

CONTEXT

Scholarly and Research Capabilities: framing positive nurturing of students

Decades of colonialism, followed by the apartheid system, necessitate shifting from deficit concepts to more positive ones. Under apartheid, information literacy, by default was framed through a deficit lens, portraying marginalised communities as lacking essential skills rather than recognising systemic barriers to access. This perspective ignored structural inequalities in education, language, and infrastructure that restricted access to knowledge. Instead of addressing these injustices, deficit-based narratives reinforced authoritarian interventions, positioning the state or dominant groups as the ‘providers’ of literacy. Such framing persists today in some digital and scholarly contexts, where information literacy is treated as an individual deficiency rather than a socio-political issue shaped by historical exclusion and power imbalances in knowledge production and dissemination. This deficit connotation needs to transition into recognising different capacities by engaging with information in diverse ways.

Reimagining information literacy in South Africa

Education is at the centre of the 2030 Agenda for Sustainable Development, enshrined as Sustainable Development Goal 4 (SDG 4), which calls for inclusive, equitable, and quality education, fostering lifelong learning opportunities for all. Education is a fundamental human right, enabling individuals to engage meaningfully in society by developing critical thinking, creativity, and problem-solving skills. Yet, while international models of information literacy/fluency/capability provide useful frameworks, they often assume a baseline of student preparedness that does not align with the realities of South African schooling.

The South African higher education landscape presents unique challenges, shaped by historical inequalities, ongoing transformation efforts, and the demand for decolonial knowledge production. These complexities necessitate a reimagined

approach to information literacy that is both globally informed and locally responsive. The University of Cape Town (UCT) Libraries' Scholarly and Research Capabilities (S&RC) approach is designed to meet this need by addressing gaps in students' preparedness, promoting equity and inclusion, and supporting a decolonised curriculum that reflects African knowledge systems and priorities.

The South African Context: Bridging Historical Divides

South Africa's schooling system continues to reflect deep-seated inequalities. As Ng'ambi et al. (2016) note, the legacy of apartheid education has resulted in structural disparities, leaving many students underprepared for university-level academic work. Jansen and Blank (2014) highlight the stark reality that, while approximately 20% of high school graduates qualify for university, nearly 50% of undergraduate students drop out due to inadequate academic preparation. Additionally, disparities in access to and familiarity with technology remain racialised, further exacerbating inequalities in higher education readiness (Nash, 2009). Beyond academic preparedness, students from historically disadvantaged backgrounds often experience cultural alienation within university spaces. Jansen (2017) identifies this as a significant factor behind the #RhodesMustFall and #FeesMustFall protests, which called for a transformed and decolonised higher education system. Decoloniality, though contested in definition, broadly signifies resistance to global north epistemologies and a re-evaluation of what knowledge is prioritised within academic curricula (Jansen, 2017).

These realities demand an approach to information literacy that moves beyond deficit-based models. Instead of imposing global north frameworks wholesale, UCT Libraries must engage in knowledge production that is contextually relevant and critically responsive to local needs. This includes integrating indigenous and contemporary African knowledge, fostering multilingual competencies, and rethinking the terminology of 'information literacy' itself to reflect a more empowering and inclusive vision—hence, the preferred term 'Scholarly and Research Capabilities'.

A transformative approach: Scholarly and Research Capabilities

Recognising that learning is a lifelong process, the S&RC framework at UCT Libraries supports students at multiple stages of their academic journey. This modular, point-of-need approach, aligns with students' evolving scholarly requirements, from undergraduate orientation to advanced postgraduate research. The framework ensures that interventions are timely, practical, and directly linked to students' academic needs, fostering engagement and retention, ultimately toward student success.

This approach is informed by international best practices, including the SCONUL Seven Pillars of Information Literacy (Bent, Stubbings & SCONUL, 2011) and the ACRL Framework (ACRL, 2015). The SCONUL model envisions skill development as a progressive process, while the ACRL Framework introduces critical perspectives on information, authority, and scholarship. In the Australian context, CAUL frameworks have similarly adapted information literacy models to emphasise employability and digital skills development. While these models provide valuable insights, UCT Libraries has developed a locally relevant matrix that aligns with global best practices while addressing South Africa's specific higher education challenges.

Key focus areas: a contextualised information literacy framework

In alignment with SDG 4 and the principles of equitable access, UCT's approach to information literacy prioritises:

- Bridging the knowledge divide: addressing disparities in educational preparedness through targeted, skills-based interventions.
- Equitable access: expanding learning opportunities through multiple modalities, including digital and multilingual support.
- Decolonisation and indigenous knowledge integration: ensuring that knowledge production and research at UCT reflect African priorities and methodologies.
- Empowerment and critical engagement: encouraging students to critically evaluate and contribute to the production of knowledge in ways that are meaningful to their own social and academic contexts.

- Digital and workplace readiness: preparing students to navigate an increasingly digital and globalised information landscape.

The shift from 'Information Literacy' to 'Scholarly and Research Capabilities' signals a commitment to empowering students, rather than merely filling perceived gaps in their knowledge. This shift acknowledges that students bring valuable lived experiences and cultural knowledge into the academic space, which should be validated and expanded rather than erased.

Rethinking information literacy for a global south context

Higher education in South Africa exists at the intersection of global academic traditions and local realities. Information literacy, as traditionally conceived in global north frameworks, must be critically adapted to ensure relevance within this context. UCT Libraries' Scholarly and Research Capabilities represents a transformative approach—one that is inclusive, responsive, and aligned with the university's broader commitment to social justice and decolonisation.

By embedding scholarly capabilities across the student lifecycle, integrating indigenous knowledge, and fostering multilingual competencies, UCT Libraries aims to equip students with the skills necessary to succeed in academia and beyond. In doing so, S&RC supports a more just and equitable higher education system—one that is both globally engaged and firmly rooted in the South African experience.

Tenets framing the alternative

There are four core tenets that frame the understanding, conceptualisation, and rollout of UCT's alternative to information literacy. The first is UCT's context as a research-intensive institution, the second is the mapping of S&RC against the SDGs, the third is the examination of social justice and its role in education and, lastly, the mapping of S&RC in the research life cycle.

1. S&RC at a research-intensive institution

UCT, as a research-intensive university, requires students to be exposed to a robust scholarly and research capabilities programme. Research-intensive universities are distinguished by their commitment to cutting-edge research, strong academic support structures, and the integration of research into teaching and learning. This shift necessitates dynamic and flexible library and information services that evolve to meet the needs of researchers, faculty, and students alike.

Enhancing research and teaching integration

At a research-intensive university, research drives teaching. Faculty engagement in continuous research brings the latest developments into the classroom, enriching the learning experience for students. The role of the library in this integration is crucial, providing access to high-quality academic resources, fostering information literacy, and supporting a culture of critical thinking and collaborative learning.

Scholarly and research capabilities are the backbone of a research-intensive university. They drive innovation, enhance teaching and learning, and position the institution as a global leader in knowledge creation. Libraries and academic support services play a transformative role in this ecosystem, ensuring that research and scholarship remain dynamic, accessible, and impactful. Through continuous adaptation and investment, research-intensive universities will continue to shape the future of education, research, and societal progress.

2) Scholarly and Research Capabilities and Sustainable Development Goal Four

Education is at the core of the 2030 Agenda for Sustainable Development. It is recognised as a stand-alone goal—Sustainable Development Goal 4 (SDG 4)—and is also integrated into other SDGs related to health, economic growth and employment, sustainable consumption and production, and climate change.

SDG 4 emphasises that education liberates the intellect, unlocks imagination, and fosters self-respect. It serves as a foundation for prosperity, providing individuals with the knowledge and skills necessary to contribute meaningfully to a progressive,

healthy society. Learning is a lifelong process that benefits all individuals and should be accessible to everyone.

SDG 4: Quality Education

The United Nations declaration on SDG 4 calls for inclusive and equitable quality education and promotes lifelong learning opportunities for all. The overarching goal is: *“To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”*

The emphasis under this goal is universal coverage of quality education for all in order that they can contribute to building a just, tolerant and inclusive world. A vision of an inclusive quality education will focus on the idea of education for all, particularly those groups considered vulnerable.

Education as a Fundamental Human Right

Education is both a fundamental human right and an enabling right, meaning it is essential for exercising other rights and opportunities. A commitment to equal access must underpin all efforts to achieve educational equity, ensuring that no one is left behind. Education should extend beyond basic literacy and numeracy, equipping individuals with:

- Critical thinking and problem-solving skills
- Creativity and innovation
- Collaborative abilities
- Curiosity, courage, and resilience

Key Focus Areas of SDG 4

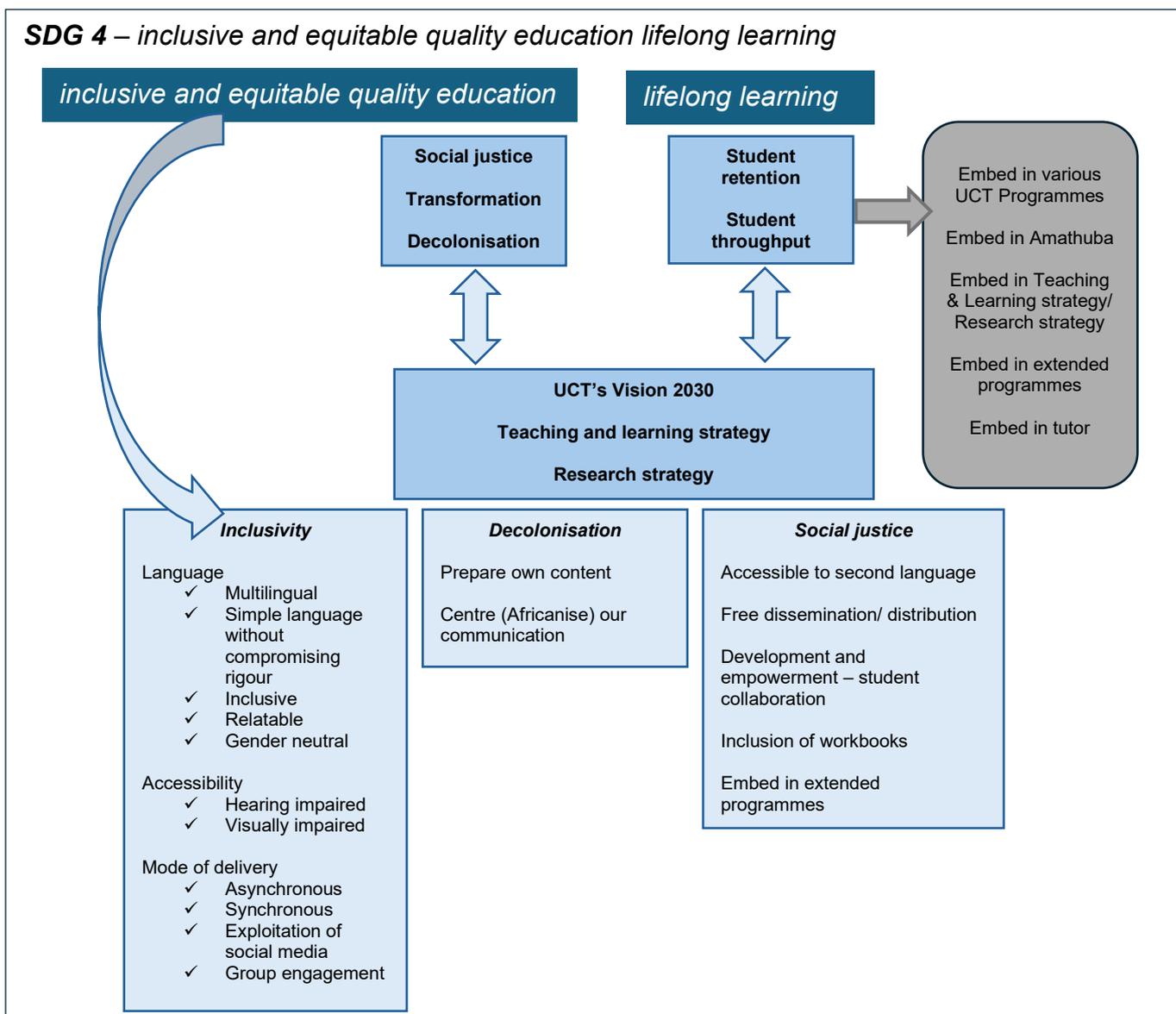
The SDG 4 framework outlines seven outcome targets, with Target 4.5 specifically addressing the elimination of discrimination in education. In essence, SDG 4 calls for:

- Ensuring lifelong learning opportunities for all
- Fostering equity, inclusion, and equality in education
- Promoting effective learning and the acquisition of relevant knowledge, skills, and competencies
- Ensuring the relevance of learning to contemporary global and local challenges

UCT Libraries' Focus Areas (see Graphic 1)

In alignment with SDG 4, the UCT approach focuses on:

- Reducing barriers: addressing obstacles to skills development and expanding lifelong learning opportunities.
- Equitable access: increasing and diversifying learning opportunities through multiple educational and training modalities.
- Inclusion and equity: ensuring that all individuals, especially those in vulnerable circumstances, have access to quality education.
- Bridging the knowledge divide: addressing disparities in educational preparedness among students.
- Empowerment: equipping students with the critical thinking skills necessary for success in a rapidly evolving global workforce.



Graphic 1: Application of SDG 4 at UCT Libraries

Reimagining a point of need service

The principles, strategies, and actions guiding S&RC reflect a contemporary understanding of literacy as a continuum of proficiency levels rather than a binary distinction between 'literate' and 'illiterate'.

A review of the literature shows that there is very little 'return on investment' for the once-off or 'one-shot' sessions at the beginning of the year. The students are overwhelmed at the start of the new academic year and, as importantly, cannot establish a significant relationship between the session and its impact on their academic journey.

The S&RC respond to the binary interpretation and the efficacy of the 'one-shot' session by offering a flexible, point-of-need service which allows students to enter and exit the learning process as required. By mapping S&RC against the research lifecycle, orientation, instruction, and training become more meaningful, as students can directly connect interventions to their immediate academic needs.

The link between research and education

There is a natural synergy between teaching, learning, and research. The United Nations guidelines on sustainable development emphasise the critical role of education, research, and innovation in achieving SDGs. Universities, therefore, have a key responsibility in driving this agenda.

There is a natural synergy between teaching, learning, and research. The United Nations guidelines on sustainable development emphasise the critical role of education, research, and innovation in achieving the Sustainable Development Goals (SDGs). Quality education (SDG 4) is foundational, as it fosters the development of knowledge, skills, values, and attitudes necessary for promoting sustainable development. Research and innovation are equally essential, providing evidence-based solutions and technological advancements to address complex global challenges such as poverty, inequality, climate change, and health crises.

Universities, therefore, have a key responsibility in driving this agenda. As hubs of knowledge creation and dissemination, they play a crucial role in equipping future generations with the tools to pursue sustainable solutions. Moreover, through interdisciplinary research and partnerships with government, industry, and civil society, universities can directly contribute to developing policies, technologies, and frameworks that promote sustainable development. By integrating SDG-oriented teaching, research, and community engagement into their core missions, universities can enhance their societal impact and actively participate in building a more equitable and sustainable world.

The library's role is to partner with the university in integrating research and education into a unified process, ensuring that students benefit from a high-quality educational experience that is both inclusive and research informed.

1) Social justice and its role in education

Caravelis and Robinson (2016) define social justice as the promotion of a just society by challenging injustice. They argue that it requires a fair allocation of resources so that individuals are not disadvantaged due to their social or economic status.

John Rawls (2003) expands on this, stating that social justice ensures equal access to liberties, rights, and opportunities, particularly for the most disadvantaged members of society. Similarly, Miller (2003) emphasises that education is one of the most critical social resources, and its distribution must be fair and just.

From an action-oriented perspective, social justice requires removing barriers that perpetuate vulnerability and deprivation. Scholarly and Research Capabilities is a deliberate effort to dismantle these barriers, ensuring a more inclusive learning environment at UCT.

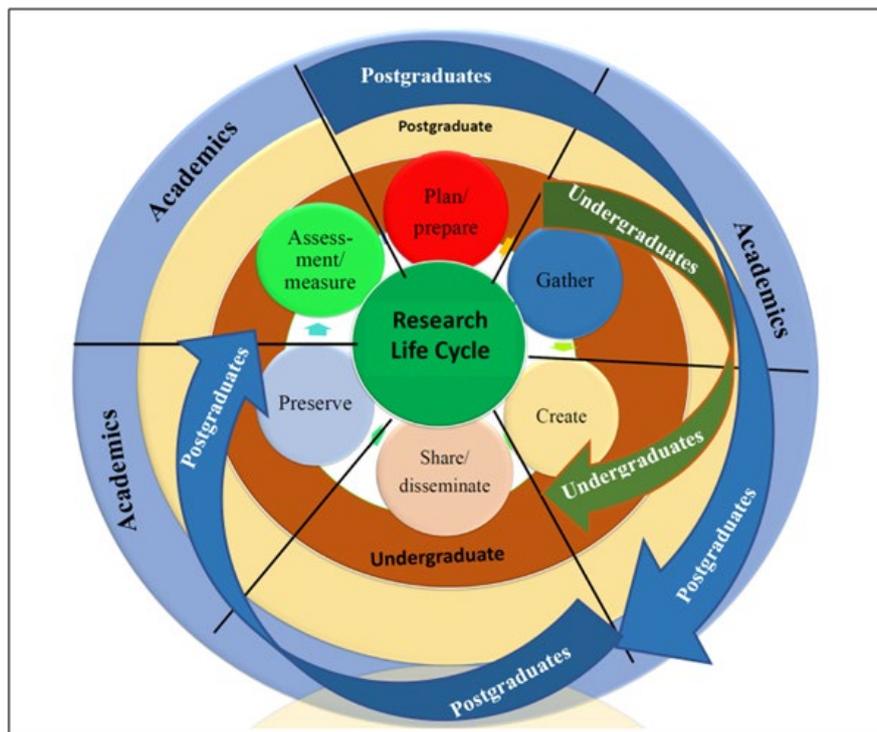
Transformation and the S&RC service

Achieving true transformation in education requires deliberate and strategic action. The S&RC service is designed to actively foster inclusivity, ensuring that all students—regardless of background—have the support needed to thrive academically.

Libraries must rethink their practices and perspectives to better align with social justice principles and create learning environments that are truly equitable, inclusive, and empowering.

2) Mapping Scholarly and Research Capabilities in the research life cycle

The research life cycle offers a framework for understanding how scholars progress through their research journey. When integrating undergraduate students and new postgraduate students into this cycle, it is essential to tailor support, tools, and training to each stage of the research process. Below is a narrative mapping of scholarly and research capabilities throughout the research life cycle for these two groups of students.



Graphic 2 Research life cycle

Plan/prepare phase

For undergraduate students, the journey begins with an introduction to academic inquiry. They are guided through understanding what constitutes a research question, the importance of original thinking, and how to identify credible sources. Orientation programs focus on library resources, search tools, and databases help them begin their exploration of research topics.

For postgraduate students, the focus shifts to a deeper understanding of research gaps. These students are expected to have a more refined grasp of academic literature and methodologies, allowing them to select topics based on existing research and the latest trends in their field. They are encouraged to critically engage with literature, possibly through systematic reviews, to identify areas where their own research can contribute new insights.

The plan/prepare phase is more relevant to postgraduate students.

Gather phase (literature review and background research)

The Gather phase of the research life cycle corresponds to the literature review and background research, where students engage with existing scholarship to frame their research questions, identify knowledge gaps, and establish theoretical foundations.

For undergraduate students, this phase introduces them to the fundamentals of literature reviews. They are capacitated to search for and evaluate sources using academic databases, library catalogues, and search engines. Emphasis is placed on distinguishing between credible and non-credible sources, understanding the principles underpinning peer-reviewed literature, and recognising biases in information. Basic skills in summarising, paraphrasing, and synthesising information are developed to support students engage with academic writing standards.

For postgraduate students, the literature review process becomes more specialised and critical. They are trained in advanced search strategies, including the use of Boolean operators, discipline-specific databases and such. Additionally, postgraduate students engage with systematic reviews, meta-analyses, and theoretical frameworks,

learning to critically assess and synthesise existing research. This stage ensures that they not only build on previous studies but also contribute meaningfully to scholarly discourse.

Create phase (writing and research output development)

The Create phase of the research life cycle corresponds to the write-up stage, where students synthesise their research findings into structured academic outputs. This phase involves drafting, revising, and refining research papers, dissertations, and theses.

For undergraduate students, the focus is on developing structured academic writing skills. Students acquire skills on how to construct clear arguments, integrate evidence from sources, and follow disciplinary writing conventions, which are learned from lectures and the Writing Centre. Students are introduced to citation practices and referencing tools ensuring proper academic integrity by the library. Basic exposure to peer review and feedback incorporation helps them improve their drafts.

For postgraduate students, writing becomes a more iterative and research-intensive process. A strong emphasis is placed on reference management, equipping students with tools like Zotero, Mendeley, or EndNote to organise and track sources effectively. They also engage with academic publishing standards, learning how to format and structure research papers for journals, conference proceedings, or institutional repositories.

Share/Disseminate phase (scholarly communication and impact)

The Share/Disseminate phase ensures research reaches academic, professional, and public in general. At a research-intensive institution, scholars must navigate academic publishing and open science. This includes selecting journals and leveraging open access models. Scholarly identity is strengthened via ORCID, citation metrics, and social media. Decolonising dissemination is crucial—promoting Diamond Open Access, multilingual publishing, and indigenous knowledge-sharing. Scholarly and Research Capabilities (S&RC) equip researchers with the skills to communicate

findings effectively, ensuring knowledge is accessible, inclusive, and impactful across diverse communities.

Tables 1 and 2 unpack the Gather and Create phase of the research life cycle. There are three categories (reflected as objectives), namely, awareness (orientation), skills capacity development, and education. This table is unpacked in the subsequent chapters.

Pillars/ SCONUL/ACRL /CAUL	Vehicle	Process	Objective	Intervention	Learning Outcome	RLC
SCONUL/ACRL /CAUL	Demonstrate	Orientation	Awareness based	University Orientation	Familiarity with support resources	Gather
				Library Orientation		Gather
SCONUL/ACRL /CAUL	Instruction	Train	Skills based process	Library instruction	Capacitated to succeed in getting started	Gather
				Subject instruction		Gather
				Computer instruction		
SCONUL/ACRL /CAUL	Information literacy	Teach – pedagogy influence	Education	Plagiarism and ethics in academic writing	Lifelong learning	Create
				Reference management		Create
				Research Data Management (RDM)		Plan
				Literature reviews done systematically		Gather
				Academic writing and ethics		Create
				Information gathering and evaluation		Gather
				Research Landscape Analysis (RLA)		Plan

Pillars/ SCONUL/ACRL /CAUL	Vehicle	Process	Objective	Intervention	Learning Outcome	RLC
ACRL	Information fluency & wisdom*		1+2+3+ practice implement ation	Publishing	Knowledge production	Share
				Assessment		Assess ment/ Measure
				Preservation		Preserve

Table 1: The ladder approach to S&RC

Stage	Activity	Intervention
Plan/Prepare	Research Landscape Analysis, Ethics and Compliance, Data Management Plan (DMP)	Identification of topic, How to do a DMP
Gather	Literature search Resources, Strategies to find relevant information sources Discover Gather Create Share Measure	Library orientation and instruction, discovery tools (Primo, Databases and Guides), Training or Workshops, Smart searching (search strings, Boolean operators, phrase searching etc.)
Create	Citation Management, plagiarism, Writing up	Reference managers, Academic writing, Plagiarism
Share	Publishing and Presenting, Writing Workshops, Where to Publish, Author Rights, Digital Repository, Dissemination	Open access vs closed access, Identification of journal, APC, Predatory publishing
Preserve	Preserving, Data Curation	Data Repository
Assessment/ Measure	Prestige, Impact, and Discovery, Citation Metrics, Alternative Metrics	Measuring – Research, Tracking your academic footprint, Measuring – Publication/ author Impact

Table 2: Summary of research life cycle with interventions

Purpose and scope of the monograph

This book is a guide for both students and lecturers, helping them learn, teach, and apply research skills. It provides a foundation for students and supports lecturers in mentoring and teaching research effectively.

For students

- **Step-by-step research help**

The book unpacks the research process in a simple, structured way, so students know what to expect at each stage. The intention is to provide students guidance in how the stages impact on their academic trajectory.

- **Skill development**

It covers both basic and advanced research methods, helping students improve their abilities over time. Beginners learn skills like finding sources and citing them, while advanced students get guidance on elements that contribute to good academic writing.

- **Encouraging critical thinking**

The book encourages students to engage critically with the resources through asking probing research questions, understanding existing studies, and thinking independently.

For Lecturers

- **Teaching support**

The book serves as a useful teaching resource, providing structured content and exercises for support material that is linked to research elements of their courses.

- **Guidance for mentoring**

It helps lecturers guide students through the different stages of research projects as it links to the research life cycle, especially at the postgraduate level.

- **Encouraging research-based teaching**

Lecturers can use the book to include research activities in their courses, helping students develop strong research skills.

Going forward: Artificial Intelligence in Scholarly and Research Capabilities

Artificial Intelligence (AI) is reshaping the global research and higher education landscape. However, academic libraries are still actively exploring how best to position themselves along the AI continuum. While AI tools hold significant potential to enhance research, learning, and knowledge creation, there remains ongoing uncertainty about their pedagogical, ethical, and operational implications. As a result, libraries are approaching AI with cautious optimism, recognising both its transformative possibilities and its risks.

Currently, the most immediate and clearly defined role for libraries lies in supporting students and lecturers to navigate AI in relation to referencing, attribution, and plagiarism. Generative AI tools introduce new complexities in academic integrity: students may use AI to draft text, generate ideas, summarise readings, or create citations, often without understanding when such use is permissible, how to reference AI-generated content, or what constitutes misconduct. This places academic libraries at a crossroads. Traditional information literacy (IL) frameworks, long centred on searching, evaluating, and citing information, are no longer sufficient to engage meaningfully with AI-mediated knowledge production. There is therefore a need for libraries to reframe their work through the lens of S&RC, a concept that foregrounds the full continuum of scholarly practice: inquiry, knowledge creation, authorship, dissemination, and stewardship.

Within this reimagined S&RC framework, the library's role extends beyond helping students 'use AI correctly' for assignments. S&RC is oriented towards enabling students to critically interrogate AI-generated outputs, recognise bias and fabrication, and reflect on questions of authorship, accountability, and intellectual ownership. This positions libraries uniquely to address the scholarly implications of AI across the research lifecycle.

However, engagement with the research lifecycle should not fuel aspirations for librarians to adjudicate on research ethics. While librarians play a critical role in fostering ethical awareness, transparency, and responsible scholarly practice, the formal adjudication of research ethics remains the remit of academics and institutional ethics structures. Ethical judgement, particularly in relation to disciplinary norms, methodological appropriateness, and assessment design, requires subject-specific expertise and pedagogical authority, which reside with lecturers and researchers.

Recognising this distinction is crucial. Librarians are not arbiters of ethical acceptability but rather enablers of ethical scholarly engagement. Their contribution lies in equipping students with the capabilities to ask critical questions about AI use: when does AI support scholarship, and when does it undermine it? How does AI reshape authorship and accountability? What forms of knowledge are privileged or excluded by algorithmic systems? How do issues of power, bias, and access manifest in AI-mediated research environments?

It is for this reason that this book deliberately aims to include a chapter on AI and research ethics authored by academics. The inclusion of academic voices ensures that ethical deliberation is grounded in disciplinary practice, assessment realities, and pedagogical intent, while remaining aligned with the broader aims of the volume. This approach reinforces the complementary roles of librarians and academics: academics articulate and adjudicate ethical standards within their disciplines, while libraries embed these standards within a broader framework of S&RC.

Conclusion

The concept of information literacy (IL) has traditionally emphasised the ability to locate, evaluate, and use information effectively. However, this approach often follows a deficit-based model—assuming students lack necessary skills and need to be ‘filled’ with knowledge, typically rooted in global north frameworks.

Shifting from information literacy to Scholarly and Research Capabilities (S&RC) reframes the discourse to emphasise empowerment, inclusivity, and contextual relevance. Rather than viewing students as lacking skills, S&RC acknowledges their

existing knowledge, lived experiences, and cultural contexts. It promotes active engagement with knowledge production and dissemination, particularly within marginalised and historically excluded communities.

This approach to S&RC recognises the importance of decoloniality and social justice, acknowledging the impact of historical and structural inequalities in shaping access to knowledge. It prioritises the integration of indigenous and African knowledge systems while moving away from global north models to locally relevant frameworks. Equitable access and multilingualism are also central to this perspective, embracing diverse linguistic and cultural contexts to enhance accessibility and providing learning opportunities through various modalities, including digital resources and language-specific support.

The emphasis on empowerment and critical engagement encourages students to critically evaluate and contribute to knowledge production. This S&RC framework requires embedding these capabilities throughout the research life cycle, including planning, gathering, creating, and disseminating knowledge. By providing point-of-need support tailored to the specific needs of undergraduates and postgraduates, this approach offers a more holistic and relevant learning experience.

Moreover, aligning S&RC with Sustainable Development Goal 4 (Quality Education) ensures that education is inclusive, equitable, and lifelong, supporting students from diverse backgrounds to thrive academically. Moving away from ineffective, isolated training sessions to continuous, iterative engagement throughout the student's academic journey is essential for true empowerment.

The shift to Scholarly and Research Capabilities is necessary because the traditional deficit model fails to address systemic barriers and assumes neutrality in knowledge systems. S&RC actively addresses social justice issues by dismantling barriers to access and promoting agency in knowledge creation, recognising that students bring valuable skills and experiences that enrich the academic environment.

References

- ACRL. 2015. *Framework for Information Literacy for Higher Education*. Association of College & Research Libraries. Available: <http://www.ala.org/acrl/sites/ala.org.acrl/files/content/issues/infolit/framework.pdf> [2019, May 20]
- Bent, M., Stubbings, R. & SCONUL. 2011. *The SCONUL Seven Pillars of Information Literacy: Core model*. Available: https://www.researchgate.net/publication/259341007_The_SCONUL_Seven_Pillars_of_Information_Literacy_Core_model/download [2019, May 20]
- Caravelis, C & Robinson, M. 2016. *Social Justice, Criminal Justice: The Role of American Law in Effecting and Preventing Social Change*. Anderson Publishing.
- Jansen, J. 2017. *As by fire: the end of the South African university*. Cape Town: Tafelberg
- Jansen, J. & Blank, M. 2014. *How to fix South Africa's schools: lessons from schools that work*. Johannesburg: Bookstorm.
- Miller, D. 2003. *Principles of Social Justice*. Harvard University Press: London, UK.
- Nash, J. 2009. Computer skills of first-year students at a South African university. *Proceedings of the 2009 Annual Conference of the Southern African Computer Lecturers' Association*. 29 June – 1 July 2009. Eastern Cape, South Africa. 88-92.
- Ng'ambi, D., Brown, C., Bozalek, V., Gachago, D. & Wood, D. 2016. Technology enhanced teaching and learning in South African higher education—A rearview of a 20 year journey. *British Journal of Educational Technology*. 47(5):843-858.
- Rawls, J. 1958. Justice as fairness. *The Philosophical Review*. 67:164–194.