

# THINK Systemically, ACT Strategically: Sustainable development of information literacy in the broader context of students' learning

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## Abstract

*A challenge for educators is to fuse the learning of information literacy to an academic education in such a way that the outcome is systematic and sustainable learning for students. This challenge can be answered through long-term commitment to information literacy education bound to organisation-wide, renewable strategic planning and driven through systemic reform. This paper explores the process of reforming information literacy education in an academic environment, drawing on the experiences of one Australian university which has undertaken the implementation of a strategic, systemic approach to information literacy learning and teaching.*

**Keywords:** Information literacy; strategic planning and implementation; systemic reform.

## 1 Introduction

The philosopher, poet and novelist, George Santayana, warns that "fashion is something barbarous, for it produces innovation without reason and imitation without benefit", forever condemning a fashionable idea to that of being old-fashioned. Often, significant educational reforms are viewed by stakeholders as "fashionable trends" which answer an immediate imperative but which one avoids embracing for fear of considerable effort for no reasonable gain.

Until recently, in higher education, information literacy has been addressed as a fashionable learning accessory - a desirable, but non-essential, component of an academic qualification, the next quintessential educational fad. However, information literacy is not (and never has been) "barbarous" educational fashion. Rather, it is a state of knowing and doing which is fundamental to living in the new knowledge era. The challenge for educators is to fuse the learning of information literacy to an academic education in such a way that the reasons and benefits are clearly apparent to all concerned. This challenge can be answered through the systemic reform of information literacy education bound to organisation-wide strategic planning.

The objective is to deliver sequential, sustainable learning of information literacy for students. It is an approach which demands a macro view of a process which is generally and traditionally approached at a micro (or programmatic) level. This paper argues that it is only by instigating macro processes for information literacy development that an organisation can instigate and sustain true and effective educational reform [4]. By directing the goals and objectives of information literacy education through strategic pathways, individuals are more fully supported in their efforts to instigate broad implementation at a practical level.

Two fundamental concepts inform this paper - strategic planning and systemic reform. Santayana observes that the process of reform requires the shattering of one form to create another - this paper explores a reconstructive process of information literacy education in an academic environment. It also examines how universities can undertake rigorous strategic, systemic approaches to information literacy learning and teaching, by more closely observing why it is important, what the approach may entail, what may be the advantages (or disadvantages), what issues may arise and what may be the impact/effect in terms of outcomes.

The paper is framed within three fields of discussion. Firstly, it highlights the broader strategic and change management principles that libraries can use to align and guide information literacy initiatives within a university context. Secondly, it looks at how these processes articulate into practice by considering strategies to drive information literacy into educational frameworks. The paper then highlights the implementation of these strategies by QUT Library (with, and on behalf of, the University) as it has confronted the realities of a new time, refocused its energies, and allocated its limited resources strategically [20]. To summarise tangible advantages of adopting such approaches, the final section reflects upon these processes in terms of the success and/or failure of those strategies used at QUT.

## 2 Strategic planning for sustainable change: theoretical perspectives

The significant emphasis on lifelong learning and graduate capabilities, coupled with the focus on outcomes-based education and "process-based" rather than "knowledge-based" learning, places information literacy learning and

teaching as an educational imperative which must be addressed by academics, librarians and administrators [23]. These stakeholders, as educational leaders, need to commit themselves to the “big-picture mentality of systemic reform” in order to function as change agents in future educational environments [4].

Systemic reform is described by Conley [9] as that which “involves comprehensive, coherent, and coordinated change” and which has the capacity to “change fundamental assumptions, practices and relationships in ways that lead to improved and varied student learning outcomes for essentially all students”. This is particularly important when one takes the view that “curricula, pedagogy and assessment can no longer be the sole province of individual academic teachers, and that university teaching must become a disaggregated team effort” [6].

Bundy argues that such systemic reform must incorporate new models for information literacy education in which development is not extraneous to the curriculum but rather is woven into its content, structure and sequence. In doing so, it creates “opportunities for self directed and independent learning where students become engaged in using a wide variety of information sources to expand their knowledge, construct knowledge, ask informed questions, and sharpen their critical thinking” [7]. He predicts that the progressive universities of the future will be those where learning outcomes have become liberating through the implicit and explicit course integration and development of graduate attributes such as information literacy [6]. It will be these universities, in which content focuses on variable answers rather than on rigid questions [6], who evolve and adapt to future educational shifts.

Four critical strategic processes assist academic institutions to be capable of evolving, adapting and aligning to national and global influences [12]. These processes - chartering, learning, mobilizing and realigning - enable organisations to lay the foundation for the successful institutionalisation of strategic change initiatives [34]. Strategic initiatives are defined by Roberto and Levesque [34] as those which entail the broad implementation of new processes and systems to create new, or transform existing, practices to accomplish major goals. These new processes allow organisations to engage in what Tompkins [4] describes as “continuous paradigm shifting” - a necessary condition for allowing change and growth to occur “within the context of an ongoing, continuous process of discovery, learning, growing, evolving, improving and performing”. This process has the potential to cultivate systemic reform.

In their study on institutional transformation, Kezar and Eckel [16] determined that meaningful, systemic change (or reform) was more prevalent in institutions using robust teleological models (those which encompass strategic planning, bureaucratic and scientific management, and organisational development) as the guiding framework for change. It was these institutions which proved to be more purposeful and adaptive, and more able to move beyond the notion of change

as a linear series of sequenced, planned events to one that was interconnected and occurring simultaneously rather than in stages or sequences [16]. Their study suggests that balances in the strategies, in the interrelationships between the strategies, and applied to the change process itself, are all critical factors in the capacity for institutions to adopt sweeping changes to established norms of process and behaviour [16].

According to Kaplan and Norton [15], culture is the foremost factor influencing an organisation’s ability to change. Therefore, for positive change to occur, organisational culture must be tailored to support the strategy. If this is so, then logic dictates that managing strategy and managing change are synonymous [15] and reciprocal states - one cannot occur in isolation of the other. They go on to argue that, to successfully execute strategy and ensure strategies are adopted, an organisation must be clear about the new or differing values and expectations they are proposing.

For information literacy to become an educational issue, owned by all educators within an organisation [6], it is critical that libraries and their parent institutions adopt a process of systemic - rather than programmatic - reform. To do so requires the support, active participation and leadership of everyone in the academic institution, with multiple groups taking a lead role in driving, enabling and/or facilitating the process [24]. It demands a process that McLagan describes as “distributed intelligence”, which occurs when “everyone in an organisation, regardless of role or level, proactively solves problems, makes decisions, and takes creative action as the need arises - without waiting to be told what to do” [21].

It is, essentially, a collaborative process of sensemaking, interpretive strategy and coalition-building which, aligned with higher education’s tradition of shared governance [3], creates a sense of mutual understanding and interdependency among staff, results in more effective and creative solutions, and engages diverse perspectives and talents [22]. In this model, it is important to enlist partners with a stake in the decision and specific expertise to support the case [17], and engage the interests of the stakeholders by making differential appeals, appreciating differences in motivation and by leveraging modest resources into a broader commitment [17]. McClamroch et al [20] argue that this approach assures innumerable opportunities for buy in and ownership by internal stakeholders, assuring that the long term benefits outweigh any short term costs.

While ambiguity and a nonlinear process is important for institutional leaders and change agents [3], it does create an unsettling situation for those involved in adjusting to significant cultural change in thought and practice. Quinn [26] describes this process of learning in real time, with no one definite outcome expected or apparent, as “building the bridge as we walk on it”. As this process develops, it is important that organisations can and do accommodate ambiguity, multiple processes and adaptive partnerships to ensure reform of information literacy education is strategically and systemically implemented and tested.

In the end, to move the organisation where it needs to go only requires a critical mass, or “tipping point” at which the change becomes mainstream [26,21]. With information literacy experiencing an “adolescent rebirth” in terms of learning and teaching, it is timely to consider how libraries can actively lead this reform.

### **3. Information literacy education: strategic reformation, systemic implementation**

Academic libraries of the future need to create stronger pedagogical associations with their parent institutions, and make deliberate moves away from instructional models of information literacy - in essence, to promulgate a less library-centric model of information literacy education. This model entails a strategic shift of mindset and action for libraries in which information literacy goals, initiatives and services are linked to planning cycles and quality assurance infrastructures, intent is signalled via key policy documents, vision statements and procedural frameworks (such as client charters), and where library commitment to provision and continuous improvement of client-focused educational services and resources is strengthened.

#### **3.1 Strategic alignment and accountability**

Feinman [13] identifies three main indicators of organisational direction - vision, mission and objectives. She defines vision as that which includes aspirations, core values and philosophies at very general levels, which are then translated as mission statements into more doable statements of institutional purpose. From the outset, a clear vision of information literacy learning and teaching, articulated in forceful and meaningful words and communicated by the guiding coalition across the organisation, brings clarity to future change initiatives [10].

If the creation of a compelling vision and strategy is essential for producing lasting change [18], comprehensive teleological frameworks become critical success factors in libraries leading large and small scale information literacy initiatives. McClamroch et al note that, in times of rapid change, it is more important for academic libraries to engage in long term strategic planning as it provides the overarching view of what an organisation should undertake to align its mission, vision and values with its environment [20]. Well articulated strategic plans, according to Wickenden and Huang [37] must be a realistic response to a situation and set new and clear directions. For Feinman, they must also “allow for the strengths and weaknesses within the competitive environment, devote resources to projects that utilise the set of core competencies and primary skills within the organisation, identify areas within the social and political environment that require careful monitoring, and recognise the competitive areas that need careful attention” [13].

The strategic plan must inform and position the direction and growth of information literacy development in the organisation while promoting the library’s future goals and

current priorities in this regard. If referenced within external imperatives governing higher education and linked upwards and outwards into faculty and university planning cycles, successful adoption and positive change is more assured as initiatives align with the broader aspirations of the university. When supported and extended through planning undertaken at a committee, sectional and/or functional level, information literacy objectives then effectively devolve to a distributed and/or local level.

Libraries must begin by considering fundamental questions regarding information literacy education reform such as - what are the desired goals or outcomes, who in the organisation must be convinced to engage in the process of change, what are the fallback positions, what might be the “next paradigm” and how close or distant are the short and longterms goals [37]? As Wickenden and Huang note, answers to these questions assist in developing a competitive strategy which sharpens the focus for action, and thinking laterally using ideas from unlikely sources provides a distinct advantage [37] in successful implementation. In turn, implementation must be well formulated and flexible enough to accommodate unplanned but required changes and must, Feinman argues, incorporate good processes for feedback, evaluation and review of the rollout of the plan [13].

Once the vision, mission and organisational direction is formulated, and implementation is underway, it is critical to generate indicators of success regarding the ongoing goals and outcomes of the plan. The simplest, and most common, data is that relating to class attendance and information literacy teaching contact provided by library teaching staff. Statistics can rationalise development, govern future planning and advocate for ongoing resourcing of initiatives. Data can also inform more strategic, critical measures of success against which organisations review performance in key areas and which are regularly reviewed and adjusted, such as operational targets and performance indicators. Information literacy is best represented within measurements against client satisfaction, student learning and the “curricula capacity” for information literacy development.

#### **3.2 Strategic engagement and governance**

Reform, as Kolb notes, is difficult to implement alone as it often cuts across functional disciplines, impacts upon long standing loyalties and accepted practices, and demands that people step outside their comfort zones [17]. To be effective, change agents need an understanding of alliances and coalitions in their organisation, where the influence lies, how informal processes can be used, what conflict exists, and what motivations lie behind a proposed change [3].

Rapidly changing information and higher education environments and shifting organisational imperatives is forcing an evolution of traditional library staff roles [19], particularly in the case of academic librarians working in the field of information literacy. Library managers, administrators and staff must seek out and apply innovative solutions to meet new demands, whilst removing systemic

barriers to change and resisting historical notions of principle and practice. They need to be resourceful and creative in terms of funding and support, and be prepared to support, develop and/or adopt alternative, non-traditional forms of professional development for teaching librarians [7]. It is achievable, cost-effective, and motivating to involve critical staff in decision making processes [12] regarding information literacy, and valuing and recognising their contributions to the advancement of organisational information literacy goals [12]. Ultimately, to be an empowered organisation in which "individuals have the knowledge, skill, desire, and opportunity to personally succeed in a way that leads to collective organisation success" [14], the contribution of each employee must be explicitly linked to the success of the library's information literacy goals and strategies [22].

Leadership regarding information literacy strategies, initiatives and services needs to be shared between individuals and/or groups within academic libraries. While the CEO is responsible for driving the vision, creating a sense of urgency in change management, and assuring that the strategic plan stays on target and adjustments are made when needed, it is equally important that the broad information literacy portfolio is assigned to one or more other strategic positions of authority within the library which is, preferably, linked to the provision of quality client services. This shared strategic responsibility creates greater momentum by assuring opportunities to implement the necessary infrastructure and operational processes to position the organisation competitively within the broader teaching and learning agenda of the institution [5].

A dedicated coordinating position governing information literacy development can make a positive difference in terms of inclusion, collaboration, innovation and improvement. With dual strategic and functional responsibility, a coordinator can provide new mental models to guide the creation of a vision, goals and strategies broadly. In a position to work across organizational boundaries and barriers, this role can guide and facilitate the integration and embedding of information literacy within the institution by representing and advocating change processes for information literacy education, ensuring focus and commitment to action, and developing collaborative and effective teams. Specifically, this position can facilitate communication across and between groups, provide an interface between senior administrators and practitioners, connect academic and library teaching staff to relevant expertise and resources, identify sources of funding for projects as well as manage and evaluate initiatives, and develop and monitor quality assurance and evaluation processes for information literacy programs and services. Such a position should also work with "strategic foresight" to move the organisation quickly to new and more relevant models of practice. Having this capacity to "futurise" - that is, to think in the future tense while acting in the present - is, according to Wardlaw [35], a fundamental ingredient in being able to successfully adapt to rapidly changing and increasingly complex and uncertain situations.

Academic librarians are a critical success factor in reforming information literacy education. By working in partnership with academics, project teams and course coordinators, teaching librarians can contribute to the creation of innovative and authentic information literacy learning experiences for students. They must be confident, competent and willing to collaborate in curriculum development and design, work with academics to enhance information literacy comprehension, teach information literacy skills components within faculty courses and provide structured generic educational programs, evaluate information literacy programs and services generally and within faculty contexts, and understand and implement assessment of student learning against information literacy outcomes.

Managers at all levels need to actively facilitate the achievement of the information literacy goals and objectives of the library by contributing to strategic planning, operational decision-making and resourcing, and promotional processes governing the library's information literacy activities. Where line management of the library teaching staff is a factor, they also play a vital role in workload and project management-related issues, as well as monitoring and facilitating ongoing professional development of teaching staff.

Ideally, information literacy leadership, development and advocacy is a shared responsibility within the library. Through internal committees and working parties, staff can guide and support strategic and operational information literacy initiatives and planning, monitor and operationalise the delivery and evaluation of library-directed information literacy courses, monitor information literacy-related quality assurance processes and facilitate communication and knowledge sharing.

It is also important that library teaching staff participate extensively in educational committees and groups in the wider university community, such as cross-institutional events and services teams (eg: for orientation and careers days), grants panels, university and faculty/school teaching and learning committees and academic boards, staff development networks and cross-institutional information teams. In this way, libraries can ensure that information literacy is addressed in the broader strategic planning and development activities of the university and incorporated specifically in the design, planning, delivery and evaluation of course curricula. Engagement in external and/or cross-disciplinary (and non-library) networks and information literacy-related associations and governance groups also ensures that the work of the institution remains relevant and reflects good practice in information literacy and teaching and learning.

### **3.3 Models and processes**

Strategic integration of information literacy must lead the reform of information literacy education at a practical level. Academic libraries of the future should focus on constructing

information literacy learning opportunities which develop supplementary generic enabling skills, contextualised discipline-specific enabling skills, and deep learning opportunities embedded within the core curriculum which develops transferable skills and concepts. Ideally, much of the process is created through close partnerships between academic and library teaching staff, thereby fostering recursive learning of information literacy and ensuring that students can acquire deeper understanding of, and expertise in, applying complex information literacy concepts and skills to solve a variety of problems.

To assist implementation, testing and refinement of learning and teaching strategies, libraries need to monitor and instigate a range of quality assurance and evaluation processes regarding information literacy products and services. Evaluation and continuous improvement of information literacy development should reference best practice within higher education to ensure quality learning and to inform future planning and decision-making processes. Evaluation of information literacy course delivery and development should focus on alignment of content and outcomes, client satisfaction and teacher performance and learning environment. Assessment of student learning should be authentic, preferably contextualised within the discipline (and ongoing), and conducted using a variety of diagnostic, summative and formative methods, such as self-assessment activities (eg: quizzes), standardised tests, research papers, and reflective journals and learning portfolios.

Administrative processes also need to incorporate a range of systems which support organisational information literacy goals and outcomes. Consideration should be given to:

1. *Knowledge management*: using centralised and distributed manual and technical systems, such as intranet portals, common project management processes and shared repositories to maximise the intellectual capital of the organisation;
2. *Planning, reporting and review*: using agreed and standardised data collection and reporting mechanisms, such as quarterly and annual reports, statistical analyses, focus groups, surveys and performance contract and review processes, to demonstrate articulation of strategic priorities into action;
3. *Marketing/promotion*: using print and electronic artifacts, personal communication and professional affiliations, environmental scans and targeted marketing campaigns combined with metaphors, stories and symbolism to raise awareness of information literacy as a critical generic capability, to make goals and reform initiatives understandable [3], and to facilitate a reciprocal process of sensemaking within the organisation [16]; and
4. *Team building and professional development*: using formal and informal mechanisms, such as graduate qualifications in higher education and/or adult learning, electronic and face-to-face forums, teaching portfolios,

peer review and support processes, and research, scholarly publication and conference presentations, to foster knowledge about student centered learning [16], provide staff with information, knowledge and skills to help implement desired changes [16], and to develop confidence for individuals and teams working in new and unfamiliar areas. In their study, Kezar & Eckel [16] determined that staff development is an effective strategy for change as it provides opportunities for key participants to create new directions and priorities for the institution, understand their roles in the transforming institution, and to share common notions of how teaching, service and engagement are evolving. For librarians, undertaking stringent individual and organisational self-development and self-evaluative processes and procedures strengthens their credibility, substantiates their educational role and instils the trust of the academic community in their educational ability [23,24].

#### **4. QUT: a case study in information literacy reformation**

At QUT, information literacy is a key competency for lifelong learning, fundamental to the University's teaching and learning goal of developing graduates who can "recognise when information is needed, [and] have the ability to locate, evaluate and use effectively the information needed" [1]. QUT supports the view that, by knowing "how information is organised, how to find information and how to use information effectively [1]", graduates will have learned how to learn, for life.

In response, the University also supports the systemic development of information literacy as that which contributes significantly to positive graduate outcomes and student satisfaction, facilitates secondary-tertiary transition, minimises first year attrition rates and ensures that graduates will have learned how to learn, for life. Subsequently, a number of strategic policies and/or initiatives reflect the QUT's commitment to the learning and teaching of information literacy.

##### **4.1 Institutional overview**

###### ***The University***

QUT is one of the largest of Australia's 38 universities, with an enrolment averaging approximately 40 000 students in undergraduate and postgraduate courses distributed across four campuses. It is the largest provider of bachelor degree graduates into full-time employment in Australia each year, and boasts a graduate employment rate well above the national average for Australian universities [29].

The University has an international reputation for quality in teaching and learning and excellent graduate outcomes. This reputation is founded on a pedagogy which focuses on student-centredness, curriculum design, learning environments and quality teaching. As its teaching goal, it

states that QUT graduates will “possess knowledge, professional competence, a sense of community responsibility, and a capacity to continue their professional and personal development throughout their lives”. Teaching goals are measured through the *Key Performance Indicators (KPIs)* of *positive graduate outcomes* and *graduate satisfaction* [29]. In support of this ambition, and in keeping with government imperatives [11], the University frames the learning of each discipline within the broader development of graduate capabilities, a set of important values, attitudes, knowledge and skills which QUT expects that graduates should develop as part of their learning. QUT recognises information literacy as a key graduate capability.

### **The Library**

QUT Library provides dynamic and innovative access to information resources and services, and extensive educational services supported by the broad knowledge and skills of its staff teams. The senior executive team of the Director, Library Services and two Associate Directors (Information Resources, and Development) oversee a complement of approximately 180 (ongoing and fixed-term) staff in lending, reference and technical services areas. The Library is one of five departments which form the Division of Technology, Information and Learning Support (TILS).

Physical resources and services are branch-based, distributed across the four campuses of QUT. The libraries are not faculty-specific but, rather, service the needs of multiple disciplines based on each campus (with the exception of the Law Library, which has a single discipline focus and shares the city campus with the Gardens Point branch library). QUT Library provides extensive electronic resources and web-based services to clients, and quality services are provided by staff who are committed to providing high-quality service and whose knowledge and expertise is continually enhanced through an extensive staff development program [33].

The accomplishment of the Library’s vision is addressed through development in four critical areas which mirror the University’s strategic focus: teaching and learning; research; community engagement; and resources. The Library uses the Balanced Scorecard (BSC) as its quality management framework. This framework integrates performance measurement and quality initiatives as a comprehensive planning tool for the development and implementation of annual initiatives and KPIs.

### **4.2 Strategic policy**

Inclusion as a critical graduate capability signals the University's clear recognition of the intrinsic link between lifelong learning and information literacy and its responsibility to develop such a capacity in students and staff. QUT’s policy on graduate capabilities states that every QUT course aims to develop graduates who are able to demonstrate “the capacity for life-long learning including: searching and critically evaluating information from a variety of sources using effective strategies and appropriate technologies” [30].

A number of other QUT strategic documents, policies and initiatives have connections to the effective learning and teaching of information literacy, including the QUT Learning & Teaching Plan 2005-2010, QUT’s Mission, Goals and Key Performance Indicators, the QUT Blueprint, the QUT Online Student Portfolio, and QUT’s “Priority Areas” and Teaching Capabilities Framework.

In 2001, the QUT Teaching and Learning Committee endorsed *Learning for Life: the Information Literacy Framework (ILF)* [32] as guiding policy for the development of information literacy. The document was developed by QUT Library to provide a theoretical basis and practical direction for information literacy education. The ILF serves as a guide for QUT administrators, teaching faculty, library teaching staff<sup>1</sup> and general QUT support staff by promulgating models and strategies for developing and evaluating information literacy in terms of student learning outcomes, curriculum structure and assessment. The ILF was produced in consultation with relevant Library stakeholders and counsel of the broader QUT community was solicited through a formal reference group consisting of nominated university staff with teaching and learning expertise and responsibilities in the area of generic skills development. QUT Library continues to receive widespread recognition of its strategic value to institutional educational outcomes.

With the Library’s leadership, QUT's information literacy initiatives and activities are closely aligned with the 1st edition *Australian/New Zealand Information Literacy Standards (ANZ IL Standards)*, as endorsed by the Council of Australian University Librarians (CAUL) in 2001. The *ANZ IL Standards* provide a framework for embedding information literacy into the design and teaching of educational courses and programs, and for assessing the information literate individual. The Standards extend and support the information literacy developmental strategies and initiatives of educators, teacher librarians and academic librarians in the school, tertiary and TAFE sectors. Due to the close correlation to the *ANZ IL Standards*, QUT's information literacy policy and practice thus stands strongly aligned with global information literacy initiatives and perspectives [8].

### **4.3 Planning and measurement**

It is within the critical Library and Divisional planning and quality assurance infrastructure that information literacy goals, initiatives and services are referenced and directed. These outcomes are directed and monitored via a number of key policy documents, including the Library’s Client Charter, Vision and Strategic Annual Action Plan (in which information literacy is linked upwards into divisional and university planning cycles), and sectional/functional plans (which incorporate information literacy objectives at a distributed and/or local level).

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<sup>1</sup> Also referred to as “Faculty Teaching Librarians” or “Faculty Liaison Librarians”. Where teaching is not the primary focus, the latter term will be applied.

Information literacy is also represented in the Library's *Key Performance Indicators* (KPIs), by measurements against (1) client satisfaction (percentage of students who indicate a high/very high degree of satisfaction with the Library's generic courses) and (2) curriculum embedding (percentage of compulsory faculty units within undergraduate courses which show evidence of information literacy implementation and/or curriculum planning and development). Inclusion as a QUT *Operational Performance Targets*<sup>2</sup> for successive years has further established it as an area of significant focus within the University. Successful completion of selected information literacy initiatives has returned financial reimbursement to the Division of TILS as a result.

#### 4.4 Vision, goals and objectives

Information literacy is an ongoing strategic focus for, and functional responsibility of, QUT Library. It emphasises that information literacy knowledge and skills are most effectively learned when developed, recursively, within the context of a discipline-related need - ie: when it is embedded within the learning experiences (curriculum content and assessment) for each student. To this end, the Library develops, promotes and implements a variety of strategies and initiatives which target curricula reform.

Thus, QUT Library seeks to lead the University towards developing and implementing a strategic, systematic and sustainable model of information literacy teaching and learning focused on:

- raising the awareness of students and staff to the notion of information literacy as a lifelong learning attribute;
- developing a mutual understanding of the inherent principles and practices of information literacy;
- effecting attitudinal and cultural change pertaining to the learning and teaching of information literacy;
- leading change in learning and teaching practice to ensure that information literacy is a pervasive and enduring part of the learning environment [8]; and
- improving student competence with respect to information knowledge, concepts and skills.

The Library's *Information Literacy Statement of Purpose* states that:

“QUT Library provides leadership in developing and fostering the essential information literacy knowledge, skills and understanding of the QUT community. The university-wide information literacy strategies promulgated by the Library promotes critical thinking and equips individuals for lifelong learning. In partnership with academic colleagues, QUT Library enhances curricula and

creates learning environments which support QUT's teaching and learning goals” [31].

In support of the goals and objectives relating to this focus, the Library undertakes strategic leadership in the development and implementation of initiatives which:

- promote information literacy as a key competency, fundamental to the teaching, learning and research focus of the QUT community;
- enable and empower students as critical and independent users of information by embedding information literacy skills, as an “emerging skill” and key generic capability, into the whole learning experience; and
- achieve and promulgate models of effective practice for the implementation and evaluation of information literacy in terms of students' learning outcomes, curriculum structure and assessment.

#### 4.5 New models

In parallel with the increasing emphasis on generic capabilities, information literacy has been a focus for comprehensive curriculum reform and innovative approaches to learning and assessment within the University. With its inherent links to the development of critical thinking and problem resolution, administrators and teaching staff recognise the degree to which information literacy contributes to the empowerment of QUT students as lifelong learners and productive, informed employees.

Through collaborative planning, development and delivery of information concepts and skills, QUT Library contributes to discipline-based curricula design which incorporates information literacy as an enabling generic capability, including advice and assistance on the formulation of authentic assessment tasks which address information literacy learning outcomes. Broadly, the Library leads development and implementation of information literacy learning and teaching within three broad strategies:

*Strategy 1: Extracurricula learning (supplemental)* - develops *generic* enabling skills and are *supplemental* to the core curriculum of students. Typically, activities take the form of lectures, workshops and short courses on basic information skills, which are designed and delivered by library teaching staff only and attended at the discretion of each student. Information literacy content is generic (ie: discipline-neutral) and non-targeted (ie: not aligned with any unit and/or course). If applicable, assessment is formative only and designed to provide immediate feedback to students for their own learning. The outcome is short-term functional application of basic information skills.

*Strategy 2: Intercurricula learning (integrated)* - develops *specific* enabling skills *linked to* the core curriculum of students. As with Strategy 1, these activities generally take the form of lectures, workshops and/or short courses on basic information skills which are designed and delivered by library teaching staff but in consultation with, or at the

<sup>2</sup> Annual indicators of Faculty/ Divisional performance determined within the annual University planning cycle, in accordance with guidelines established by the Vice Chancellor.

request of, the academic. Teaching events are typically attended by groups of students as a study requirement and may be scheduled into unit/course timetables. Information literacy content is generally contextualised within a unit curriculum or discipline and timetable (ie: discipline-related), and targeted to the broad but immediate needs of students in a single study area. Where required, assessment is generally summative in nature, supplemental to primary assessable requirements and may be assigned a nominal to moderate weighting. The outcome is task-specific application of basic information skills.

*Strategy 3: Intracurricula learning (embedded)* - develops transferable skills embedded within the core curriculum of students. The learning and application of information skills and practice may still occur via varied standard formats; however, these learning opportunities and experiences are designed, delivered, assessed and evaluated via collaborative partnerships between academic and Library teaching staff. In this strategy, students are engaged in embedded learning of information literacy. Therefore, the approaches to learning and teaching are often invisible to students. Conceptual knowledge and skills development is addressed within the full curricula of a course, in each associated unit of study within that course, and across all year levels. Information literacy content is always contextualised within the content and assessment of a single unit as connected to multiple units within a course (ie: discipline-driven), and targeted to the specific and immediate to long-term needs of students in each unit/course. Assessment elements of the unit are a combination of formative and summative mandatory requirements of the unit and/or course, and are weighted accordingly. Through recursive and iterative learning opportunities, the outcome is deep, durable learning and transferable understanding and application of complex information literacy concepts and skills.

## 4.6 Internal processes

### *Staffing and governance*

Internal to the Library, information literacy education is a primary responsibility of twenty-one fulltime Liaison Librarians, two dedicated learning and teaching positions (the Information Literacy Coordinator and AIRS Librarian), and a further twenty full and part-time staff positions (including managers). Library staff advocate and lead the learning and teaching of information literacy via engagement in a variety of internal committees and working parties. Roles and responsibilities include:

1. *Information Literacy Coordinator (ILC)*: encompasses strategic, administrative and developmental responsibilities to ensure that the teaching and learning of information literacy at QUT evolves in step with global trends and models of good practice. The ILC works collaboratively with faculty and Library teaching staff to plan and monitor effective strategies for the integration, delivery and evaluation of information literacy competencies within the University's curricula.

Main duties include provision of advice and recommendations on policies and procedures for the delivery of, and client access to, information literacy products and services across the University. The coordinator also networks extensively within QUT to ensure that information literacy maintains a high profile on the University's teaching and learning agenda, and with external groups to guide the creation of future goals and strategies. The ILC reports to the Associate Director, Library Services (Development).

2. *Liaison Librarians*: constitute the primary teaching and learning interface for the Library (as one component of their multifaceted portfolio) and in this capacity work in partnership with designated faculties and divisions as educational practitioners and advisors in all areas directly relating to policies and activities which address the information literacy learning needs of students and staff. Liaison Librarians lead and actively engage in a range of collaborative teaching and learning partnerships and curriculum development initiatives.
3. *AIRS Librarian*: responsible for the teaching, assessment, evaluation and administration of IFN001: Advanced Information Retrieval Skills (AIRS), a mandatory credit-bearing course for Higher Degree Research students.
4. *Client Services Group*: convened by the Associate Director, Library Services (Development), responsible for strategic planning for cross campus development and delivery of Library client services, terms of reference also includes monitoring and advising on information literacy strategic planning, development and delivery of information literacy client services, policies relating to information literacy-related client services operations, procedures and promotions initiatives.
5. *Information Literacy Advisory Team*: convened by the Information Literacy Coordinator, the team consists of nominated Branch Coordinators, and representative Library teaching and managerial staff. The team undertakes a range of tasks and responsibilities which foster a cooperative and coordinated approach to the support, development, delivery and promotion of Library-based educational products and services, provides guidance and leadership with regards to curriculum design and evaluation, and oversees reporting, quality assurance and continuous improvement processes for information literacy.
6. *EndNote Advisory Group*: in conjunction with the Information Literacy Advisory Team, the group undertakes to oversee the distribution of EndNote software at QUT and coordination of end-user support and education.

QUT Library also participates in a wide range of faculty, divisional and university committees and working parties in order to ensure that information literacy is addressed in the broader strategic planning and development activities of the

University, and incorporated in the design, planning, delivery and evaluation of course curricula. This includes participation in cross-institutional events services coordination (such as orientation and careers days), teaching and learning grants support teams, university and faculty/school teaching and learning committees and academic boards, staff development networks and divisional information exchange teams.

Finally, information literacy initiatives at QUT are also referenced within a broader global agenda for the learning and teaching of information literacy. Strategies align with the strategic direction and activities of relevant associations, peak bodies, policies and/or frameworks such as the Council of Australian University Librarians (CAUL), Australian Library and Information Association (ALIA), the Libraries of the Australian Technological Network (LATN)<sup>3</sup>, Queensland University Libraries Office of Cooperation (QULOC)<sup>4</sup> and the Australian and New Zealand Institute for Information Literacy (ANZIIL).

### ***Accountability and knowledge management***

The Library develops, monitors and implements a range of quality assurance and evaluation processes regarding information literacy products and services. These processes include key performance measures, organisational operational targets and benchmarking activities. To inform information literacy planning, the Library also uses data drawn from focus groups and client surveys to gain specific insight into information-seeking behaviour, client satisfaction with the Library's learning and teaching services and resources, and to ascertain potentially unmet needs for information literacy education. The Information Literacy Coordinator has lead responsibility for collating, coordinating and/or delivering reports on information literacy activities and initiatives. Reporting and review is via standard Library mechanisms, such as quarterly reports, annual action initiatives, divisional annual reports, performance indicator reports, performance contracts and performance planning and review processes.

Regular evaluation of generic undergraduate and postgraduate information literacy classes and courses focus on content and outcomes alignment, relevance and teacher performance. Methods include student peer and self-assessment and formative and summative assessment methods such as surveys and focus groups, traditional tests and quizzes, and standardised and/or informal university procedures (such as student evaluation of units and teaching). While a rigorous process of evaluation informs the continuous improvement of the Library's own courses,

successful embedding into the curriculum ensures that student learning, while perhaps less discernible, is prevalent in whole-of-course processes.

The activities of the Library are centrally governed and locally implemented. To support work at a Branch and individual level, the Library has instigated a range of central support systems, such as: (i) an intranet portal to resources, information and programs which assist Library teaching staff to plan, design, deliver, assess and evaluate information literacy education; (ii) coursepacks for the Library's generic information literacy courses and classes made available via the intranet information literacy portal to ensure consistency across branches in this central service to clients; (iii) a statistics database to report the learning and teaching of information literacy; and (iv) an information literacy project management system including project synopses, stages, timelines, staff involved and links to supporting documentation or related websites.

### ***Capacity building and publicity***

QUT Library facilitates and enables ongoing formal and informal professional development of Library teaching staff. Strategies include completion of formal qualifications in higher and/or adult education, attendance at informal in-house information literacy forums and maintenance of teaching portfolios. Teaching staff also undertake alternative forms of professional development which contribute to facilitating broader reform within the organisation, such as provision of information literacy consultancies and facilitation of developmental workshops for other universities and organisations, action research projects within disciplines and/or student cohorts, contribution to the discourse of information literacy via publication in professional journals, and presentations at conferences and symposia.

QUT Library implements a range of targeted promotional and marketing campaigns and strategies to ensure that QUT clients are aware of information literacy learning opportunities, and significant attention is given to raising academic awareness of information literacy as a critical generic capability. In this regard, the Library website plays an important role as a portal to learning services and resources for students and staff, and the Library's Communications and External Relations Manager also coordinates marketing campaigns which target particular client groups in the University, such as course coordinators or senior administrators. Liaison Librarians, the Information Literacy Coordinator, the AIRS Librarian and managers assume a pivotal role in connecting students and staff to appropriate information literacy services and resources. A number of key Library and QUT print publications and external QUT reports are also used to disseminate information regarding the Library's information literacy services, strategies, initiatives and achievements.

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<sup>3</sup> The ATN is a consortia of five universities: Curtin University (WA), University of South Australia (SA), RMIT University (VIC), University of Technology, Sydney (NSW) and Queensland University of Technology (QLD).

<sup>4</sup> QULOC is a collaborative organisation which provides a framework for information exchange, best practice development, cooperative activities and the promotion of common interests which support the teaching, learning and research needs of member institutions. Membership comprises twelve university libraries from Queensland, New South Wales and the Northern Territory, plus the State Library of Queensland.

## 5. Reflections on success at QUT

From their study, Kezar and Eckel determined that those organisations that had achieved visible success with significant reform had balanced rational structural strategies with strategies that shaped beliefs and institutional culture, and reconciled long and short term goals and tasks with long and short term plans [16]. They had also created a balance between ongoing efforts and new initiatives and senior administrative leadership with a collaborative process. In toto, it demanded a long-term commitment and a patient, measured approach to change.

For QUT Library, it has been a complex and rewarding process. By taking a patient approach, through long-term commitment tied to strategic and sustained action and development supported by appropriate planning and resourcing, the Library is changing the way the University relates information literacy to learning. It has positioned information literacy within an expanding QUT educational agenda which recognises the critical relationship between appropriate curriculum design and effective teaching and learning strategies, and “strives to provide high quality educational experiences for students that develop the multiplicity of generic capabilities within a discipline context” [25].

With institutional legitimacy as a critical force within values-driven organisations in higher education [3], careful alignment institutional vision and goals has indeed been a lever for positive change at QUT. Strategic alignment has resulted in essential advocacy across the University which has, in turn, produced opportunities for engagement in critical learning and teaching initiatives. The *QUT Information Literacy Framework* is an excellent example of the strength of a strategic approach. Its endorsement by QUT’s Teaching and Learning Committee, combined with a targeted marketing campaign, raised the attention of faculty executives and course planners in the University. This outcome quickly raised the profile and importance of information literacy and initiated a domino effect of positive outcomes and activities. It promoted a more common understanding of the concepts and approaches required for learning, affected terminology in key university and faculty policy and planning documents and, eventually, effected changes at course level. Ultimately, it attracted an internal teaching and learning grant of AUD\$150 000 to reform the undergraduate science curriculum to embed information literacy in the learning and assessment of all major streams in the course.

Incorporating information literacy into the specific strategic planning and quality processes at a divisional and departmental level has had a positive impact on the success of broader efforts to introduce and promulgate new models of information literacy education. Adherence and response to such requirements as key performance indicators and operational performance targets has elevated information literacy as a critical focus and responsibility for others

beyond the Library. By tapping into the planning and measurement strategies at departmental, divisional and faculty levels, the Library has assured a common understanding and legitimacy of information literacy which has better assimilated into the overall goals and objectives of QUT. Rigorous attention to internal administrative, review and quality processes, such as statistical collection and reporting, knowledge management, evaluation and assessment, reporting and review, and marketing and promotion, has provided an infrastructure for, and systems which, support sustainable information literacy development.

Actively extending jurisdiction of information literacy within the Library and soliciting wider university engagement in developmental and decision-making processes has prompted a greater common knowledge and understanding of the issues and strategies required, as well as promoted shared responsibility in achieving the strategic goals and objectives of the whole organisation. In addition to the obvious strengths of devoting significant individual staff resources to information literacy (including dedicated coordinator and teaching positions), involving group governance in the form of committee planning, implementation and reporting processes has established information literacy as a core functional responsibility of, and within, the Library. Strength and capacity has also been increased by linking to the strategic imperatives of groups and agencies external to the Library but within the institution, such as the Office of Research and Research Training, faculty and school teaching and learning committees, university staff development groups, and student agencies such as International Student Services. Linkages to the planning goals of external groups such as the ATN, QULOC, ANZIL and CAUL have added veracity to internal decision-making processes.

Finally, a focus on the learning and growth of the Library’s teaching staff, through team building and professional development activities has assured that the Library leads and shares common practices, language and objectives. It has also built a confidence in the teaching team that assures excellence in practice, and a willingness to demonstrate that excellence in the form of action research and scholarly publication.

Information literacy educational reform, in some respects, has also proven to be a frustrating process as, while change *has* occurred, it has taken a slower, more circuitous route than is necessarily desirable. QUT Library’s teaching staff would readily admit that they have accomplished much by building bridges underfoot, and that this has, at times, been a challenging process for them as experienced professionals. Needless to say, taking a strategic approach to preparing the ground for reform has begun to bear substantial fruit for all concerned, and these achievements will continue to fuel successes in the future.

## 6. Conclusion

Covington argues that, while the reasons for undertaking a sweeping change are usually compelling, often any change

that occurs is fleeting and - when too challenging - tenuous, likely to force people to revert to the old, familiar ways of tackling issues [10]. He warns that this failure for change to "stick" is often due to a broader failure to prepare the ground adequately - to create a state whereby thinking and actions can be adopted in a meaningful and purposeful way. Leaders, he believes, can and must create this environment for change by following a few simple steps - creating a sense of urgency, building a strong guiding coalition, developing a clear and compelling vision, asking different questions, working the action plan, designing in early wins and embedding the change in the culture [10]. Such a long-term strategic view, by definition, does not bring immediate results but rather promises long-term gain by invoking organisational ownership and buy-in.

Endemic reform of information literacy education requires just such an approach. For academic libraries, as the lead agencies in the process, it involves developing a strategic vision of how libraries can contribute to the learning and teaching goals of the parent institution. Each library must then support this vision through long-term commitment and planning at all levels of the organisation, providing resources and support for initiatives, building capacity within the team in terms of knowledge, skills, creative thought and professionalism, and rewarding and recognising all gains as those which contribute to broader, long-term success.

It is not a simple, clear or costless process. Admiral Rickover (1900-86) wisely observes that good ideas are not adapted automatically but rather must be driven into practice by courageous patience, and Quinn reminds us that "when we commit to a vision to do something that has never been done before, there is no way to know how to get there... we simply have to build the bridge as we walk on it" [26]. For academic libraries, it is and will continue to be a challenging process - one which demands a preparedness to be patient in the face of entrenched organisational culture, to work with ambiguity, and to learn and act in the absence of tried and tested processes and pathways forward. It does demands significant visible and invisible expenditure in terms of staff, time and resources, and it will challenge deeply held professional beliefs for faculty and library staff. However, to succeed will shift deeply ingrained expectations of the role of libraries as active participants in the educational business of the university.

Strategic approaches to systemic reform of information literacy education also assure sustainable information literacy growth and development within a university context. Closer alignment with the goals, directions and imperatives of universities, governments and higher education encourages and fosters more extensive buy-in, and long-term commitment assists in establishing a stronger, more credible learning and teaching role for libraries. Ultimately, strategic and systemic approaches ensure robust processes which impact positively on student learning outcomes and assure better learning and thus more capable graduates in the future.

With due deference to Goethe, striding into the Infinite simply requires libraries to move within the Finite in all directions. By thinking and acting strategically, and leading reform in interconnected ways towards a common and coherent goal, libraries can assure that information literacy - rather than becoming a fashionable accessory - will continue to be woven as a sustainable thread within the fabric of an academic education.

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