Enhancing technical services for students of creative arts

Introduction

This paper describes an initiative undertaken at the University of Auckland in 2014. The initiative was by the Faculty of Creative Arts and Industries; its purpose was to review and, following that review, to implement recommended changes to technical resources and services throughout the faculty.

In the period since 2014, qualitative evidence points to the successful completion of that process, producing a series of planned, and some unexpected, outcomes. The faculty has achieved sustained improvements in students' technical learning, integration of technical workshops into the curriculum, and interdisciplinary experimentation by students across a wide range of materials and processes. There are also significant gains in Health & Safety awareness, and the development of a workshop culture of co-operation and respect. An unexpected outcome has been the growth of interest in design thinking and practice, which has contributed to faculty plans to reintroduce the teaching of design after an absence of twelve years.

The bulk of this paper will outline the details of that initiative and draw general lessons about the enhancement of technical services for tertiary students of the creative arts. But it will first be necessary to provide some background information.

Background

The Faculty of Creative Arts and Industries was established at the University of Auckland in 2004. It comprises four academic units: the School of Architecture & Planning, the School of Fine Arts, the School of Music, and a programme in Dance Studies.

Today, the faculty has a total of 1,854 student enrolments, with 100 academic staff delivering a total of 37 programmes from undergraduate to doctoral levels. All permanent academic staff are research active, and there is a strong research culture among our more than 500 postgraduates. All of this learning and creative activity requires a great deal of technical support in the form of technical facilities, equipment, workshops and instruction – and their planning, management and operation. The challenge has been to deliver this effectively under changing conditions.

Issues with technical provision

Some of the faculty's academic units date back to the late 19th century, having been founded as independent schools. Today, each retains its own Head, its own budget, and is supported by a shared pool of faculty administrators. The tendency among school staff has been to think and act in terms of a specific disciplinary identity. Even after 2004, school culture was to remain 'semi-detached' from the newly formed faculty, reluctant to acknowledge membership of a broader administrative unit under central leadership and direction.

Before the Technical Review of 2014, the schools had no formal cross-faculty associations or relationships. They had started out with very different types of technical needs, and lacked the collaborative focus that is the norm today. Technical staff reported to their schools, encouraging a sense of local ownership and control over technical resources. They worked independently, in isolation from similar services in other academic units and unaware of collective needs and opportunities.

From the faculty point of view, this system of technical provision was marred by structural blockages and non-communication. It resulted in: costly duplication of resources; inconsistent processes and associated inefficiencies; insufficient attention to co-development of technical expertise; issues of student and researcher access to services 'outside' their discipline; and significant difficulties in obtaining information to inform decisions. These issues impeded the achievement of the faculty's strategic goals.

In 2011, a commissioned report showed that faculty staff and students believed key aspects of technical services had become disconnected from the academic curriculum and student learning needs, were falling short of functionality, and were failing to meet stakeholder expectations.[1] The report led to a call within the faculty for a vision of improved technical governance. It was clearly no longer viable to run the technical facilities as independent operations each dedicated to a single school or programme.

It was in these circumstances that the faculty launched the Technical Review that completed its business in 2014. From the start, the Review recognised the need to move away from departmental divisions and to reframe technical facilities as a faculty-wide resource. The ideal was a delivery model that combined the benefits of: (a) centrally consolidated and co-ordinated services and resources; with (b) local autonomy that first of all meets the needs of the individual disciplines and core academic activities of the schools.

The faculty also considered the wider context of the proposed change, including developments both within and outside the university. Staff and postgraduate research was growing by the year, and being integrated into the curriculum through research-based teaching. This led to greater all-round demand for technical support, specifically of the kind that enabled creative collaborations across disciplines and across the faculty. Teaching and learning needed to respond to the changing contexts of artistic production, and the creative powers of new technologies combining digital and analogue processes. The technical environment also called for an upgrade of Health & Safety and a revised work culture based on respect and co-operation. All of which compelled the faculty to *rethink* the provision of technical support and *renew the approach* to its organisation and management.

The 2014 Technical Review

Within that context, the faculty established an operational framework and defined key aims:
• to provide a comprehensive range of high quality technical services that are industry relevant and supported by expert technical staff;
• to better meet the strategic goals of the faculty and university; in terms of
• enhanced technical support for research-based teaching & learning; leading to
• improvements in student retention, attainment and employability.

In sum, the faculty would be tasked to provide technical resources that operate at the highest level, balancing limited funding to do so, and enabling access to the right mix of new and innovative services to be deployed in creative interdisciplinary ways. The key to success would be to consolidate all of the faculty's technical staff expertise and resources into a single function to be managed and co-ordinated by the new role of Technical Resources Manager.

Consultation

Having drawn up detailed proposals for a new delivery model, the faculty began a formal process of consultation with staff, students and other stakeholders. The aim of consultation

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[1] *Strategic Assessment of Technical Support in the Faculty*. Brigid Duffield, 2011, on behalf of the Faculty of Creative Arts and Industries, University of Auckland.

was to reach consensus on a way forward, using the proposals as a basis for discussion. The process included explanation of the new model, a call for written submissions, interviews, feedback loops, and an iterative process of amendment and redrafting of plans.

Managing the consultation was a difficult, sometimes fraught process that required confidentiality and a courteous, sympathetic manner. The initial proposal caused uncertainty and concern, with some protest and expressions of opposition. The most controversial measure was the plan to replace the variety of technical roles (each dedicated to a specific discipline, set of skills, or workshop practice) with the newly defined position of Technician. Where possible, staff would be retrained for the new role, which focused on the provision of multi-disciplinary, flexible forms of technical support across the whole of faculty. The new delivery model included the goal of upgraded individual skills, more efficient processes and more flexible delivery.

The Review Committee received a total of 63 written submissions, including 24 from technical and academic staff, and 35 from other stakeholders, primarily students. The majority of submissions supported establishment of the position of Technical Resources Manager, and identified various benefits of the new delivery model. There was a mixed response to the proposed centralisation of technical services. A majority raised concerns about potential loss of expertise in specialist areas. The faculty accepted the validity of these arguments and revised its recommendations accordingly, also adding a further round of consultation.

Finally, over a period of months, a new structure of services was agreed and fully implemented across the faculty. Many of the existing staff took up new positions, and underwent retraining. Today, the morale and job satisfaction of technical staff has significantly improved, as has academic and student satisfaction with technical provision. This is evident from ongoing feedback through the Student-Staff Consultative Committee which helps to monitor and resolve any issues with the revised system. Initial uncertainty has been replaced by consensus that the new team of highly trained staff are performing more effectively across all technical areas and supporting improved outcomes in student learning and postgraduate research.

The Student Voice

The consultation process proved very effective in listening to the student voice in relation to technical provision. In discussion, two points stood out. First: creative arts students place great value on the role of technical support in their education. Access to advanced technological skills and facilities enables them to experiment more widely, with performance-related improvements. Second: students regard high standards of technical resources as proof of investment of monies accrued from student fees; they are jealously protective of what they see as their right of access to technical workshops and services. Also, enquiries about enrolment to creative arts programmes increasingly include questions about technical facilities, particularly from postgraduate and international students. Today, all can enjoy the benefits of the new delivery model, which better meets high levels of student expectation.

Consolidation of technical provision

This section will provide further detail of the changes implemented, focusing on key actions and related outcomes.

To establish the new delivery model, the faculty's key actions were to:
• consolidate and centralise all technical provision under a single manager;
• eliminate duplication of services;
• redefine roles and responsibilities of technical staff;

- upgrade technical facilities and spaces; and
- enable central planning of all future support.

The consolidated technical function was to be co-ordinated by the newly created role of Technical Resources Manager (TRM). The aim of consolidation was to enable pan-faculty access to all services, make best use of available resources, and encourage the development of multi-disciplinary technical staff. The TRM is supported by a Faculty Resources Committee and reports to the Director of Faculty Operations. The role has functional relationships with the Dean and Heads of School, and involves close liaison with academic and administrative staff.

The TRM is responsible for the operational efficiency and effectiveness of all technical services and resources of the faculty and their integration with school and faculty planning processes. He is expected to develop productive relationships with faculty schools and stakeholders to ensure high standards of technical support for research and the curriculum. More specifically, he manages sustainable improvements in technical spaces, equipment, technologies, and staffing; establishes faculty capital asset plans; and fosters good practices and systems, while overseeing Health & Safety of technical environments.

The consolidated delivery model greatly simplifies management and reporting lines, enabling improved communications and shared protocols among technical staff. All technicians now report to the TRM and work as an integrated faculty team supporting technical services to students and staff, at agreed professional standards. To ensure continuity of services, each technician works from a primary location but also across delivery sites as needed.[2] Permanent staffing is set at a level that encourages flexibility, fosters multi-disciplinary capabilities, and utilises staff across the whole year, permitting peak periods of activity to be supplemented by casual staffing.

Outcomes and achievements

In the period since 2014, the above changes have proved to be highly effective. Outcomes include an increase in technical capacity with more numerous points of access in different locations, and more coherent linkages between technical services and teaching, learning and research. In terms of planning, there are improved flows of information between staff and technical sites, with greater transparency and co-ordination leading to better informed decision-making for long term capital planning, investment and procurement.

For students, major outcomes include sustained improvements in levels of technical learning, with the integration of technical workshops directly into their courses and studio projects supporting interdisciplinary experimentation across a range of technologies and art forms.

For technical staff, their redefined role descriptor has clarified responsibilities and protocols, and workloads have been reorganised to ensure productive deployment all year round. This eliminates the risk previously posed of workshop equipment being used for personal projects during non-teaching weeks. Today, faculty workshops ensure access to continuous support for all staff and students. Technicians have also been delegated increased responsibility for asset management, and the diagnosis and resolution of highly technical and complex problems. The outcome has been a technical culture that aims at continual improvement, and is able to self-adjust to better support faculty goals.

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[2] A sample of the faculty's technical facilities, sites and services includes: digital technologies; 2-D and 3-D materials technologies; Moving Image Lighting Studio; Open Media Lab; Photography & Video Studios; Ceramics Studio; Casting, Moulding and Wet-Works Studio; Foundry; Wood and Metal workshops.

An important 'social' effect of the new structure has been to increase diversity among the team of technical staff, which now includes greater representation of women and Maori. This has undoubtedly helped to transform the work culture in technical areas into one of respect, courtesy and co-operation. For female students, in particular, the perception is fading that technical spaces, technologies and processes are male preserves. Instead, all technical environments adhere to clear standards of Health, Safety and *wellbeing*. In short, the review of services has achieved a much higher standard of access, in the full sense of the word: 'the goal for access is to deliver the right resources to the right people at the right time, including transparency about what resources are available and where; who needs to use them and when; who has priority; and who is proficient to use them'. It also means that users must feel comfortable in using such spaces, in an atmosphere of trust. This last requirement had not been sufficiently or consistently met, and emerged as an important student demand during the period of consultation. Today students are enjoying the benefits of a policy and practice of access that includes their wellbeing as a primary goal.

Award for Excellence

Outcomes of the new system of delivery proved so successful, and the work of technical staff so impressive, that, in 2017, the faculty's technical team won the first ever University of Auckland award for excellence in technical services. The award was introduced by the university in recognition of the fact that technical staff, as well as academics, are capable of outstanding levels of achievement. The Vice-Chancellor's newsletter announced the award as being 'for enhancing health and safety in research and learning through a model of student and staff enablement and shared responsibility.' Since then, the team gone on to play a leading role in the regeneration of Health, Safety and Wellbeing across the university, from the establishment of working groups to standards for Machinery and Plant.

The significant gains in Health & Safety awareness followed a report into technical environments across the faculty. The report recommendations were implemented, refined and extended. They include measures for safe workshop standards and technical instruction; inventories of equipment; upgrading or replacement of old or unsafe machinery; inspection logs; and robust maintenance schedules. Importantly, access to technical spaces is now carefully managed through access protocols and timetables. Participation and learning in workshops is monitored by records of student and staff induction, attendance, and achieved levels of competence. Online bulletin boards and training guides are available for consultation. Finally, to maintain efficiency, work processes are continually improved via a system of digital documents that can be readily accessed and updated by all technicians.

Through these and other measures, technical staff have steadily taken ownership of Health & Safety policy and its ramifications for practice. Today, there is a culture of reporting incidents, and a system to forecast future Health & Safety requirements. Team leaders have developed a hands-on style of management to create a high performing and enabled team.

Design thinking and practice

An unexpected outcome of the process of technical reorganisation has been the growth of interest in design thinking and practice, which contributed to faculty plans to reintroduce the teaching of design after an absence of twelve years. Two points stand out. First: technical and academic staff have been exploring ideas for the physical redesign of technical areas as configurable spaces and collaborative hubs. This aligns with the faculty's focus on Integrated Learning Environments (such as its Open Media Lab) and, also, on the crossover between physical craft and digital design technologies to enable the three-dimensional realisation of creative ideas. This confluence of factors has encouraged staff to rethink or *reconceptualise*

technical workshops as sites of an integrated culture of studio research, technical learning, process and fabrication, in emulation of the MakerSpace model of design practice.

Second: there is developing interest in wider design culture. Students in particular have observed how creative ideas, in any discipline, can be effectively converted into artworks through stages of design thinking, planning and making. During workshops, students encounter new technological processes and integrate them into their practice. This eventually develops into a higher-level, *conceptual* strategy of 'just-in-time' acquisition of yet further technical skills – to drive the ongoing process of design and production of artworks.

One of the delights of learning new technical skills is what has been called the 'epistemological moment of technique' – when a student suddenly *sees* and *knows* how something can be done, and anticipates deploying that knowledge in future creative projects.[3] Enabling such moments is, ultimately, what the faculty's work on technical services has been all about.

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Thanks to all the technical staff at CAI.

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[3] Bois refers to 'the epistemological moment of technique, where thought and invention take place', the moment in which a technical operation 'is raised to the dignity of an original principle' for the knowledge and organisation of creative practice. Bois, Y-A. (1990). *Painting as model*. Cambridge, MA: MIT Press, page 250.