

# The Millennial effect: Implications for academic development

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***Abstract:** A new generation of students – the “Millennials”- are beginning their tertiary education. How will academic staff – the baby boomers and generation X deal with the characteristics and learning styles of the Millennials? How will teaching and learning practices be affected? What are the implications for academic development in our universities? This paper examines the unique characteristics, learning and communication preferences of Millennials. Some teaching and learning strategies are suggested and a holistic academic development approach is recommended. Seven factors contributing to a holistic academic development approach are outlined.*

***Keywords:** Millennial students; holistic teaching and learning; academic development.*

## Introduction

The first wave of a new generation of students “the Millennials”, who have been exposed to technology from an early age, have started or are on their way to universities and colleges. Universities are now facing the challenge of catering to three distinct generations of students, the “Baby Boomers” born in the post-war era 1945-1959, the sixties and seventies “Generation-X”, and new students of the “Millennial” generation born in or after the year 1982 (Oblinger, 2003). Current research suggests that the Millennial generation exhibit different characteristics to previous generations, which implies that for this new generation requirements and expectations of the learning environment are likely to be quite unlike that of previous generations (Howe & Strauss, 2000; Oblinger, 2003; Poindexter, 2003; Raines, 2002). A dilemma for educators who are themselves Baby Boomers or Generation-X and institutions today is being able to predict and identify the changes that will be required to cater to a new technologically savvy generation of students, whilst still fulfilling the educational expectations of the students with more traditional requirements.

Institutions and academic staff are facing a period in which the role and functionality of universities will be redefined and reshaped to suit the requirements of a varied student population who require greater flexibility and more options than ever before (Hanna, 2003). Student-centred teaching and learning approaches may be one of the solutions to this dilemma. However, Poindexter (2003, p. 24) argues that whilst “individual innovations like collaborative learning, service learning or the use of technology in teaching are finding their way onto some campuses, a holistic approach that looks at teaching and learning strategies

from an integrated perspective may offer the greatest impact". She advises against adopting only one innovation in isolation, as this can negate desired outcomes, rather, she promotes a holistic approach that uses multiple strategies and takes into account the changing student generation.

The anticipation of change in higher education is not a new phenomenon. For a number of years now the technological revolution has been a catalyst for change in universities, but research has shown that introducing new educational technologies alone does not improve teaching and learning outcomes (Collis, 1996; Deden & Carter, 1996; Laurillard, 1993; Reeves, 1997; Twigg, 2003). Applying a holistic approach to teaching and learning in higher education with a strong emphasis on more learner-centred design (Ahmed, 2003; Buckley, 2002; Katz, 2003; Weimer, 2002) and the development of blended learning environments (Twigg, 2003) may assist universities and academic staff in adapting to the demands of a new generation and the expectations of earlier generations. The authors believe that academic staff development is a critical component in moving from the traditional to the less clearly defined future requirements of education in the 2000s.

In this paper the authors explore the characteristics of the changing student population in Australian universities, the changing requirements and expectations of the students and identify a future vision for academic development that helps foster a holistic approach to dealing with the challenges ahead.

### **The characteristics of Millennials**

What are the characteristics of Australian university students and how many of the current students are Millennials? In her sourcebook about the changing workplace and managing Millennials Raines (2002) describes their characteristics as sociable, optimistic, talented, well educated, collaborative, open-minded, influential and achievement oriented. Millennials are also described as, the Internet Generation, Echo Boomers, the Boomlet, Nexters, Generation Y, The Nintendo Generation and the Digital Generation (Raines, 2002). In the workplace, Millennials are usually supervised by their older colleagues "Xers, Boomers and Veterans", who have a different mindset (Raines, 2002). At university in the early 2000s, Millennials will most likely be taught by the older generations of educators.

Raines (2002) also identifies a number of key trends of the 90s and 2000s, such as, a focus on children and the family; scheduled structured lives; multiculturalism; terrorism; heroism; patriotism; parent advocacy and globalism that have influenced Millennials. She states that the millennial generation were exposed to value forming messages that resulted in the development of a millennial generational perspective. In Table 1, we show the relationship between the value forming messages described by Raines, the characteristics of Millennials identified by both Raines (2002) and Frand (2000) and the corresponding learning and communication preferences of Millennials (Frand, 2000; Oblinger, 2003).

Millennials exhibit distinct learning preferences identified by Oblinger (2003) and Brown (2000) such as preferring teamwork, experiential activities, structure, and the use of technology. Email and instant messaging are natural communication and socialisation mechanisms for teenagers today. To cater to this group of students' orientation towards teamwork, Howe and Strauss (2003) advise institutions to stress friendship and duty to help others; to showcase groups and team skills; and to prepare for rapid growth in mainstream political and community organisations.

**Table 1: Characteristics of Millenials (adapted from Brown, 2000; Frand, 2000; Oblinger, 2003; Raines, 2002)**

<b>Values Forming Messages</b>	<b>General Characteristics</b>	<b>Learning Preferences</b>	<b>Communication Preferences</b>
Be smart –you are special	Confident “Computers aren’t technology”	Technology	Electronic
Leave no-one behind (equitable and diverse)	Hopeful-optimistic “Reality No Longer Real”	Entertainment and excitement	Positive
Connect 24/7 interdependent on family, friends and teachers.	Inclusive (team oriented) “Staying Connected,” “Zero Tolerance for Delays”	Teamwork	Respectable
Achieve now!	Goal – and achievement – oriented (achievers) “Doing Rather Than Knowing”	Structure	Motivational and goal focused
Serve your community (volunteer)	Civic-Minded	Experiential activities	Respectful

According to Howe (2003) the Millennial generation are confident, happy and optimistic. They are “risk-averse, ... and like to work with the best and latest high-technology gadgets. The Millennials are into teamwork, group projects, service learning, and community service”. Howe also suggests that higher education institutions should be prepared for these students and that institutions should get ready for students who have a lot and expect a lot; stress good outcomes; use social norming; and create the expectation of success for all, including special needs children.

Research into “everyday learning” conducted by Brown (2000) identified that teenagers, in the year 2000, were quite comfortable “multiprocessing” doing several things simultaneously – listening to music, talking on the mobile phone and using the computer. This is also supported by Frand (2000) who found that many young people today are accustomed to watching TV, talking on the phone, doing homework, eating, and interacting with their parents all at the same time. They don’t concentrate on one activity at a time and accept multitasking as the norm.

Millennials are technologically savvy and their high expectations pose a challenge for educational institutions. “The aging infrastructure and the lecture tradition of colleges and universities may not meet the expectations of students raised on the Internet and interactive games” (Hanna, 2003 p. 44). Levine and Arafah (2002) also found that students who have had access to computers throughout their primary and secondary schooling have high expectations for ongoing use of technology in their studies. In contrast with the seemingly carefree, highly communicative lifestyle of Millennials, Howe (2003) says the environment in which they have grown up has placed them under considerable pressure to achieve. He also

says they are goal oriented and pressured, worried about their security and sleep deprived whilst in high school.

### **Millennials at Australian Universities**

The first of the Millennial generation born in 1982 reached the age of 21 in 2003, while members of the X-Generation ranged in age from 22 to 43, and the Baby Boomers ranged in age from 44 to 58. By the year 2006 all students in the age group 20 to 24 will be Millennials. Table 1, sourced from the “Key Statistics on Higher Education” (AVCC, 2003), indicates an increase in the number of Millennials studying in Australian higher education institutions. Based on the figures in Table 2 it can be projected that by the year 2006 the majority of students (approximately 60%) will be Millennials, if enrolments continue in a similar pattern that to that of 1999 through to 2003.

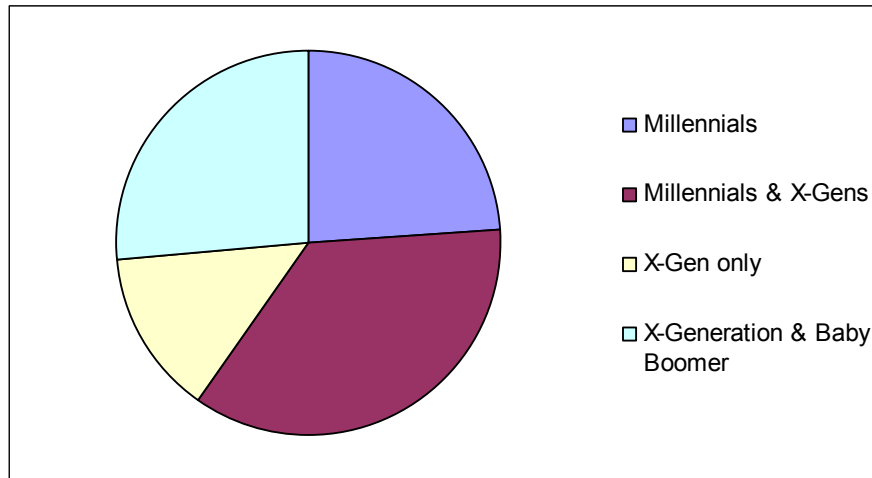
**Table 2: Student enrolments by age group, 1999- 2003 (AVCC, 2003)**

Age Group	Generation	% All Student Enrolments				
		1999	2000	2001	2002	2003
<=19	Millennial	27.0%	27.2%	26.8%	23.7%	23.8%
20-24	Mix of Millennial & X-Generation	-	-	-	34.1%	35.8%
20-24	X-Generation only	33.1%	33.5%	33.8%	-	-
25-29	X-Generation only	13.5%	13.5%	13.6%	14.6%	14.0%
30+	Mix of Baby Boomers & X-Generation	26.3%	25.7%	25.8%	27.7%	26.4%

**Table 3: Summary of student enrolments <=19 – 24, 1999-2003 (AVCC, 2003)**

Age	% All Student Enrolments				
	1999	2000	2001	2002	2003
<=19 Millennials	27.00%	27.20%	26.80%	23.70%	23.80%
20 - 24 Millennials & X-Generation	33.10%	33.50%	33.80%	34.10%	35.80%
Total Percentage <=19 - 24	<b>60.10%</b>	<b>60.70%</b>	<b>60.60%</b>	<b>57.80%</b>	<b>59.60%</b>

Figure 1 below shows the distribution by generation of enrolled students in Australian higher education institutions in the year 2003.



**Figure 1: Student enrolments in 2003 by generation (AVCC, 2003)**

The higher education statistics (AVCC, 2003) referred to above indicate that the majority of students in Australia currently fall in the Millennial and X-Generation, and by 2006 the majority of students are likely to be Millennials. Will there be a need to consider the impact of this on Australian universities in terms of teaching and learning, infrastructure and academic development? Understanding the characteristics of these future university students will help determine this.

### **Implications of the Millennial effect for teaching and learning**

Howe and Strauss's (2003) findings about millennium students could encourage teaching staff to adopt some of the teaching approaches that would most appeal to these students. Given that these students are much more likely to have been exposed to new technologies than previous generations of students it could be posited that these students will expect academic staff to be comfortable with and utilise a wide range of technologies in their teaching. However, it is not only skills in technology that Millennials are looking for in their lecturers. Some of the millennial student expectations impacting on teaching and learning, and therefore academic development, are illustrated in the tables below.

**Table 4: Millennials wants and implications for teaching and learning adapted from Raines (2002)**

<b>What millenials want</b>	<b>Descriptions</b>	<b>Implications for Teaching and Learning</b>
<b>1. You Be the Leader</b>	Millennials are looking for great role models/leaders with honesty and integrity.	Strive to be a role model
<b>2. Challenge me</b>	Millennials are looking for growth, development and a career path.	Provide opportunities that challenge students and allow for trying new things.
<b>3. Let me work with friends</b>	Like being friends, with co-workers, and working with people they 'click' with.	Encourage friends to work together in teams and groups. Create opportunities for social interaction.
<b>4. Let's have fun</b>	Humour and fun are important.	Allow and encourage humour in the learning

		environment.
<b>5. Respect me</b>	Like to be treated with respect.	Treat student ideas with respect.
<b>6. Be flexible</b>	Students engage in many activities, eg, work, study and social events.	Provide a flexible learning environment. Be creative in your teaching and learning activities – where appropriate use emerging technologies eg. allow students to choose to communicate via SMS, email or forums.

The characteristics of millennial students and their learning and communication preferences offer some clear directions for desirable teaching and learning strategies. In Table 5 below we have mapped the findings of Brown (2000), Frand (2000), Oblinger (2003) and Raines (2002) in an attempt to identify practical examples of teaching and learning strategies that may appeal to Millennials.

**Table 5: Millennial characteristics, learning and communication preferences and examples of suitable teaching and learning strategies (adapted from Brown, 2000; Frand, 2000; Oblinger, 2003; Raines, 2002)**

<b>Millennial Characteristics</b>	<b>Learning Preferences</b>	<b>Communication Preferences</b>	<b>Teaching and Learning Strategy</b>
<b>Confident</b> “Computers aren’t technology”	Technology	Electronic	e.g., Include opportunities for electronic communication and interaction
<b>Hopeful-optimistic</b> “Reality No Longer Real”	Entertainment and excitement	Positive	e.g., Include opportunities for experiential and authentic learning activities
<b>Inclusive (team oriented)</b> “Staying Connected,” “Zero Tolerance for Delays”	Teamwork	Respectable - being treated with respect	e.g., Include group activities, allow friends to work together.
<b>Goal – and achievement – oriented</b> “Doing Rather Than Knowing”	Structure	Motivational and goal focused	e.g., Include opportunities for experiential and authentic learning. Set goals and provide frequent feedback.
<b>Civic-Minded</b>	Experiential activities	Respectful – treating others with respect	e.g., Build in opportunities for community related learning

The examples above are representative of a wide range of teaching and learning strategies that can be developed and applied to fit with the learning preferences and wants of millennial students. These should be seen as a starting point for adapting teaching and learning strategies that are more student-centred. To be effective in supporting student-centred approaches, academic development programmes must support teaching staff in designing, implementing and utilising learner-centred teaching and learning strategies.

### **Implications for academic staff development**

Students who have grown up with technologies have an information-age mindset (Frand, 2000), therefore demands on academic staff teaching the new millennial generation of students will be many – the requirement to increase their technological skill-base, to design teaching and learning activities to meet the change in students’ learning styles and

expectations, the need to be able to communicate with students through a range of media, and to interact and provide support 24 hours a day, seven days a week.

The mindset of academics is likely to be still influenced by their generation and by the teaching and learning culture and traditions embedded in their institutions (Hanna, 2003). However, Poindexter (2003), indicates that innovators are defined by a personality trait and not by age and that innovators can span generations. Therefore, academic developers should not assume that the age of an academic will limit their willingness to be an innovator or experiment with new teaching and learning approaches.

### **Academic staff at Australian universities**

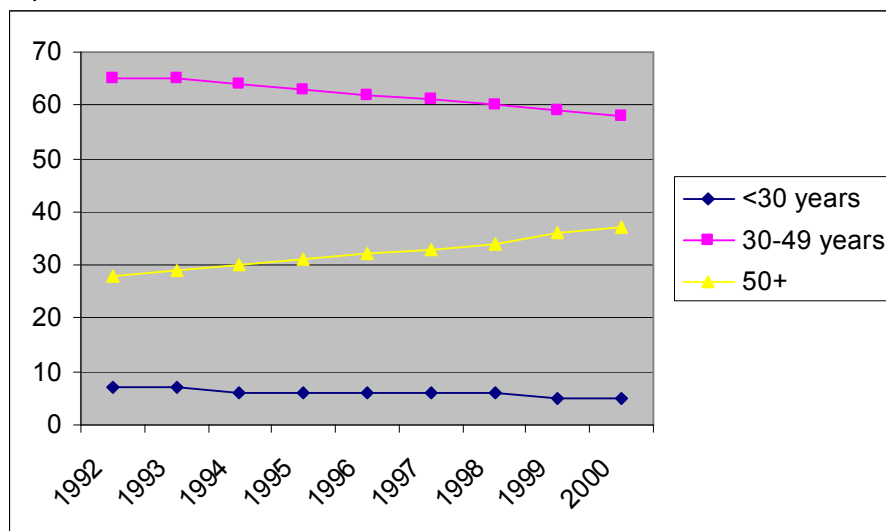
In the year 2000, 37% of academic staff in Australian public universities were in the age group of 50+ in contrast with 28% in the year 1992. This places almost 40% of academics in the Baby Boomer generation.

Australia-wide in 1992 7% of academics were in the under 30 age group and in the year 2000 there were only 5% of academics under 30. In 1992 65% of academic staff were in the age group 30 – 49% and in the year 2000, 58% were between the ages of 30 - 49 (AVCC, 2003). As the population of Australia is aging, this is reflected in the age of academic staff in Australian universities shown by the increased number of staff in the 50+ age group.

**Table 6: Percentage of academic staff in Australian universities by age groups 1992 – 2000 (AVCC, 2003)**

Age Group	1992	1993	1994	1995	1996	1997	1998	1999	2000
<30 years	7	7	6	6	6	6	6	5	5
30-49 years	65	65	64	63	62	61	60	59	58
50+	28	29	30	31	32	33	34	36	37

**Figure 2: Percentage of academic staff in Australian Universities by age groups 1992 – 2000 (AVCC, 2003)**



Could the age of academics be related to the level of adoption of technology in teaching in learning? Jones (2002), Bates and Poole (2003) suggests that there may be a generation gap between professors and students in terms of their internet usage interest or abilities:

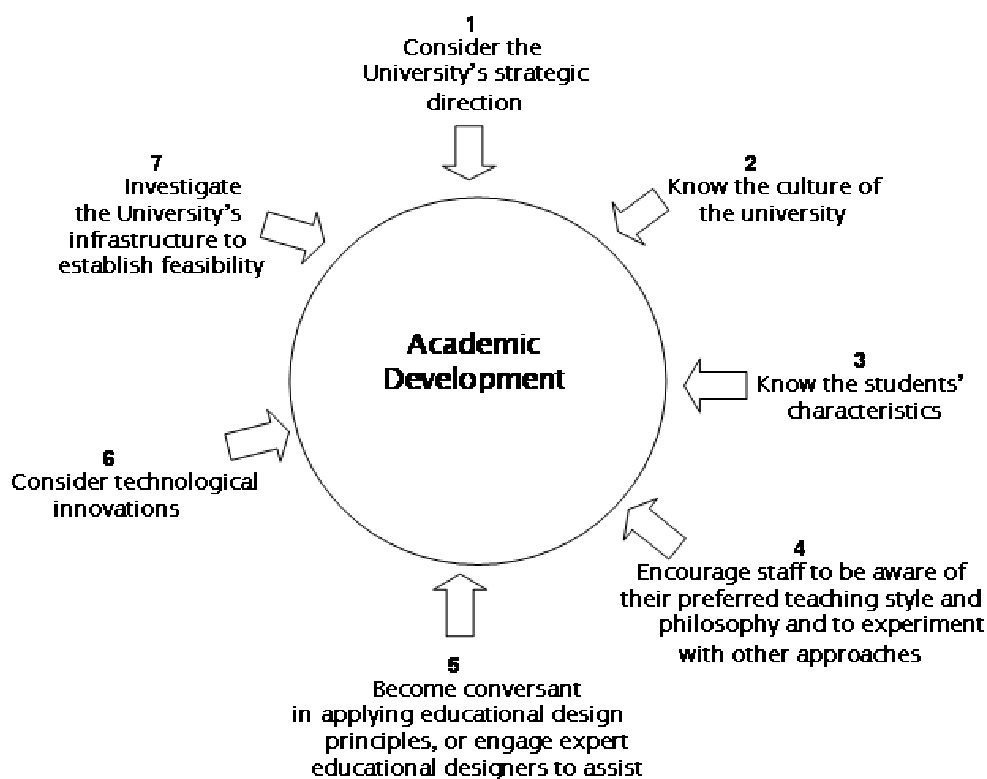
It is likely that there is still some reluctance among university faculty to adopt Internet technology and put it to use in the classroom. Universities have begun training faculty

and staff in Web-friendly applications such as WebCT and Blackboard that allow faculty to easily create class Web sites complete with discussion boards, grade information and homework tools. It seems, however, that it may still be necessary to incorporate basic training about using the Internet as a communication tool for teacher-student interaction. When professors do deal with students via the Internet, they are much more likely to use email than newer Internet tools such as instant messaging, chat, Web boards.

In order to help bridge this gap the authors suggest the adoption of a holistic approach to academic development. In this approach the factors impacting on teaching and learning are considered and multiple strategies, applied simultaneously, are suggested to assist academics to develop a greater awareness of student needs and learning styles, teaching styles, educational design, and to increase their technology skills. Buckley (2002) suggests adopting strategies that lead academic staff to a more learner-centred approach can be successful when aligned with the needs of staff and the institution:

Many faculties find it enormously stimulating to create learning environments that would enable them to teach things that they felt they could not teach as well before. The success of this approach is critically dependent on the goals and quality of the faculty-development program, which in turn will depend on the needs and opportunities of the institution (Buckley 2002, p.33).

The authors suggest the following seven factors contribute to a holistic academic development approach as shown in Figure 3 below.



**Figure 3: Seven factors contributing to a holistic Academic Development Approach.**

Academic developers need to be aware of these factors and the impact they have on the outcomes of staff development. Although each factor could be considered individually Poindexter (2003) advises against this approach and encourages the use of multiple concurrent strategies to achieve desired outcomes. Each of the factors needs to be considered in relation to the others. The factors are elaborated on below and can be used as an aid in planning and adopting a holistic approach to academic development programmes:

**1. Consider the university's strategic direction**

All of the above factors are influenced by current university strategic priorities. Ensure academic development programmes are aligned with the universities strategic direction.

**2. Be aware of the current and evolving academic/university culture within the university**

It is also important for staff to be aware of the current and evolving academic/university culture in their university as this may impact on the success of any initiative.

**3. Know the students' characteristics**

An awareness of generational changes and the characteristics of each generation will help staff determine teaching and learning strategies that will most appeal to students (Hanna, 2003). Know what the student mix/population is at the university. It is also important for academics to be aware of the communication tools and styles that their students use.

**4. Encourage staff to be aware of their own preferred teaching style and philosophy and to experiment with other approaches**

Support staff in modifying their existing or in trying new teaching styles and techniques identified as suitable to the learning requirements and characteristics of their students.

Students report seeing better ways to use technology than do their teachers and believe that professional development and technical assistance for teachers are crucial for effective integration of the internet into curricula (Levin & Arafah, 2002). Therefore, "new generation savvy" academics must aim to develop a high level of technology skills and be able to apply these in their teaching.

**5. Become conversant in applying educational design principles, or engage expert educational designers to assist**

There is a need for Academic staff to become aware of educational design and its impact on the quality of the teaching and learning experience. They also need to learn how to apply educational design principles, or to seek the help of experienced educational designers.

A holistic approach to teaching and learning emphasises the development of the whole person and can include aspects such as collaborative and cooperative learning, active and service learning, learner-centred, lifelong learning, experiential, interactive and authentic learning, educational technology, internet integration, outcomes based education, knowledge of whole systems, emotional literacy, meta-cognition, multiple intelligences, and learning styles (Hanna, 2003; Weimer, 2002; Poindexter, 2003; Holistic Education Network of Tasmania, 2003). The focus should be on helping students in learning how to learn, and in applying what they have learned to real life situations. Blended learning approaches include flexible choices in both content and access.

**6. Consider technological innovations**

Coordinate both the implementation of technological innovations with corresponding academic staff development activities. The use of laptops, wireless networks, PDAs and SMS

(e.g., Poindexter, Basu & Kurncz, 2001) is likely to become commonplace in universities. Staff should be able to adapt to new ways of communicating with their students (e.g., email, online messaging, wireless PDAs and SMS). To make the innovations more accessible and meaningful, “Just in time” development is more likely to result in a higher uptake and usage of new facilities.

### **7. Investigate the University's infrastructure to establish feasibility**

The university infrastructure must support the changing technological and human support requirements, and provide rewards for staff who meet student needs. Academic developers should investigate the opportunities available to support the uptake of teaching and learning innovations, such as teaching and learning development grants, and other possible resources.

The above factors may be helpful in determining the design and development of holistic academic development programmes that cater for both current and future generations of students.

### **Conclusions**

Academic staff in Australian universities need to be aware of the implications and effect of new generations of students coming to university. In this paper the authors explored the characteristics of the changing student and staff populations in Australian universities and the changing requirements and expectations of students. The unique characteristics, learning and communication preferences of the Millennial generation were discussed and teaching and learning strategies appropriate to this generation were suggested. Seven factors contributing to a holistic academic development approach were outlined.

Universities now face the need to upgrade technologically and to display more adaptability to change than ever before to cater to a wide range of demands and expectations of the Millennials. In order to respond to the changing student populations at universities, academic staff developers need to be aware of the student generational mix at their university. Currently the emphasis is likely to be required in the areas of learner-centred teaching, outcomes based education, and in increasing the technological skill-base of academics. Such initiatives must be supported by the university infrastructure, particularly in educational technology and IT support.

The importance for both teachers and learners of an institution having a “future vision” cannot be understated. It is hoped that a holistic approach to preparing institutions and staff for future generations of students will become commonplace.

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