nanoStream Blü Pty Ltd

Nanostream Intel Pty Ltd. (reg no.2015/113468/07, VAT: 4630280271)

Bank: ABSA, Account no.: 408 640 8406

Branch: Musgrave, Branch code: 632005

DUT DURBAN UNIVERSITY OF TECHNOLOGY

DUT
DURBAN
UNIVERSITY OF
TECHNOLOGY

nanoStream Blü Pty Ltd

Nanostream Intel Pty Ltd. (reg no.2015/113468/07, VAT: 4630280271)
Bank: ABSA, Account no.: 408 640 8406
Branch: Musgrave, Branch code: 632005

AutoScholar-Student tracking at Durban University of Technology

Ashton Maherry and Randhir Rawatlal

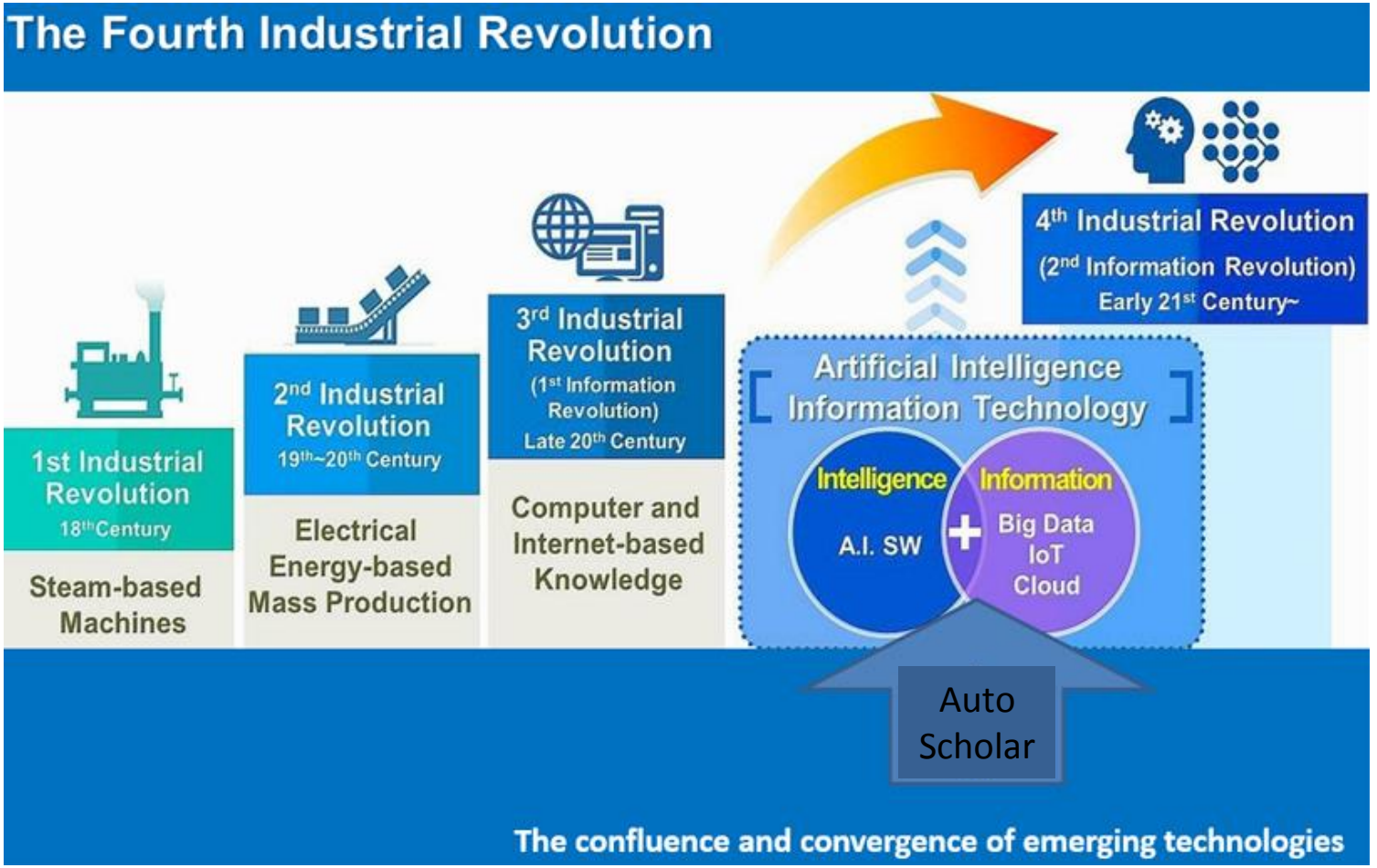
Ashton Maherry
Institutional Planning
Siyaphumelela Data and Training Officer
AshtonM@dut.ac.za

Randhir Rawatlal
Founder and CEO
Nanoblu
randhir.rawatlal@nanoblu.net

AutoScholar

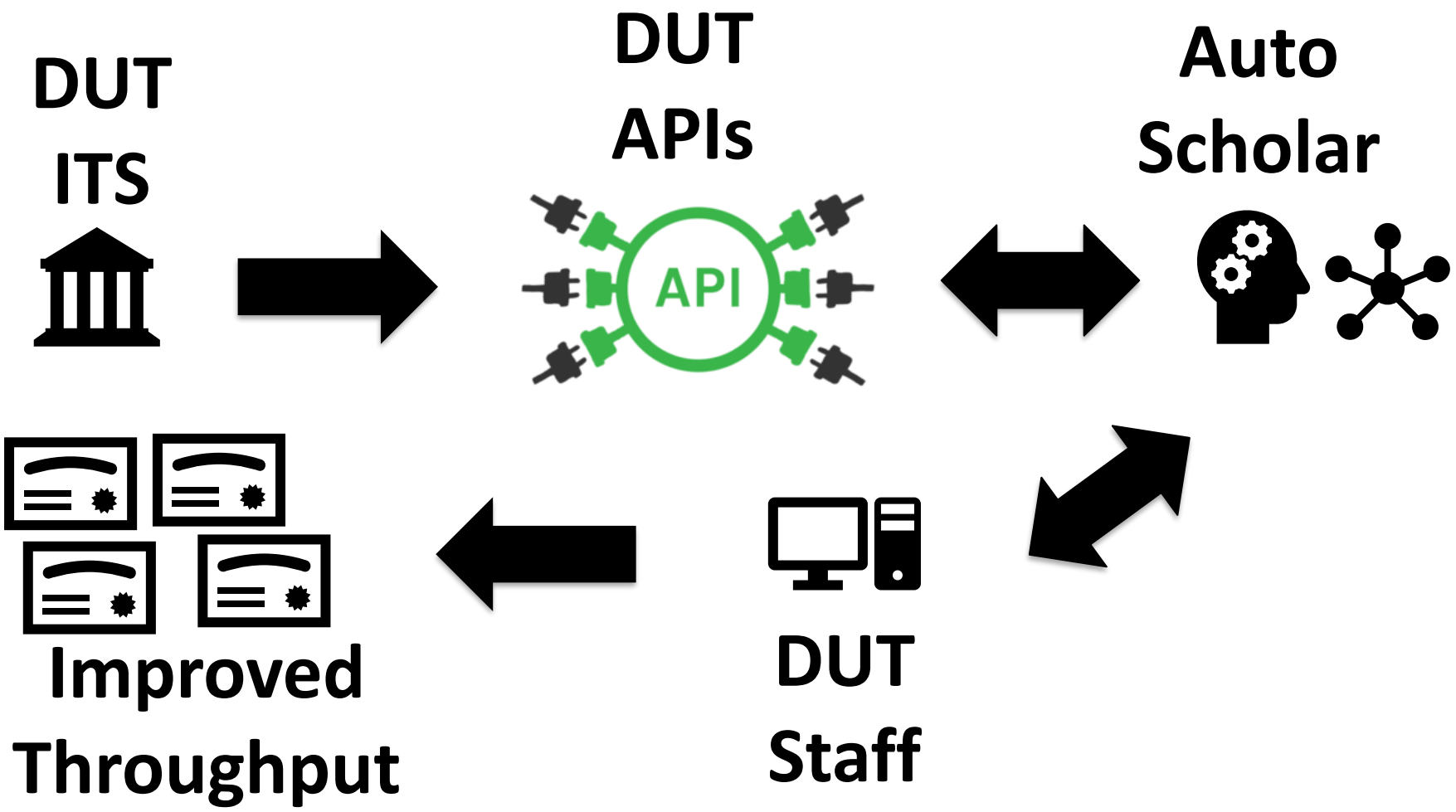
- The AutoScholar Advisor system is based on **Artificial Intelligence (AI) algorithms** that provide **analysis** on **large data sets** and generates **output** in **natural-language advice** to staff and students to assist in managing academic progress. The system is used to auto-generate advice to students regarding programme performance and accreditation status. It has been developed and implemented over 5 years at UCT, UKZN and DUT.

Fourth Industrial Revolution



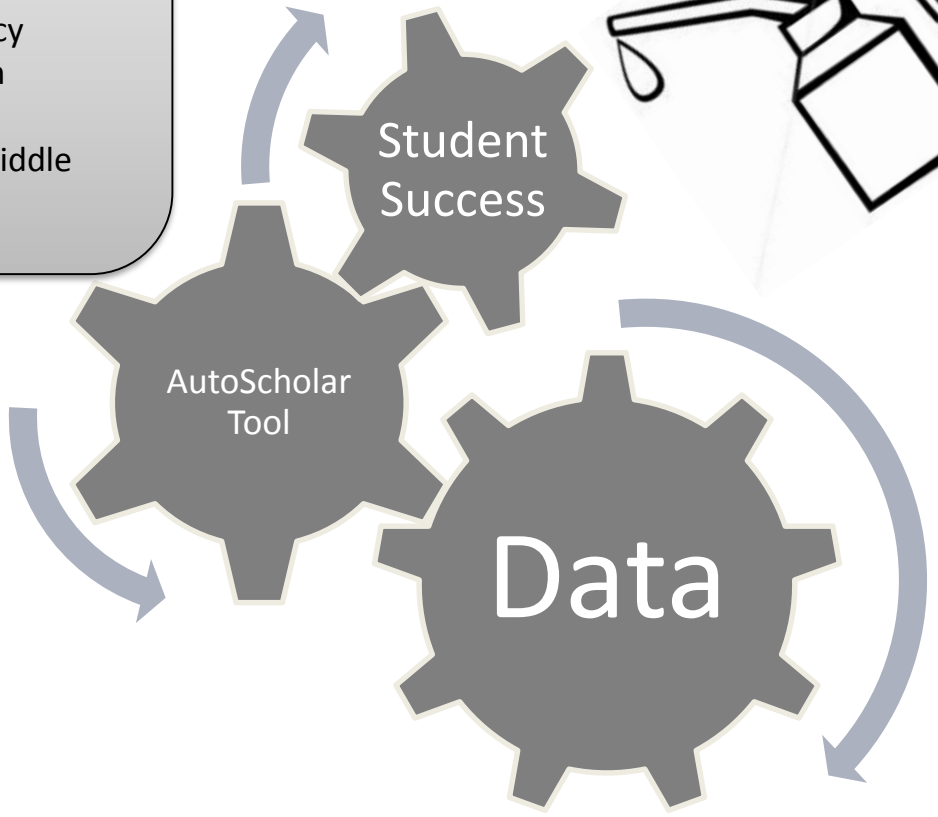
https://www.huawei.com/en/about-huawei/publications/winwin-magazine/29/accelerating-success-in-the-4th-industrial-revolution

How it Works


DUT
ITS
DUT
APIs
API
Auto
Scholar
Improved
Throughput
DUT
Staff

Themes

- Graduate Attributes
- Academic Advising
- At Risk Students
- Cocurriculum
- Tutorial Efficacy
- Gender Gap in Performance
- Moving the Middle
- Other



Agents of Change.
Roles: innovator, developer, implementer, monitor, analyser, data user, facilitator

Student data

- Cohort data (throughput rates by gender, race faculty; retention rates)
- Engagement data (SASSE, BUSSE, LSSE, CLASSE)
- Experience data (SEQ/LEQ; Graduate Survey; Tutorial Surveys)

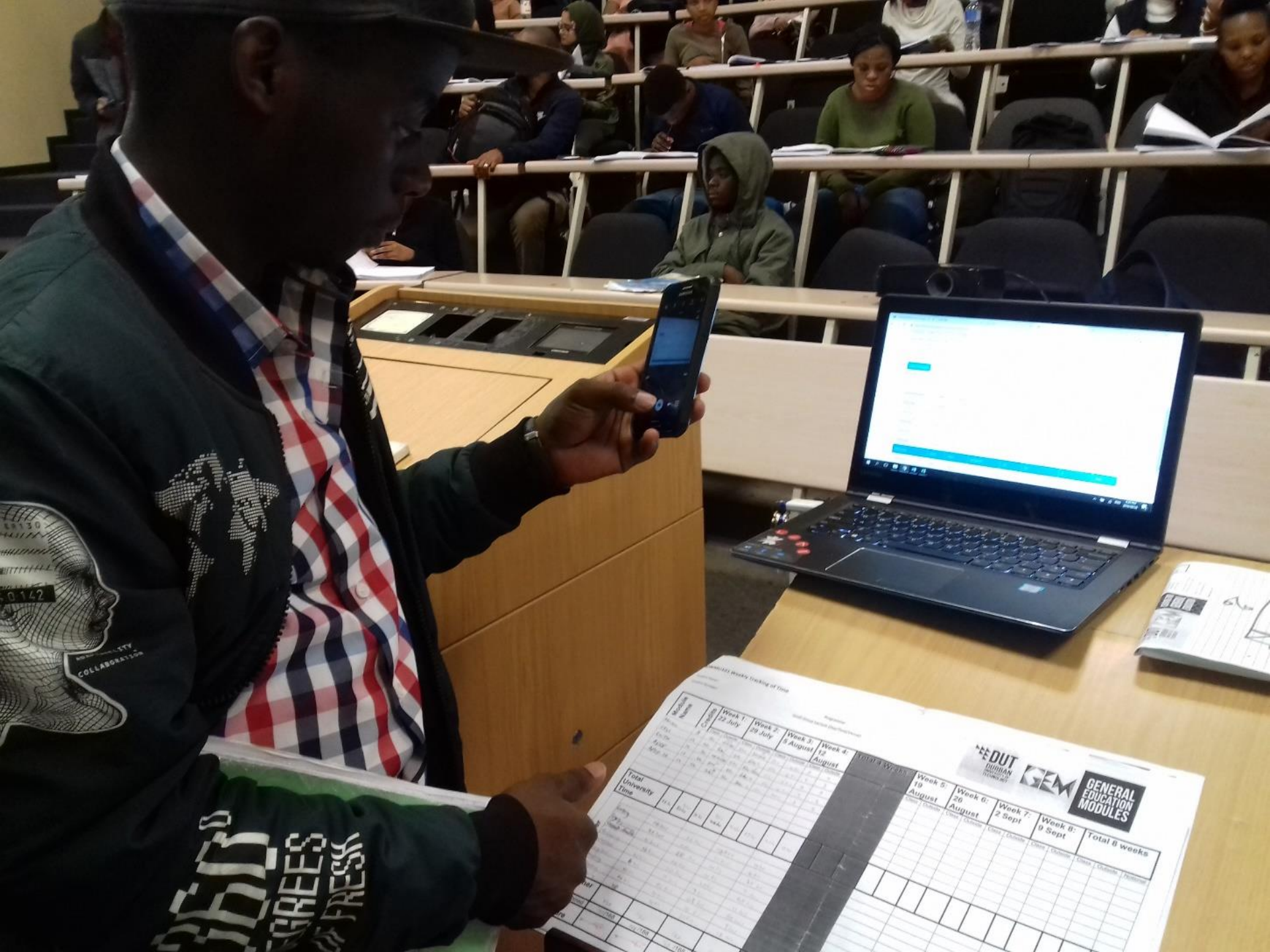
Module data

- Pass rates; Success rates

Any other data that may exist at the department/faculty level

What is AutoScholar and Who is it for?

- The AutoScholar Advisor system securely connects to DUT's ITS database and data mines the records to auto-generate advice to staff and students. The system creates advice at different levels, namely to:
  - **Executives/management**, to provide a helicopter view and alert to potential areas of improvement and growth
  - **Lecturers and course convenors**, to understand the performance of their courses, potential areas for improvement among students, as well as their own staff development and to log attendance
  - **Academic Advisors** to give advice to students in terms of their progression in the context of other students and their change in performance over time
  - **Students** to understand their progression in the context of other students and their own change in performance over time (*not yet available to students*)
  - **Accreditation Bodies** to provide tracking of exit level outcomes/graduate attributes to staff and students


DUT
DURBAN
GEM
GENERAL EDUCATION MODULES
Week 1: 22 July
Week 2: 29 July
Week 3: 5 August
Week 4: 12 August
Week 5: 19 August
Week 6: 26 August
Week 7: 2 Sept
Week 8: 9 Sept
Total 8 weeks

https://autoscholar.dut.ac.za/?courseCode=MWMU101

THANK YOU