

Meeting development needs through online learning: the MRP (Telecommunications) experience

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Abstract

The Master's degree in Regulation and Policy (Telecommunications) programme was initiated in response to the articulated need of stakeholders for capacity building in the telecommunications sector in the Caribbean. This programme, the first online graduate programme of The University of the West Indies, was aimed primarily at participants from the Caribbean region, and over the two years of its delivery has attracted students from thirty developing countries.

Fostering the MRP online international community of telecommunications professionals has provided opportunities to develop good practice in the areas of online teaching and learning, as well as the design and implementation of administrative procedures appropriate for online learning support. This presentation will review the challenges and successes of this innovative programme, highlighting lessons drawn from the MRP (Telecommunications) experience that may help to guide future online learning initiatives in the Caribbean.

THE MASTER'S DEGREE PROGRAMME IN TELECOMMUNICATIONS REGULATION AND POLICY

The University of the West Indies (UWI)'s Master's degree programme in telecommunications regulation and policy, the MRP (Telecommunications), (<http://mrp.uwi.tt/>) is a multi-disciplinary Master's degree programme developed to strengthen the capacity of national telecommunications regulators and policy makers. It has a strong developmental focus, both policy and practice, contextualized by contemporary global concerns. The programme recognizes the many dimensions of societal development, and pays particular attention to the respective impacts of policy and regulatory intervention.

The MRP is the first programme to be delivered over the Internet from UWI's St. Augustine campus (<http://sta.uwi.edu/>). It is also the first programme on the campus to feature online application and registration.

The MRP represents the triangulation of regional needs relating to the evolving telecommunications sector and UWI institutional priorities. In particular, its formation was motivated by (i) The UWI's emphasis on programmes of direct regional relevance met by (ii) the regional call for Human Resource Development programmes in telecommunications regulation and policy and at the same time by (iii) The UWI's focus on expansion of its reach through distance education.

STUDENT BODY

The MRP student body comprises mature professionals, many executives, in the telecommunications sector. They hail from over thirty developing countries around the world and bring to the programme various disciplinary backgrounds. Their wherewithal to access distance education programmes is varied: some only having access to very basic telecommunications infrastructure and services with others having access to far more sophisticated facilities.

PROGRAMME DESIGN

The process of MRP programme design has incorporated comprehensive stakeholder input to ensure that its aims are consistent with the developmental needs of the societies it serves and that the programme's delivery schemes are well suited to its target students.

The programme was designed and introduced in 2003 in response to the pressing needs of the telecommunications sector during the transition from monopoly to open markets. Recognizing the evolving nature of the telecommunications sector and of its human resource needs, the MRP has been designed to run for a finite number of cohorts. The first MRP cohort is due to graduate in November 2006. The final cohort, Cohort 3, will graduate in 2008. A self-evaluation and needs assessment, to be conducted by the first quarter of 2007, will inform how best The University can continue to meet the evolving needs of the sector.

The MRP has motivated the re-thinking and re-design of many UWI policies and processes. Its programme planning, implementation, monitoring and evaluation along with its policies and practices have been designed and documented on the programme's Quality Assurance website as a template for the development of similar programmes on modest budgets.

PROGRAMME STRUCTURE AND OPERATIONAL FRAMEWORK

The MRP is delivered in English over two calendar years. It comprises eight 3-credit online courses, a 9-credit project and 3 credits worth of seminars delivered through a mix of face to face and online modes. A postgraduate diploma in Telecommunications Regulation and Policy, the DRP (Telecommunications), features six of the MRP's eight 3-credit online courses with no seminar or project requirement.

Central to the MRP administrative and academic framework is a comprehensive staff team assembled to support the programme's aims and objectives. The respective roles are tied together as depicted in the core organizational chart illustrated in Figure 1. The team is grounded in shared programme values that relate to academic integrity and to 360° of support for teaching staff and learners.

Academic integrity

Academic integrity is a core value of the MRP programme yet online delivery offers many avenues for dishonesty. The programme has, therefore, produced a wealth of resources that are intended to deter incidences of plagiarism, and to provide information on avoiding unintentional plagiarism. The MRP Academic Integrity Policy, and other related resources, are prominently featured on all course websites and are shared with staff and students through handbooks as well as through orientation and readiness programmes. All students are required to sign an Academic Integrity Pledge when they first register and the electronic Plagiarism checker, Turnitin, is used to filter student assignments and alert staff to violations of professional ethics.

Teaching Support

A great deal of guidance is provided to teaching staff to ensure that they have a shared view of programme values, aims, objectives and academic standards as well as the importance of responsiveness and fostering interaction. Tutor and Course Director handbooks and orientation programmes provide comprehensive guidance on these issues.

The distance teaching coordinator, who has experience in academic matters and in distance teaching methodologies, provides guidance individually and collectively to course directors and tutors. She delivers online readiness programmes before and during each semester and communicates regularly with individual tutors as they are a key programme resource on account of their direct interaction with students.

A key focal point for academic staff support is the 9-credit MRP project which follows all course work. Project supervisors are guided through a comprehensive orientation programme followed by an ongoing support programme throughout the project execution phase.

Learner support

The cornerstone of the MRP is its learner support. The programme recognizes the challenges of distance learning and the particular demands made upon the busy professionals who participate in the MRP. It therefore puts great emphasis on the support systems required to ensure that students can access whatever they may require of the programme efficiently and effectively.

Each member of the MRP team is committed to clarity, responsiveness, tracking and follow up actions related to his or her portfolio. The Administrative Assistant, in the frontline, provides personal guidance to new applicants as well as ongoing support for registration and other administrative matters including fees. She interfaces with university services and staff to ensure that the MRP maintains a tight schedule. A number of practices have been introduced to ensure that the programme's administration runs smoothly with rapid response. The Administrative Assistant's persistent and comprehensive follow-up are key to the success of these practices.

Fundamental to MRP learner support is the establishment of personal relationships between students and the programme's various single points of contact. The programme places a great deal of emphasis on communication. Interaction between students and staff, as well as amongst the student body, is key to MRP learner support. The regular form of programme communications is via e-mail and postings to course websites, with a nominal commitment from academic staff to respond within two days and from other programme staff within one day. Staff and students communicate by phone as the need arises. Many students attend the annual three-day face to face seminars, which are very useful in establishing personal relationships and building the MRP community.

General academic and pastoral support for learners are provided by the distance learning coordinator whose academic and professional background are in education and counselling. Before courses start, she introduces herself to students and provides guidance on the Student Manual and Online Orientation Course. During the semester, she monitors student performance weekly, providing individual follow-up, and issues regular reminders on course and programme related matters. She also provides personal counselling. Together with the programme coordinator, editor and librarian, she provides comprehensive scheduled programmes of support for students leading up to and during the execution of their projects. The progress of all project students is closely tracked and regular individual as well as group support and guidance provided.

Course directors and tutors are sensitive to the challenges of distance learners and therefore make a special effort to personalize their communications, such as opening their courses with welcome messages. Tutors provide feedback and guidance on content issues through the semester while the editor provides ongoing support with respect to academic integrity, citations and references. The librarian provides support on issues relating to research, e-resources and document style and the MRP Web engineer / systems administrator provides direct support to learners on all technical matters and passes their assignment submissions through the programme's electronic plagiarism checker, Turnitin.

COURSE DEVELOPMENT

The multidisciplinary teams that develop MRP course materials and resources bring together diverse strengths in curriculum development, academic content, online pedagogy

and online course management. These teams work successfully at a distance to develop materials cooperatively in a process that parallels the challenges that course participants face in the online environment, which assists in ensuring that materials that are presented in a user-oriented manner. The team approach also ensures that course material is routinely checked through several iterations from many perspectives.

Course websites provide a variety of facilities and resources for content, interaction and academic guidance. Materials have been designed to encourage students to build and access these resources through independent research as well as through networking within and external to the programme community. Course expectations are comprehensively articulated in the introduction to courses, and rubrics for each type of assignment as well as samples of assessed student work reinforce expectations.

The preparation of online MRP course materials follows a structured, iterative process led by the programme's multi-disciplinary/gender/racial/national course development teams. The steps, key staff and staff competencies are illustrated in Table 1.

	Step	Team Member	Competencies
1.	Curriculum development	Programme coordinator in consultation with stakeholders	Rich academic and public/private sector experience.
2.	Course outline and (a) content preparation	Course directors in consultation with programme coordinator	Subject matter
2.	Editorial review (b)	Editor	Technical writing/editing, distance learning materials preparation.
2.	Selection of (c) appropriate technologies	Course designer	Online pedagogy
		Web engineer	Web development
3.	Website development	Web engineer	
4.	Website review (inputs: student and staff feedback from mid and exit surveys each semester in each course/QA assessment)	Academic staff	Content
		QA assistant	Mechanical / visual critique
		Distance Learning Coordinator	Student experience critique
		Distance Teaching Coordinator	Scheduling / assignments / academic critique
5.	Website revision	Web engineer	Web development
6.	Quality Assurance (QA) Site development	All	Mixed

Table 1: Course Development Process and Team Competencies

TECHNOLOGY

As the MRP is delivered primarily over the Internet, online tools feature prominently in the programme. Some are used to support all MRP courses while others are used for

selected courses, depending on their thematic content and particular objectives.

All online courses are delivered through the course management system, WebCT, and all course websites feature access to the programme's electronic reserves ("e-reserves"). The MRP e-reserves comprise a collection of electronic books, journals, databases and a rich selection of other documents which provide primary as well as secondary support for MRP courses and the final project. Printable pdf documents are also used in all courses to accommodate MRP students who are primarily mature professionals with busy work and travel schedules. Offline, asynchronous access to course materials suits these students well.

Various online engagement methods have been used to cater to the diversity in course content and objectives as well as of skills, experience levels, learning styles and technology wherewithal of MRP students. For example the course materials for RPTL6801, Contemporary Telecommunications Networks and Technologies, include a rich portfolio of animations and interactive Web resources which facilitate individual visualization and hands-on exploration of technical concepts. RPTL6812, Online Seminar, on the other hand, emphasizes the building of an online community and therefore incorporates communication tools and strategies that encourage interactivity and personal expression. These tools have included discussion boards, wikis, blogs, and audio recorded lectures, as well as assessed discussion contributions, e-folios and e-presentations.

Table 2 summarizes the technologies and tools common to all courses and those used for two example courses, RPTL6801 and RPTL6812. The table identifies the purpose for which each technology is used and provides the considerations for each choice. It also provides a sense of how effective each particular technology or tool has proven for its purpose on the St. Augustine campus. The MRP Web engineer manages the primary and backup websites with the assistance of the programme's network engineer. This technical team has developed the Web utilities to support online application and registration along with other electronic productivity tools including an e-resources database application and a Web-based system for tracking the progress of project students. They have also developed electronic claim forms, electronic grade slips, data security and backup systems as well as emergency cross-over systems which are activated in response to infrastructure failure.

The MRP Technical Handbook documents all electronic policies and practices as well as the roles and responsibilities of the programme's technical staff.

Course	Media/tech	Purpose	Considerations	How effective
All courses	WebCT	Course management	Uniform, full featured, intuitive user interface	Very effective. Well liked.
	pdf documents	Course notes	Adults from developing countries. Busy work / travel schedules, unable to devote long, regular periods online.	Very effective. Flexible access highly rated.
	asynchronous online	Content delivery and communications		
	e-reserves: e-books/ journals, databases etc	Reading resources	Access by students from diverse developing countries	Very effective in principle. Somewhat cumbersome to navigate.

RPTL 6801	interactive animations	Visualization of, and interaction with, complex principles	Interdisciplinary background of students	Very effective. Well liked by students
	automated self-tests	Immediate feedback on basic content		
RPTL 6812	wikis	To develop a repository of course resources by student community.	Enabling rich interaction across different learning styles	Varied success. Substantial learning curve for some students, in part due to technical issues as well as to discomfort with unfamiliar types of communication.
	blogs	For reflection and to facilitate learning in affective domain.		
	e-folios	To demonstrate individual learning journeys		
	multimedia	Student and demonstration presentations	Opportunities for delivering and assessing presentations.	Some students unable to submit oral presentations.
	voice overlays on Powerpoint presentations	Content delivery	Creation of a seminar atmosphere	Well liked but in some cases quality limited by low bandwidth.

Table 2: Technologies Used in Course Delivery and their Rationale

DOCUMENTATION

The programme's academic, human resource and administrative frameworks, policies and processes are comprehensively documented on the MRP Quality Assurance (QA) site. The results of regular student and staff surveys are also documented for each semester of the programme's delivery. The QA site serves multiple purposes, the major ones being:

- To provide a 360° view of the programme for the external quality assessments
- To provide a 360° view of the MRP for internal review and revision and to act as the palette for continuous programme development
- To function as a repository of programme information for archive purposes and for continuity in the event of staff discontinuities of any kind

The MRP QA site provides a snapshot of the entire programme that could serve as a very valuable resource for new programmes.

SUCCESSSES AND SHORTCOMINGS

The MRP programme has many dimensions of diversity:

- Student body representing over thirty countries
- Staff from Africa, UK, North America, Caribbean
- Disciplines including law, economics, engineering, policy
- Content covering theoretical, practical, academic, professional materials
- Media comprising modern and traditional technology mix.

These diversities have led to the establishment of a formidable international community of practice in which informal learning reinforces formal learning.

In its short life, the MRP has had some significant successes. It enjoys an 89% retention rate over two cohorts, with its learner support highly rated by students. MRP final projects relate directly to practical sector needs and therefore feed into the development process in the represented jurisdictions. The programme has received positive multi-stakeholder feedback and is recognised by leading sector agencies (International Telecommunication Union, Caribbean Telecommunications Union, Caricom Secretariat and Caribbean Association of National Telecommunications Organizations) which feature it on their websites.

The programme's key shortcomings relate to its limited ability to sustain student participation in online discussions and to its variations in the richness of feedback from tutors and course directors. Work continues in exploring and developing ways of overcoming these difficulties.

CLOSING REMARKS

The MRP programme has impacted development directly through its curriculum and the particular student body it has been able to reach. Its thematic content, telecommunications regulation and policy, is pitched at policy makers and regulators whose responsibility it is to establish the environment for social and economic development. The programme places a great deal of emphasis on the values of the Millennium Development Goals, the progress of WSIS and the societal realities of the developing world. There is a strong pro-poor theme that runs through the programme's courses.

All MRP students are from the developing world, most from policy making or regulatory agencies. While building human capacity in the public and private telecommunications sectors in represented developing countries, the MRP programme has facilitated the development of an enduring international community of practice. Among the key lessons that graduates and students bring to their respective professional portfolios are the many ways in which regulatory and policy intervention can impact societal development.

Although originally developed for Caribbean professionals, the MRP has attracted a global audience. It has been able to reach its student body, which comprises professionals of influence in national and global developmental agendas, because of its asynchronous, online mode of delivery. Online delivery has enabled the participation of these working professionals in a way that would otherwise be impossible.

The programme uses a mix of traditional and contemporary media to accommodate the realities of developing country professionals who are committed to lifelong learning. It targets these societal change agents and offers a model for the design and delivery of suitable distance education programmes that can be delivered within institutions which lack the requisite institutional framework.

Figures

Figure 1 MRP Core Organizational Chart



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