

Video killed the radio star! – Reimagining UP after a pandemic

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During 2020, when countries were shutting their borders and universities around the world moved to online teaching, I had discussions with collaborators and friends from other universities around the world. I got the impression that NAS/UP was well-prepared to facilitate the shift to online tuition. Events in previous years had equipped us to manage a rapid transition to online teaching, unlike our colleagues in the global north who had to start with the basics.

Nevertheless, many skills and new forms of infrastructure were acquired during the pandemic. It concerned not only locating hardware, such as 3 000 laptops for students in dire need of internet-enabled devices, to ensure that no student was left behind, but also involved ensuring that staff and students in home offices were functional, and up and running.

With global vaccination rates rising slowly, we can start to think about what the 'new normal' means in the context of a contact university such as UP.

In my opinion, the landscape in higher education is changing. We should ensure that we are shaping the landscape, rather than being left behind.

One of our first steps should be to ensure that we get students back on campus. The Honours class of 2022 will be filled with students, who in the case of NAS students have never seen a laboratory or a microscope because of their limited experience on campus. And yet they are expected to conduct research in the years to come! I was once asked by a member of the public, 'Why do students pick UP?' It is clearly the quality of education that they receive that encourages students to enrol here, but sports and the social aspects of being a contact student are also attractions. If the latter advantages fall away, what prevents students from enrolling at UNISA (which is more financially viable for most students), or at another contact university?

Another critical issue is that although students might have the hardware and data to be connected and to complete courses online, studying at home does not necessarily provide the right learning environment, especially if a student is the first member of their family to attend university. In some families, sitting quietly and reading a book is not considered real work; one is seen to be 'just

sitting around’.

Furthermore, we should not ignore the benefits of being in a classroom and being able to engage in interpersonal discussion. Although video conferencing platforms have advanced in the past 18 months, the lecturing styles of many academics have regressed to *ex-cathedra* teaching in front of a blank screen, rather than teaching in front of a blackboard. Requests such as ‘Please unmute!’ or ‘Can you see my screen?’ do not enhance the quality of the learning experience. As we know from multiple studies, if the student-teacher ratio is too high, learning will take longer and will be less efficient. Learning online removes an important mode of communication, viz. non-verbal communication, since it is difficult to discern non-verbal communication based solely on facial expression.

18 These challenges should not be understood as simply arguments in favour of reverting to the traditional classroom set-up, but rather as reasons why we need to find a balance between our new online or virtual teaching skills, and contact learning. We may want to consider adding online classes to the timetable in order to create a timetable with fewer clashes. The 07h30 lecture slot could be designated an online slot, and so could be lectures scheduled after 17h30. Obviously, the number of online and synchronous and asynchronous lectures offered should be guided by the learning programme, module, or course in question. For example, I would assume that Masters Courses would be attended mostly by students who work during office hours, and who would, therefore, potentially prefer asynchronous lectures or online lectures later in the day.

Live-streaming or recording lectures would enable staff members and students to customise their timetables, and would allow for greater flexibility, which would be useful in certain situations, such as students having child-care commitments, caring for family members, or living in a province other than Gauteng. Another benefit would be that an external examiner for a course could obtain a more comprehensive overview of the course content and the dynamics of learning within the module. For example, our external examiners for the Honours programme in 2020 had the option of listening to presentations by students, which enabled them to ask additional in-depth and challenging questions about students’ projects.

In addition to these institutional advantages, having a more flexible timetable and allowing students to attend to lectures in their own time and at their own pace, would enable the more immediate implementation of new methods and ideas in the classroom. In 2021 I delivered a lecture in the Frontiers in Social Evolution

(FINE) lecture series – the series addressed all aspects of social evolution, and lectures were delivered by leading academics in their respective fields. Each lecturer had to not only deliver a lecture, followed by a Q&A session, but also be available for one-on-one meetings with individual students. My involvement did not begin with delivering my lecture, but was initiated four hours earlier through a meeting with various people around the globe, in a discussion about social evolution.

Owing to the time difference, colleagues from the University of Chattanooga and Yale University had to start with their lecturing much earlier. The process confirmed that one can have leading experts present their research to a class, or introduce their fields of expertise, regardless of the physical location of the class, the presenter, or the lecturer.

As academics, we get excited about our topics of research and we can communicate our excitement to our students, but we also need to teach students about aspects of our field of knowledge that we do not feel as enthusiastic about. A logical solution is to identify an expert in the field who can present their work, which allows students to not only access knowledge, but to also tap into the excitement of that particular expert. In the past, this type of input was limited by the necessity of actually having the expert present on campus as a visiting researcher, and their input had to be arranged at the most appropriate point in the course. For example, colleagues who visit for fieldwork usually travel to South Africa in our spring and summer, which is at the very end or very beginning of the South African academic year. In this narrow window of opportunity, the majority of South African students are often on their summer holidays.

The huge increase in skills by people worldwide, including academics, makes it much easier to convince an academic to present as part of a course, and to schedule online lectures within appropriate time-slots. However, at present this is just one component of extra-curricular activities, and it has not been formally integrated. I think we will see a development of a new type of university, which will integrate contact with online and asynchronous/synchronous activities. Instead of building satellite campuses like some North American universities have done, especially in the Middle East and Asia, one has the opportunity to offer courses and degrees to students, regardless of where they are. As an esteemed colleague of mine said, this shift may result in a decline in the number of traditional contact universities, similar to the demise of movie theatres that suffered from the development of VHS and DVD technology, or the decline of

radio when TV music channels eliminated the necessity of listening to music on the radio (*Video killed the radio star!*; Bruce Woolley and the Camera Club 1979).

As a result of the pandemic and shifts in processes within universities, the relationship between the physical location of a university and where a student is based might not be as strong as it was in the past. Previously, to study at the highest-ranked Zoology and Entomology Department in Africa, or at one of the top 50 globally, one had to relocate to UP. The past 18 months have shown that one can obtain a BSc at UP without being physically present during the second and third years of study.

Nevertheless, the idea is not to create a new version of a distance university, such as Unisa 2.0, but to add an additional component to academic contact activities, especially given that some of the most important aspects of an academic experience are the interactions within a university environment, or having discussions and interactions with academics, researchers, professional staff, and fellow students. Therefore, the solution is not to 'just' present online. With this in mind, some of our future students might select a university which will allow them to study in an environment in which they are regularly exposed to leading experts in the field, even if these experts are located at another university.

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One of the requirements for establishing these links, and getting the leading figures into the classroom, is a research-intensive department. (Note that the department is the unit I chose, since it describes the typical academic home of a student, but thinking instead about an institute or a centre would not require a significant shift in my argument.)

As stated in the UP vision, a strong research focus would result in the reality that new collaborations and networks could be set up more easily. It would mean a number of established networks from which one could draw experts in particular fields to complement the expertise at UP. The next step would be to integrate such collaborations into formal teaching, either by having collaborators present in the classroom, or by accepting the student's participation in a module provided by another university as part of a UP module. Only if we enhance online activities to such an extent that they 'convert' into a UP degree, will UP be at the forefront of development.

As UP is already involved in international degree programmes and, therefore, competes at a global level (to a lesser degree in some departments and to a greater degree in others), the next logical step would be to offer the option of completing some components of a degree 'remotely'. For example, since 1996

UP has had a memorandum of understanding with the International Centre of Insect Physiology and Ecology (ICIPE), which defines the roles of partners in the African Regional Postgraduate Programme in Insect Science (ARPPIS). Students are chosen from all over Africa for an MSc or a PhD – and are mainly based at ICIPE – with one of 29 African universities in 19 different countries, of which UP is one.

Over the past 25 years, a number of UP PhD graduates have been part of the programme and have started their own careers. According to students, the main criteria for choice of institution, based on past feedback and the input of current PhD students within the programme, are the field of expertise, the reputation of the university supervisor(s), the reputation of the institution, and the costs involved.

Being in a position to attract students to our programmes, and colleagues from other universities to contribute to our degree programmes is critical. Our attractiveness comes from UP being research-intensive and from having internationally recognised academics with expertise at UP. Currently, we have a more bottoms-up approach, where active researchers or groups have their own networks which they utilise to draw in experts from outside UP. The next step would be to also utilise a top-down approach, and set up networks at an institutional level for closer collaboration on degree programmes. The University of Montpellier comes to mind – UP already has a longstanding link with it, as well as with the network of the African Global University Project. They could establish a formal framework for having courses accepted for degrees at partner institutions. In this way students would have an opportunity to not only be taught by our excellent academic staff, but also be able to customise their experience during their university studies.

In addition, there would be a reduction in the costs of travelling and applying for visa applications. One could do a degree in Entomology and attend lectures on forest insects in Canada, get an introduction to dung beetles in Australia, investigate landscape factors affecting bee diversity in the USA, or learn about stingless bee diversity in Brazil, the effect of climate change on butterfly communities in Europe, and amazing biodiversity in South Africa.

Different courses could be reflected in transcripts. The decision about what courses would be acceptable would be determined by the UP staff member who coordinated the UP component of the course. One could also draw on extraordinary lecturers and professors within the university, and have them

contribute to specific courses remotely.

In light of the objective of the University to be a leading research-intensive university in Africa – known for developing people, creating knowledge, and making a difference locally and globally – utilising online resources will help to mitigate delays in registration, especially for international students due to slow processes which are beyond the control of the university, such as the South African Qualifications Authority (SAQA), visa applications, and Section 20, to name just a few. Because of personal experience with the NAS faculty office, UP has a professional staff with extensive knowledge of which degrees from which countries SAQA will or will not have problems with, and we should capitalise on this knowledge. If we have had the experience that a degree from country A is usually accepted by SAQA without problems, we could provisionally accept a student and she could start with her degree online, while we wait for the formalities to be completed. Some of these external processes can take up to nine months longer than expected, resulting in students risking losing their bursaries.

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Obviously, adjusting these processes would require formal discussions and agreements with various role-players, such as SAQA, the Department of Higher Education and Training, and professional bodies. Using the opportunity to move components of different programmes online, and being flexible with regard to individual circumstances, will enable UP to take the lead.

That will only be possible if we continue to ensure that UP is the leading research institution in Africa, with a global impact. By building a reputation based on existing networks of academics, institutes, and faculties, and nurturing not only our achievers, but also ensuring that research excellence is maintained across all disciplines, we can consolidate this leading position.

The radio star might have to record a video, but they are still capable of producing a stellar performance.