

# Changing trends in Knowledge Creation and Generation within the context of a Comprehensive and Engaged University

Indicators of Engaged Scholarship at the  
NMMU

# Shift in the nature of knowledge production

- Universities are no longer society's primary generator and transmitter of knowledge . They form part of a highly complex learning society that involves many sources of knowledge that is generated in diverse settings by a variety of contributors.
- Trend towards knowledge being produced in the context of utility and application – in addition to the traditional more controlled context of an academic discipline and its paradigms.
- Technology has made access to knowledge, data, expertise and information widely available - academics and students can now draw on dynamic and interactive and collaborative knowledge networks from a range of communities external to the university.

- Expectations of the state, external stakeholders and broader society demand increased efficiency of universities.
- One way universities are responding, is through the scholarship of engagement or engaged scholarship –through various forms of engaged research and engaged teaching.

# Gibbons notion of the 'agora'

- This Agora is comprised of a dynamic problem generating – problem solving environment *situated on the periphery* of the mainstream academic paradigm/silos.
- Populated by academics, students and publics - practitioners and stakeholders from specific communities – each of whom may inhabit different worlds – who interact effectively into transforming a problem into a set of potential research questions and activities.
- A space designed to generate socially robust knowledge - knowledge that is demonstrably reliable in a broad range of contexts and not just in laboratory conditions.

## Agora (continued)

- The problem around which they engage is referred to as the ***boundary object*** - and the space where engagement happens – the ***transactional space*** – which is characterised by reciprocity and two-way interaction.
- Within context of the NMMU - The Research and Engagement Entities (e.g. Cipset, Aeon, CDU, CCS, CCT, UFED, CSS/AMTC/INNOVENTON/Entsa etc.) are ***enablers of transactional spaces around boundary objects***.
- They initiate, facilitate and coordinate opportunities for the co-creation of new knowledge involving external knowledge sources and networks in the various communities the NMMU engages with.
- Entities are drivers of opportunities for multi-disciplinary campus-community partnerships and for engaged scholarship and the co-creation of knowledge.

# The benefits of Engaged Scholarship involving Community Partners

## Teaching and Learning

- Enhancing curriculum by incorporating updated and real world information from community members critical to student learning of course material.
- Deepening and contextualising the learning experience in a course by involving community experts/practitioners in design and implementation.
- Revising curriculum requiring student placement with community partner based on student feedback and community partner observation.

# Research

- Refining a research question, or confirming its validity, through co-generation with community partner.
- Involving the community to improve study design - for example - improving or reinforcing the conceptual framework; creating a better understanding and characterisation of study variables and improving acceptability to the community.
- Using community member input to enhance plans for recruitment and retention of study participants.
- Using community feedback to improve the design of measurement instruments and/or collection of data.

- Disseminating findings more broadly through partnership with community organisations
- Improving ethical credibility by directly addressing specific issues/and concerns with the community
- Recognising and valuing community knowledge systems and incorporating them into the research process



# Current manifestations and characteristics of Engaged Scholarship at the NMMU

- The level of co-creation/production of knowledge occurs along a spectrum – at the one end – relatively low levels of practitioner/community involvement – e.g. Community providers of data (informant).
- At the other end - practitioners and the community play an active role as (co-researchers).
- Most common method used – a combination of community based ***participatory action research*** – where the researched become partners in the research process.
- Currently - Engaged research occurs along spectrum of - informant – recipient – endorser – commissioner - co-researcher.

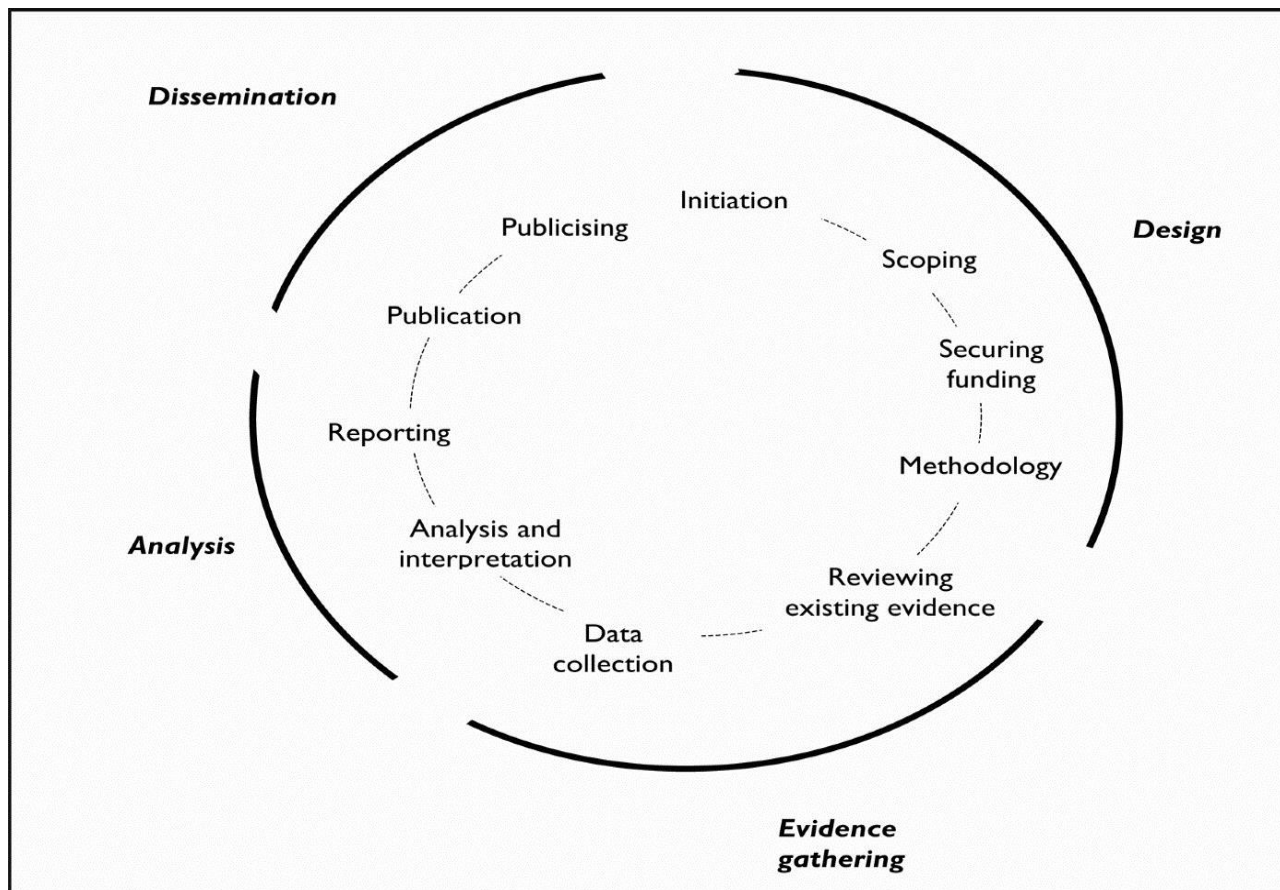


Figure 1. Key elements of the research process.

Utilisation	Academic independence	Design				Evidence gathering		Analysis		Dissemination	
		Initiation	Scoping and specification	Commissioning	Methodology	Literature review	Data gathering	Processing evidence	Reporting	Publication	Learning
↓	↑	Informant					X				
		Recipient					X				X
		Endorser					X				X
		Commissioner	X	X	X		X			X	X
		Co-researcher	X	X	X	X	X	X	X	X	X

Figure 2. Modes of co-production of research.

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# Evolving Knowledge Sharing Partnerships

*Current NMMU/Community information sharing* approaches involve a variation or combinations of:

- Community consultations/public participation processes/community process ownership/sharing of data and information with community based organisations/co-creation of community solutions/community of practice/surveys by community fieldworkers.
- working as a collective/community field worker data collection/social mobilisation processes/community dialogues/community organisation/community investigators.

# Participatory Action Research (PAR)

- PAR pays careful attention to power relationships and partnerships.
- The researched cease to be objects and become partners in the whole research process including:
  - ☐ Selection of research topic
  - ☐ Best methodology to be followed linked to specific community context
  - ☐ Data collection and analysis
  - ☐ Dissemination of findings
  - ☐ Deciding what action should be taken as a result of the research findings

# Brief overview of some examples ES within NMMU

## Faculty of Arts

- Bird Street Belmont Terrace Upgrade - SOMAD
- Arts meets Science meets place project - SOMAD
- Umzi Wethu Youth Narratives - Applied Languages
- UN African Languages Translator project - Applied Languages
- Alternatives to Violence National Network project - Human Resources and Governance Dept)

## Faculty of Law

- Street Law programme
- Law clinic and Refugee Rights Centre interventions and projects

## Faculty of Law (continued)

- National Consumer Protection Legislation: Consumer Rights Project
- Labour and Social Security Unit interventions and projects

### Faculty of Health

- Passport to Health High School Programme (Human Movement Sciences)
- Bambanani Mental Health Project (Missionvale Community Clinic)
- Mobile Clinic (Nursing Dept)
- Barriers to Mental Health Project (Nursing Dept)
- Sexual Violence Treatment- Research and Training Project (Psych Dept)
- Medical School – Bottom–up - community consultation model

## Faculty of Business Sciences

- Thina Sinako LED project - UEDT
- Seaview Settlement project – UEDT
- Subsistence Fisherman on Swartkops River - UEDT
- Community Managed Saving and Lending project – UEDT
- Family Business Unit research projects

## Faculty of Education

- Family Maths Programme
- DG Murray Trust Schools Maths and Science Projects
- Wireless IT Connection in Schools Programme
- Manyano Schools Project (CCS)
- HIV Aids Education Research Chair projects



## Science Faculty

- Outreach and Service Learning agriculture partnership projects
- Greater Addo project and Game Farm projects - Centre for African Ecology
- Ecosystem Stewardship Projects - Garden Route Initiative/Southern Cape Landowners Initiative/Cape Nature Project/San Parks projects - Sustainability Research Unit (George)
- EC DOE Physical Science Upgrading Programme/Techno-Blended T&L Model for Mathematics/Mathsmixit Gr 10-12 Programme/Maths and Science Incubator Programme/Mathsup programme - Govan Mbeki and Chair in Mathematics Education Projects

# Science Faculty (continued)

- Assessment of Land Reform projects- Farms in Central Karoo – Agriculture (George Campus)
- Eastern Cape Shallow Rivers Conservation projects/International Turtle Project - Coastal and Marine Research Unit

## Faculty of Engineering

- E-Health App/e-Agriculture/e –Maths App/FamHealth Project - Centre for Community Technologies

## Non-Faculty Based Projects

- Phelophepa Health Care Train/Teenage Health Project for Rural High School learners – CDU
- CIPSET Projects
- CANRAD- Community Dialogues
- AEON Projects

# Issues that may hamper Engaged Research

- Time – Temporal Incompatibility – Academic year-exams/graduation/lecture loads. Demands of qualification or research project completion within academic term/year parameters.
- Project resource availability and funding streams – not as accessible to non-entity based academics .
- Incompatibility with academic culture and processes can result in community frustration
- Lack of understanding/mutual respect and collaboration