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ReSHAPeIng the Research & Innovation (R&I) Landscape:

Articulating the value of Social Sciences, Humanities & the Arts for People and the Economy (SHAPE) to the R&I ecosystem

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University of the Western Cape Technology
Transfer Office (UWC TTO)

26 September 2024



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“SHAPE subjects help shape how we see the world, how we might change it, and how we express ourselves. ‘Shape’ is also a verb and a noun, and so wonderfully flexible. You can shape the future. You can say you’re a shaper or SHAPE person!”

Julia Black, London School of Economics and Political Science (LSE)



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“...HSS constitute 38% of total research output annually, and that they produce more than 40% of all doctorates annually...”

Mouton, 2011, South African Journal of Science



SOL PLAATJE
UNIVERSITY



UNIVERSITY
OF
JOHANNESBURG



University of Venda



UNIVERSITY OF
KWAZULU-NATAL



Tshwane University
of Technology
We empower people



UNIVERSITY of the
WESTERN CAPE



UNIVERSITY OF
ZULULAND



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



UNIVERSITY OF
MPUMALANGA



UFS



UNISA



university
of south africa

NELSON MANDELA
UNIVERSITY



VAAL UNIVERSITY
OF TECHNOLOGY
Inspiring thought. Shaping talent.



Central University of
Technology, Free State



RHODES UNIVERSITY
Where leaders learn



Cape Peninsula
University of Technology



Stellenbosch
UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT



University of Fort Hare
Together in Excellence



DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE



MUT
MANGOSUTHU
UNIVERSITY OF TECHNOLOGY

**ALL HAVE AN ACTIVE SHAPE
RESEARCH PROGRAMME IN
SOME FORM**



How can SHAPE contribute to Knowledge/Technology Transfer?

Assist in framing challenges in novel ways by asking probing questions and rethinking assumptions

- Create new means of assessing the difficult-to-measure
 - for example, productivity, business-to-business collaborations, and effect
- Assist in understanding biases and why workers, supervisors, and consumers act the way they do
- Collaborative product, service, and design process development
- Collaborate with regulators, government, and politicians to provide evidence for change

Topics that need to be tackled in relation to KT/TT in SHAPE



Motivation and awareness

Why is there a need for K/TT from and with SHAPE? How do we create awareness and appreciation of K/TT practices in SHAPE scientists and students?

Capacity Building & Support

How can institutions support (structurally and through service provision) sustainable SHAPE K/TT activities?

Foster SHAPE Start-Up Activities

Which methods can be used to integrate SHAPE more into the start-up landscape?

SHAPE Innovations from the EU and South African Contexts



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Examples of SHAPE Innovations from Europe



Artificial Intelligence that reads between the lines

Our multilingual business intelligence services extract valuable metadata from your documents (reports, legislation, social conversations, ...). Our privacy-by-design approach ensures the safety of your data and that of your customers.

Discover actionable content inside your documents. Manage your brands through social media sentiment analysis. Get unique insights into the age, gender, education level and personality of your users.

**Combining Computational & Psycho-
Linguistics**

Comproved is a spin-off of five years scientific research into comparative judgement with:



Experts in education and assessment

Comproved helps teachers and assessors judge fairly and qualitatively. We do this with knowledge and practical tooling. All our [workshops](#), publications and advice have been tested in practice and scientifically substantiated.

What do these spin-offs have in common?

- Rooted in research
- Focused on finding a solution to a ‘real problem’ or challenge in society
 - DEMAND DRIVEN
- Combine expertise in SHAPE with technology/software
- No Patents
- Open for partnerships
- Money is not the first driver, nor charity - however **cashflow is important**
- **Differentiator: the integrated approach, the content, the understanding of the “Why” and the needs of the community, the collaboration with other innovation actors within the ecosystem**

Examples of SHAPE Innovations from South African HEIs

PianoBoost a hit on Google Play Store

2017-03-01

"I got the idea after watching my children play Sing Star on PlayStation, where the game can detect how accurately you sing. I realised this could turn my dream into a reality if I looking into the possibility of an app that can do note recognising," says [Dr Frelet de Villiers](#), developer of the [PianoBoost app](#), about her brainchild.

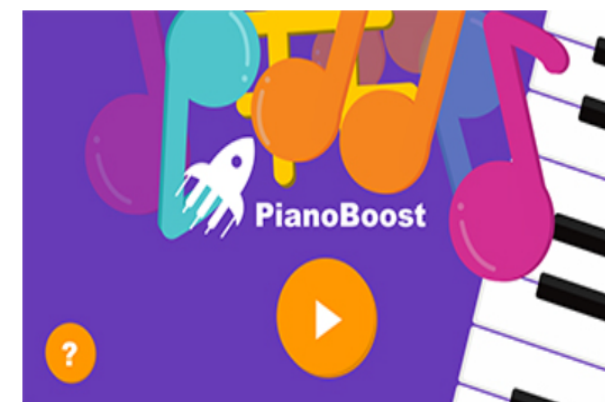
Dr De Villiers, lecturer in the [Odeion School of Music](#) (OSM) at the University of the Free State (UFS), developed this interactive app for piano learners to learn music. She started the developing process three years ago, but the project only got momentum when she approached LivX, a digital developing company in Pretoria, six months ago.

Useful for other instruments

PianoBoost has been live since 9 February 2017 and already received positive reviews, with a five-star rating on the [Google Play Store](#). "In my experience as piano teacher, I know that learners struggle to learn their notes. They can't recognise the note on the music sheet and therefore cannot play it on the piano," says Dr De Villiers. Although this app is developed for piano, it is also successfully used for other instruments like the marimba, violin, and guitar, because it can pick up sounds from almost any instrument.

Ideal for use in academic programme

There are students in the certificate and diploma modules at the OSM who haven't received any formal music training. Therefore, the app is ideal for them to use. "We have instrument-specific methodology in our degree courses. So, those students could also be exposed to the app for use in their own teaching of young learners," says Dr De Villiers.



PianoBoost is an interactive app developed by Dr Frelet de Villiers, lecturer in the Odeion School of Music at the University of the Free State.
Photo: Supplied





Website

<https://lumkani.com/>

Core Focus

Lumkani is commercialising an early-warning system to reduce the damage and destruction caused by the spread of shack fires in urban informal settlements. Many cooking, lighting and heating methods used by people living in informal settlements produce smoke.

For this reason, Lumkani detectors use rate-of-rise of temperature technology to accurately measure the incidence of dangerous fires and limit the occurrence of false alarms. Density is a challenge in all urban informal settlements share and is a major risk factor that enables the rapid spread of fires. In order to provide sufficient early-warning, a communal alert is required. Lumkani's detectors are networked within a 60-metre radius so that in the event of a fire all devices in this range will ring together, enabling a community-wide response to the danger. This buys time for communities to become proactive in rapidly spreading fire risk situations.

Lumkani has already distributed detectors to over 7 000 households.

Research on Charlotte Maxeke inspires a puppetry theatre show



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WESTERN CAPE



Maxeke was the first black woman from South Africa to graduate with a university degree in the sciences, which she received from Wilberforce University in the US in 1903. Picture: Supplied

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Resources for K/TTOs and SHAPE Researchers



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SARIMA

(Southern African Research & Innovation Managers Association)



SHAPE Community of Practice



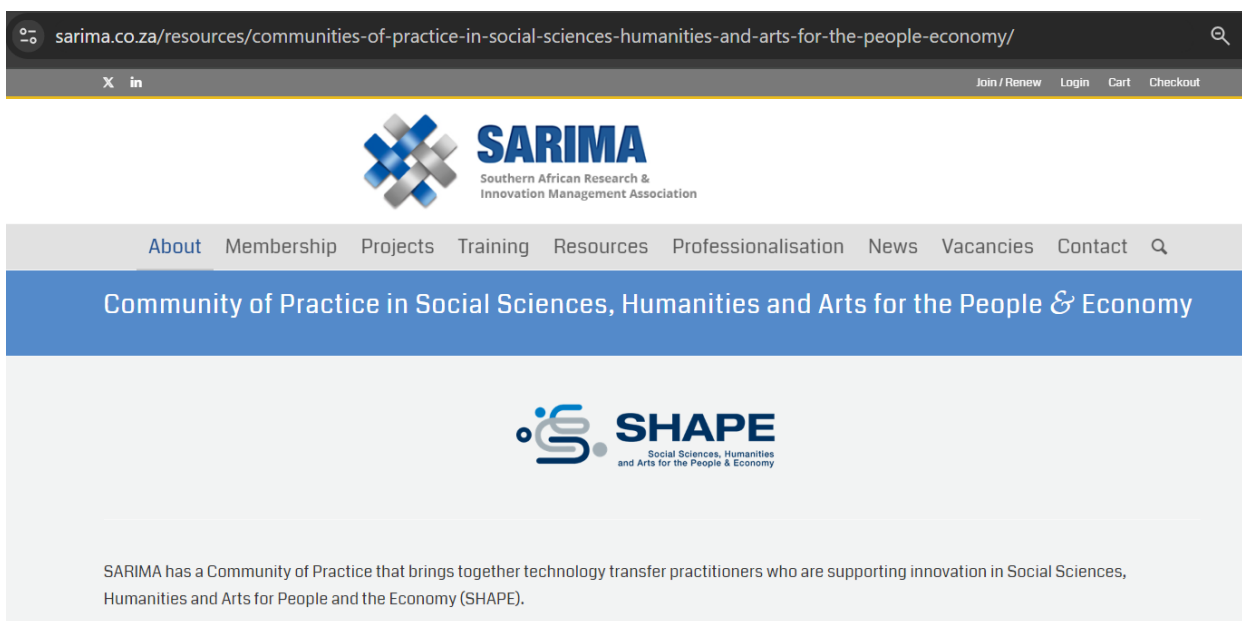
SARIMA



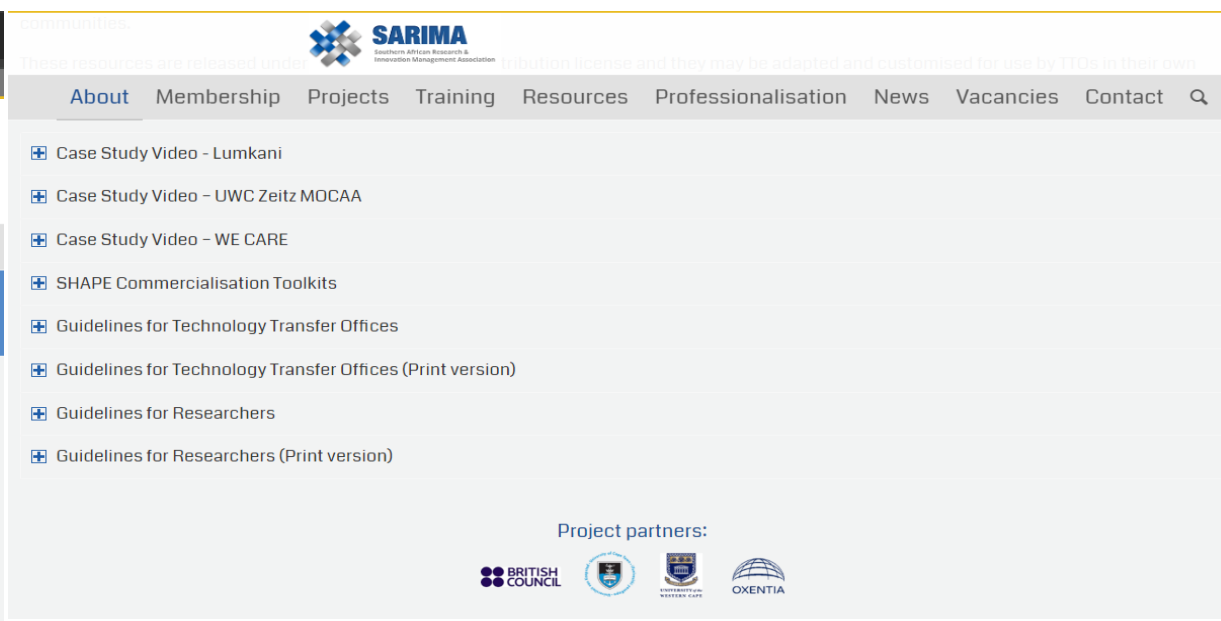
SHAPE

Social Sciences, Humanities
and Arts for the People & Economy

SARIMA SHAPE Community of Practice – Toolkits and Resources




The screenshot shows the SARIMA website homepage. At the top, there is a search bar with the URL "sarima.co.za/resources/communities-of-practice-in-social-sciences-humanities-and-arts-for-the-people-economy/". Below the search bar is a navigation menu with links for "About", "Membership", "Projects", "Training", "Resources", "Professionalisation", "News", "Vacancies", and "Contact". The main content area features the SARIMA logo (Southern African Research & Innovation Management Association) and the SHAPE logo (Social Sciences, Humanities and Arts for the People & Economy). A blue banner reads "Community of Practice in Social Sciences, Humanities and Arts for the People & Economy". Below this, a paragraph states: "SARIMA has a Community of Practice that brings together technology transfer practitioners who are supporting innovation in Social Sciences, Humanities and Arts for People and the Economy (SHAPE)."



The screenshot shows the SARIMA website resources page. At the top, there is a search bar and a navigation menu with links for "About", "Membership", "Projects", "Training", "Resources", "Professionalisation", "News", "Vacancies", and "Contact". The main content area features the SARIMA logo and a list of resources. A paragraph states: "These resources are released under a Creative Commons Attribution license and they may be adapted and customised for use by TTOs in their own organisations." Below this, a list of resources is displayed, each with a plus icon and a search icon:

- Case Study Video - Lumkani
- Case Study Video - UWC Zeitz MOCAA
- Case Study Video - WE CARE
- SHAPE Commercialisation Toolkits
- Guidelines for Technology Transfer Offices
- Guidelines for Technology Transfer Offices (Print version)
- Guidelines for Researchers
- Guidelines for Researchers (Print version)








At the bottom, there is a section for "Project partners:" with logos for the British Council, University of Cape Town, University of KwaZulu-Natal, and Oxentia.



SHAPE
Social Sciences, Humanities
and Arts for the People & Economy

GUIDELINES FOR RESEARCHERS







to support Humanities, Arts and Social Science
Innovation in South Africa



SHAPE
Social Sciences, Humanities
and Arts for the People & Economy

GUIDELINES FOR TECHNOLOGY TRANSFER OFFICES

to support Humanities, Arts and Social Science
Innovation in South Africa



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GUIDELINES FOR RESEARCHERS

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SHAPE COMMERCIALISATION TOOLKIT: TTO PROFESSIONALS



Partner Organisations:



Thank you!

Questions?



<https://educationcollab.ashesi.edu.gh/about-us>