very productive for them.

A number of academics have reported that what was extremely concerning for them was the support they felt they had to provide to students during this time, which meant on several occasions, emotional support to students out of "office" working hours. This has had an effect on the emotional wellbeing of the academics themselves, as they discovered they almost had to resume the role of counsellors to be able to assist and support students who were struggling psychologically during the lockdowns. They have reported that no specific training was provided for them to be able to perform such a role and the ones who got drawn into this type of support, were negatively affected from the experience.

Through our research, we have identified that the issue of the response towards the pandemic as a crisis has been translated differently by the participants, according to their individual circumstances. A variety of participant responses have shown that universities have shown their support by offering information and practical solutions, such as extra days of annual leave. Such responses though were seen by academics in different ways. There was a number of academics who reported they did not feel they needed the support and did not use any of it, but others mentioned that the support was not adequate and not tailored to their needs. There were those who mentioned that support offered was useful, but the most meaningful support was offered by immediate line managers or colleagues who were going through the same challenges. Finally, there were those women who suffered substantially during the pandemic, not only medically, but emotionally too, and the support provided was not suitable to their individual needs. Responses at times of crisis, and preparedness can take different forms, but it seems that it is a challenge to prepare for the unknown, especially when people's individual circumstances are so different that cannot fit a specific model.

6.0 Conclusions and Implications

In recent decades, the UK educational community has seen a significant transformation on different levels, both in terms of their operation with a heavy reliance on audits and metrics, as well as the core of their existence, which is academic activities (teaching, research, knowledge creation and exchange. In this challenging climate, the worldwide spread of the pandemic has become an additional layer in an already disconcerting environment. One could argue that technologically, the pandemic has facilitated a shift in virtual teaching and home working, using technological advances that would not have been used at such a speed. Although the pandemic has created a wealth of challenges both for staff and students, it can be seen as an opportunity for "openness and collaboration", so HE institutions can create a "new identity" (Faragher, 2021).

The years leading up to the time of the pandemic, HE institutions were focusing their efforts on interdisciplinary collaborations, links with the community, collaborations with business partners, in order to create a network of professional links. Inevitably, institutions will have to be looking to find a panacea, in order overcome the drawbacks from the pandemic. Some collaborations may continue in a virtual environment due to the technological progress to create digital innovations or rather put in practice long term digital innovation plans. An extend to the work institutions will have to engage with is to seek plans to promote and establish "lifelong learning" and "reskilling" (Faragher, 2021). The success focus should be based on adaptability and flexibility, which institutions may have moved away from in previous years. The unstable environment with international students travelling and studying in the UK, will have to compensate with alternative student markets in the form of local community links and encouragement of sourcing applicants from certain areas within the UK, creating links with schools and sixth-form colleges.

For the Higher Education community, the pandemic has been an incentive to speed up initiatives on digital learning, remote working but an educational community working in isolation. The administrative staff have had to move all operational processes online and adapt their workflows accordingly. It has brought financial uncertainty for a number of HE employees who had to be furloughed (Jump, 2020) for an extended period of time. The staff work-life balance has suffered, as the pandemic has created

home-working environments, which were not always suitable and adequate for home working. The pandemic has also created "gendered inequalities" due to the working conditions and home circumstances for men and women (Oleschuk, 2020). In many cases, women have been stepping up to adjust their working patterns, in order to manage housework, home-schooling and any other type of caring and family responsibilities (Collins et al, 2021). Technology was both a saviour and a destroyer as it helped people to come closer together virtually but divided them apart at the same time. Universities have a duty of care to provide support both on the technological aspect of academic life but also the work life balance and subsequent life changes.

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