NELSON MANDELA
UNIVERSITY

Conceptualisation

Virtual Academy

VIRTUAL ACADEMY CONCEPTUALISATION

Where the idea of a Virtual Academy originated

Historical background to digital technology adoption and growth

The first decade

Advancing the use of digital technologies in the academic missions of Mandela University to enhance student success and to increase efficiencies in functioning was embedded in the strategic plans of the merged university, faculties, and divisions from the outset in 2005. In the first decade of the university's existence key signs of progress achieved in the academic project included:

- Moodle was officially adopted as the university's Learning Management System (LMS) platform, with two ICT engineers appointed to oversee this.
- A transversal Blended Learning Team was formed across ICT Services and HEADS, which is now known as the LT Collab.
- Early adopter and new academics were empowered to create module sites in the Moodle LMS and e-assessment projects were launched.
- Capacity building programmes were developed and were well-attended; consultancy services were provided; there was an ICT Helpdesk and many web services were developed.
- There was funding for innovation projects, with academics as the project leaders. Some of these were published in subsidy-generating journals and papers were delivered at national and international conferences.

The #FeesMustFall season from 2015-2016 saw a sharp increase in the use of technology in the operational and academic environments of the university, especially when access to the university's campuses was impossible. A dramatic increase in module sites on Moodle was experienced as most of the 4th academic term was completed online with only a few contact sessions, where possible. With most module assessments adopting a continuous assessment approach, significant growth in e-assessments was seen.

During this period, planning and governance processes and committee structures were put in place, and pockets of excellence related to digital transformation initiatives existed throughout the University. Insufficient funding and resourcing of the university's digital ambition, and the inability to aggregate digital transformation initiatives and centrally drive them were among the key challenges that hindered the greater adoption and advancement of digital technology.

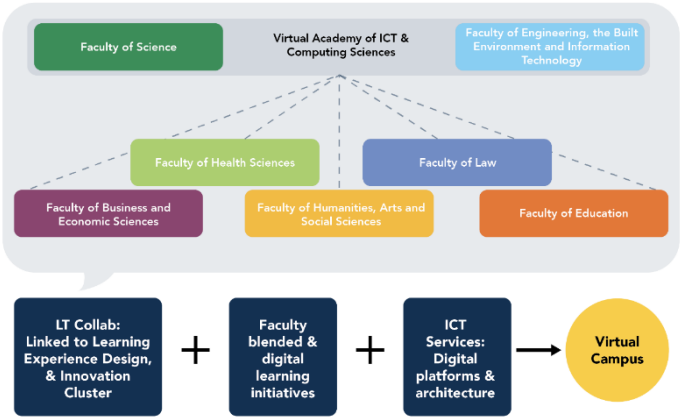
Organisational Re-design

During the institutional organisational-redesign process, the organisational location of the intertwined academic disciplines of Computing Sciences (in the Faculty of Science) and Information and Communications Technology (in EBET) was explored. The reason for the exploration was to enable greater collaboration, synergies, and coordination across programs in these disciplines to optimise staff expertise, the learning experiences of students, and research and engagement foci. This exploration led to thoughts that in the future a Faculty of Technology could be created with these disciplines as anchors. Consequently, rather than moving the disciplines into the same faculty at that stage, it was instead proposed that as a first step a **virtual space** should be created as a transitional holding structure to optimise synergies towards an integrated and coherent set of ICT/CS academic offerings and research.

Furthermore, as discussions moved into the committee structures, it was noted that all faculties participated in blended learning and were expanding the use of technology in learning and teaching, research, and engagement to prepare their graduates for work in the 4IR world from a technological literacy perspective. It was noted further that the work of the LT Collab and ICT Services was inter-connected with advancing technology-enhanced learning and the reach of student support and development services. Consequently, in the second semester of 2018, the following proposal was approved by MANCO, ECS, Senate, and Council:

That a **Virtual Academy** of ICT and Computing Sciences be created and incubated within the LT Collab to:

(a) facilitate institution-wide synergy and coordination across the faculties and various disciplines to prepare Mandela University graduates for work in the 4IR world from a technological literacy perspective; and (b) consolidate various faculty, LT Collab and ICT initiatives that will build towards a Virtual Campus.



During 2019 attention was given to effecting decisions made in the institutional org-redesign project. Among other things, the LT Collab had to be populated and staff moved into clusters, and the key Learning Experience Design and Innovation cluster had to be established. This slowed down the work of a task team that was established to start conceptualising the Virtual Academy. When the global Coronavirus Pandemic reached South Africa in March 2020, everyone had to focus on how to shift to emergency remote online LT to ensure that the 2020 academic year could be completed amid national lockdown levels, which limited access to campus. In the pandemic years of 2020-2022, while thought was given to the conceptualisation of the Virtual Academy from the lessons learnt about online learning, research, and engagement during the pandemic, there was not time to deepen these learnings in a conceptual sense. However, some attention was given to a likely project of the Virtual Academy in that a start was made to design some online qualifications as part of a partnership with Higher Ed Partners (HEP) South Africa. The target market for these programmes is adult learners, which will enable the university to expand into this learner market more effectively. Three or four programs are at the conceptual design phase, which has proved to be a learning experience for all involved.

Re-igniting the conceptualisation of the Virtual Academy

In the Vice-Chancellor's restatement address at the start of her second term, entitled "*Advancing Mandela University – Consolidating the Gains, Charting the Future Together*", Prof Muthwa (2023, p. 13) indicated that "bringing to life our work on the *Virtual Academy and greater digitalisation* of our systems is going to take centre stage at our University". Given that the Council has already supported the Virtual Academy, Prof Muthwa encouraged the entire university and its communities to assist in giving "shape and form" to the work of the Virtual Academy to ensure "an inclusive, social justice approach to this work" (p.14).

Prof Muthwa also noted that the "rapid technological advances in all sectors of society, accelerated further by the impact of the pandemic on the academic project, present us with new insights and opportunities to turn our focus to our work on the *Virtual Academy*" (p. 14).

Indeed, since the idea of a Virtual Academy was mooted significant global, national[1] and internal university developments have provided insight into how to anchor and conceptualise the work of the Virtual Academy. Institutionally, the Vision 2030 Strategy was developed and implemented, the Digital Transformation Strategy is nearing completion, and the university is bringing together work related to sustainability sciences and the United Nations Sustainable Development Goals[2] into an envisaged Mandela Institute for Sustainable Futures. Institutionally, nationally, and internationally notions of post-pandemic higher education are emerging in parallel with the envisioning of Society 5.0, Industry 5.0, and Education 5.0, which have many implications for humanising technology[3], for leveraging technology to enhance human outcomes and impact at work and in society, and for what the world of work and society requires of university graduates and staff.

The Virtual Academy must thus be anchored in the strategic frameworks, values, priorities, & enablers of the university in the post-pandemic era & in a world that is fundamentally rethinking work and how it is done. Five key aspects that anchor the Virtual Academy are outlined below.

1. In Nelson Mandela University's **Vision 2030 Strategy**,
    a. ***Placing students at the centre*** of all we do to liberate their full potential and prepare them "for increasingly complex life and work environments in the 21st century" is one of the cornerstones of our educational philosophy (p. 44 and 47).
    b. ***Empowering staff*** "by cultivating a values-driven, transformative institutional culture that promotes social inclusion, a sense of belonging and holistic well-being. The University invests in continuing professional development and lifelong learning opportunities for employees to unlock talent and create pathways for development and growth" (p. 53).
    c. ***Excellence*** is a core value which includes the "pursuit of the highest levels of academic, civic and personal achievement" and the provision of "a supportive and affirming environment that enables our students, employees and publics to reach their full potential" (p. 42).
    d. Our value of **social justice and equality** is critically important from two perspectives. Firstly, "We cultivate living, learning and work environments that enable students and employees to realise their full potential, without fear of discrimination, harassment or violence" (p. 42). Secondly, given the stark digital divide that exists, equity of access to technology-enhanced education and work environments is essential. For example, having a technology-rich campus assists in creating a more inclusive, engaging learning environment where students can work at differing paces; curiosity, creativity, and collaboration are fostered; and where communication, teamwork & solving real-world problems are advanced (Haleem et al., 2022[4]). To ensure equity of access to technology-rich learning experiences & environments, the University provides on-campus facilities where students can access Wi-Fi, connectivity, and computer labs, & charge their devices. Through the Student Device Initiative and the Student Data Initiative, the University makes it possible for students to purchase a device & access

[1] For example, the Medium-Term Strategic Framework, 2019–2024 (MTSF) identifies the critical role of education and training in building the capabilities of South Africans. Among the expectations for the PSET sector is "more rapid adoption of innovative delivery models and methods, such as digital learning, … improved institutional models, and approaches to improve quality and throughput" (Vision 2030 Strategy, p. 28). This is amplified in the National Digital and Future Skills Strategy (2020) which "addresses the need for mechanisms to foster digital skills development across South Africa, at early childhood development, schooling and post-school education and training levels, recognising that digital skills are necessary for economic growth, social development and cultural enrichment across all sectors of our society and economy" (p. 5) and for the new kinds of 21st century jobs. A key element of implementing the various strategies outlined is to facilitate stakeholder collaboration to do so.

[2] The Virtual Academy links to SDG 4 where the aim is to *"ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"* that includes "seeking to substantially increase the number of youth and adults who have relevant skills, … for employment, decent jobs and entrepreneurship".

[3] "Humanising technology means designing, commercialising and using technology responsibly, making it as useful, meaningful, accessible, distributed and transparent as possible" (Abbing, n.d.). https://www.liveworkstudio.com/articles/humanising-technology/#:~:text=Humanising%20technology%20means%20designing%2C%20commercialising,distributed%20and%20transparent%20as%20possible.

[4] Haleem, A., Javaid, M., Qadri, M.M., & Suman, R. (2022). Understanding the role of digital technologies in education: a review. *Sustainable Operations and Computers, 3,* 275-285. https://doi.org/10.1016/j.susoc.2022.25.004

data, especially for off-campus learning, work-integrated learning (WIL), service learning (SL), school-based learning (SBL), research and engagement activities. Furthermore, the University has a policy on staff data and access to desktop computers or laptops, and computer and digital literacy training programmes are offered. Additionally, the University raises awareness about and advocates for initiatives that foster greater equality of digital access and competency development to everyone in our society, especially for those who are currently excluded from such access and development.

e. ***Enabling innovation*** is identified as a key strategic enabler, which includes "creating and sustaining an enabling innovation ecosystem" (p. 55). Among the goals are:
   - "[T]o foster a culture of innovation where our students, employees and partners can collaboratively engage in scientific, technological and creative discovery that advances the frontiers of knowledge and promotes the public good" (p. 53).
   - Establish hubs of innovation.
   - Embed innovation within undergraduate and taught postgraduate curricula wherever appropriate and facilitate student participation in innovation projects.
   - Provide support at all stages of the innovation journey.

e. ***Digitalisation and modernised infrastructure*** are further strategic enablers. This includes improving "efficiencies and value creation through digitalisation, integrated systems, agile service delivery, and modernised infrastructure" (p. 56). Among the goals linked to this enabler are:
   - "Integrate and digitalise institutional systems and processes to promote responsive decision-making, agile service delivery and improved efficiencies in support of academic excellence.
   - Strengthen the University's capacity to support hybrid and fully online educational delivery through widening access to mobile devices and data connectivity for students and employees.
   - Repurpose and modernise flexibly designed physical and virtual spaces in support of learning, research, engagement, and creativity in a multi-campus context" (p. 56) and "to foster a vibrant living, learning and working experience for all students and employees" (p. 53).

2. In Mandela Uni's **Vision 2030 Learning and Teaching Plan** it is *inter alia* indicated that:
   a. To liberate students' potential and prepare graduates for life and work in the 21st-century, the learning experiences are provided in a supportive, technology-rich environment and should be - humanising, student-centric, innovative, African-purposed, and sustainable - to foster the development of autonomous, self-directed, socially responsible, and lifelong learners (p. 1).
   b. Modules, learning experiences & support (e.g., Digi Buddies) should be provided for students to advance their digital and academic literacies and learning careers.
   c. There should be an investment in **modernising** lecture venues and learning spaces in keeping with a responsive blended mixed mode LT approach and the variety of methodologies used.

3. In the **draft Digital Transformation (DX) Strategy** (version 5.3) and linked to the Vision 2030 Strategic Framework, the University's ambition is indicated as being:

   "The University strives for efficient service delivery, sustained value creation and agile decision making through the digitalisation of systems and processes, including investing in integrated information technology, networks, applications, and business intelligence

platforms. Modernised physical infrastructure is flexibly designed and optimally utilised to create a technology-enabled and humanised learning environment supporting both students and employees across all campuses" (p. 19).

This *ambition* allows for the integration of both online and campus-based facilities on a continuum, while using the advantages of digital technologies where possible and feasible in support of a humanising and student-centric philosophy.

4. Post-pandemic HE and digital competence

There is contestation in the literature and the corridors of universities around the various visions proposed for post-pandemic HE. However, there is consensus about the need to rethink our assumptions about education based on the lessons learned during the pandemic where lecturers had to rethink their roles given that they spent more time focusing on caring for their students and on designing tasks to support student learning (Rapanta et al[5]., 2021). Students also had to rethink how they learn and had to develop into self-regulated learners with a greater sense of social agency. Post-pandemic HE requires the continued exploration on the part of lecturers and students regarding new ways of learning and new roles for those who participate in the learning process. This will then require capacity building to enable lecturers and students to adapt to different roles.

During the pandemic, both lecturers and students discovered that their digital competence needed enhancing. Post-pandemic in the Industry 4.0 and 5.0 world of work, employers are highlighting digital competency and citizenship along with software use and development and understanding digital systems among the key aspects that will enable graduates to thrive in the work environment (McKinsey & Co[6]., 2022). However, there is concern that HE institutions do not have a clear understanding of what the levels of digital competence of their students and staff are (Sillat et al[7]., 2021). It is thus noticeable in the research literature that numerous studies during and after the pandemic have focused on developing measures to assess digital competence so that HEIs can design appropriate capacity development training programs and modules (Sillat et al[7]., 2021).

Balancing Technology, Pedagogy and the New Normal: Post-pandemic Challenges for Higher Education is the title of Rapanta et al.'s[5] (2021) article, which succinctly sums up the balancing act that is playing out in HE post-pandemic. They problematise the confusion and misconceptions about online learning and teaching (OLT), which is being equated to emergency remote teaching (ERT). What these delivery modes along with traditional contact classes have in common is using digital technologies to enhance educational experiences. However, there are distinct differences. "ERT refers to a temporary shift due to crisis circumstances" (Rapanta et al[5]., 2021, p. 716). As the shift from contact to online teaching is rapid, lecturers have no time to design a range of learning activities and thus there is an over-reliance on synchronous lectures in virtual spaces such as MS Teams (Manfuso, 2020[8]). On the other hand, OLT "provides a well-considered learning ecosystem (Manfuso 2020[8]), aimed at increased flexibility and better access to learning opportunities, through the careful design of unique courses that appropriately combine synchronous, asynchronous and independent study activities

[5] Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L. & Koole, M. (2021). Balancing technology, pedagogy and the new normal: post-pandemic challenges for Higher Education. *Postdigital Science and Education, 3,* 715–742. https://doi.org/10.1007/s42438-021-00249-1

[6] https://www.mckinsey.com/industries/public-and-social-sector/our-insights/defining-the-skills-citizens-will-need-in-the-future-world-of-work

[7] Sillat, L.H., Tammets, K., & Laanpere, M. (2021). Digital Competence Assessment Methods in Higher Education: A Systematic Literature Review. *Education Sciences*, *11*, 402. https://doi.org/10.3390/educsci11080402

[8] Manfuso, L. G. (2020). From emergency remote teaching to rigorous online learning. Ed Tech, 7 May. https://edtechmagazine.com/higher/article/2020/05/emergency-remote-teaching-rigorousonline-learning-perfcon.

(Anderson 2008[9])" embedded in "active, collaborative, social constructivist processes" (Rapanta et al[5]., 2021, p. 716). As Mandela Uni is currently following a responsive blended mode of human-centred LT, OLT is one aspect of the "blend" – so considered thought needs to be given to how to curate what Harvard University refers to as "short-form digital content and learning experiences" (*Harvard Gazette*, March 2022, p.4[10]). Lecturers need to be supported and capacitated to design the digital content and learning experiences that actively engage students in the online learning sections in their modules. Garrison (2009)[11] argues that both traditional contact lectures and distance or fully online programs have benefitted from the engaging LT activities that originate in OLT. For example, in large classes, creating synchronous online discussion groups could lead to greater discussion and engagement than asking students to discuss something with the person sitting next to them in a contact session - provided that the online discussions are well-designed. Such online discussions could replace one lecture period, for example.

Rapanta et al[5]. (2021) argue that the OLT aspects of blended learning were under-emphasised and not appropriately integrated into teaching paradigms pre-COVID. To this Brodie et al[12]. (2022, p. 82) add that what is needed in post-pandemic HE is the "mindful reconsideration [of] curriculum, pedagogy and assessment" along with conceptualising that lectures are but one aspect of providing an engaging learning experience. Furthermore, Rapanta et al. (2020[13], p. 923) assert that the pedagogical foundations of lecturers have been disrupted during the pandemic. Post-pandemic there is thus a need to build capacity regarding pedagogical content knowledge regarding OLT and innovative assessment and how to embrace AI chatbot technology like ChatGPT to foster such innovation. Rapanta et al. (2020, 2021), Sillat et al[7]. (2021), Brodie et al[12]. (2022) and the 12-point transformation agenda for Africa[14] emphasise that in the post-pandemic era:

- greater emphasis needs to be placed on lecturers being critically reflective and adaptive, and on including the student voice in curricula and assessment design,
- institutions must invest in the professional development, pedagogical preparation, and learning design competency development of lecturers,
- curricula need to focus on the competencies graduates need to thrive in the world of work and life, including digital competence, ethics, and citizenship[15] development, and more opportunities for WIL, SL, SBL and experiential learning must be built in,
- caring for and holistically supporting students is a core part of the academic project,
- strategic investment is needed in additional human and digital infrastructure resources if blended learning is to be effectively embarked on and sustained, and
- research and innovation need to be anchored in the technological infrastructure that supports and enhances the opportunities of Industry 4.0 and 5.0.

Rapanta et al[5]. (2021, p. 738) stress that the above emphases require careful strategic planning and considerable investment by universities in pursuit of "a more harmonious

[9] Anderson, T. (Ed.). (2008). *The theory and practice of online learning.* 2nd Edition. Edmonton: Athabasca University Press.
[10] *Harvard Gazette* (2022). Taking the best of innovations, lessons of pandemic education. https://news.harvard.edu/gazette/story/2022/03/taking-best-of-innovations-lessons-of-pandemic-education/
[11] Garrison, R. (2009). Implications of online and blended learning for the conceptual development and practice of distance education. *International Journal of E-Learning & Distance Education/Revue*, *23*(2), 93-104.
[12] Brodie, K., Joffe, A., Dukhan, S., Godsell, S., De Klerk, D. & Padayachee, K. (2022). From pandemic disruption to post-pandemic transformation: new possibilities for teaching in South African higher education. *South African Journal of Higher Education, 36(4),* 66-84. https://dx.doio.org/10.20853/36-4-5180
[13] Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L. & Koole. M. (2020). Online University Teaching During and After the Covid-19 Crisis: Refocusing Teacher Presence and Learning Activity. *Postdigital Science and Education, 2*, 923–945. https://doi.org/10.1007/s42438-020-00155-y
[14] Zeleza, P.T., and Okanda, P.M. (2021) Enhancing the digital transformation of African Universities: COVID-19 as accelerator. Elephant.
[15] " Digital citizenship is the ability to navigate our digital environments in a way that's safe and responsible and to engage in these spaces actively and respectfully" and "Digital competence is the ability to not only understand and make use of digital technologies and systems, but also to possess the confidence to use them creatively, critically, and without assistance. This is generally geared toward succeeding in the modern world at one's job, hobbies, or personal endeavors".

integration of physical and digital tools and methods for the sake of more active, flexible and meaningful learning".

It is interesting to note that many universities are responding to the digital innovation expansion that confronts them by creating centres, hubs, platforms, research units, etc. to drive some of this work. Examples of these are:

- The Living Lab for **I**nnovative Teaching at the University of Pretoria (LLITUP) that is collaboratively exploring with staff generative AI applications in LT and research.
- As part of their Digital Transformation Strategy[16], the University of Pretoria further plans to create an ideas platform and digital ecosystem to foster collaboration and experimentation, the development of capabilities, and knowledge transfer.
- UNISA's Academic Development Open Virtual Hub (ADOVH) facilitates capacity development related to digital learning and support by integrating various technologies.
- Tswane University of Technology & the University of Johannesburg launched Artificial Intelligence Hubs which are connected to the Artificial Intelligence Institute of SA.

5. **Changing world of work and greater emphasis on human outcomes and impact**

Post-pandemic our assumptions are being challenged about:

- *What work consists of:*
  - Until now, it has been about fixed job-types, with jobs comprised of a specific set of tasks and responsibilities captured in job descriptions that leave workers in narrowly defined roles and silos, which limits agility and blunts innovation in the organization.
  - Instead, organisations are beginning to experiment with defining work based on the skills required and aligning the skills & capabilities of workers to broad work clusters. Some work can then be undertaken in diverse teams with workers contributing their unique skill sets and other attributes (e.g., interests, passion, values). This increases the well-being of workers as they "are happiest and most productive when doing work that fits who they are and what they care about" (p. 12)[17].
  - In such a work environment:
    - Human outcomes and liberating the potential of individuals is prioritised. This can be done by (a) emphasising the agency of workers to co-create new ways of working and to customize their work experience & career path, (b) leveraging intelligent technologies to nudge and enhance individual and team performance and societal impact, and (c) emphasising ongoing personal development, especially in terms of sharpening existing and developing future skills, which makes it possible for workers to transition into new areas of work when required.
    - Performance bonuses are linked to skills development and outcomes achieved.
    - Teams need the freedom to conduct innovation experiments, learn from failures, refine, etc. and document their journey, which enables workable innovations and solutions to emerge and be taken to scale.
    - Leaders need to develop new skills & mindsets to lead & drive work that requires co-creation, collaboration, teaming, and experimentation from the perspective of human outcomes and societal impact and not only job tasks.
    - Networked organisational structures will emerge, some of which could be virtual.

[16] See 3304. UP Digital Transform IA PDF 20230411 (adobe.com)
[17] 2023 Global Human Capital Trends Report, Deloitte. Thoughts in point 5 were drawn from this 2023 Global Human Capital Trends Report of Deloitte, the Future of Work and Skills Survey, PwC, 2021, the Global Skills Report 2023, Coursera; and the Future-citizen skills | McKinsey, McKinsey & Co., 2021.

- *Where work is done* now extends beyond a physical workplace, to working virtually from home, or adopting a hybrid approach. However, given greater inter-connectedness, *where* work is done is becoming secondary to *how* work is done.

The aspects covered in this section provide useful pointers regarding the strategic importance of establishing a Virtual Academy and how to conceptualise its work within the broader Mandela Uni Digital Transformation and Vision 2030 strategies in post-pandemic HE.

Virtual Academy: Emerging Thoughts

To start building a conceptualisation of the Virtual Academy from the ground up, initial discussions were held with staff from each faculty, the Centre for Community Technologies, ICT Services and the CIO, Library and Information Services, Communications and Marketing, Student Life and Development, the Research section, the Office for Institutional Strategy, and the Engagement Office. Next, the Deanery and the VC were consulted, followed by MANCO and EMANCO members, HR, students (mainly peer learning facilitators and via brief online surveys), ECS and Senate.

Inputs from discussions were documented & used to build an emerging conceptualisation of the purpose and work of the Virtual Academy. Thoughts also emerged regarding how the work of Virtual Academy could link to different portfolios, faculties, entities, and external partners.

The following **principles** have emerged to guide the conceptualisation of the Virtual Academy:

1. **Prioritise human-centred digital innovation and inclusion.**

   The Virtual Academy is centred on people. This implies that the digital initiatives, innovations, and projects prioritise the involvement of individuals in designing and steering its projects in a digital innovation space, to impact their ongoing development and to actualise their potential as students, workers, team members, and members of society. This implies that the digital initiatives, innovations, and projects tackled by the Virtual Academy will prioritise human-centred project design and outcomes alongside other outcomes. This links closely with Mandela Uni's humanising pedagogical approach and the pedagogy of care.

   Technology is playing an increasingly important role in society, with concerns about the rate of automation and rapidly emerging ICT technologies with which technology regulation has not been able to keep pace. Furthermore, a major challenge that needs to be confronted is the digital divide that exists in that many individuals do not have access to data, devices, and the Internet, and to opportunities to develop digital literacies, which can result in them being disadvantaged when applying for jobs or accessing educational opportunities. As an institution that has 'social justice and equality' as a core value, Nelson Mandela University raises awareness regarding digital inequities in society, and advocates for greater digital inclusion so that individuals can equitably access and participate in digital opportunities. The Virtual Academy strives to build digital inclusion through enabling programs that develop digital competencies, which includes raising awareness about and/or developing competence in employing certain digital technologies and innovations and having a strong focus on mobile learning design and opportunities. While students and staff participate in these programs, communities can access some of them through the University's engagement and Hubs of Convergence initiatives.

   Emphasising human outcomes and the involvement of students and staff in the work of the Virtual Academy can further enhance their well-being and sense of belonging, which can have positive spin-offs on their success and productivity as students or workers.

2. **Adopt a phased approach.**

   Given that we have just emerged from a global pandemic and that the vision for HE post-pandemic has not yet fully crystalised, it is assumed that the work of the Virtual Academy will evolve over time. Consequently, conceptualising the **first phase** of the work of the Virtual Academy is being prioritised.

3. **Position the Virtual Academy within Mandela Uni's Digital Transformation (DX) Strategy.**

   The Virtual Academy is positioned as a program that is supported & enabled through the draft DX Strategy[18] and its transversal governance structures. Furthermore, conceptualising the Virtual Academy as a programmatic area of work aligns well with how the academic project operates and positions it to generate a body of scholarly work.

4. **Determine the core purpose and program of work of the Virtual Academy.**

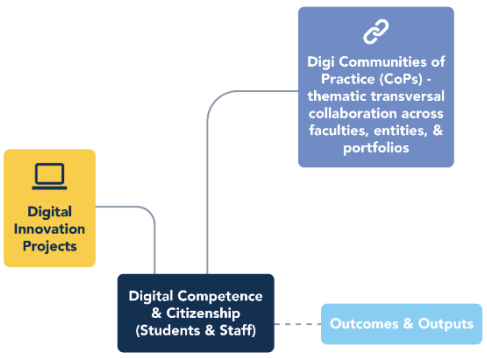
   While it is important to align the work of the Virtual Academy with the DX Strategy, care should be taken not to see the Virtual Academy as being the hold-all for all the digital transformation ambitions of the university. To this end, it is important to delineate a core purpose for the Virtual Academy. Indeed, when the idea to create a Virtual Academy was conceived, the internal structures and Council approved that the focus of its work would be to prepare Mandela University graduates for work in the 4IR world from a technological literacy perspective. By taking the lead from this along with the Vision 2030 and DX strategies, the National Digital and Future Skills Strategy, and the critical drivers of post-pandemic HE and the world of work, the **core purpose** of the **Virtual Academy** is described as follows:

   Nelson Mandela University's Virtual Academy is a large interconnected system, designed to advance knowledge and foster collaboration and efficiency linked to human-centred digital innovations across the entire university. The primary goal is to empower individuals to realise their potential, both personally and professionally, by developing competencies (i.e., the knowledge, skills, attitudes, and behaviours) to employ digital technologies effectively and ethically in various aspects of their studies, life, and work.

   To ensure that the **program of work** of the Virtual Academy is strategically focused on its core purpose and the academic missions, **projects**[19] are conceptualised under two **programmatic themes**, namely:

   a. *Digi Communities of Practice (CoPs)* to facilitate synergies and sharing across faculties, disciplines, and support structures related to core digital innovation themes.

   b. *Digital Innovation Projects* that are multidimensional and inter-disciplinary and have the potential to be taken to scale.



[18] As the Virtual Academy is supported and enabled through the university's DX strategy, it is critical that the draft strategy be finalised and approved as soon as possible.
[19] Many potential projects have been sourced during the discussions and some of the CoPs could propose projects. Examples of these are Digital Archive; Digital Humanities; Virtual African Language platform; Innovative Assessment; Digitalising Science Labs, Fully online feature modules on digital citizenship, entrepreneurship, etc. that all students can take; Digital noticeboard to share announcements and work of VA, etc.; Virtual Space for Ongoing Student Orientation across all years of study; Pre-Uni Connect; Digital resources (from a digital artefact and content library) and training (e.g., in how to curtail cyberbullying) for educators (school and TVET); Virtual Campus, etc. See also the examples of existing projects in Appendix 1. A database should be compiled of all VA-related existing and future projects.

As can be seen from its core purpose and scope of work, the conceptualisation of the Virtual Academy has expanded its institutional reach from that originally proposed during org-redesign. In this regard, while the expertise of the School of Technology in the Faculty of Engineering, the Built Environment and Technology and the Department of Computing Sciences in the Faculty of Science will be drawn on in the work of the Virtual Academy, they will not be burdened with providing overall leadership for this new university-wide structure. In addition, the School of Technology and the Department of Computing Sciences are likely to form a CoP in the Virtual Academy under the leadership of the two Executive Deans. This will provide opportunities to create synergies across their module and program offerings and to share and grow staff expertise in key technological innovation areas.

5. **Adopt a project approach with collaborative, agile project management.**

   Leadership and collaborative program management to facilitate the work of the Virtual Academy is provided by a Director, the Virtual Academy Steering Team (VAST), and leaders of CoPs and digital innovation projects.

   Programmatic themes (focusing on digital innovation or CoPs) will be pitched to a transversal Virtual Academy Steering Team (VAST) that needs to be convinced of its necessity, feasibility, and strategic alignment with the purpose of the Virtual Academy, and the Vision 2030 and DX strategies. In addition, certain DHET-funded projects aligned to the purpose of the Virtual Academy should be identified as this could open possibilities to tap into start-up resourcing (seed funding) while also expanding the work of the DHET-projects (e.g., the e-assessment centre IEG project can connect to a CoP focusing on innovative assessment along with lecturer and student capacity building to prepare them for new ways of assessing). VAST will approve the role of the Virtual Academy in such projects and identify project leaders and interdisciplinary team members. Furthermore, VAST needs to control the number of appropriately resourced projects that can be tackled simultaneously.

   To identify **project leaders**, experience in implementing innovation projects at the institution has taught us that the project leaders of successful projects either came up with the idea themselves and/or had line function responsibility for the project's focus. Experience has also shown that the more diverse and interdisciplinary the team members are the greater the likelihood is that innovation will be sparked and that the project will be successfully concluded. In addition, working in a project-based way provides opportunities for **students** to be members of the project and design teams and to gain valuable real-world **experiential learning** (WIL and SL) in the process.

   A **collaborative, agile project management** approach is followed where a leader and team employ a *design thinking methodology* such as ADDIE to analyse, design, develop, implement, and evaluate projects. Stakeholder feedback is also incorporated throughout the process, which enables iterative adjustments to be made.

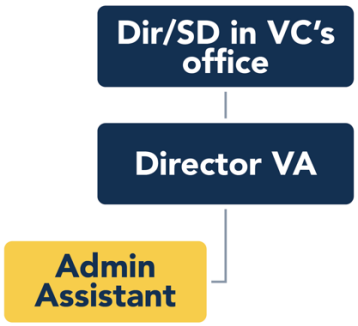
6. **Employ a lean post structure and a virtual organisational structure.**

   A Director (D) PL 5 position should be created to head up the work of the Academy. Such a position was envisaged when the idea of a Virtual Academy was proposed to the internal university structures and Council in 2018. This was reiterated in internal consultations conducted in 2023.

The Director should have a significant academic pedigree (preferably with lecturing experience) along with ICT and digital expertise. Furthermore, an administrative assistant post needs to be created for the Director's office.

The reporting lines for the two proposed positions are depicted below.

Post Structure and Reporting Line proposed for Virtual Academy



The *Virtual* Academy is a **virtual networked structure** that enables staff and students across the university's organisational structures and geographic locations (campuses) to collaborate on transversal digital innovation projects and participate in CoPs.

At Mandela Uni the LT Collab is an example of a networked organisational structure to foster collaboration across its four clusters, with faculties and related other structures. However, the LT Collab is not a virtual structure. Introducing virtual organisational structures is a mechanism that organisations are employing to operate effectively and do business in the post-pandemic era.

Below is a simplistic diagram which provides an example of a virtual networked organisational structure that could operate in the Virtual Academy. Only a few portfolios are included as this is merely an example.

Some of the features of virtual organisational structures that can be seen in how the Virtual Academy will function are:

- Each innovation project and CoP will have a specific focus aligned to a common vision of enabling university students, graduates, and staff to liberate their potential and develop the necessary digital competencies and citizenship to function effectively in life and work in the world of Industry 4.0 and 5.0 and Society 5.0.
- Leveraging interactive and intelligent technology platforms and digital technologies will be a core aspect of the way of working in projects and CoPs.
- Including group members (staff and students) with diverse competencies, orientations, and cultural backgrounds enhances the richness of the collaboration, the human outcomes, and the solutions/outputs that are co-created.
- Having permeable boundaries facilitates more lateral problem solving and enables the engagement of key units/departments to undertake the work that needs to be done in an innovation project/CoP. This also provides experimentation opportunities linked to skills-based alignment with work clusters and the work required in projects, which enables the University to explore other ways of working, how to harness the potential of staff and students, and how to build in and reward future skills development.

Why is it proposed that the virtual structure is called a Virtual ***Academy***? Although there are a range of definitions for an "academy", the following one is deemed appropriate in this context – **an academy is an entity that advances knowledge and education in a particular field or discipline**[20]. The Virtual Academy aims to advance knowledge related to human-centred digital innovations in the academic project and how to enable students and staff to liberate their potential and enhance their digital competence and citizenship.

7. **The Virtual Academy needs an incubation "home" and a makerspace.**

   Given the transversal nature of the work of the Virtual Academy but also the need to incubate it as it entails a complex, innovative way of working, the following is proposed for the **first phase**:

   a. The Virtual Academy is incubated as a catalytic, strategic innovation in the Office of the Vice-Chancellor. The Council supported that the Virtual Academy be incubated under the Dean Learning and Teaching in the LT Portfolio. However, as this virtual structure will serve the entire academic project, it makes more sense to incubate it in the VC's Office, as has been the case with other key strategic thrusts such as the work related to Ocean Sciences and steering the Medical School project.
   b. The Virtual Academy should be (i) a standing item on the agenda of the Transversal Deanery meetings to ensure that the voices and needs of all the DVCs are included in shaping its work; (ii) presented at an EMANCO workshop to bring in the voices of all the portfolios; and (iii) represented on governance and steering structures created for implementing the DX strategy along with representation on appropriate existing committees (e.g., ICT Committee, Learning and Teaching Committee).
   c. As indicated previously, the Virtual Academy should operate in a virtual space (which could expand the competencies of team members in terms of the technologies they need to master). However, there is a need to have a physical makerspace, possibly linked to the LxD cluster in the LT Collab &/or relevant departments/entities in faculties and sections in ICT Services. This will provide team members with opportunities to "play" with advanced digital technologies and brainstorm innovations in-person.

[20] Adapted from https://associationfinder.co.za/what-is-an-academy/

Furthermore, the makerspace should be used as a university and community asset. For example, departments or portfolios could spend time in it to play with technologies and find new ways of incorporating these into their work, research, teaching, etc. From an engagement perspective, the work of the Virtual Academy and its makerspace could serve as a community asset where school learners, parents and community members could be exposed to intelligent and emerging technologies. In this regard, it would be ideal if the makerspace could be on the same campus as the Science Centre, which will make it more accessible to the public.

Critical success factors, enablers, and risks

Among the **critical and enabling factors** to successfully implement the Virtual Academy are:

- Positioning the Virtual Academy as a distinct initiative/program that is supported and enabled through the DX Strategy.
- Incubating the Virtual Academy as a transversal, catalytic strategic innovation in the Vice-Chancellor's Office.
- Having a driver (Director of the Virtual Academy).
- Having a supportive and strengthened institutional digital spine/ICT infrastructure.
- Learning gained from other institutional innovation projects (current and past) that can be drawn on and provide guidance during the first phase of the Virtual Academy.
- Drawing on internal and external resourcing for innovation projects and CoPs. A pool of funding is needed to cover HR requirements, ICT architecture and systems development, software, kitting out the makerspace, etc. and should include replacement funding for academics who take on substantive tasks in an innovation project or CoP. Funding should also be available for internal entities that contribute expertise, technologies, etc. to the work required in digital innovation projects. Where expertise for an aspect of a project is not available internally or internal capacity is too stretched, funding is needed to source the expertise externally (this approach has been followed in the start-up phase of the Medical School). An internal resourcing strategy thus needs to be developed that draws on various funding sources (HR, CAPEX, OPEX, SRSFC and DHET grant funding). The resourcing strategy should also include income that could be generated through commercialising some of the artefacts developed, journal articles, and so on. Furthermore, through the SRMA, an external resourcing strategy should be developed that includes alumni funding, and funding from partnerships with collaborating universities, external partnerships (e.g., DSI, SITA, SETAs), industry partners, and technology-related foundations.
- Adaptability and openness to change by line managers, staff, and students involved. To foster a mindset change, a change management process needs to be designed and implemented. This could be linked to the Institutional Culture Project and should include (a) sensitising project and CoP leaders to leadership in a complex adaptive system with a strong focus on building personal agency and outcomes for team members while achieving the project's/CoP's goals, and (b) adopting a 'learning by doing' orientation, given that all aspects of the work of the Virtual Academy will constantly be reflected on and documented.
- Supportive and enabling policies, systems, and ways of working. In this regard, the work in the innovation projects and CoPs must feed into policy and system changes and ways of working need to be documented and critically reflected on. Furthermore, "ways of working' protocols need to be developed regarding how the Virtual Academy engages MANCO portfolios, entities, the Senior Professor in AI, etc. when identifying projects and CoPs, and establishing and managing innovation teams and CoPs. To strengthen the ways of working,

protocols related to ethics and social justice guide the development and implementation of innovation projects and CoPs to ensure that digital inclusion and not exclusion is fostered.

- Ensuring that there are human outcomes and capacity building linked to each project. Priority is thus given to the ongoing evaluation and reporting of human outcomes (e.g., staff and graduate attributes, future work skills, and career progression) from capacity development programs and digital innovations. Thus there is a commitment to monitoring inclusivity, preventing digital divides, and iteratively improving based on feedback.
- Identifying the digital competencies and citizenship requirements for staff related to current and future job requirements, how these are assessed and are facilitated in training and development opportunities provided, linked to the performance management system[21], reward systems and promotion/career progression opportunities.
- Identifying the nature of the digital competencies and citizenship students need to develop aligned to future skills and job requirements, and how these are facilitated in module content and outcomes, and experiential and co-curricular learning opportunities, which include in student job roles on campus[22]. Student achievement and awards policies could be reviewed to see whether exceptional achievements related to digital citizenship should feature among the awards for students.
- Increase the focus on students being able to access devices and data and to gather analytics from them to guide and nudge student success, LT delivery modes, etc.

Among the **risks** are:

- Insufficient funding available to appropriately resource the digital innovation projects, CoPs, and work of the Virtual Academy in general. Guidelines are needed to make wise choices while navigating budgetary constraints.
- Change management programs are not timeously introduced to enable leaders and team members to adapt and function effectively to working in new ways in a complex system.
- Not ensuring that all those who need to make the Virtual Academy become a reality are provided with capacity building and the necessary tools of trade (e.g., high-end laptops).
- Becoming impatient with the time needed and learning curve encountered when implementing a virtual, networked organisational structure. It will probably take most of the first phase to figure out how best to make it work.
- Tackling too many digital innovation projects too soon could stretch capacity and resources too thinly and hamper successful outcomes.
- Misalignment of the performance management system for staff and reward systems for staff and students, which can reduce the willingness of staff and students to get involved in CoPs and innovation projects.
- Given digital inequities, it is possible that not all staff and students will benefit optimally from the Virtual Academy's capacity development programs and digital innovation projects.

Catalysing the First Phase of the Virtual Academy's Evolution

Among the first steps that can be taken to embark on the work of the Virtual Academy are:

1. **Focus on establishing CoPs**
   It is important to initiate some CoPs from the onset of the Virtual Academy. Staff have already expressed the need for CoPs related to:

[21] From the transversal digital innovation project and sub-projects proposed for the first phase, learning will emerge that can filter through to how to map and assess the digital competence and citizenship of staff in different job roles and students in different programs, that can be included in training opportunities, modules, and experiential learning to develop such competencies appropriately, and how this links to performance management and reward systems.

- Digital competencies and citizenship
- Innovative assessment (e-assessment, gamification, socially just assessment)
- AI to enhance student engagement in learning (proposed by students)
- Online WIL
- New styles of engagement in a digital world
- Data visualisation
- Ethics in technology use/digital ethics (includes research, LT, and engagement)
- Humanising innovation

These can be reduced, refined and others added in a think tank. Additionally, the way CoP leaders and members could be identified can be debated. Once VAST has approved the CoPs and the leaders, training can commence before the CoPs start functioning.

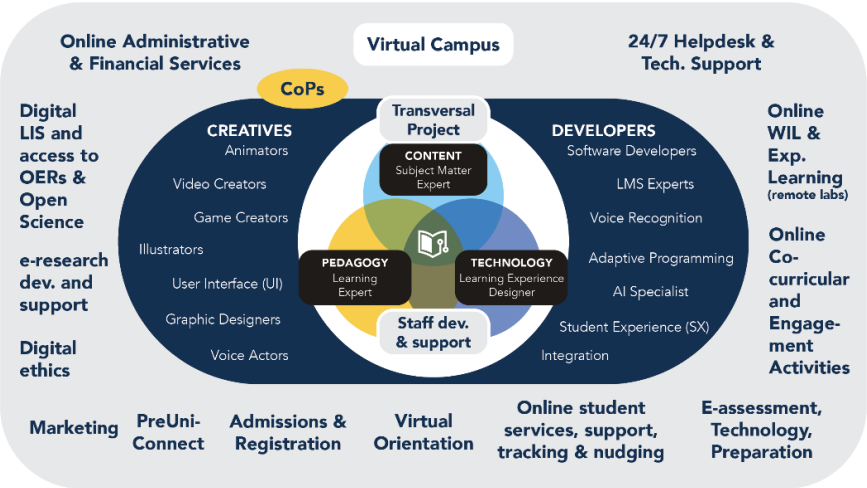
2. **Identify a large transversal, multidimensional digital innovation project, with sub-projects that involve all portfolios.**

In terms of innovation projects, it is proposed that a transversal, multidimensional, multidisciplinary digital innovation project is identified that:

- Involves all MANCO portfolios, as this will provide a common focus across the institution, the opportunity to jointly establish the foundations of the envisaged inter-connected system/network and to develop the 'ways of working' protocols for the Virtual Academy.
- Is aligned to and can draw on related existing projects (see Appendix 1) and on information and ideas from some or all the CoPs.
- Is aligned to the funded project(s)/activities of the DHET's Infrastructure and Efficiency Grant (IEG) and the University Capacity Development Grant (UCDG). This makes the start-up costs more manageable.
- Is workshopped with all the stakeholders to map the scope of the project and sub-projects once the broad conceptualisation of the Virtual Academy is approved. The scope must be approved by VAST who could also advise re the initial priorities.

It is proposed that to enhance access opportunities for adult learners, the development of a suite of UG and PG online qualifications and short learning programs (SLPs) and all the related online services and support for such offerings becomes the first innovation project tackled in the Virtual Academy. The diagram below provides a visual image of the multidimensionality of this project.

Transversal, Multidimensional Project to Catalyse the Work of the Virtual Academy



The diagram consists of two parts. The middle, blue section consists of key activities that need to be undertaken to develop the suite of online qualifications and SLPs. These activities will be undertaken by a range of academics, LxD, ICT, teaching and research development, and academic program design staff, students, and CoP teams, for example. In addition, capacity development is needed for the staff and students involved related to e.g., online pedagogy, innovative curriculum and assessment development (e.g., including VR, gaming, nano-learning principles, and adaptive learning pathways); learning experience design (including script development, designing e-tivities for active and collaborative learning engagement); emphasising universal design for learning to support diverse learner needs that will foster greater inclusivity; online student experience; AI in terms of creating engaging learning experiences, innovative assessment and adaptive pathways; quality standards, digital competencies, ethics and citizenship; e-research; online WIL, experiential learning (including remote labs), and online engagement activities.

The outer, grey section includes a range of services from across the university that will be drawn on in the design and development of the suite of online qualifications and SLPs and sub-projects that will ready the institution for their delivery. In this regard, the Virtual Campus, will be a critical sub-project as students will access the online qualifications and SLPs via it, along with the various online administrative, financial, student, learning development, counselling, helpdesk, and technology support services and programs.

This multidimensional project and sub-projects will assist the University to develop digital competencies among staff and students involved and produce a suite of online qualifications and SLPs, all the related online services and support to ensure life-changing learning and other experiences for students aligned to the University's graduate attributes, and a model for developing further online programs, modules, and SLPs. Additionally, there will be important spin-offs that will catalyse other aspects of the academic project, which will add to the perceived value of the work of the Virtual Academy. For example:

- The capacity enhancement programs developed in the project can be offered to enable lecturers to enhance the quality of the design of the digital content and learning experiences in the online learning sections of their contact modules.
- Being able to draw on the digital artefacts and contents from the library that will be created will enable lecturers and learning experience designers to tweak and customise them, rather than to develop them from scratch for each module.
- The capacity enhancement programs developed in the project for PASS staff and students can be offered university-wide to enable digital competency and citizenship development and foster digital inclusion at the University. These capacity enhancement programs could additionally be offered beyond the University as SLPs, which could contribute to third-stream income and engagement initiatives.
- The strategic investment made into additional digital infrastructure and software resources will benefit and assist in sustaining the blended learning and innovative e-assessment approaches adopted.
- Some software and digital innovations could enable the university to implement blended learning in a more cost-effective way. For example, software such as Synthesia, which is an AI video platform that turns text into high quality avatar videos, without needing a camera, microphone, and hours of recording, retakes, and editing, and with the possibility of doing so in multiple languages (but some development is needed to include Afrikaans and isiXhosa options). If something like this is acquired to develop videos for the online programs, this software could be used to easily create videos for blended learning modules, which could enhance the quality of digital content

available in the LMS. Additionally, the multilingualism project of the University and student success could be enhanced if the videos are available in multiple languages.

- Research and innovation can be anchored in the technological infrastructure developed to support and enhance the opportunities of Industry 4.0 and 5.0.
- Aspects of online/virtual WIL, experiential and co-curricular learning, and engagement initiatives could be included in qualifications delivered via a blended mode.

Envisaged Milestones to Launch the Virtual Academy

Two milestone road maps are provided to guide the approval and build up to the launch of the Virtual Academy. The timelines included are subject to change, depending on when final approval is obtained, but the steps will remain the same.

Approval Road Map for the Conceptualisation of the Virtual Academy

Road Map Building up to the Launch of the Virtual Academy

Appendix 1

<u>Examples</u> of existing initiatives aligned with the Virtual Academy's purpose and proposed transversal, multidimensional project

PROJECT	ACTIVITIES
Online program, feature module, and SLP development	**Qualifications:** Working with Higher Education Partners SA to develop 4 online progs (MBA; BA with Psychology, Technology, & potential other majors (which could offer a range of 4IR career pathways with a strong human-technology interaction flavour e.g., health technologists, learning experience designer, cyberpsychology researcher); B Information Technology (BIT); and the Advance Diploma in Technical & Vocational Training (TVT).
	Online feature module and SLPs: Online version of *Social Consciousness for Sustainable Futures* (SCCSF) module – which makes it available to students around the world, especially at partner universities. This work is at an advanced stage. The Dept. of Accounting Sciences developed an online *critical thinking* module - with funding from SAICA – which will be available to other SAICA-accredited universities. The module covers the subcomponents of critical thinking and explores the use of these skills in various subject-related tasks and can be used for curricular and co-curricular purposes, with badging possibilities. As critical thinking is a core skill that graduates require, this module could possibly be adapted and included in other disciplines and programs at Mandela Uni. Virtually presented *Internal Auditing* SLPs and possible online nano-learning SLPs aligned with the PG Diploma in Internal Auditing are being developed for the national and international CPD market. This work can provide a model for other disciplines.
Targeted digital competence and citizenship development SLPs and projects	As part of an envisaged Cyberpsychology series, *Human-Technology Interaction*, and *Digital Health and Wellness* SLPs are in the initial stages of development for all students and for CPD purposes. This is a collaborative effort of the Psychology Department, the Centre for Community Technologies, and Student Governance & Development. Researchers in the Centre for Research into Cybersecurity are collaborating with ICT Services to procure *cyber security awareness* material. From this, CRICS researchers will create courses for university staff and students to equip them with the knowledge & skills to identify and mitigate potential cyber threats. As children are falling victim to online dangers, CRICS and a digital animator from the Dept. of Media & Communications are launching an age-appropriate cybersafety awareness program that can be incorporated into the Grade R curriculum, & to expand this to other grades via the Dept. of Education. *Cyberlaw* is growing in importance. The Law Faculty are establishing a hybrid research-engagement unit under the banner of cyberlaw/cybersecurity. They are in discussion with three international partners regarding collaborative efforts. The unit will facilitate increased research in this area, SLPs, and webinars.
Exploring the use of Generative AI Tools	The Faculty of Law is using interesting approaches in class regarding AI. For example, a legal question is posed and then students can use any AI tool to answer the question. The lecturer then analyses the AI response together with the students to identify where the AI tool correctly set out the legal position and where it did not. Advice and guidance are then provided by the lecturer re how to pick up the inaccuracies. All faculties have instituted GenAI initiatives and research, and the Faculty of Humanites are providing thought-leadership in this regard.
Virtual professional work environment	The Faculty of Law is engaged in an exciting project with a law firm and other industry role players to develop *HiveLaw*. HiveLaw is a SharePoint based practice management solution custom designed to fit university law clinics' dual purpose of encompassing legal service delivery and practical legal education. HiveLaw is a "virtual law firm environment to power a 21st century law firm" which uses state of the art cloud-based technology. From the platform, users can access a combination of interconnected modules re a law firm's requirements, including client onboarding, client file management, letters and legal documents generation, assessment of student activity, creating statistics, as well as reporting to relevant stakeholders. This development could serve as a model that can be adapted and taken to scale in other professions and faculties and could even provide a model for the university's administrative and other systems.

PROJECT	ACTIVITIES
Student success and Employability Apps and Games that can be taken to scale across the university	**Academic Support App –** the app, which was developed in 2021 to provide students with academic support during COVID, has been updated. The app provides details of all Academic Advisors as well as tutors in the Business and Economic Sciences' Faculty. Various training workshops are included to assist students with academic support (e.g., Stress Management, Memory Techniques, Time Management). Details of support services are also provided (e.g., Writing Centre, Emthonjeni Student Wellness, and the Clinic). **Entrepreneurship Game –** The Entrepreneurship Game was developed as a teaching aid to engage with students when teaching Entrepreneurship in class. The game has been designed around various business start-up principles and students cannot progress to successive levels (chapters) unless they have successfully completed the game. This is a work in progress and will eventually include a business start-up toolbox which will contain, for example, documents to set up a partnership agreement, franchise documentation, etc. **Employability App –** The app was developed to provide students with a platform to prepare themselves for the workplace. Via the app students can develop a LinkedIn profile and then "attend" a series of LinkedIn Learning Workshops related to such topics as – CV writing**,** Job Interviews**,** a Corporate Wardrobe. The Dept. of Accounting Sciences are taking the latter further in that they are exploring using an AI tool where students can create an outfit that is appropriate for a board meeting or a luncheon with a client, etc.
Capacity development	**Growing capacity of lecturers** Faculties and the LT Collab continue to focus on *upskilling of staff re blended learning*. For example, the e-technologist in the Faculty of Law is focusing on 1-on-1 sessions with academics re Moodle basics. Next, champions will be identified to use more advanced features of Moodle for curriculum optimism at a module level and for different year levels. *Improving online learner experience*: The Learning Experience Design (LXD) team provide hands-on training and support for module makeovers to improve the instructional design and user experience of module content and activities on Moodle. Additionally, the LXD Studio is developing Moodle Course Shells for faculties that include a pre-populated structure, resources, templates, and tips for technical support. This will go a long way to support lecturers to seamlessly upload engaging content across all modules. *Collaborating with international partners* to provide capacity-building in new areas is vital. E.g., the Psych Dept are exploring a partnership with the University of Wolverhampton, the leading university in the UK in Cyberpsychology, which is a fledgling discipline in SA. **Growing the capacity of the Professional Development staff** Faculties and academics increasingly require support in their transition to digital learning such as introducing Gen AI into lessons or creating flipped classes requiring video, blended learning and in class teaching using Teams and touch screen whiteboards. The 2024-2026 UCDP requests will focus on growing the HR capacity of the Learning Experience Design (LXD) and Teaching Development teams to support faculties and academics. There will also be specific focus on capacitating the LXD team to use and research GenAI tools in the production of digital LT content which is expected to shorten LT production cycles, which will allow learning designers to serve more academics.
Data warehousing needs identified	The SD: Missionvale, Bird Street and Second Avenue Campuses and her team have conceptualised the need for an integrated *Multi-Campus Management System*, as part of the university's enterprise and digital architecture which is embedded in the V2030 strategic enablers and the Transformation Strategy. This will enable evidence-based planning, decision making, and reporting, integrated monitoring to enhance operational efficiency and cost savings, and identifying automation needs. To enhance the support of *student success*, which will grow in complexity when some students are learning fully online, an integrated data system is needed so that coaches, advisors, academics, and administrators can draw near real-time data from LT systems (Teams/Moodle), LT Collab, and other service departments, the co-curricular record, Finance, Student housing, admissions, etc. These needs can be met if a central data warehouse is created. A *data warehouse* means you do not connect directly to systems like ITS. Rather, all relevant data is copied (staged), cleaned and prepared for access using Microsoft-based tools where different roles require different access to data and in which student confidentiality is automatically catered for.