CHALLENGES AND OPPORTUNITIES OF MIGRATING TO ONLINE TEACHING AND LEARNING IN ZIMBABWE IN THE FACE OF COVID-19: THE CASE OF THE CATHOLIC UNIVERSITY OF ZIMBABWE.

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ABSTRACT

The study assesses the challenges and opportunities of migrating to online teaching and learning in Zimbabwe, in the face of the COVID-19 pandemic. Undertaken at Catholic University of Zimbabwe (Chinhoyi campus), the objective is to generate knowledge for improving evidence-based decision making in mitigating, preparing for, and responding to the pandemic. The study is a qualitative, descriptive research, whose aim argues that, though online education might have been prompted by the advent of coronavirus, the online teaching and learning is here to stay. Based on the findings from the literature review, one of the determinants of a sustainable e-learning program in education in Zimbabwe could be the availability of reliable infrastructure such as, internet access to provide opportunities for synchronous interactivity. The study suggests that stakeholders should investment in e-learning facilities. In the presence of appropriate technological tools, uninterrupted electricity and better access to the Internet - educators and students will be better able to implement e-learning programs in learning institutions. The study has found that real learning should be learner centered, with the instructor offering guidance. The study concludes that on a lighter side, COVID-19 could also be viewed as a blessing in disguise.

KEYWORDS: Challenges of on-line learning, opportunities of on-line learning, virtual settings, community, COVID-19.

1.   Introduction

The former Secretary of Defense for the United States of America Donald Rumsfeld once said: -

As we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know. "Known unknowns" are things that we know we don't know. Risk factors such as the price of oil – are things that we know are risk factors, even though we don't know how they will turn out. They are "known unknowns". Our investment strategies are the tools we employ to manage these risks. While these risks cannot be eliminated or perfectly mitigated, they can be planned and prepared for. "Unknown unknowns" are risks we don't know that we don't know (Rumsfeld as cited by Seltzer, 2020).

Although the COVID-19 belongs to a known family of coronaviruses, this particular one is novel, hence scholars can safely classify the coronavirus pandemic under the "Unknown unknowns." This new virus was unknown before the outbreak began in Wuhan, China, in December 2019.

1.1 What is a coronavirus?

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The Ministry of Health and Child Care, Zimbabwe, (2020) defines coronaviruses as a large family of viruses which may cause illness in animals and human beings. In human beings, the viruses cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and severe acute respiratory syndrome (SARS). The most recently discovered coronavirus causes coronavirus disease later named COVID-19.

At the onset of the pandemic, countries around the world were seen increasingly closing down institutions, organizations and industries as a response to the unprecedented coronavirus pandemic, all in the hope to save lives. Governments around the world imposed social distancing measures in an attempt to contain the spread of the new Coronavirus. This new order has altered ways in which people do "things." Among the institutions affected is the education fraternity. On 10 March 2020, the United Nations Educational, Scientific and Cultural Organization (UNESCO) convened a global videoconference of high education officials to step up the emergency response and share strategies to minimize learning disruption worldwide. In Zimbabwe, just like in many other parts of the world the motto has been, *"Combat COVID-19; Keep learning".* Our learning institutions have landed in massive "migration" from traditional in-class face-to face education to online education as the only way of ensuring the continuity of education during these times of crisis. At the time of writing this paper, the researchers are reminded of the Elizabethan philosopher Francis Bacon, who once argued that "...human beings should consult nature, and not rely on the writings of ancient philosophers such as Aristotle or on the Bible." Though sounding somewhat blasphemous, surely, the current situation does not require philosophizing. Like other contemporary researchers on the pandemic, the researchers are largely motivated by need to have a broad understanding of what others say about the phenomenon.

It is against this background that the overall aim of this paper is to critically assess the challenges and opportunities of migrating to online teaching and learning in Zimbabwe, in the face of COVID-19 pandemic. The main objective is to generate knowledge for improving evidence-based decision making in mitigating, preparing for, responding to, and recovering from the COVID-19 pandemic in Zimbabwe.

2.0 Literature review

Schools, colleges and universities worldwide, responded to quarantine with a sudden shift to online learning environments. In this article, the researchers conceptualize online education as learning and teaching whose material is completely delivered through

online. This review seeks to gather opinions about challenges and opportunities of migrating to online education from credible sources.

Multiple studies suggest that most students are already confident that technology-enabled learning works, though this has probably been a difficult transition for some faculty members and learners. An online and phone interview of 21 university faculty conducted by Gillett-Swan, (2017), provides some subjective data regarding online learning. More than half of the interviewees felt that learning in online environment is more profound as the discussions seem both broader and deeper. They also felt that in such an environment, the quality of student contributions is more refined as they have time to mull concepts over as they write prior to posting. The fact that students must take the time to write their thoughts down, and the realization that those thoughts have the potential of being permanently exposed to others via discussion board, brings about a deeper level of discourse (Gillett-Swan, 2017). He further states that the quality of discussion can be tied to the course participation grade which again motivates students to put greater thought into what they write. Another study conducted by Asynchronous Learning Network (2020) interviewed 20 university faculties that taught both face-to-face and online, representing various departments in their schools. This was a semi structured interview where faculty answered 14 questions which were then coded and the most frequently coded passages were determined. The faculty in this study frequently spoke of online education learners being more reflective or careful in crafting their own responses and also mentioned the higher quality of questions and comments from online learners.

Rovai, Ponton, Wighhting and Baker, (2007) conducted a study on "*Comparative analysis of student motivation in traditional classroom and e-learning courses*". Their study showed that faculty experiences with online teaching (in particular student motivation) were gratifying, stimulating and rewarding. Rovai et al, (2007) are of the opinion that most online instructors will agree that teaching online is no less rewarding than teaching face-to-face. In a lecture-room or classroom setting, the instructor might feel good about a moment when the students display understanding of difficult concepts. The experience is

also quite similar when an online student posts something thought-provoking on discussion board (Rovai et al, 2007). They further argue that learners may have access to case studies and the latest testing methodologies that can be shared with everyone involved in the course. As such, the experience of a course instructor can be rewarding in traditional, virtual, or blended environments.

Stuart, (2020) in his article **"***Multiple Pedagogical Tools can facilitate Change***"** submits that: -
One of the most interesting changes in educational thought is that online students can become the makers. Students have access to screen capture, videos and video production, images, online libraries, wiki creation, chat rooms, face-to-face programs, like Zoom and Skype, and much more. Students can work on projects together and check each other's work. They can work on their own projects and then submit them for peer and instructor review. Students can then review their own work and self-reflect on how to make their work better. Just a few decades ago, it would be unheard of for any kind of student to participate in their own assessment in an open and democratic manner. These types of projects where students are the makers can promote higher-order thinking skills like analysis, evaluation, application, and synthesis (Stuart, 2020).

Shifflett, (2020) is of the opinion that students have always expected that technology would be integrated into teaching approaches - COVID-19 may just have expedited this process. Such an expectation from students could have been prompted by the realization that, online education enables learners to share data. It is flexible. Students have full control over their own learning as they can arrive, learn, engage—all at their own pace in a collaborative environment; which provides multiple pathways and opportunities for those seeking further education (Cavanagh, Burston, Southcombe and Bartram, 2015). Also, students whose geographical constraints, financial limitations, and work and binding moral duties make it difficult for them to participate in brick-and-mortar classrooms, will be able to enroll online and earn high quality, inexpensive degrees. Another cause of such expectation could be that introverts in face-to-face classes have the Internet as a

shield that emboldens and encourages them to speak up without feeling apprehensive about expressing their opinions since online education takes away some of the social awkwardness of both time, pressure and uncertainty that are prevalent in face-to-face communication (Broadbent and Poon, 2015).

In 2016, about 2.2 million students attended college exclusively online, according to the National Centre for Education Statistics. The findings were that online learning provides many benefits for students who want flexibility while attending college. Some advantages include: -

1. The ability to take courses on one's schedule;
2. The opportunity to learn on any connected device, without having to relocate or attend class in person (education travels to the learner and not vice versa); and
3. **The opportunity to get to know students from different backgrounds in an online course setting is gratifying.**

In the same vein, Shifflett, (2020) makes insightful projections about a tipping point where technology may truly become embedded into our educational approaches as the new normal. Shifflett has a vision where online modes capture flexibility in a variety of ways. She outlines the following long-term opportunities;

1. When higher-than-expected enrollments require additional sections to be offered quickly, online education becomes the answer,
2. When an individual student is required to miss an on-campus course,
3. When adverse weather challenges commuters,
4. **When work or personal priorities keep an adult learner from attending class,**
5. When illness of a faculty member requires another to step in remotely,
6. When there is an immediate need for specialized training,
7. When a student wants to create their own path,
8. When an individual student needs a class in order to graduate,
9. When high-demand courses are overbooked,
10. When lower-demand courses still need to run to meet student requirements, and
11. **When there is a global pandemic that threatens to quarantine citizens all over the world online education becomes the answer.**

Commenting on the current scenario, Shifflett, (2020) is quick to say, "learners and educators are persuaded to have new enthusiasm and trust in online environments and be more willing to incorporate blended approaches into campus teaching." This view is supported by Giannini, (2020) the UNESCO's Assistant Director-General for Education: who proposes that the education sector and all stakeholders need to come together not only to address the immediate educational consequences of this unprecedented crisis, but to build up the longer-term resilience of education systems.

However, Maggioncalda' (2020) says online education could be certainly a trial by fire, since most educational institutions have not traditionally invested in online education as a core aspect of their learner experience. Davidson et al, (2015) also suggest that the barriers to participation that external students may experience are particularly evident in collaborative learning tasks through group work, group presentations and group assessments. Some of the issues experienced can be personal such as: anxiety associated with using technology; being out of one's comfort zone; perception of inequity in assessment, particularly in "group" assignments; and the perceived inability or difficulty in peer interaction, particularly in presentations. Many academic staff members may also feel apprehensive and not suitably equipped to teach via wholly, online particularly as they also may be still learning to use some of the platforms (Little-Wiles and Naimi 2011).

To buttress the views put forward by Davidson et al, (2015) Little-Wiles and Naimi, (2011), take us to a study entitled *"Overview of online education: Attractiveness, benefits, challenges, concerns, and recommendations"*, carried out by Li and Irby (2018) between fall 2016 and fall 2017 at Queensland University of Technology; Australia, shows that though the number of students who took at least some courses online grew 5.7% year-over-year. The benefits could be clear, but online students may face some unique challenges compared to students on campus. To attend class online, learners need a certain degree of technological proficiency (Li and Irby, 2018). The connection and feeling

of being part of a learning community is somewhat lacking in online education and as a result an online student feels isolated (Li and Irby, 2018).

In response to the challenge of isolation, Garrison et al, (2001) explore this isolation further and construct the concept of "social presence" within the online learning community, which is the ability of participants to project their personal characteristics into the community and present themselves as real people. Garrison et al, (2001) propose a practical approach to build a Community of Inquiry (COI) into an online course. The COI is a theoretical framework focusing on facilitating meaningful learning experiences through three presences: cognitive presence, social presence, and teaching presence. The scholars argue that, online community building has positive effects on the quality of student learning, increases student engagement, and encourages motivation of students in online courses. The COI framework that highlights three core elements—cognitive presence, social presence, and teaching presence—is used to create a meaningful educational experience (Garrison et al, 2000). These presences are interdependent as depicted in Figure 1.
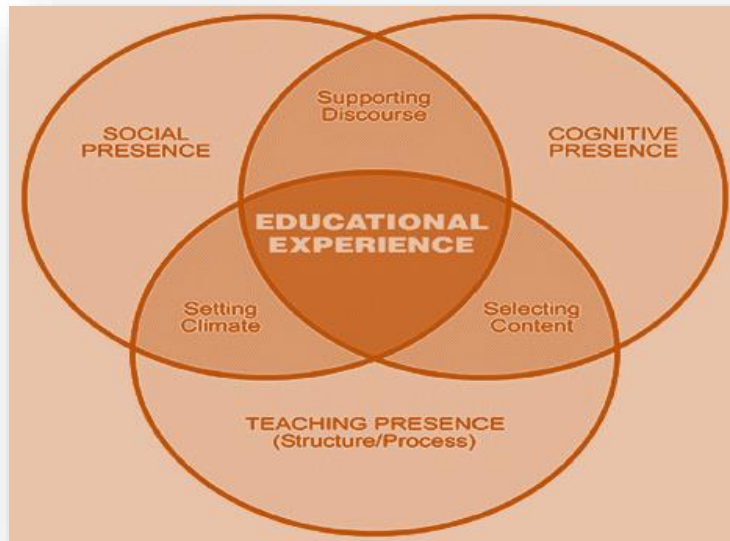
Figure 1. *Community of inquiry framework. From Critical Inquiry in a Text-Based Environment:* Computer Conferencing in Higher Education, by. Garrison, Anderson, and. Archer, 2000, The Internet and Higher Education, 2, p. 88.

The three presences of the COI framework as shown in Figure 1 are multidimensional. Cognitive presence is the ability to construct and confirm meaning through sustained reflection (Garrison et al, 2000). According to Lowenthal and Lowenthal, (2010), "social presence is a theory that explains the ability of people to present themselves as "real people" through a communication medium. Garrison et al, (2000) describe teaching presence as the design, facilitation, and direction of cognitive and social processes to support learning.

2.1 Keeping the doors of learning open in the face of covid-19

The succeeding sections put together the challenges and opportunities of migrating to online teaching and learning. The Global, regional and national-level policy makers have not simply watched the education sector grinding to a halt. One mitigatory strategy has been migrating to online teaching and learning with its challenges and opportunities.

2.2 Challenges

The threat of the new virus has come with a set of challenges for faculty and students, who find themselves shifting to online environments. From the learners' perspective, perhaps, the most common challenge students face in on-line learning is the lack of face-to-face engagement with instructors and other students. This is so, because online courses are typically conducted through a virtual learning platform. Learners face barriers to their full participation in course content. The connection and feeling of being part of a learning community is somewhat lacking in online education and as a result an online student feels isolated and struggles for social presence (Allen and Seaman, 2010). Students may sometimes get frustrated due to the lack of human contact, the absence of a teacher and an inability to discuss with their classmates. Close to that, sometimes, the online world, no matter how enriching it may be, can become too small for the student and they may need a physical space where they can resolve their queries and practice with real tools (Allen and Seaman, 2010).

Furthermore, the on-line teaching and learning modes are characterized by the notion of "a one-size-fits-all approach." That is, study packs are converted into forms deemed suitable for all remote learners which may not be applicable (Orlando and Attard, 2015). Orlando and Attard, (2015) refute that "teaching with technologies is not a one size fits all approach as it depends on the types of technology in use at the time and also the curriculum content being taught."

A number of studies on the subject have pointed out that online education does not work well for all students, particularly disadvantaged students under normal circumstances. And what more, the current circumstances are not normal.

From the instructors' point of views, performance assessments (such as presentations and demonstrations) can be more challenging to administer online. One other challenge, coming from the reviewed literature, is recreating the dynamics of face-to-face instruction. The other is the serious gap and disconnection between the way educators were taught

to teach in colleges and universities and the sudden shift to on-line settings (Barrett, 2010). Yet another surprise for educators is that while the pandemic requires universities to rapidly offer online learning, many are encountering the difficulty of developing high-quality online learning from scratch (Barrett, 2010).

On another level, educators who might be die hard or fanatically determined to stick to the traditional modes of instructional delivery, are exposed. Every online instructor faces the challenge of mastering the course management system and keep up with emerging technologies (Allen et al. 2013). Moreover, educators in specialized learning areas deal with the difficulty of moving classes online. For example, classes in the sciences that often use laboratory work require special equipment and the question is: "How does a lab course look like online?" (Allen et al. 2013).

On-line sessions may also encounter hiccups when spontaneity is altered by technical requirements and distance eliminates genuine supervision. The instructor might never really know, for example, if students are engaging in other issues competing for their attention. Cheating is easier to do (and harder to detect) online than with face-to-face students (Watson and Sottile, 2010).

Visser (2000) brings in another observation from his personal experience, comparing the online teaching with his prior face to face experience. His results indicate that the time and labor-intensive work that is required in online course development and delivery are greater than that of regular classroom. This might involve typing every instruction that could be verbally communicated in a face-to-face setting with minimal effort. In Zimbabwe, the education system is unequal. Some schools are funded, others are not. Too many schools cannot move curricula online, because there is no, or not enough, infrastructure to do so. The current necessity for a shift towards online learning reminds us that although we live in the same country, we do not share the same resources.

2.3 Opportunities

From the ongoing review, online education has numerous opportunities. The e-learning format offers students great flexibility: they can take the courses when and where they like, at their own pace and with no physical limitations (Shifflett, 2020).

In Zimbabwe, like other parts of the world, migrating to online teaching and learning has been overwhelmingly accepted and embraced as a noble alternative teaching and learning strategy in the face of COVID-19 pandemic, by both learners and educators.

Some of the frequently mentioned advantages of online teaching are that it is convenient, efficient, and can be fun and rewarding. Courses provide the opportunity to work with new and emerging cutting-edge technologies for both learners and educators. Online instructors can teach from anywhere in the world as long as they have an internet connection (Li and Irby, 2018).

There is no class time missed due to illness, public holidays or even natural disasters. In addition to convenience, the online environment also offers excitement as well as new challenges for both learners and the instructor. The instructor can create interactive learning tools for teaching challenging concepts, which is more interesting and exciting for the learner than using still pictures or verbiage in a face-to-face lecture (Li and Irby, 2018).

Apparently, unprecedented times call for unprecedented measures, and every challenge is an opportunity in disguise.

3.1 Methodology

The article is a descriptive desk content analysis that adopts the qualitative research method. Qualitative research (QR) is a way to gain a deeper understanding of an event, QR gathers data about lived experiences, emotions or behaviors, and the meanings individuals attach to them. It assists in enabling researchers to gain a better understanding of complex concepts or social phenomena (Melia, 2000).

The bulk of what the authors might want to further explore about qualitative research process is summed up by three scholars, Richardson and Pierre, (2005) and Mason, (2002) as follows: -

With qualitative research, the sense of argument develops through the whole process of data collection, analysis and organization. This makes qualitative writing in essence very different from quantitative writing. Qualitative writing becomes very much an unfolding story in which the researcher gradually makes sense, not only of his or her data, but of the total experience of which it is an artefact. This is an interactive process in which the researcher tries to untangle and make reflexive sense of his or her own presence and role in the research. The written study thus becomes a complex train of thought within which the researcher's voice and his or her image of others are interwoven. Therefore, unlike quantitative work that can carry its meaning in its tables and summaries, qualitative work carries its meaning in its entire text… its meaning is in the reading. The voice and person of the researcher as writer not only become a major ingredient of the written study, but have to be evident for the meaning to become clear (Richardson and Pierre, 2005).

Mason, (2002) also adds his voice on the fundamental differences between qualitative and quantitative research, and contends that: -

Qualitative researching is exciting and important. It is a highly rewarding activity because it engages us with things that matter, in ways that matter. Through qualitative research, we can explore a wide array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imaginings of our research participants, the ways that social processes, institutions, discourses or relationships work, and the significance of the meanings they generate. We can do all of this qualitatively by using methodologies that celebrate richness, depth, nuance, context, multidimensionality and complexity rather than being embarrassed or inconvenienced by them. This means that qualitative research has an

unrivalled capacity to constitute compelling arguments about how things work in particular contexts (Mason, 2002).

A qualitative method of inquiry, therefore, investigates the why and how of decision making, not just what, where, and when. Hence, smaller but focused samples are more often needed than large samples which would make this study feasible.

3.1.1 Research method

The research methods or strategies or processes or techniques utilized in the collection of data for this article are those compatible with the qualitative research; which are interview, questionnaire and documentary sources.

3.1.2 Identification of the population

A purposive sampling procedure was used to engage a sample size of fifteen (15) lecturers from a total of twenty-five (25) and twenty-five (25) students from a total of forty-five 45 third year students from Catholic University in Zimbabwe (Chinhoyi campus). From the sample fifteen (15) lecturers were interviewed and twenty-five (25) students completed the questionnaire. The interview and questionnaire sample schedules are shown in appendices 2 and 4 respectively.

3.1.3 Research instruments

The major instruments used were interviews for primary data and questionnaires to augment secondary data. Questions focused on learners' issues, content design, and issues related to instructors. The bulk of data came from documentary sources in the form of print or published material as well as from the incredible amount of data available online on internet.

3.1.4 Data analysis

Accompanying the Grounded theory, which is an inductive methodology that informs the analysis and provide systematic guidelines for gathering, synthesizing, and conceptualizing qualitative data, the researchers used the thematic content analysis to guide interpretations. Thematic content analysis comprises two distinct stages: encoding and decoding, where encoding refers to the conclusions drawn from the obvious content and decoding refers to inferences drawn from the unidentified content (Guba and Lincon 1989). The themes and concepts arising from the findings were categorized and grouped together to ease the analysis. The research objective was addressed using axial coding to analyze the data.

4.1 Informed consent

All participates were asked to complete the informed consent drafts as shown in appendix 1(b) and 3(b).

4.2 Findings and discussions

The survey results provided persuasive and insightful information on the opportunities and challenges of using technologies for online teaching and learning.

Findings from both lecturers and learners used in the study revealed interesting views on the use of technology for online teaching and learning. The major challenges on which the majority of lecturers interviewed concurred are that of the cost of data bundles and unreliable internet access and connectivity. Members really felt that the exercise is costly.

But also, as the major advantage of online teaching and learning, online instructors can teach from anywhere in the world as long as they have an internet connection.

On the use of computer technologies, 50% of the teaching staff interviewed claimed to be comfortable with computer technologies. However, the other 59% felt that it is something they are doing from scratch and seriously need in-service. On whether e-learning could replace traditional classrooms, the majority felt e-learning should only augment. Most lecturers did not know how social presence in online education be achieved. Members also generally felt that the end result should be taken on board by educators but that instructors need to be fully prepared for the "new" experience. On whether COVID-19 was an experience that will help us to better prepare for the next time, the majority of lectures agreed so. The "non-stop" nature of online teaching and learning was taken not as a big issue by the majority.

From the learners' perspective, the majority complained about lack of social presence as a major setback. They felt that absence of body language and paralanguage from their lecturers short changes them. However, the majority of students believed that a complete course can be given by the Internet without difficulty. More than half of the students agreed that e-learning can replace traditional classrooms. Overwhelmingly, learners appreciate the comfort of learning from their own homes at their own pace and so, staying far from resources or universities is no longer a learning barrier.

The reflections presented throughout this paper indicate that scholars have aggressively proffered solutions to the identified challenges. While it is understandable that not all people have access to the tools needed for this transition; communities and individuals should try to help create an equal field for online learning. Also, given that economies grow, the limitation may not warrant much attention among educators and learners. The crisis has allowed us an opportunity to understand what is possible. Yet, the current crisis has also illustrated that we cannot afford to treat online learning as a crisis-management tool but a vital organ. COVID-19 should be a blessing in disguise that is teaching us to navigate new and different responsibilities and realities. The alternative teaching and

learning environments being rapidly developed right now need to be put in context of the times that we are living in. We are not creating alternative teaching and learning environments by choice. Our students are not opting to it by choice. We are in a global crisis, which demands of students and faculty to not only switch to new learning environments, but also forces them to embrace the new learning environments.

5.1 Conclusion

The Zimbabwe's constitution (chapter 2: section 27) projects education as a prerequisite and a right, and we think most nations place great importance on education. Online learning may gradually open up global learning opportunity for the needy masses. In the face of COVID-19 The learning platform is of immense use to educators and leaners alike when teaching, without which online teaching is not possible. It is reasonable to believe that many problems with online learning—particularly for at-risk students—would be mitigated if these courses and programs consistently incorporated the frequent, substantive personal interaction that is central to the learning process. *We shall recover, we shall overcome and we shall prosper.*

Data availability

The datasets generated and/or analyzed in this study are available from the authors on request.

Consent

Interviews were carried out only after informed consent was obtained from the respondents.

Disclosure

The authors have approved this manuscript for submission and claims that none of the material in the paper has been published or is under consideration for publication elsewhere. Other people's ideas have been acknowledged.

Conflicts of interest

The authors declare that they have no conflicts of interest.

Author contribution statement

E. Chirume wrote the main text of the manuscript, N. Kaseke reviewed the manuscript.

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