
The Changing Shape of NACCQ

Stephen Corich

Head of School Computing
EIT Hawke's Bay,
501 Gloucester St,
Napier

scorich@eit.ac.nz

Garry Robertson

Principal Lecturer
Wintec Waikato Institute of
Technology
Tristram Street
Hamilton

Garry.Robertson@wintec.ac.nz

Abstract

Recent years have seen significant changes occur in the tertiary education sector. A change of government and a new Tertiary Education Strategy, together with a major restructuring of the body representing Institutes of Technology and Polytechnics (ITP), has forced NACCQ to reevaluate its role in the sector.

This paper examines how these changes have impacted on computing education within the tertiary education sector and, in particular, within the ITPs. The role of the National Advisory Committee on Computing Qualifications (NACCQ), based on 23 years of consecutive activity, is described.

The paper explains the plans to form a new organization, Computing and Information Technology Education and Research New Zealand (CITRENZ).

This quality assured paper appeared at the 1st annual conference of Computing and Information Technology Research and Education New Zealand (CITRENZ2010) incorporating the 23rd Annual Conference of the National Advisory Committee on Computing Qualifications, Dunedin, New Zealand, July 6-9. Samuel Mann and Michael Verhaart (Eds).

CITRENZ will continue NACCQ's strong advocacy role in promoting computing and Information Technology (IT) in the tertiary education sector.

The paper will be of interest to educational institutes delivering computing and IT qualifications, to students enrolled in the qualifications and to all stakeholders who have an interest in the programmes.

Keywords

IT educators, history of computing, tertiary education, NACCQ, CITRENZ.

Introduction

The tertiary education sector is subject to rapid and continuous change, as is the computing and IT industry. NACCQ has earned a valuable reputation, both within the ITP sector and with the industry, as an organization that provides leadership in responding to these changes.

In recent years the pace of change appears to have increased and, as a result, the ITP sector faces a number of challenges. The changes are the result of a number of external events, including the introduction of the second and third Tertiary Education Strategies, both of which promote a much stronger focus on quality and relevance of education and research outcomes. The change in government has resulted in a new funding model for the ITP sector that emphasises educational outcomes. The resulting budgetary changes will place considerable economic pressure on the ITPs

for 2011 and beyond. In addition to the government directed changes, the announcement of the withdrawal of the six "metro" institutes (Unitec, MIT, Wintec, Weltec, CPIT and Otago) from ITP New Zealand brought about the disestablishment of ITP New Zealand. This announcement meant that the NACCQ qualifications, as contained in the colloquially named Blue Book, no longer met the NZQA ownership requirements and needed to find a new home.

This paper briefly examines the 23 year history of NACCQ and identifies how the organization has evolved during this period in order to meet the needs of computing and IT education in NZ. The paper also considers the impact of some of the changes in the tertiary sector over the last few years and discusses options for NACCQ/CITRENZ to keep abreast of the changes, so that it can continue to offer a valuable service to its members.

The paper describes the consultancy process that was adopted to develop a blueprint for the future direction of NACCQ. This process included; an initial meeting involving the NACCQ fellows, meetings with representatives of the former ITP New Zealand organization, presentations to the NACCQ executive and working groups, and a presentation to the Heads of Schools of the member organizations.

The paper concludes by describing the plan developed on behalf of the NACCQ membership, which will lead to the establishment of CITRENZ.

The paper is narrative in nature, providing a reflection on the history and possible future role of NACCQ. It should be noted that the authors of the paper are the

immediate past chair and present chair of NACCQ and, as such, includes their personal views.

History of NACCQ

"In 1986 a committee, consisting of industry and polytechnic computing representatives, was formed to design a new qualification in computing that would replace the outdated New Zealand Certificate in Data Processing (NZCDP). As a result the Certificate in Business Computing (CBC) programme, a radical new approach to computing education incorporating competency-based assessment, was offered nationally in polytechnics for the first time in 1988.

The National Advisory Committee on Computing Qualifications (NACCQ), formed to replace the NZCDP review committee, continued with the development of the Advanced Certificate in Business Computing (ACBC), introduced in 1989, and the National Diploma in Business Computing (NDBC), introduced the following year." (Robertson & Ross, 2003).

The formation of NACCQ to take ongoing responsibility for the new competency-based family of business computing qualifications was unique in the New Zealand tertiary sector. It preceded the establishment of the New Zealand Qualifications Authority (NZQA) in the early 1990s and resulted from a collaborative effort by a few far sighted tertiary educators and ICT industry representatives. NACCQ's primary focus was and is still best described using its vision statement "Fostering Computing Education in New Zealand".

With the establishment of NZQA considerable pressure was eventually mounted on NACCQ, via the ITPs, to adopt the so called national qualifications, based on

unit standards. In 1994, at the annual conference in Christchurch, NACCQ persuaded NZQA to form a writing party to develop computing unit standards for levels 5 to 8. This was in response to an identified need to bridge the gap in student computing and IT knowledge between post secondary school and pre-industry. Three years later these computing unit standards, based on the modules contained in the then current version of the Blue Book, formed the basis of level 5 to level 7 qualifications registered on the national Qualifications Framework (NQF). *"With the infrastructure and the standards of the NACCQ programmes already well established, polytechnics could not see any added value in the NZQA levels 5 to 7 unit standards, so there was no uptake of the NZQA qualifications within the polytechnic sector."* (Robertson & Ross, 2003).

In 1990 NACCQ introduced a level 3 Introductory Certificate in Computing (ICC), with threads of literacy and numeracy woven into the whole programme. The Introductory Certificate in Information Technology (ICIT) was subsequently developed for the secondary school sector, thus encouraging strong links with the ICT teachers and defining clear pathways for their computing and IT students. Unfortunately, these programmes were forced to be discontinued with the introduction of NZQA's levels 1 to 3 national certificates in computing (NCC).

It is worth noting that NACCQ's acknowledgment of the need for literacy and numeracy to be integrated into the ICC Level 3 programme preceded the Tertiary Education Commission (TEC) Literacy, language and Numeracy Action Plan 2008 – 2012 by almost 20 years.

In the late 1990s a Graduate Diploma in Computing Education (GDICE) for ICT teachers was developed by Wintec School of IT staff. This was in response to the growing demand for computer technology and IT education in the secondary school classroom. NACCQ acquired GDICE in order to provide all polytechnics with the opportunity to offer the programme throughout New Zealand.

In 1994, the then government of the day, decided to introduce competition into the tertiary market by opening up the opportunity for polytechnics to offer degrees. The Wintec School of IT, under Alison Young's leadership as Head of School, responded to the challenge by becoming the first to offer a computing degree, the Bachelor of Information Technology. Other polytechnics quickly followed suit, until a majority of the NACCQ community were offering either the Wintec degree, variations of it, or their own newly developed degrees.

The result of introducing degrees into the ITP sector saw a gradual decline in the number of ITPs offering the Blue Book qualifications, confirmed in a survey of 20 institutions conducted in late 2002, early 2003. Note that the 2010 figures, known or estimated, have been added to the original results (Fig 1).

This same survey identified/raised a number of issues for NACCQ to investigate and as a result several new initiatives were instigated including;

- Incorporating internationally recognized industry certifications; e.g. Cisco, into the Blue book qualifications

- Aligning the moderation process with NZQA procedures, incorporating Accreditation & Moderation Action Plans
- The creation and implementation of a degree moderation scheme
- The development of Graduate Diplomas

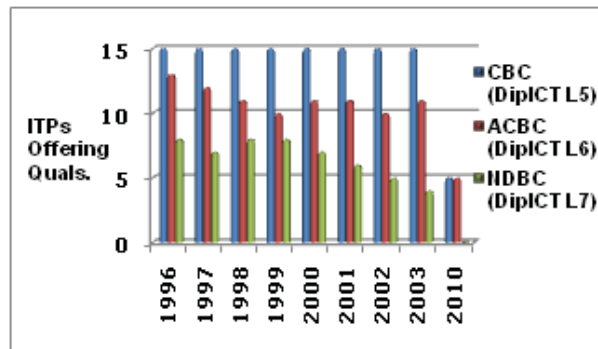


Fig 1 ITPs Offering NACCQ Blue Book Qualifications

The following statement, included in the 2003 paper, is as relevant now as it was then;

"None of us can predict with any certainty where the industry will have moved in the next ten years, but it seems that the NACCQ is sufficiently adaptable to cope and continue to offer an invaluable service to the (ICT) industry and educational sectors that it services" (Young and Joyce, 1998).

2008 and Beyond

Since the end of 2007 a number of events have occurred that potentially threaten the future viability of NACCQ, necessitating a focused proactive response. These events include the introduction of the second and third Tertiary Education Strategies (TES) and the 2008

election, which brought about a change in government. This led to changes in policy and changes to the funding models under which the ITP sector operates. These policy and funding changes were compounded in 2009 by an announcement that six of the largest ITPs intended to resign from ITP New Zealand and form a separate organization (NewsWire, 2009).

The second TES, released in 2007, covered the period 2007 to 2012 and set out where the government expected to see shifts in the provision of education and research for the tertiary sector. A number of priority outcomes were identified:

- increasing educational success for young New Zealanders; more achieving qualifications at level four and above by age 25
- increasing literacy and numeracy levels for the workforce
- increasing the achievement of advanced trade, technical and professional qualifications to meet regional and industry needs
- improving research connections and linkages to create economic opportunities

In essence the strategy encouraged institutes to concentrate on the under 25 demographic and improve completion and retention rates, while ensuring that qualifications met regional and industry needs. The strategy also introduced a new funding model for the sector, based on a negotiated number of equivalent full-time student (EFTS) places and a negotiated mix of provision. It encouraged a more applied focus to the research area. While the priority outcomes and new funding model did not impact directly the survivability of NACCQ the changes did encourage individual

institutes examine closely what they do and how they allocate funds within their budgets.

The election in November 2008 led to a change in government and almost immediately an announcement was made that government spending would be curtailed to help the country cope with the worldwide recession. By 2010 a new Tertiary Education Strategy for the period 2010 to 2015 was released. The revised strategy added further priority outcomes, as follows:

- increasing the number of Māori and Pacifica students enjoying success at higher levels
- increasing the number of young people moving successfully from school into tertiary education
- improving the educational and financial performance of providers
- strengthening research outcomes

The revised strategy saw the removal of some of the existing funding streams and indications that institutes would face some difficult budgeting decisions for 2011 and beyond. While the impact of the change in financial position is unclear at the current time institutes are increasingly questioning the value obtained from the voluntary levy paid by NACCQ members to allow the organization to operate.

In July 2009, the six largest polytechnics announced their intention to leave ITP New Zealand, the representative body for the ITP sector. When asked about the reason for the split Don Barnes (2009), the CEO of CPIT, stated that *"The six metros have issues that are common to institutions in the larger cities and are a little bit different from the other institutions"*. In December 2009 the two groups parted, ITP New Zealand was disestablished and the 14 remaining

institutes formed a new organization known as NZITP. The disestablishment of ITP New Zealand meant that a new home had to be found for the NACCQ Blue Book qualifications.

During the 2008 to 2009 period there were a number of personnel changes to the Computing Heads of School (HoS). Some of these HoS were individuals who had had no active involvement in NACCQ matters and they questioned what benefits were to be gained from membership. They were appointed to organizations that did not offer Bluebook qualifications and they believed that the research opportunities created by NACCQ were insufficient to rate in terms of PBRF outputs.

Impact on NACCQ

The news that the "metros" had decided to split from ITP New Zealand was made just prior to the 22nd Annual NACCQ Conference held in Napier. The news of the split, combined with the other changes mentioned above, led to a lively discussion concerning the future direction of the organization. Delegates at the annual general meeting agreed that a working party should be formed. It would review the goals and activities of NACCQ and would draft a plan to reposition the organization in the new political environment.

A working party, consisting of the chair, the immediate past chair and NACCQ fellows, met in Auckland in August 2009. A proposal was developed illustrating how NACCQ could reorganize and refocus to maintain value to its ITP membership. Starting with a blank piece of paper the participants set about identifying the key activities that it should be involved in. The working party reaffirmed that a collaborative body, such as NACCQ, was vital, albeit with a shift in focus, to help

ensure the continued provision of quality services to its members.

A mission statement and the organization's goals were drafted and an implementation plan, stating how the organisation would meet its goals, established. An organizational structure was developed, based on a regional model (very similar to the original concept of regional representation suggested when NACCQ was formed) with an executive consisting of ITP and industry representatives elected from each of the newly identified regions. Finally, the issue of an appropriate name for the revised organization was discussed and, although there was general agreement that a name change was necessary, no conclusion was reached.

The draft proposal was presented to a combined meeting of the two NACCQ working groups in October 2009 and, as a result, the model was refined. At the executive meeting the next day, following lengthy discussions and further refinements to the model, the name for the new organization, Computing and Information Technology Education and Research New Zealand (CITRENZ), was adopted. It was agreed that the model should be shared at a meeting of the Heads of Schools of the membership organizations and their agreement to the proposal be sought.

In December 2009, a meeting of the Heads of School was convened in Wellington. With the exception of Unitec and Waiariki (an apology from Waiariki indicating support for the concept was received), all the institutes that offer computing qualifications were represented. Participants voted unanimously in support of the CITRENZ proposal.

The CITRENZ Proposal

CITRENZ will represent the interests of those offering computing qualifications in the tertiary educational sector, focusing on, but not limited to institutes within the ITP sector. The agreed vision for the organization is to "*Promote excellence in computing education*". Its proposed mission statement is; "*to work with industry and stakeholders to provide collaborative opportunities in teaching and research to promote excellence in computing education*".

The organization will concentrate on four main activity areas:

- Encouraging communities of practice (CoP), such as the;
 - Research community
 - IT Teaching community
 - Heads of Schools
- Research
- Consultancy & Linkages
- Curriculum Development and Quality Assurance

The research community would be involved in producing the journal (JCIT) and the online bulletin (BACIT), hosting and organizing conferences, mentoring and encouraging emerging and established researchers, organizing collaborative research opportunities, forming alliances with national and international research bodies, and fostering research potential.

Those participating in consultancy and in developing linkages area would provide advice on matters related to teaching computing & IT in tertiary sector. It is envisaged that the linkages would be with industry

(e.g. employers, NZCS, NZSA) ; educational institutes (e.g. high schools, universities and PTEs); and government departments (e.g. TEC, NZITP, Metros, MOE, and Ako Aotearoa).

Curriculum development and quality assurance would involve; professionalization and certification (linking in with the NZCS initiatives and SFIA), policy formulation, moderation, monitoring, consultancy on quality assurance matters, and qualification compliance.

The organizational structure would be leaner than the current structure and regionally based with five regions each nominating one academic and one industry representative to the executive committee. The executive would be responsible for the governance and management of the organization. Working groups would be tasked with facilitating the operational activities of the organization.

CITRENZ will need to have legal status as an organization so that the Bluebook qualifications can be transferred from the disestablished ITP New Zealand. Options that were considered included the formation of a consortium, which would require a lead institute, an incorporated society, which requires a minimum membership and offers little flexibility, and a charitable trust. The charitable trust option was chosen as it provides a very flexible structure that should meet the needs of the organization for the foreseeable future.

Where to next?

Once the CITRENZ proposal is fully agreed to, a charitable trust needs to be established, together with the rules and regulations governing its operation. The CITRENZ executive members, tasked with

implementing the vision and mission statements, then have to be elected.

A number of activities have been identified that would need the immediate attention of the newly elected executive committee, including; transfer of the Blue Book qualifications to the charitable trust, initiation of a project to redevelop the qualifications (adopting a zero-based review), and reviewing all the current NACCQ activities to ensure that they focus on the four main activity areas identified in the CITRENZ proposal.

References

- Barnes, D. (2009). Cited on NewsWire.co.nz. (2009). *NZ's big six polytechnics split off and go it alone*. Retrieved 25 May 2010 from <http://www.newswire.co.nz/2009/07/polytechs-split/>
- NewsWire.co.nz. (2009). *NZ's big six polytechnics split off and go it alone*. Retrieved 25 May 2010 from <http://www.newswire.co.nz/2009/07/polytechs-split/>
- Robertson, G. & Ross, J. (2003). *NACCQ Qualifications: A Performance Review and Future Developments*. Proceedings 16th NACCQ Annual Conference 2003; P.149.
- Tertiary Education Strategy, (2007). *Tertiary Education Strategy 2007–12 Incorporating Statement of Tertiary Education Priorities 2008–10*. Ministry of Education, Wellington, New Zealand.
- Joyce, D., & Young, A. (1998) NACCQ: *The Evolution of an APNZ Subject Forum*, Paper presented at the Association of Polytechnics in New Zealand Annual Conference, Auckland..