American Journal of
Online and Distance Learning
(AJODL)

Curated eLearning in South Africa: A User Burgeoning Perspective

Dr Wynand Goosen

American Journal of Online and Distance Learning
ISSN 2957-8027 (online)
Vol.5, Issue 1, No 1, pp 1 - 24, 2023

www.ajpojournals.org

Curated eLearning in South Africa: A User Burgeoning Perspective

[1*]Dr Wynand Goosen
Post-Doctoral Candidate, Swiss Institute for Management & Innovation
Corresponding Author's Email: drwynand@gmail.com

Article history
Submitted 1.05.2023 Revised Version Received 15.05.2023 Accepted 26.05.2023

Abstract

Purpose: This investigates the role of curation as an agile way of improving learner experience in eLearning. The current eLearning systems in South Africa often fail to provide effective learning experiences due to their one-size-fits-all approach, such as the assumption that eLearning can replace the educator's role. The absence of a "support process" for eLearning hampers effective learning. The current Digital Eco System focuses on eLearning with limited regard for learner contexts.

Methodology: The International Youth Foundation (IYF) "curated" a program consisting of a Google Certificate, Critical Thinking, and Life Skills called "Skills for Success" (S4S). The curated program was completed by 500 learners. A survey of the learners was conducted to interpret user experience. A literature review, including journals, conferences, books, and websites, supports the research survey. The researcher's experience and observations are also documented. Concepts and Categories are identified from where "themes" are identified. Findings are made using grounded theory.

Findings: The grounded theory process indicates that the learning landscape requires a "Curated Learning System". Process curation includes WhatsApp, Email, Telephonic Support, Zoom, Teams, and SMS, whilst content curation includes Critical-Thinking, Passport-to-Success and a Google Certificate, all delivered in one program called "Skills for Life". The "curation" of eLearning consists of "process" as well as "content" for more effective programs. Traditional support from facilitators is required in a non-traditional format. The research is confined to the "curation" of learning that is delivered online. Quality of Learner Management and online eLearning systems are excluded.

Recommendations: From the themes, the research supports the role of content and process-curated learning, a need for more agility in eLearning delivery, and the importance of having a Home Space, a Work Space, and a "Third Space" where effective learning can occur. The research also shows how technology drives the development of a Digital Framework for delivering effective learning programs and the evolution of Homo Digitalis.

Keywords: *eLearning, Online Learning, Paper Based Learning, Face-To-Face Learning, Integrated Design, Learning Management Software, Curated Online Learning, Third Space, Homo Digitalis.*

INTRODUCTION

An effective Digital Education Framework surpasses traditional eLearning and paper-based systems, integrating various digital assets with standard requirements for effective learning program design (Picciano, 2017). While eLearning systems use digital resources, they do not necessarily consider learner needs or pedagogical requirements. Paper-based learning is designed for Face-to-Face delivery rather than for delivery over digital frameworks. Curated learning combines and delivers different content on an integrated basis to help learners make sense of vast amounts of online information. Curation can range from early childhood educational technologies to lifelong learners negotiating the fast-paced new digital media environment (Mihailidis & Cohen, 2013).

Curation of learning enables a Digital Education Framework that combines eLearning and paper-based learning elements, considering all features necessary for effective, integrated, agile learning delivery, including learner needs, pedagogy, and digital issues (Fawns, 2019). However, physical impediments must also be considered in developing the Framework, particularly in rural areas. Rural communities often need more necessary infrastructure, like Cell Towers, Fibre, and Satellite connectivity, to address limited internet access and slower connections (Aruleba & Jere, 2020). South African learners face additional challenges, such as limited device access due to weak currency exchange rates. Although smartphones provide some access, they are not ideal for online learning. Curated learning can help learners collect, organise, interpret, annotate, and share online resources on a topic of interest in a much more dynamic way (Hole, 2019).

Increased digitisation requires further development of how learners interact with digital learning systems. Systems developers should consider the impact of User Interface (UI) and User Experience (UX) on the learner's senses when designing eLearning systems. Further technological developments will bring new demands on learners thinking skills and interaction with the digital world. (Acer, 2023), believes that eLearning will continue to focus on being more accessible and interactive. Augmented reality and gamification are also set to increase (Kumar, 2023). Future systems will focus on engagement and self-motivation. eLearning systems are expected to become more personalised, thus refining the need for curated programs further (Bouchrika, 2023).

Problem Statement

The current eLearning systems in South Africa face several challenges that hinder their effectiveness in providing quality learning experiences to learners. This is due to a one-size-fits-all approach, such as over-relying on a single LMS, a single program and limiting the role of the educator. eLearning often needs to acknowledge the use of various tools in delivering eLearning. Effective curation of programs can combine multiple programs and optimise delivery by integrating different technologies. The absence of agility in curating content and process hampers the acquisition of diverse skills. User experience and interaction need improvement to drive the evolution of humans and how skills are acquired. These three fundamental problems require attention and solutions to improve the effectiveness of eLearning in South Africa:

Limited Curation of Learning

Learners often have needs beyond the programs offered on a particular platform, while the learning needs may extend to multiple platforms. This lack of integration can be problematic, as it limits learners' ability to develop a comprehensive set of skills (Al-Emran, et al., 2016). Curated systems are needed where learners can be guided to use multiple platforms to create

an integrated skill set. (Neusser, 2022) discusses the possibility of using a Learning Experience Platform (LXP). The author explains that LXPs can be connected with almost any other eLearning application and platform. Materials can be supplemented with those of other eLearning providers. This enables the provider to offer learners a more comprehensive library and choice of programs. (Neusser, 2022) further explains that "you can use an API integration to connect an LXP with other business software applications such as cloud services, ERP, or CRM."

Some organisations may need to opt for multiple LMS's to meet the specific and unique needs of their business (Omer, 2018). The use of multiple LMS's enables the delivery of "Problem-Based" learning needs. Where a skill set has to be developed at speed, it's not always possible to do so from one LMS. When a required skill has to be obtained from multiple LMS, an integrated program can be curated with the aid of the LXP. (Neelakandan, 2019) discussed the need and role of Curated Content in eLearning. Content Curation involves compiling a training program based on information from different platforms. However, delivery can also be curated, thus using multiple delivery methods such as Whatsapp, Teams, email and Cell phone calls.

The lack of Agility in Development

A study by (Irfan & Iman Hermawan Sastra, 2020) contend that online learning is ineffective and is conducted inappropriately. The authors refer to several factors: "unsuitable internet facilities, teachers' inability to implement online learning, and the lack of cooperation given by parents." In a study by (Basar, et al., 2021), ninety-eight per cent of respondents felt that learning face-to-face is more effective than online learning. Further findings suggested that "teachers should play an important role in designing engaging and interesting learning for learners". The study argues that eLearning models lack the interpersonal interaction and communication essential for creating a supportive and agile learning environment. Therefore, an educator must be present to provide learners with the necessary social and emotional support. This approach could enable a more agile mindset in learners and teachers. Agility is vital to ensure learning is current, adaptive and in response to learner and employer needs. According to (Khoiwal, 2021), an online engagement cannot replicate the conversation and questions that a learner asks the lecturer in class.

(Asalla, et al., 2017) concluded that the most critical factor in successful eLearning, was the learning management system (LMS), followed by e-learning tools and e-learning models. (Blum, 2023) mentions that the average adult learner has a maximum attention span of about 20 minutes. If eLearning can be offered with facilitator support, attention spans could be managed by introducing varied activities. The absence of support from educators could lead to lower engagement and motivation levels, making the learners feel disengaged and disconnected from the learning process. (Maffea, 2020) found that the role of the educator is critical in guiding learners. This facilitator support is needed to ensure a more agile approach. Education is about content delivery and creating an environment where learners can engage, interact, and receive personalised support. This problem has been highlighted in the report by (Maffea, 2020). The absence of agility, support and guidance from a facilitator or teacher can lead to a lack of motivation, disengagement, and failure to achieve learning outcomes.

(Sahito, et al., 2020) discuss the perception of online classes in which sixty-four per cent of respondents stated that "online classes are not the replacement for face-to-face classes". Respondents felt that "face-to-face classes have more interaction between learners and teachers, which provides more opportunities to discuss everything than online classes". Online learning should operate in support of agile learning activities rather than serve as a replacement for proven learning methods.

Limited Focus on Learner Experience

Some learners may have unique preferences and require tailored learning experiences to suit their learning styles. In a fast pace working environment, capacitating an individual for a specific job could require skills from various sources. To accommodate this need, eLearning systems must be designed to provide personalised learning experiences that cater to individual learners' needs. Various tools, in addition to the LMS, could be employed to help achieve this objective. Tools like WhatsApp, email, Zoom, and telephone support can provide alternative communication channels to enhance learner support. This problem has been highlighted in studies by (Unicef, 2022) and (Al Faddaa, et al., 2020).

The limited access of learners to devices and data hampers digital learning experiences. Limited resources needs to be considered when developing eLearning systems. Curated, agile systems also require effective UX/UI for a limited data and device environment. eLearning systems should address the role of limited physical interactions between learners to enhance content delivery, learner contact and development. The system should endeavour to provide moral support and promote critical thinking. Content should be structured in a way that allows learners to enhance their skills. (Dhawan, 2020) supports that eLearning should include various tools, such as texts, video calls, and email. Developers should also be mindful of future developments in digital learning, such as Artificial Intelligence's impact and Meta Verse's evolution.

LITERATURE REVIEW

The Evolution of Digital Learning

Characteristics of eLearning Systems

eLearning is “a strategy for acquiring knowledge and skills through digital channels like the internet and other electronic media.” The modern application of eLearning enables sharing a range of education, knowledge, skills, and competencies using digital systems. These systems can manage formal and non-formal learning and continuous skills improvement through short courses, video lectures, animations, slides, and briefings. eLearning systems are constantly expanding (Bouchrika, 2022).

Before developing one, the user must identify the objective of introducing an eLearning system (Fox, 2022). There are various authoring tools with which eLearning content can be curated. The look and feel of the system drive the “User Interaction” (UI) and determines how well the users can pilot their way around the system. User Experience (UX) results from users' emotional and physical responses when using the system. If the system is agile, intuitive, follows a logical pattern, and enables a “journey,” the users are more inclined to enjoy the experience. Therefore, a system that can capture an “emotional engagement” with the user will drive better results (Bureau of Indian Education, 2022).

Most eLearning systems operate on two levels. First, the user interface represents the “shop front” where the user or learner interacts in activities that enhances learning experiences. The Learner Management System (LMS), captures, categorises, and organises learning into a report, academic record, statement of results, and certificate. This includes quality assurance with different levels of automation and physical input from assessors, depending on the nature and level of the learning (Dearman, 2022).

Secondly, learning content is developed on either the SCORM (Sharable Content Object Reference Model) or xAPI (Experience API) compliant (McPheat, 2020). These two standards of building eLearning platforms are the two technical industry norms. It provides the

communication method and data models that allow eLearning content and LMSs to work together (SCORM, 2023). The Experience API (or xAPI) is a new specification for learning technology that makes it possible to collect data about the wide range of experiences a person has (online and offline) (xAPi.com, 2023).

The Role of the Educator in eLearning

The educator in an eLearning environment has an extended role from the traditional, face-to-face trainer. The eLearning educator must be a subject matter expert skilled in using the relevant technology to curate effective, agile learning that ensures learners' experience leads to competency. The eLearning facilitator is also a motivator, advisor, evaluator, and remediator. As the "conductor" of the "orchestra" of learning, the eLearning facilitator ensures the entire process is delivered on an integrated basis (EvolMind, 2022). At the same time, the eLearning facilitator is also responsible for managing the data of all learners in a program. The LMS is the online integrated software for creating, delivering, tracking and reporting educational outcomes. It can support traditional face-to-face instruction and blended/hybrid and distance learning environments" (Bureu of Indian Education, 2023).

Martin (2022) discusses "curated content" from different brands to share on social media accounts. eLearning should be "curated" to include various sources of learning. A survey was conducted to measure the effectiveness of a curated program called Skills for Life, which consists of three components:

* Critical Thinking – Delivered on the SkillzBook.com eLearning platform
* Passport to Success – Delivered on the IYF eLearning platform
* Google Project Management – Delivered on the Coursera Platform

Design Requirements of Curated eLearning Systems

Cooke (2017) explains that "Curated" learning is a learning experience made up of existing resources presented in a new way, as opposed to creating from scratch (Cooke, 2017). Curation happens everywhere, all the time. Learning content curation suggests that various resources can be synthesised to create a learning program. The curation of eLearning is not limited to content. It includes processes and tools, such as a program on Coursera with facilitation sessions on Zoom, WhatsApp chat groups, email service for assignments, and telephone calls for queries.

"Twitter, Facebook, or the more education-focused Edmodo provides opportunities to consistently share content with learners" (Fuglei, 2022). These tools are "streaming" information and are not always agile or suitable for all situations. Closed Facebook Groups might be more user-friendly as part of the curated toolset. Various other websites, such as TagBoard, Flipboard, or Storify, can be used to curate the eLearning process (Dhawan, 2020).

Design requirements for the "look and feel" of eLearning sites are guided by seven standards (Chetia, 2020)**:**

* Purpose of the learning program
* Frame instructional objectives
* Ensure that content aligns with objectives
* Explore strategies to facilitate (curate) learning
* Ensure a system of feedback
* Develop activities that engage the learner (gamify)

* Develop a system of assessment and feedback

These standards precede and direct the design of the front end (website) and guide the User Interface (UI) and User Experience (UX). The UX manages the total experience that the learner has with the eLearning site, including all the actions and reactions the eLearning website may trigger in the learner (Doherty, 2022).

Emotional Responses to eLearning

The emotional response of any website directly influences the UX and should be considered in the physical design. Layout, flow, gamification, and the use of colour are some of the most critical elements. A "good UI is one that users intuitively understand." Learners should always know how to navigate to the next step. Working from a point-to-point basis is imperative (Articulate LLC, 2022). The eLearning website should use designs that are common to most users. Google's golden triangle and hamburger menus are examples of good UI. In addition, design can use "learner personas," wireframes, and usability tests to ensure a compelling UI. Louw (2023) mentions the evolution of "homo digitalis" as a "being" that exists due to its identity being manipulated by a digital experience (Louw, 2023, p. 11). Further research suggest that learners need to draw on a "third space" to create a meaningful experience and effective learning. Home is the first space; whilst work is the second. The third space is an "emotional space" where learning is optimised. The third space can also be an online environment (Waqailiti, 2014, p. 18). "Curated eLearning" with the effective use of UX/UI enables a "third space" where agile learning can occur. Gutiérrez (2008) explained how the third space could be used as a "zone" for development where learners could learn effectively because the learning resonated with their contextual experience. Within this "zone, "the user experience finds gestalt, enabling learners to "mesh their sociocultural practices and lived knowledge with the formal learning environment" (Gutiérrez, 2008).

The Relevance of Curated Learning

This study suggests that "Curated Online Learning" programs be developed for African learners to drive throughput. eLearning has become an essential tool, but not the only component, in the broader education landscape. According to the Digital Marketing Institute, eLearning engages the learner at a deeper level. This improves digital skills and creates more flexibility when having to study. No physical classroom is needed, yet career flexibility is improved (Claiborne, et al., 2020). Curated learning models should include the "curation" of content and design, as well as tools (Arora, 2021). Effective content curation suggests that different skills programs, modules, learning units, or even qualifications could be combined to form a cohesive and agile set of competencies to ensure economic emancipation (Kumar, et al., 2021). Effective learning program curation should be done with the desired outcome in mind. Udemy (2023) states that successfully executed and integrated learning programs are vital to unlocking essential business objectives (Udemy, 2023).

Job Descriptions could be used as the source for curating learning content. The profile of a specific entrepreneur or vocation can also be used as the standard for the curation of an effective online learning program. Good learning content is essential for the success of any eLearning program. Learners should be able to apply lessons in daily work. Learning units must also be digestible in size. White space is as important as colour, but visuals are essential. Content should always be learner-centric (Kerry, 2021).

The curation of tools and resources is dependent on content. The design could include animation and social media platforms such as a TikTok account if the content is aimed at a younger audience and high agility is required. For more mature audiences, something other

than this may be suitable. The curated toolset starts with an effective eLearning platform. Tools such as WhatsApp, email, telephone calls, zoom, and Teams must be added to enhance the experience. Specialist tools such as Canvas and Trello could be used where the program's content requires a more sophisticated curation plan (Simoudis, 2022). The total curated system, content, and tools are like a well-performing orchestra. The composer needs to ensure the correct flow of notes. When artists and instruments function in harmony and sequence, the music flows. Likewise, the curated eLearning program works well when the content is well-thought-through, with delivery tools selected in resonance. "Recent studies have shown that implementing an e-learning system is a process of many different factors, not only a technological solution, such as organisational and social factors and computer efficiency (Tarhini, et al., 2022).

Learner (User) Experience (UX)

The main objective in curating a learning program is to engage the learner in a process that leads to a new level of "being" more competent. Engagement in the learning journey is essential to drive a transformational activity. Good learning design understands that the "journey" may be arduous at some stages. When the human mind has a reason "why," it can cope with any "how" (Frankl, 1962). The reason behind learning can be used to drive the experience into a positive, meaningful state of being (Homo Digitalis).

The learner's experience informs the development of eLearning solutions and curated eLearning programs. Front-end design, training material, and other tools must be curated effectively to ensure a positive learner experience. Just as in the case of Customer Experience, the learner that" buys" an eLearning program must have a positive experience to support the process in the future. Learners often do not use eLearning's features to their whole extent (Bongani, 2020). The Mangosuthu University of Technology learners often only use the eLearning system to download course materials and submit assignments (Bongani, 2020). "The Durban University of Technology (DUT) online LMS is offered using the e-learning tools provided through Blackboard and TLZ Moodle (Bongani, 2020). The importance of curation in the development and use of eLearning is further discussed and supported in the international education arena (Abu-Shanab, 2014).

"Within the business context, agility means responding to market changes at a moment's notice" (Sweeney, 2018). An agile response to a training need implies that a training program can be developed to address urgent skills need. (Pentaguy Blogger, 2021) explains agile learning as "continuous and incremental training that helps employees adapt faster to changes in an Agile environment." Agility in skills development implies a faster response to new challenges (Simplilearn, 2022).

The S4S program was developed in response to a need identified by the IYF, to improve the employability of TVET Learners. The shortcoming of motivation, computer skills and effective thinking skills could be addressed in an agile response by introducing the S4S program. Accredited programs can only be changed by following a long and formal process. Curated learning programs are more agile in response to learner and industry needs. When an industry identifies a need for a specific skill, an agile response is needed to provide such skills on time.

The Research Question

The research considered eLearning's composition, role, and effectiveness in a digital context. Should "eLearning" programs be "curated" for African learners to improve the usage and learner satisfaction of the system? Do African learners do better with Curated eLearning when assisted by educators with tools such as Teams, Email, Video Clips, and tutor coaching? Can

we create agile learning more responsive to the environment's needs? What is the impact of digital learning on the experience of learners?

Research Objectives

The research objective is to determine if learners in South Africa prefer eLearning to be curated instead of simply expecting learners to enrol and complete education without assistance. This objective includes three sub-objectives:

- To obtain an insight into the role and value of curated learning. To understand how content can be curated. To understand how the learning process can be curated to include the role of email, zoom, teams, videos, LMS, face-to-face, and phone calls in eLearning.
- To determine if learning could be more agile by including a broader range of learning programs in one integrated process. To respond faster to learning needs.
- To understand how our interface with digital learning affects our overall experience. Broaden our understanding of who we are due to our expanding digital engagement.

METHODOLOGY

The literature review investigated how digital learning evolved. Secondly, a survey from 500 Learners was analysed to understand their learning experience in a curated program and how learners coped with an agile, integrated program to enhance a learning experience. The effect of an increased digital learning interface on human development was also considered. Thirdly, the experience and observations of the researcher were documented to enable triangulation and reflection. The literature review, learner survey and researcher experience were all analysed using a Grounded Theory process. "Grounded Theory" refers to systematic, inductive methods for conducting qualitative research to develop new theories. Grounded theory enables a flexible methodological strategy and the products of this type of inquiry (Charmaz, 2009). Grounded theory starts with collecting 'slices of data' (concepts) in an area of investigation, which is then codified (categorised) in a continuous process. The themes emerge from the overlapping categories in the literature review, learner survey, and researcher experience. "The process then moves toward saturation and results in the theory densification of concepts represented by a substantive theory" (Lehmann, 2001). Reflective data from the literature review, learner survey and researcher experience is considered in terms of the contribution to the research question:

- Can programs and content be curated effectively in a digital context?
- Can different forms of learning be curated into an agile program?
- What is the impact of our increasing digital interface on the learner experience?

The learner survey is both quantitative and qualitative, thus creating mixed-method research. The potential "Curated eLearning" appears to be an emergent theory for managing digital education. This may suggest an altered education system design emerging from the data. As the research considers data, interpretations are developed. Accordingly, the research is "grounded" on data such as:

- The position of eLearning within a digital world.
- The relationship between learning, content, and process.
- The Curated Model as an emergent theory.
- The development of an "ecosystem" - curated content and process.
- The impact of digital learning on the evolution of learners.

The research starts with a particular data set and investigates emerging theories. Thus the study is grounded on the data. Grounded theory methodology enables the development of theory from a corpus of data. Accordingly, Grounded theory is an emergent methodology (Dick, 2005) (Charmaz & Thornberg, 2020).

Research Design

The literature review explored the evolution of Digital Learning. In addition, the feedback of 500 learners was considered and analysed to determine the learner preference and experience of a curated program. The personal experience of the researcher in eLearning was also considered. Finally, a grounded theory design was used to demonstrate the following:

- How program content and learning process can be curated to serve an overall objective.
- How the delivery processes can be curated to increase the agility of online programs.
- The evolution of Homo Digitalis within the context of an eLearning experience.

The Research Assumptions

- Learner's that complete the program are more employable.
- Learners' opinions are accurate and valid.
- The image of "Google" does not drive an unfair perception.
- Learners have the academic ability to cope with program demands.

Data Collection

The population from where the sample was taken consists of a survey of 500 learners in South Africa. Learners were all asked to participate in the study based on completing a process and content-curated program. The program consisted of 3 components - Critical Thinking, a Passport to Success (motivation), and a Google Certificate. Learners also had to be placed as Interns, accepted on a learnership, or have full-time employment. Concepts and Categories were identified from the literature review, research questionnaires, and the researcher's personal experience. The following steps were followed:

1. Defined the target audience to include learners from Tvet's, Learnerships, and Internship Programs.
2. Completed onboarding, support, and curation of 500 learners in three programs.
3. Used 3 different eLearning platforms – Coursera (Google), SkillzBook (Critical Thinking), and (IYF) for Passport to Success.
4. Ensuring 500 learners completed the curated, agile program using various supporting tools.
5. Survey 500 learners to measure learner experience.
6. Determining if the programs offered met learner expectations.
7. Identifying data shortcomings.

Data Analysis Included:

- Setting a standard of required data.
- Inspecting of data by the project coordinator.
- Considering the relevance of feedback for each learner.
- Transforming data by unpacking and categorising data.
- Modelling data into a framework from where themes emerge.

Physical site visits, telephone calls, ID verification, and regular meetings ensured data quality. The data was tabulated in class lists.

Research Stages

In Stage One, the literature review was analysed to create Concepts and Categories that later inform emerging themes.

In Stage Two, the research survey was completed by 500 learners from various provinces in South Africa. Learners were sourced from TVET, Private Colleges, and One University. The research survey was developed to understand the learner experience and intended to glean insight into the perceptions and experiences of learners in the program and assess the validity of developing Concepts and Categories identified in stage 1.

Stage Three involved documenting and analysing a record of the researcher's personal experience and exploring concepts and categories from the documented experiences.

Stage Four comprised the interpretation and analysis of data from the literature review (Stage 1) and data gathered from the study (Stage 2), as well as analysis of data collected from the researcher's personal experience (Stage 3). During this stage, the research developed into an iterative process of reflection and triangulation, where relevant concepts, categories, and emerging themes morphed into a structured research conclusion.

Research Findings

To manage the complexity of the process while bringing gestalt to the research report, findings from the literature review, results from the survey, and researchers' personal experiences, are presented separately. This approach attempts to illuminate the complexity of the information emanating from the research. In addition, data gathered from the stages will be integrated to report on emerging themes.

A) Concepts identified from the Literature Review

The literature review developed an insight into the objectives of the research. The literature review identifies the limitations of eLearning systems and the need for a more creative approach. In the next section, the study identified details regarding the concepts and categories identified during the literature review:

The Literature Review confirmed 12 Concepts. From these Concepts, five categories were developed:

Table 1: Categories that Developed from the Literature Review

Category No	Category Description	Aligned to Research Objective
Category 1	eLearning systems and curated systems	1,2,3
Category 2	Facilitate the Material	1,2,3
Category 3	The Value of Support	1,2
Category 4	Physical requirements of design – UI, UX	3
Category 5	Evolution of Homo Digitalis	3

Categories 1 & 2 inform research objectives 1,2,3. Categories 3, inform objective 3. Category 4 & 5, informs objectives 2 & 3.

Category 1: In this category, it became evident that traditional eLearning Systems are evolving. At the start of eLearning, the expectation was that eLearning systems would deliver the entire learning activity for a learner. eLearning systems are no more than components in a more curated system. The look and feel of the digital classroom will require as much attention as the

physical classroom. Colour and layout drive the emotional response and level of engagement, which in turn determines the level of learning that takes place.

Category 2: Learning material needs to be discussed and presented by facilitators. Video clips can play an important role but cannot replace the value of personal interaction between learners and teachers. Learners often need specific support levels that can only occur in the "third space" – an emotional state where the learner experiences themselves as learning beings.

Category 3: The value of support, over and above facilitation of the material, demonstrates a level of "care" by the supporting individual and entity. This level of support adds to the level of motivation and feeds through to success. This care factor often adds to "meaning" and drives the individual to engage in a learning program.

Category 4: Physical Requirements of design, or UX/UI, is very important. The website layout, logical flow, intuitive logic, and standardization are becoming more critical. According to Google, the human eye follows a "Golden Triangle" – the website user tends to read from top left to right, when searching. This is supported by the industry standard "Hamburger Menu" that more and more designers use.

Category 5: Homo Digitalis refers to the evolution of humans based on digital influence. The digital world enables us to have more and different ways of existing. This includes Gaming and the ability to study at a foreign university without leaving your country. The evolution of homo digitalis and third spaces suggest developing a comfort level in digital area. The advent of the Meta-Verse is a demonstration of this phenomenon.

In view thereof, the 12 concepts were clustered along these parameters into the above five categories. Category 1 - 5 informs research objective 1 and underlines the problems of strategic planning and its limited application in skills planning. Category 2 announces research objective 3 and 5. Category 3, informs research objectives 4 & 5. Category 4 informs research objectives 2,4 & 5, whilst Category 5 informs research objective 1-5.

B) Concepts Identified from the Research Questionnaire

Table: 2: Categories from the research questionnaire intended to elicit comprehensive

responses from participants about their experiences in the program. The questions were well structured and intended to illuminate the learner experience. The survey was structured to develop an understanding of learner experience with a view to the improvement of the success of the program. In the process, the research identified a possible framework to address issues of purpose, awareness, and conceptual understanding during the learning process. The Literature Review confirmed 24 concepts. From these concepts, 5 categories were developed:

Table 2: Categories Developed from the Research Questionnaire

Category No	Category Description	Aligned to Research Objective
Category 1	Data & Devices - Access is a problem	2
Category 2	Facilitate the Material	1, 3
Category 3	The value of support	1,2
Category 4	Physical requirement's - IU/UX	1,3
Category 5	Evolution of Homo Digitalis	1,2

Category 1 informs research objective 2. Category 2 inform objective 1 & 3. Category 3, Informs 1,2 & 3. Category 4 informs objective 3. Category 5 inform objective 1,2.

Category 1: Devices, data access, data cost, and data points are problems in Africa. Although in process, Internet uptake is evolving too slowly to provide adequate support to emerging curated learning systems.

Category 2: Trainers need to develop more skills in presenting online. This requires a facilitator that has a high level of technical and digital skills as well as being a subject matter expert on the topic that is being trained.

Category 3: Learners need various levels of support, including emotional, financial, and academic support.

Category 4: UX/UI is essential. The website layout, logical flow, intuitive logic, and standardization are becoming more critical.

Category 5: African Learners are also finding new ways of being due to digital. Homo Digitalis refers to the evolution of humans based on digital influence. The evolution of homo digitalis and third spaces suggest developing a comfort level in the digital area. The advent of the Meta-Verse is a demonstration of this phenomenon.

C) Concepts Identified from the Researcher's Personal Experience

The researcher's personal experience is reflected in table 3. The researcher's personal experience confirmed ten concepts. From these concepts, six categories were developed:

Table 3: Researchers' Personal Experience

Category No	Category Description	Aligned to Research Objective
Category 1	Data & Devices - Access is a problem	1 & 2
Category 2	Facilitate the Material more effectively	1, 3, & 4
Category 3	Moral and Financial Support needed	2,& 4
Category 4	Physical requirement's - IU/UX	1,4 & 5
Category 5	Evolution of Homo Digitalis	1,2,4 & 5
Category 6	Motivation and Critical Thinking is essential	1,2,3, 4 & 5

Category 1 informs research objectives 1 & 2. Category 2 report objectives 2. Category 3, Informs 2. Category 4 tells objectives 1. Category 5 inform objective 1,2. Category 6 reports objectives 1,2 &3.

Category 1: Data, cost, and data points are problems in Africa. Internet uptake, although in process, is evolving to enable adequate support for emerging curated learning systems slowly.

Category 2: Learning material needs presentation by facilitators trained to operate in a blended environment. This requires a facilitator with a high level of technical and digital skills and a subject matter expert on the topic being trained.

Category 3: No matter how motivated a learner is, no one learns on an empty stomach. Africa has a traditional shortage of financial support for learners, and corruption remains rampant.

Category 4: Physical Requirements of design or UX/UI are essential. The website layout, logical flow, intuitive logic, and standardization are becoming more critical. According to Google, there is a "Golden Triangle" that the human eye follows – the website user tends to read from top left to right when searching. This is supported by the industry standard "Hamburger Menu" that more and more designers use.

Category 5: Homo Digitalis refers to the evolution of humans based on digital influence. The digital world enables us to have more and different ways of existing. This includes Gaming and the ability to study at a foreign university without leaving your country. The evolution of homo digitalis and third spaces suggest developing a comfort level in the digital area. The advent of the Meta-Verse is a demonstration of this phenomenon.

Category 6: Motivation and critical thinking skills are essential in the fourth Industrial revolution. To ensure the practical application of learning, necessary thinking skills are needed.

Discussion

Flexibility enables the educator to deliver a program tailor-made to the learner and industry without compromising quality, recognition, accreditation, or job requirements (Reimers, et al., 2020). Developing the "Curated Model" of thinking suggests an approach that engages critical and strategic analysis in the design and delivery of programs (McDermotta, et al., 2019). This approach enables the creators to act with agility. Curated models allow the designer to use different components of different origins to create a portfolio of learning that addresses an individual's capacity for a skills program, a full qualification, and a job profile. Curation occurs in "how" the content is compiled and delivered (Martin, 2022).

The program consisted of three elements – a) Google Certificate, offered on the Coursera Platform; b) "Passport for Success (PTS)" on the IYF platform; and c) "Critical Thinking (CT)" on the SkillzBook.com platform. Three different eLearning systems were used in the curation of the S4S program. The delivery process was also "Curated" because the process did not just consist of one eLearning platform. The delivery process included onboarding learners on all three platforms via spreadsheets, emails to learners, zoom and team meetings, video clips, WhatsApp support groups, and telephone mentoring.

The curated learning model enabled an agile reaction to the needs identified by the S4S program. The process was managed by a team of tutors that monitored, followed up, motivated, assisted, and inspired learners throughout the program. As a result, the S4S program combined different programs, tools, and human efforts.

The agile response and curated learning method make for a different learner experience. Curated learning enables the rapid acquisition of a skill set and thus enables a direct response to an industry need. The addition and awareness of the learner experience and interface with learning programs further enhance the overall learner experience.

Xv. Three Themes Emerged from the Study:

Content and process should be curated to serve a purpose (Content, 2022). Curated learning can combine different programs and reach different objectives. This led to theme two, which indicated that educators should design learning programs to ensure an agile response to industry and learner needs. This practice enables the delivery of other knowledge components to solve a particular problem base. The third theme demonstrates the importance of user experience and digital interface in eLearning. When we work with systems that are intuitive and designed around the user, the result is better. Our experience ultimately implies that our digital exposure informs the evolution of Homo Digitalis – a new way of existence based on our digital experience (Homo Digitalis , 2023).

Theme 1: Both Content and Process should be Curated To Serve a Purpose

- Training must be designed (Curated) with a purpose in mind.
- This should drive economic emancipation.
- Both Content and Process are essential.
- Training drives dev of Actual Human Capital.
- GAP informs the design and process of curated training.

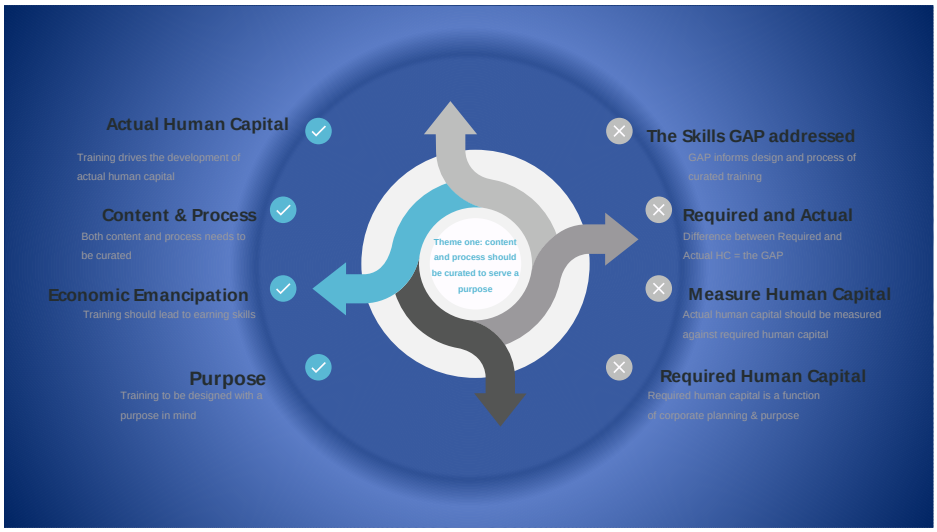

Figure 1: Curation of Content and Process

The purpose of training and education is the starting point for content and process to be curated. Some programs are designed for a broad education, while others are more specifically intended to capacitate for a specific vocation. Corporates often provide on-the-job training to give application to a job description. The purpose of education and training should lead to economic emancipation (Heckman, 2006).

Findings from the literature review, research questionnaire, and researcher's experience indicated that creators of education programs should consider the curation of content and process when planning to design and deliver a program. The theme suggests that modern-day technology enables the combining of content from various sources. A program that includes components from Accredited Training and components dealing with functional job training can be curated. The delivery process can also be "curated" to deliver the creation of a targeted skill set relatively quickly by using a combination of digital and other tools. A business could consider curating a program where Critical Thinking Skills and Project Management both feature (Wooll, 2022). A dual objective can be delivered via effective curation.

Companies could also review their existing job descriptions and design programs that could effectively address the development of the required skill set, using the curated content and process of delivery. This could inform the performance measurement of staff and reflect the required human capital as a benchmark of skills needs. Job descriptions could serve as the basis of required human performance. Actual performance could then be plotted against the required version, highlighting gaps in skills needed.

The effective LMS enables the storing of evidence. Various ways of reporting on the use of such data can be explored. This process allows creating and managing a **skills repository** for the individual, enabling a corporation to compile a profile of its entire skills base effectively.

Theme 2: Design Learning Programs to Ensure Agile Learning

- The Role of UI
- The role of UX
- The part of the LMS
- Design and the presentation of the Skills Repository
- Develop a road map
- The role of AI

Figure 2: Design Learning Programs to Ensure Agile Learning

The role of UI –Designing websites and mobile apps that offer eLearning to drive the level and quality of the learner's interaction with the eLearning software should consider the industry's and learners' needs. The user will be more engaged in the system if the software is intuitive and follows a natural order. User Experience (UX is often a function of the physical user interface, website or app, and design. Such design enables agile systems capable of fast adaptation to industry needs.

Agile design can be achieved by considering the following:

Profile Users

For eLearning, there may be a finite number of User Profiles. Users can be better understood by distinguishing profiles based on age, level of education, nature of the industry, gender, and even race. User profiles can be developed as fictional people with names, ages, and learning needs. Identify a level of empathy. UI requires getting to know the people who use the website. Often, understanding UI needs means speaking with users face to face and even observing them using the software. Effective UI design asks, "What do you think of this design?" What are their goals? What are the impediments to achieving such goals? How can website design help solve such challenges? An agile response would be more achievable when the user profiles are fully understood.

How People Use the Interface

Try to determine how your interface will be used. Touch-based devices are becoming more popular and make for a more agile experience. A simple swipe's ease of use, intuition, and impulsivity may be why a learner uses an app. The learner will use an eLearning app in direct and indirect ways (Williams, 2023):

Examples of direct interactions

- Tapping a button
- Swiping a card
- Dragging and dropping an item with a fingertip

Examples of indirect interactions

- Pointing and clicking with a mouse
- Using key commands/shortcuts
- Typing into a form field
- Drawing on a Wacom tablet

Consider where Buttons are placed

More oversized buttons are often easier to use than small ones. Buttons must have easy clickability. Always consider an interaction model. If the site requires horizontal rather than vertical scrolling, consider where and how to cue users to this unusual interaction type. Agility of use lies in how easy it is to use a system.

Adhere to Known Standards

If there are any standard buttons and icons, use those first. Avoid falling into the trap of too colourful or complicated designs. The flow and process should remain as stable as possible. Learners want to learn the content instead of figuring out the interface. Agility can also be advanced by ensuring a more consistent design.

The Learner Management System (LMS) design influences the quality of interaction between learner and educator. The LMS must enable the educator to search for a learner profile easily. This can be done by name, project, and program for which the learner is enrolled. The LMS must also be able to provide a progress report and certificate where needed. In addition, an effective LMS should also present the learner with a picture of the level and volume of learning achieved in a subject or industry field. In the design of a skills repository, it is essential to understand the value of a learner's skills. For the individual, it provides a sense of validation. In the corporate world, a skills repository helps the business to understand its basic skills level and, thus, the ability to pursue business plans. The "look and feel" of the skills repository should consider the UI and UX requirements. Physical appearance must stimulate a sense of personal achievement.

Theme 3: The Learning Experience and Evolution of Homo Digitalis

- Data & Devices - Access is a problem
- Facilitate the Material more effectively
- Moral and Financial Support needed
- Physical requirements - IU/UX
- Evolution of Meta Verse
- Motivation and Critical Thinking are essential

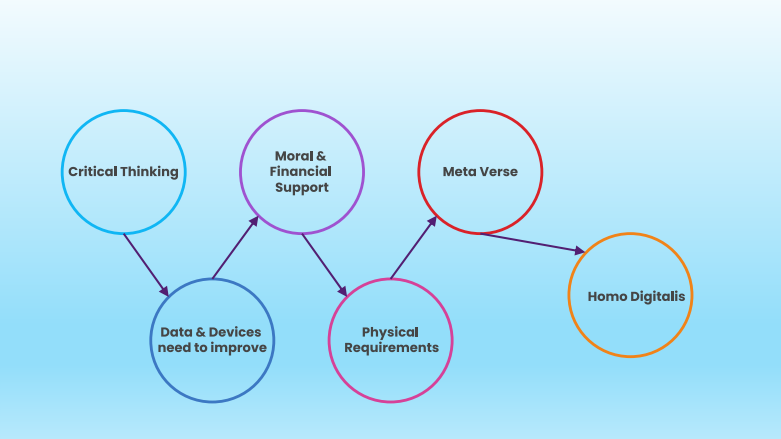

Figure 3: The Emergence and Evolution of Homo Digitalis

In 2019 only 7,7% of Africans had access to a computer (Alsop, 2019). Although eLearning can be presented on a smartphone, it could be better. Effective eLearning, and curated eLearning, requires a larger device. On the Coursera platform, learners are often informed that certain activities need a computer. Access to the internet in 2019 amounted to 42%, as opposed to the global average of 62% (Alsop, 2019). During Covid-19, internet access in South Africa grew from 52% to 62%, while Nigeria's growth was from 26% to 36%. Various other African countries grew internet access by 10% (Rheult, 2022). The objective for internet access also extends to a change in how people access the internet.

Although some learners may be able to learn independently, the survey has identified that learners prefer to have some form of facilitation experience of the material. This enables an opportunity to discuss, explain and ponder learning issues with other learners and facilitators. The facilitation of material improves technical understanding and contributes to a feeling of well-being among the learners. The physical requirement for curated online learning requires developing software with a look and feel that stimulates the emotion of being in a classroom. This indicates the need for learners to have an experience of contact with the facilitator and each other.

That which is on the screen must appeal to the senses. The user interface should consider layout, colour, flow, sequence, and reporting to drive a positive experience. The user interface directly affects the user experience, and the experience is what is shared in a positive or negative light with other prospective learners. The evolution of the Meta Verse suggests that the internet will change from an experience of access on a device to entering into a digital world. A learner will, in the future, be able to attend programs in a metaverse, which may be a classroom or other appropriate setting for learning. The impact of the meta verse on learning serves as an example of how homo digitalis will evolve to find new ways of experiencing itself as a result of the changing world of digital.

Contribution of the Research to Theory, Practice and Policy

No	Theory	Practice	Policy
1	The curation of eLearning programs should consider the stakeholders' needs that will benefit from such eLearning.	Consult the learner, the industry, potential employer, and the provider of the learning.	Develop a policy to manage the process of developing learning programs.
2	When curating eLearning, the requirement of agility should be considered.	Unpack the requirements of agile learning.	Develop a policy to guide agile learning development.
3	Learning programs should be responsive and reflective of the actual needs of the industry.	Industry needs so identified should be informed by a strategic process, based on Key Performance Indicators that ultimately drive the business objectives.	Develop a policy to guide the inclusion of responsiveness as a criteria when curating learning.
4	Investigate how the user experiences the interaction with the digital system determines to a large extent, the success of the learner.	This in turn, drives the ability to achieve objectives such as KPI's.	Develop a policy guide to manage human development and the influence of digital on evolution.

Conclusion and Proposed Further Research

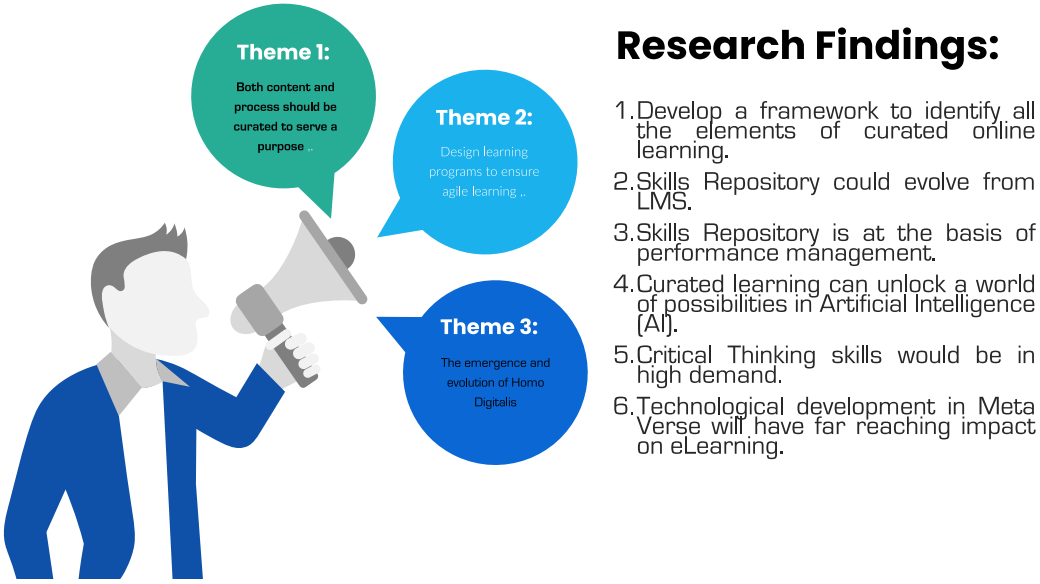

Figure 4: Research Findings

In conclusion, this study's research findings emerged from identifying "Concepts" from the corpus of data in the literature review, research survey, and researchers' personal experience. Concepts of similar nature informed Categories, and from Categories, Three Themes emerged. The three themes, in turn, lead to the emergence of six conclusive research findings.

1. Developing a framework to identify all the elements of curated eLearning would be advisable. Factors could be researched by focus groups that can brainstorm the required details for both content and process.

2. Developing a Skills Repository is advisable, mainly where curated programs are compiled using elements from different qualifications and unaccredited programs. The Skills Repository would enable the learner to quantify all learning and "equate" all learning to some form of normative value. Further research should be conducted into the UI/UX of the Skills Repository. The Skills Repository could evolve from LMS.

3. As the Skills Repository indicates the level of skills, it serves as the basis of performance management. This "Actual Human Capital" level should also be measured in terms of its dynamics – the application of the skills or how well they are used. Productivity factors would be considered in the development of performance instruments.

4. Curated learning can unlock a world of possibilities in Artificial Intelligence (AI). AI in the future would enable a more significant application in the learning environment. Once a learner understands the level and volume of skills, the AI can be developed to identify and present a series of "next-level" possibilities. Further research is recommended on the impact of digital learning on the human mind and attitude.

5. Technological development in the Meta Verse will have a far-reaching impact on eLearning. With the digital evolution of the Meta Verse, the virtual university is on the doorstep. This would enable a learner to experience being "at university" by wearing a virtual reality headset. This experience can potentially create considerable change in the development of the learner and the development of "Homo Digitalis" – a new way of existing because of our digital world.

6. Critical Thinking skills would be in high demand because of the impact of digital on human psychology. Introducing high-level technology could lead to social problems such as anxiety, cyberbullying, etc. Care would need to be given to monitoring the impact of AI, Meta Verse, and Learning interactions. The role and impact of Critical Thinking skills should be researched further.

Proposed Further Research

1. Further research is needed to determine curated eLearning's specific factors and elements. This could involve conducting focus groups with learners, educators, and industry experts to gain insights into the most critical aspects of curated eLearning.
2. Further research could be conducted to determine the most effective UI/UX for the Skills Repository and explore the benefits and drawbacks of integrating it into an LMS.
3. Research could be conducted to determine the most effective methods for equating all learning to a normative value that can be used in Recognition of Prior Learning.
4. Further research could be conducted to explore the potential impact of AI on the learning environment. How to identify and present a "next-level" of possibilities for learners.
5. Further research could be conducted to explore the potential impact of the Meta Verse on eLearning, particularly about the development of virtual universities.
6. Research could be conducted to determine the most effective methods for monitoring the impact of digital learning interactions on learners' psychological well-being and the influence on Homo Digitalis.

REFERENCES

Abu-Shanab, E., 2014. Teachers adoption of e-learning systems: The case of eduwave in Jordan. *The 2012 International Arab Conference of E-Technology,* Volume (IACe-T'2012), Zarqa, Jordan , pp. (51-56).

Alsop, T., 2019. *Statista.* [Online]
Available at: https://www.statista.com/statistics/748549/africa-households-with-computer/ [Accessed 16 January 2023].

Arora, A., 2021. *Scoop.It.* [Online]
Available at: https://blog.scoop.it/2021/04/29/the-importance-of-content-and-design-in-e-learning/ [Accessed 9 December 2022].

Articulate LLC, 2022. E-Learning *Heroes.* [Online]
Available at: https://community.articulate.com/articles/user-interface-design-3-things-e-learning-designers-need-to-know [Accessed 8 December 2022].

Bagarukayo, E. & Kalema, B., 2015. Evaluation of e-learning usage in South African universities: A critical review. *International Journal of Education and Development using Information and Communication Technology,* 11(2), pp. 168-184.

Bongani, P. Q., 2020. Learners' Perspective Regarding Usefulness of E-Learning in A South African University of Technology. *International Journal of Entrepreneurship*, 2020(2), pp. 1-4.

Bouchrika, I., 2022. *History of eLearning: Evolution from Stenography to Modern LMS Platforms.*[Online] Available at:

https://research.com/education/history-of-elearning [Accessed 7 December 2022].

Bureau of Indian Education, 2022. *Bureau of Indian Education.* [Online]
Available at: https://www.bie.edu/landing-page/learning-management-system-lms [Accessed 7 December 2022].

Bureu of Indian Education, 2023. *Bureu of Indian education.* [Online]
Available at: https://www.bie.edu/landing-page/learning-management-system-lms [Accessed 16 January 2023].

Charmaz, K., 2009. Qualitative Research: Grounded Theory. *The SAGE Encyclopedia of Social Science Research Methods,* Volume SAGE Publications.

Charmaz, K. & Thornberg, R., 2020. The pursuit of quality in grounded theory. *Qualitative Research in Psychology,* 18(3), pp. 305-327.

Chetia, B., 2020. *CommLab India.* [Online]
Available at: https://blog.commlabindia.com/elearning-design/instructional-design-standards-for-better-elearning [Accessed 8 December 2022].

Claiborne, L. et al., 2020. *Vanderbilt University.* [Online]
Available at: https://cft.vanderbilt.edu/guides-sub-pages/teaching-outside-the-classroom/ [Accessed 16 February 2023].

Content, R., 2022. *Rockcontent.* [Online] Available at:

https://rockcontent.com/blog/what-is-curated-content/[Accessed 1 March 2023].

Cooke, G., 2017. *Elucidat.* [Online] [Accessed 7 December 2022].

Dearman, T. L., 2022. *Bureau of Indian Education.* [Online] Available at: https://www.bie.edu/landing-page/learning-management-system-lms [Accessed 7 December 2022].

Dick, B., 2005. *Research Papers in Action Research. Grounded Theory: a Thumbnail sketch..* [Online] Available at:

www.scu.edu/schools/gcm/ar/arp/grounded.htm [Accessed 12 January 2012].

Doherty, E., 2022. *Logic Earth.* [Online] Available at:

https://blog.logicearth.com/ux-design-for-elearning-10-tips[Accessed 8 December 2022].

EvolMind, 2022. *Evolmind.* [Online] Available at:

https://www.evolmind.com/en/blog/7-main-roles-teacher-elearning-training/ [Accessed 7 December 2022].

Fox, P., 2022. *Ispring.* [Online] Available at:

https://www.ispringsolutions.com/blog/what-is-elearning?utm_source=google&utm_medium=cpc&utm_campaign=mea_blog_suite&utm_term=what%20is%20electronic%20learning&utm_content=137047020651&ad_group=what_is_elearning&gclid=Cj0KCQiA7bucBhCeARIsAIOwr-9gjE1wcUR7p [Accessed 6 December 2022].

Frankl, V. E., 1962. *Man's search for meaning.* 1sr ed. Boston: City Press.

Fuglei, M., 2022. *Resilient Educator.* [Online] Available at:

https://resilienteducator.com/news/content-curation-teachers/ [Accessed 7 December 2022].

Gutiérrez, K. D., 2008. Developing a Sociocritical literacy in the third space. *American Psychological Association.,* Issue Reading Research Quarterly, pp. 43(2), 148–164.

Heckman, J., 2006. *Science.* [Online] Available at:

http://jenni.uchicago.edu/papers/Heckman_Science_v312_2006.pdf [Accessed January 2023].

Homo Digitalis , 2023. *Homo Digitalis.* [Online] Available at:

https://www.homodigitalis.gr/en[Accessed 1 March 2023].

Kerry, M., 2021. *eLeap.*[Online] Available at:

https://www.eleapsoftware.com/content-creation-and-elearning-success-what-makes-good-learning-content/ [Accessed 9 December 2022].

Kumar, P., Saxena, C. & Baber, H., 2021. Learner-content interaction in e-learning- the moderating role of perceived harm of COVID-19 in assessing the satisfaction of learners. *Springer Open,* 8(Smart Learn. Environ. 8, 5 (2021). https://doi.org/10.1186/s40561-021-00149-8).

Lehmann, H., 2001. A grounded theory of international information systems. *University of Auckland.*

Louw, D. J., 2023. *Meer.* onw ed. Potchefstroom: Naledi.

Martin, M., 2022. The Complete Guide to Content Curation in 2023: Tools, Tips, Ideas. *Hootsuite*, 7 December, p. 1.

Martin, M., 2022. *The Complete Guide to Content Curation in 2023: Tools, Tips, Ideas.* [Online] Available at:

https://blog.hootsuite.com/beginners-guide-to-content-curation/ [Accessed 1 March 2023].

McDermotta, T. et al., 2019. The Future Exchange of Digital Engineering Data and Models: The Future Exchange of Digital Engineering Data and Models: The Future Exchange of Digital Engineering Data and Models: an Enterprise Systems Analysis an Enterprise Systems Analysis. *Science Direct,* Volume 153, pp. 260-267.

McPheat, S. p. S., 2020. *Skillshub.*[Online] Available at:

https://www.skillshub.com/online-learning-platform-10-must-have-features-of-an-online-learning-platform [Accessed 7 December 2022].

Munawar, I., Munadi, Y., Jakarta, S. W. W. & Winata, W., 2022. Development of Learning Content Curation System Model On Online Courses At Syarif Hidayatullah Uin Jakarta. *Research Gate,* 7(2), pp. 2067-2082.

Reimers, F., Schleicher, A., Saavedra, a. & Tuominen, S., 2020. *Supporting the continuation of teaching and learning during the COVID-19 Pandemic,* s.l.: OECD.

Rheult, M. &. R. R., 2022.*Gallup.*[Online] Available at:

https://news.gallup.com/poll/394811/africa-online-internet-access-spreads-during-pandemic.aspx [Accessed 16 January 2023].

SCORM, 2023. *Scorm.*[Online] Available at:

https://scorm.com/?_ga=2.201476440.870587790.1673254602124074864 2.1673254602 [Accessed 9 January 2023].

Simoudis, H., 2022. *ELearning Industry.*[Online] Available at:

https://elearningindustry.com/elearning-content-development-the-most-important-trends [Accessed December 2022].

Tarhini, A., Elyas, T., Akour, M. & Al-Salti., 2022. Technology, demographic characteristics and e-learning acceptance: a conceptual model based on extended technology acceptance model.. *International Journal of Entrepreneurship,* 24(2).

Udemy, 2023. *2023 Workplace Learning Trends Report.*[Online] Available at:

https://info.udemy.com/rs/273-CKQ-053/images/Udemy_Business_2023_WorkplaceLearningTrends_Report.pdf [Accessed 17 January 2023].

Unicef, 2022. *United Nations Children's Fund.*[Online] Available at:

https://www.unicef.org/globalinsight/media/2756/file/UNICEF-Global-Insight-Digital-PL-LMIC-executive-summary-2022.pdf [Accessed March 2023].

Waqailiti, L., 2014. *Learning in Distance & Flexible Learning.* First ed. Pacific Islands: LAP Lbert Academic.

Williams, J.M., 2023. *10 essential UI (user-interface)designtips.*[Online] Available at:

https://webflow.com/blog/10-essential-ui-design-tips?utm_source=google&utm_medium=search&utm_campaign=Google-Search-Dynamic-Search-Ads-Core-BBSS&utm_term=dsa-1636392220539___585305490212___ss_paid-bb&gclid=CjwKCAiA5Y6eBhAbEiwA_2ZWIUNGemEAzrzOduuft8Qx-N-HP [Accessed 15 January 2023].

Wooll, M., 2022. *Bettter UP*.[Online] Available at:
https://www.betterup.com/blog/critical-thinking-skills [Accessed 14 January 2023].

xAPi.com, 2023. *xAPI.com*. [Online] Available at:
https://xapi.com/overview/?utm_source=google&utm_medium=natural_search [Accessed 9 January 2023].