# The Digitization of the Higher Education Enterprise – Making Higher Education Affordable, Accessible, and Relevant for All

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## 1. Summary

Over the last decade we have become familiar with the term "Digitization", applied mainly to the conversion of analog and paper assets for learning and research. The next decade will see a dramatic escalation in Digitization applied to the whole University enterprise. This will produce enormous challenges but also enormous opportunities to make Higher Education globally more affordable, more accessible, and more relevant.

## 2. ABOUT THE EXTENDED ABSTRACT

Higher education script

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| 1. | We are facing an unprecedented demand for education across the globe. There are forces – economic, political, technical, and cultural – converging in a perfect storm to increase demand for higher education.<br>How we respond to this demand will do nothing less than shape the future of our world.<br>Hello, I'm Malcolm Woodfield, global vice president of higher education and research for SAP. Today I'm going to talk about how providers of higher education are reimagining their future and achieving unprecedented transformation through the adoption of digital technologies. |
| 2. | What are these forces that I'm speaking of? Here are some examples: |
| 3. | Demand for online learning content is massive – and innovators are using digital platforms to reach this growing audience.<br>• For example, in 2012, Harvard University and MIT founded edX, a Massive Open Online Course platform offering free content from some of the world's best universities and institutions. edX now serves over 5 million learners. |
| 4. | Another driver of demand is the growth of the nonpermanent or contingent workforce.<br>• These are your contract laborers, freelancers, and temporary workers.<br>• This new workforce will require not one skill set but several that need to be continually refreshed and retooled. |

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| 5. | Thirdly, the tremendous rise of the middle class.<br>• By 2030, the middle class is expected to grow by 177% to reach 5 billion people. The majority of growth is in emerging economies that place a high value on the power of education.<br>• Couple these figures with estimates for the contingent workforce, and you can see that there will be tremendous demand for continuing education. |
| 6. | These are just some of the pressures that are driving a seismic shift in education – in who is taught, how they learn, and who provides that education.<br>However on the supply side, there is a challenge. |
| 7. | Supply is limited by high cost, by technology, and by the legacy practices of how education is delivered. |
| 8. | The future of higher education – and to some extent, the future of our world – depends upon how we respond to this challenge – and in particular – how we use technology to respond to this challenge.<br>• How do we create the best possible future for higher and continuing education? |
| 9. | By using digital technologies to transform how education is managed and delivered. That means: |
| 10. | Reimagining how the academic enterprise is run – how the business is run:<br>• how you teach, who you teach, how you are funded, and how the whole operating model works. |
| 11. | That in turn will require a change in the business processes and practices of those institutions, many of which have been in place for many years. |
| 12. | Thirdly, then, who will implement these changed models? The workforce of the future will be drawn from the students of the present – and this workforce will have new working methods, patterns, and values. |
| 13. | In other words, the digitization of education will affect every related activity, every interaction, every transaction, and every outcome.<br>How do we navigate this transformation successfully? |
| 14. | Providers of education need to reevaluate their operations and focus on three areas in particular: |
| 15. | They need to simplify to be more agile. |

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| 16. | They need to harness the massive amounts of data being generated by digital technologies. |
| 17. | And they need to run on a real-time basis. You and your students live in a real-time universe. Your operations should run in real time, too. |
| 18. | Today we have the platforms for running simple, running data, and running in real time. |
| 19. | The modern digital business framework, can turn this imagined future into reality by transforming how providers of learning run at their core. For example: |
| 20. | Student engagement<br>• The student experience is changing dramatically. Students come from a generation that uses mobile devices constantly.<br>• They expect a consumer-like experience and service.<br>• Our technology helps you meet those expectations. |
| 21. | New workforce engagement software helps develop traditional staff – but also transform how you cultivate talent and manage contingent employees. You need the infrastructure to manage this changing and complex workforce. |
| 22. | Supplier networks<br>• When it comes to "bricks and mortar" campuses, they are like small towns. Beyond education, they have medical services, housing, food services, transportation, sports, entertainment, security . . .<br>• These are provided and supported by a network of suppliers. Digital technologies facilitate supplier collaboration and cost control across all of these expenses. |
| 23. | That brings me to the last point – Big Data and the Internet of Things.<br>• The campus infrastructure is becoming a platform for the Internet of Things – with its individual pieces connected through sensors and software in a network.<br>• This "connected campus" will produce tremendous amounts of data – data that can drive real-time insights and inform decisions.<br>• Decisions like which students to admit, which faculty to hire. Whether to invest in a particular area of medical research. These decisions will be based upon data and predicted, measurable outcomes.<br>• Our digital framework helps enable this decision making. |
| 24. | Let me give one example. La Trobe University, based in Melbourne, educates 36,000 students throughout Australia and Southeast Asia.<br>• La Trobe set out on a mission to achieve digital transformation that is enabling it to run Simple, run data, and run in real time. |

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| | • It's running simple by moving all on-premise its core applications to the cloud hosted from a local data center. |
| 25. | It's using data to gain an immediate view into student performance,<br>• Mitigating costly attrition rates while improving student retention and performance through better insight into student behavior.<br>• It's focusing its researchers' time through instant access to data related to grants. |
| 26. | And it's running in real time.<br>• By simplifying financial operations, La Trobe was able to consolidate over 70 unreliable custom reports to five standard reports containing accurate, real-time data. |
| 27. | By bringing its operations into the cloud, La Trobe University has been able to simplify operations, increase productivity, and foster innovation. |

## AUTHOR'S BIOGRAPHY

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Dr. Malcolm Woodfield was born in England and educated at Cambridge University where he obtained his Ph.D., which was subsequently published by Oxford University Press. After a successful career as a teacher and widely-published researcher (at Cambridge University and University of Chicago), Dr. Woodfield joined SAP Labs Silicon Valley in 1997.

Dr. Woodfield leads the Global Business Unit for SAP's Higher Education and Research. As such he is responsible for worldwide business development and product development of SAP's portfolio of solutions for Higher Education.

He is responsible for advising SAP regarding technology trends and requirements in the School, Higher Education, and Workforce Development sectors, and for managing relations with approximately 8,000 Schools, Universities, companies, and Ministries of Education using SAP technology for teaching, research, and administration. His team has ultimate responsibility both for SAP business and product strategy, but also for the success of all SAP projects in Higher Education and Research worldwide.