

Fourth industrial revolution (4IR) impact in assessment practices: equaliser in producing a global graduate of the future, University of Pretoria a case in point

Charles Maimela and Legodi Thutse*

Abstract

Disruptions in technology have impacted teaching and learning and, in particular for this paper, assessments in a rapid manner, with Covid-19 playing an accelerative role. Covid-19 forced universities to teach and assess students using online tools and platforms. This has, to some extent, raised concerns on whether this is necessary for the sustainability and resilience of teaching and learning in universities. Although the use of technology, such as Artificial Intelligence (AI) tools, in assessing students presents some challenges, like access and socio-economic conditions of a country like South Africa, it equally presents some benefits such as promoting authentic assessments, which ensures that critically thoughtful and reasoning graduates, who are able to deal with real life scenarios, and problems, are produced. This is premised, among others, on the fact that AI is a useful tool for academics to be able to prepare authentic assessments with minimal time and to achieve module outcomes. Thus, promoting quality teaching and learning by producing critically thoughtful graduates who have meaningful impact in society. Despite the challenges of technological usage in assessments, such as the compromise of student privacy through the use of protracting tools in assessments, there are benefits which have a positive impact on graduate attributes that are relevant in today's world of work. Hence, the use of technologies must be promoted and carefully managed to balance the pros and cons.

Keywords: Teaching and learning; fourth industrial revolution; artificial intelligence; assessments and universities.

* Both University of Pretoria.

Introduction

Technology disruptions have, in the recent past, engulfed teaching and learning; and assessment practices. This is particularly so given that students are prepared for an uncertain but yet exciting future of work, that is diverse due to the skill sets and qualities a law degree affords to its graduates, which is not limited to legal practice but includes, academia, research, corporate and civil service among other things. Universities are now preparing students for work, which currently does not exist owing to the disruptions, or interruptions caused by the fourth industrial revolution (4IR) technologies.¹ The disruptions emanate from several factors including socio-economic conditions, for example, the recent Covid-19 pandemic,² and ongoing developments in technological innovations. In response to the disruptions and challenges, it is important for teaching and learning and assessment practices to equip graduates with the necessary skillsets to perform optimally in an uncertain world of work. This includes exploring online assessment practices, as an alternative for using 4IR platforms and overall approach to legal education with flexibility and agility expected in a rapidly changing world. It also relates to interrogating these alternative assessment options and assessing whether they specifically leave students with the desired outcomes stated in the module content, as opposed to making students to be passive participants in their teaching and learning.³

The use of technology, such as AI tools, presents an opportunity for universities to produce globally competitive graduates who are equipped with the necessary skills inculcated through authentic assessment practices. Authentic assessments, which could be promoted through the use of AI tools, proffers graduates with skillsets enabling them to handle real life situations through application of knowledge.⁴ It has been asserted that such assessments tend to put an emphasis on what students can do in the context of real life.⁵ Thus, preparing graduates for handling real life situations through High Order

¹ Maimela C “Can face-to-face teaching and learning be replaced or complemented by technological innovations?” *In Technological innovation (4IR) in law teaching and learning: enhancement of drawback during COVID 19* 26 (PULP 2022, Pretoria).

² Maimela C “Can face-to-face teaching and learning be replaced or complemented by technological innovations?” *In Technological innovation (4IR) in law teaching and learning: enhancement of drawback during COVID 19* 26.

³ As above.

⁴ See Wiggins G “The Case for Authentic Assessments” *Eric Digest* 1990 (12) 3.

⁵ Whitlock B and Nanavati J “A systematic approach to performative and authentic assessment” 2013 *Reference Services Review* 35.

Thinking Skills (HOTS). HOTS, among others, involve applying different thought processes in complex situations.⁶ Graduates possessing such skills are enabled to apply, develop and enhance knowledge in the context of thinking.⁷ The concept of authentic assessments has overtime been enthusiastically embraced by, among others, curriculum developers and policy makers.⁸ It has further been enshrined in curriculum and assessment literatures as a desirable characteristic of education.⁹ This could be case due to the ability of such assessments to prepare work ready graduates that will be able to immediately tackle expectations of their professions in real life scenarios.

In the premise, this article investigates the use of the 4IR technologies and innovations in teaching and learning and assessment practices with a focus on the University of Pretoria (UP), as one of the leading institutions in the African continent and which stands to share its experiences and innovations with other local and regional universities in the African continent.¹⁰ In particular, it looks at the impact of these technologies on authentic assessments and the extent to which these technologies foster innovative pedagogy or quality teaching and learning. Covid-19 is used as an example insofar as the latter accelerated the need for staff and students across to embrace the use of technology in teaching and learning; and assessment practices. Furthermore, the article explores some of the lessons learnt through the forced remote teaching and learning precipitated by the Covid-19. To this end, it is inquired whether online education is necessary for the sustainability and resiliency of the pedagogy of teaching and learning and in particular assessments. If so, to what extent could universities factor these developments in their future teaching and learning; and

⁶ Goodson L and Rohani F “Higher Order Thinking Skills: Definition, teaching strategies, assessment” *Thinking* 1998 458.

⁷ Mohamed R and Lebar O “Authentic assessments in assessing higher order thinking skills” 2017 *International Journal of Academic Research in Business and Social Sciences* 469.

⁸ Cumming J and Maxwell M “Contextualizing authentic assessment” *Assessment in Education: Principles, Policy and Practice* 178.

⁹ Cumming J and Maxwell M “Contextualizing authentic assessment” *Assessment in Education: Principles, Policy and Practice* 178.

¹⁰ The University of Pretoria (UP) has been ranked between 600th and 800th globally in the 2025 Times Higher Education global rankings. The rankings places UP at number eight (8) in the African continent and at number one (1), alongside University of Cape Town, in the continent for the discipline of law: See Times Higher Education 2025 Rankings available at: https://www.timeshighereducation.com/worlduniversityrankings/latest/worldranking#!/length/25/locations/ZAF/sort_by/rank/sort_order/asc/cols/scores; <https://www.timeshighereducation.com/student/bestuniversities/bestuniversitiesafrica>; https://www.timeshighereducation.com/worlduniversityrankings/2025/subjectranking/law#!/length/25/locations/ZAF/sort_by/rank/sort_order/asc/cols/scores (Accessed 25 June 2025).

assessment plans or strategies drawing lessons from UP with the aim of sharing such experiences with other universities in the African continent and across the world. The article ultimately makes a case that the use of AI tools proffers an opportunity for universities to deliberately and meaningfully equip students with key graduate attributes developed through authentic assessment approaches enabled by Artificial Intelligence (AI) tools.

Determining the Forms of Assessments

Generally, there is no fixed or uniform understanding of the meaning of assessments. However, the term “assessment” means to test or interrogate the understanding of the subject matter that is being taught and to examine whether or not it can be applied and used in a practical manner. An assessment means monitoring and evaluating the learning objectives, which are set in a module or course.¹¹

Assessments can take different forms. They can take the form of formative or summative assessments. Formative assessments may vary significantly in nature, format and scope, depending on the subject field that is being evaluated.¹² Wiggins asserts that “the aim of [formative] assessment is primarily to educate and improve student performance, not merely to audit it”.¹³ Thus, they include , situations where students need to obtain a semester mark by completing projects, assignments or writing semester tests in order to build a year mark.¹⁴ In addition, assessments can follow a summative format in the sense that they only take place at the end of a semester or year and build from the formative assessments in which a student will need a year mark.¹⁵

¹¹ Baragash RS and Samarraire H “Blended learning: Investigating the influence of engagement in multiple learning delivery modes on students performance” *Telematics and Informatics* 2018 (7) 2082.

¹² Ontong JM “Low-stakes assessments: An effective tool to improve marks in higher-stakes summative assessments? Evidence from commerce students at a South African university” 2021 *South African Journal of Higher Education* 237.

¹³ Wiggins G *Educative assessment: Designing assessments to inform and improve student performance* San Francisco 1998 (Jossey-Bass, San Francisco) 7.

¹⁴ Ekolu S “Correlation between formative and summative assessment results in engineering studies” 2006 *The 6th African Engineering Education Association conference, CUT, FS* available at: file:///C:/Users/admin/Downloads/uj_21230+SOURCE1+SOURCE1.2.pdf (Accessed 25 June 2025).

¹⁵ Education Innovation (EI) The academic success of students at the University of Pretoria: Initiatives, Roles and Responsibilities https://www.up.ac.za/media/shared/582/ZP_Resources/student-success-at-up.zp231039.pdf (Accessed 15 March 2023).

Accordingly, summative assessments cover all the work that was presented during the course of the semester or year. They include the learning outcomes which have been set in that particular module or course and which are necessary for the students to complete and achieve.¹⁶

Given the differences in the assessment methods, diverse assessment approaches can be used for both formative and summative assessments. These approaches include portfolio assessments, self-assessments and peer assessments; debates, presentations; multiple-choice questions; open book tests and examinations; oral tests and examinations and; and take home tests and examinations.¹⁷ These approaches are the basis of the education sector. However, their application was modified owing to the disruptions to teaching and learning caused by the Covid-19 pandemic. In particular, institutions of higher education occasionally used AI because of its flexibility and the reach it has to the delivery of quality teaching and learning despite infrastructural, financial and capacity constraints.¹⁸ This was the case in assessing students. This meant a shift from the traditional way of teaching and learning, including assessments, to a more hybrid, blended and flexible approach to education. The question thus is whether this selection was effective and to what extent can AI continue shaping content and approaches to teaching and learning; and assessments in the future.

From the preceding discussion, a distinction can be drawn between authentic and traditional assessment practices. Authentic assessment practices are those that directly measure the ability of a student to perform an intellectually demanding task and still reflect on the real world in which such a student will one day operate.¹⁹ However, traditional assessments focus on measuring student performance, for example, the way of answering questions during examinations. Furthermore, they are pivotal in determining whether students will, through the content of study, be able to deal with or address real life

¹⁶ Education Innovation (EI) The academic success of students at the University of Pretoria: Initiatives, Roles and Responsibilities.

https://www.up.ac.za/media/shared/582/ZP_Resources/student-success-at-up.zp231039.pdf (Accessed 15 March 2023).

¹⁷ Lemmens J and Ntshabele BT "Evidence based-decision-making on the improvement of student success: A study of the uptake of institutional research at two universities in Gauteng." *In Utilisation of South African Research on Higher Education* 40-42 (Sun Press, Stellenbosch, 2022 South Africa).

¹⁸ Lemmens J and Ntshabele BT *In Utilisation of South African Research on Higher Education* 43.

¹⁹ Wiggins G *Eric Digest* 1990 (12) 2.

problems or scenarios.²⁰ Consequently, authentic assessments are a better approach, which universities should adopt because they foster critical thought and reasoning. It resonates more with the use of AI tools because it challenges students to think outside of the box.²¹ Producing students that think outside (or are innovative) has the impact of ensuring that they become globally competitive. Globally competitive graduates can, without too much difficulty, forge collaboration at a global level. This is particularly important because collaboration has overtime proven to be an important aspect of maintaining a successful legal career.

Wiggins, championed for the authentic assessment method. He holds the view that if students are to demonstrate authentic academic achievements; they need to construct knowledge through disciplined enquiry.²² Additionally, they should be able to engage with the module tasks that have some meaning or value beyond achieving academic success.²³ This view is particularly relevant to teaching law or legal studies. In this discipline, students are introduced to the basic principles of writing, critical thinking and debating. These skills are honed during practical law training modules, moots, mock trials and debate sessions that all fall into the category of authentic assessments. However, there are challenges associated with the authentic assessment method. The limited time on the part of academics to, amongst others, prepare innovative, authentic, detailed and structured assessments. A further challenge relates to maintaining task reliability, which requires detailed assessment rubrics and task moderation by academics in the field for quality assurance purposes.²⁴

Despite the challenges mentioned above, it has become necessary for universities to apply authentic assessments. This is particularly so given that these types of assessments prepare students for the world of work. Accordingly, AI could be adopted to limit the challenges associated with the authentic assessment model and to improve the flexibility and agility of education.²⁵ In this case, AI tools can be used to develop authentic assessments as such tools

²⁰ Wiggins G *Eric Digest* 1990 (12) 3.

²¹ As above.

²² Wiggins G *Eric Digest* 1990 (12) 4.

²³ Wiggins G *Eric Digest* 1990 (12) 3-5.

²⁴ Wiggins G "A True Test: Toward More Authentic and Equitable Assessment" *Phi Delta Kappan* 1989 (70) 18.

²⁵ Dolbin RJ, Liu Y, Slabbinck R, and Stewart Jr RL "AI-Powered education: Authentic assessments and learning" 2024 available at: <https://www.ascce.org/content/ai-powered-education-authentic-assessments-and-learning> (Accessed 26 June 2025).

proffer innovative suggestions on the best possible ways in which students can be assessed. The tools could be utilised to generate and develop scenarios in assessments that will prepare students for existing and potential future work dynamics. Additionally, AI tools could be used to continuously assess students in order to evaluate their existing knowledge and to identify their knowledge shortcomings. Such an evaluation will aid lecturers in understanding the overall knowledge gap of the students and to breach such a gap for future authentic assessments (e.g. formal tests and final examinations). Achieving the latter has been simplified by AI tools as they are able to perform student evaluation tasks with minimal human effort and without delays.

The above-mentioned discussion talks to the need for assessment practices to adequately respond to the skills gap that the industry currently requires.²⁶ Furthermore, it speaks to the need for assessments to be tailored in a manner that is aimed at producing solution-oriented professionals that are globally competitive. Therefore, inquiry-led assessment practices aligned to teaching and learning pedagogy need to be developed to address the learning outcomes of a module or course. In doing so, reliance could be made on AI to develop effective assessments that are aligned with graduate attributes.²⁷ Accordingly, the benefits and risks associated with the use of AI in teaching and learning; and the need to strike a balance between assessment objectives and the role of the teacher or educator becomes significant.

The Council on Higher Education (CHE), which is a regulatory body of Higher Education and deals with the accreditation of qualifications in South Africa, provides that faculties should ‘ensure (that there is) adequate inclusion of critical reflection and analysis that go beyond the requirements set in tests and examinations’.²⁸ In its review of the LLB Curriculum offered by the UP, the CHE stated that the following principles are specifically essential:

- Teaching, curriculum development and assessment must align;
- Problem-orientated assessment/ deeper learning and critical thinking;

²⁶ Maimela C “Can face-to-face teaching and learning be replaced or complemented by technological innovations?” *In Technological innovation (4IR) in law teaching and learning: enhancement of drawback during COVID 19* 26-27.

²⁷ As above.

²⁸ CHE Review of the LLB Degree of the University of Pretoria 2017-2018 Report on Re-accreditation 2018.

- An inquiry-led approach to teaching and assessment;
- Skills and competency development;
- Integration between departments and modules;
- Openness, transparency, and accountability; and
- The four drivers of curriculum transformation.²⁹

Consequently, an inquiry led approach to assessments becomes meaningful in aligning teaching and learning with establishing content that addresses the prevailing critical skills shortage. Furthermore, the approach necessitates the provision of practical and essay-type assignments or questions that improve the students' cognitive and reasoning abilities or skills.³⁰ This is a skill, which has been found to be lacking among young law graduates by law firms and calls for universities to address this shortcoming, and an inquiry led approach is a start.

The inquiry led approach to assessments is a long-term rather than short-term process. It relates to linking or aligning students with the discipline addressing the challenges confronting the teachers in class and following a contextualised method of teaching and learning. The latter method considers the background of the student, their academic literacy and writing skills, and the nature and content of the module being offered. Accordingly, it discards a one-size-fits-all approach to the pedagogy of teaching and learning; and assessments. In addition, it accepts that technological innovations, for example, AI, could be pivotal in measuring the quality and parity of education.³¹ Specifically, the technologies could accelerate and enhance the digitalisation of teaching and learning; and assessments by most universities in South Africa. The adoption and use of AI tools can further go a long way in producing a graduate that is

²⁹ CHE Review of the LLB Degree of the University of Pretoria 2017-2018 Report on Re-accreditation 2018. The four drivers of curriculum transformation are: (a) Responsiveness to social context; (b) Epistemological diversity; (c) Renewal of pedagogy and classroom practices; and (d) An institutional culture of openness and critical reflection: See Curriculum Transformation Framework Document: Reimagining Curriculum for a Just University in a Vibrant Democracy (Work Stream on Curriculum Transformation at the University of Pretoria) 2017 2, available at: <https://www.up.ac.za/media/shared/780/uppr427640-1.zp180643.pdf> (Accessed 13 August 2024).

³⁰ UP Faculty of Law Teaching and Assessment Guidelines 2022 1-2.

³¹ Maimela C "Can face-to-face teaching and learning be replaced or complemented by technological innovations?" In *Technological innovation (4IR) in law teaching and learning: enhancement of drawback during COVID 19* 28.

envisaged by the CHE. This can be achieved through the use of AI tools, by universities, in pursuit of authentic assessments that are problem oriented, promote deeper learning and critical thought in order to make the necessary societal impact.

Assessing Students

A purpose of universities is to assess whether students possess the desired competencies set out in the learning outcomes of their offerings.³² This involves looking at whether the students have attained the necessary skillsets and attributes. Collaboration and integration of AI tools through the effective use of the Learning Management Systems (LMS), for example, Clickup; Moodle and others, commonly used in most South African universities can assist in improving the quality of assessments.³³ This utilisation is even more prudent and urgent given that universities are working on transdisciplinary and multidisciplinary approaches to teaching and learning. The utilization of such platforms or any other AI tools provides a platform for the creation of innovative authentic assessments that prepares graduates for a world defined by technological innovation and usage; and the need for real-life problem-solving attributes.

Another important point relates to the fact that assessments should be pitched at the correct level and must take a staggered approach according to the ascending levels of study.³⁴ For example, assessments at first year must build to those at the second, third and final year of study. This is the case for the LLB degree at UP and other South African universities. This development of skills must take into account the applied competencies, which are desired in the respective levels and modules.

In order to achieve the required applied competencies, the revised approach adopted by Churches, with regards to Bloom's Digital Taxonomy needs to be taken into account.³⁵ The Bloom's Digital Taxonomy encourages the use of

³² As above.

³³ Bradley MM *et al*, "Embracing and reimagining technology-enhanced learning in public international law to Generation Z" In *Technological innovation (4IR) in law teaching and learning: enhancement of drawback during COVID 19* 41 (PULP, 2022 Pretoria).

³⁴ UP Faculty of Law Teaching and Assessment Guidelines 2022 8.

³⁵ Churches A Bloom's Digital Taxonomy Verbs
<https://www.pdst.ie/sites/default/files/BloomDigitalTaxonomy-AndrewChurches.pdf>
(Accessed 18 April 2023).

technology and digital tools to facilitate learning and assessments. Students' engagement is defined with the power verbs that can be used for almost everything from lesson planning, rubric marking, and doing curriculum mapping.³⁶ Doing so affirms the assertion about maintaining the needed flexibility and agility of bringing technological innovations into teaching and learning; and assessment practices. Furthermore, the power verbs cover the taxonomy from LOTS, that is, the lower-order thinking skills, to the HOTS, for example, higher-order thinking skills. It begins with remembering the knowledge gleaned from the content and ends with creating or designing plans to utilise that knowledge.³⁷

Digitalised Assessment Practices

A blended or hybrid approach to doing things has become more prevalent.³⁸ This is occasioned by the widespread adoption of 4IR technologies and is combined with the increasing proliferation of the internet of things (IoT).³⁹ Specifically, the Covid-19 has amplified the use of a blended approach to teaching and learning; and assessments. To some, the use of these technologies came as a redeeming feature to arrest the teaching and learning; that could have been immensely catastrophic.⁴⁰ This adoption altered the traditional mode of teaching and learning, including assessments, and fast-tracked the adoption of online tools to foster the quality of education.⁴¹ UP as the focus of this paper, swiftly adopted AI platforms such as QuestUP, ClickUP, Turnitin, the assignment tools of e-publishers; CompAssess, and Numbas, to improve excellence in teaching and learning; and assessments.⁴² These innovations assisted both lecturers and students to engage with the content of the work and to keep students involved in their education.⁴³ Others colleagues and students

³⁶ Churches Bloom's Digital Taxonomy Verbs
<https://www.pdst.ie/sites/default/files/BloomDigitalTaxonomy-AndrewChurches.pdf>
 (Accessed 18 April 2023).

³⁷ As above.

³⁸ Li C *et al*, "Implementing H5P online interactive Activities at scale" *ASCILITE* 2021 1.

³⁹ Li *et al*, *ASCILITE* 2021 3.

⁴⁰ As above.

⁴¹ Li *et al*, *ASCILITE* 2021 3-6.

⁴² Department for Education Innovation (EI) Annual Report 2021

<https://www.up.ac.za/education-innovation/article/2868301/annual-reports> (Accessed: 16 April 2023).

⁴³ CHE is a statutory body which was established in terms of the Higher Education Act 101 of 1997, as amended. It operates within the National Qualifications Framework Act 67 of 2008, as amended.

at UP relied on H5P,⁴⁴ to ensure the effectiveness of the continuous assessment during students pre-class preparation.⁴⁵ In addition to the implementation of H5P software, a proctoring tool was introduced. The latter includes ID verification, automated proctoring, content protection, secure browser settings, computer lockdown, originality authentication, administrative and faculty controls, as well as instantaneous analytics. It applies facial detection technology and a large variety of fully automated software using AI. The students' installation is simple through a Google Chrome extension and the integration with ClickUP as in-house LMS.⁴⁶

Despite all these efforts, these digital tools still show signs of being counterproductive to the overall teaching and learning agenda. For example, some digital tools posed shortcomings when it comes to the privacy of students. Verhoef and Coester hold the view that proctoring is not an affordable option for South Africa due to the cost implications involved in procuring it.⁴⁷ Furthermore, proctoring creates a policing environment and can compromise the privacy of students.⁴⁸ Therefore, the adoption of AI tools has to be contextualised in such a way that their implementation assures optimal use and benefits to students and the university at large. Particularly, because their use is fundamental in authentic assessments and ultimately in producing global graduates that are able to tackle real life situations through acquired skills.

A further factor to be considered relates to the professional development strategy or strategies necessary for the suitable adoption of a blended or hybrid approach to teaching and learning; and assessments. This include a proper understanding of the way technology intersects with teaching and learning and assessment, and the measures needed to technically design and develop AI

⁴⁴ Department for Education Innovation (EI) Annual Report 2021
<https://www.up.ac.za/education-innovation/article/2868301/annual-reports> (Accessed: 16 April 2023).

⁴⁵ Department for Education Innovation (EI) Annual Report 2021
<https://www.up.ac.za/education-innovation/article/2868301/annual-reports> (Accessed: 16 April 2023).

⁴⁶ Department for Education Innovation (EI) Annual Report 2021
<https://www.up.ac.za/education-innovation/article/2868301/annual-reports> (Accessed: 16 April 2023).

⁴⁷ Verhoef A and Coester Y "Academic Integrity of University Students During Emergency Remote Online Assessments: An Exploration of Student Voices" *Transformation in Higher Education* 2021 8.

⁴⁸ Verhoef and Coester *Transformation in Higher Education* 2021 8.

tools befitting the quality of education.⁴⁹ Inevitably, a staggered approach with a clear plan of action is necessary for the optimal use and benefit of AI in teaching and learning; and assessments. This marks a paradigm shift for universities which improves the participation of students in their learning in a way that enhances their human capital. Accordingly, the shift starts with accepting digital technologies as necessary innovations to improve assessment practices in the pedagogy of teaching and learning. In other words, universities, teachers, students, and technology can co-exist to ensure that education and assessment practices improves and constantly evolves. For example, Carless argues that digital technologies provide the opportunity to examine assessment types and increase flexibility in the traditional forms of assessments.⁵⁰ Therefore, a principled approach is needed that eases the pressure associated with the assessments overload and improves the opportunities for students to revise study material iteratively.⁵¹

Another important point to consider relates to the overreliance on written assessments over oral assessments. Large class sizes are often stated as the reason for this preference. Because of this, a balanced approach is necessary to manage the continued deprivation of students of the benefits derived from all the assessment methods. Already, there are available AI tools that could offer a solution to this shortcoming by providing a digital assessment option or options, which can be engaging, personalised and authentic in preparing for the future world of work. These tools lead to worthwhile teaching and learning outcomes that look beyond the classroom, that is, the world of work.⁵² They encompass video presentations, podcasts and vlogs, and are appealing to students as compared to the conventional forms of assessments.

⁴⁹ Department for Education Innovation (EI) Annual Report 2021

<https://www.up.ac.za/education-innovation/article/2868301/annual-reports> (Accessed: 16 April 2023).

⁵⁰ Carless D “How ChatGPT can help disrupt assessment overload”

<https://www.timeshighereducation.com/campus/how-chatgpt-can-help-disrupt-assessment-overload> (Accessed 2 May 2023).

⁵¹ Carless “How ChatGPT can help disrupt assessment overload”

<https://www.timeshighereducation.com/campus/how-chatgpt-can-help-disrupt-assessment-overload> (Accessed 2 May 2023).

⁵² Carless “How ChatGPT can help disrupt assessment overload”

<https://www.timeshighereducation.com/campus/how-chatgpt-can-help-disrupt-assessment-overload> (Accessed 2 May 2023).

Conclusion

This article argued for the advancement of flexible and agile assessment practices in higher learning in preparing students for the world of work, UP being the case in point. It was outlined, that universities must not wait for another pandemic to explore the benefits of AI despite some of its disadvantages concerning privacy. However, a case was made that AI is an essential feature for the graduate attributes of future lawyers and academics. Universities, as agents of change and engines of social transformation, need to play both a leading and central role when it comes to the use and exploration of AI in its core operations. This will help in ensuring that they remain relevant and connected to society and industry in its knowledge generation and production. However, investment in terms of capital and human resources from the side of government is essential in ensuring that well-rounded graduates are produced. Universities need the support of government, collaboration between local and international universities is essential, and AI can be used as a vehicle to achieve this goal. In particular, because such initiatives will enable the provision of innovation, authentic assessment methods that will produce intellectually relevant global graduates.