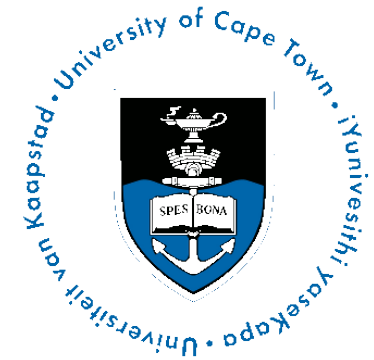


Status of Coding and Robotics in South African Schools

Perspectives from the Higher Education Sector



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Our Current Changing Society 1/2



Hisense 8 GB
U605 Network...
ZAR 499.00



Our Current Changing Society 2/2

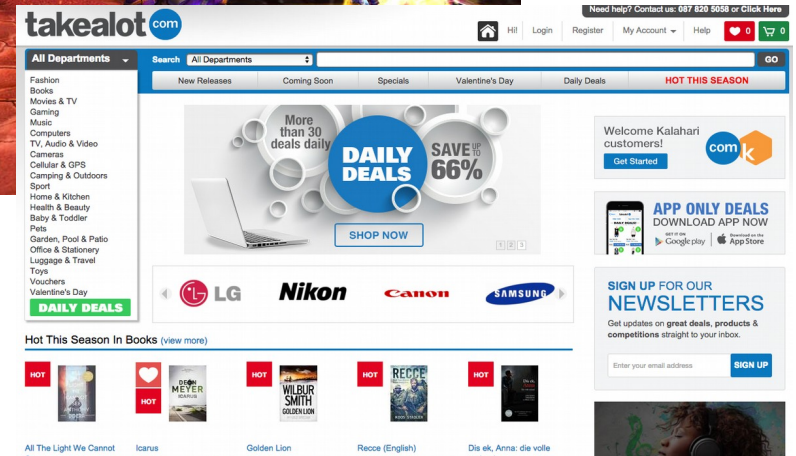


Google

Google Search

I'm Feeling Lucky

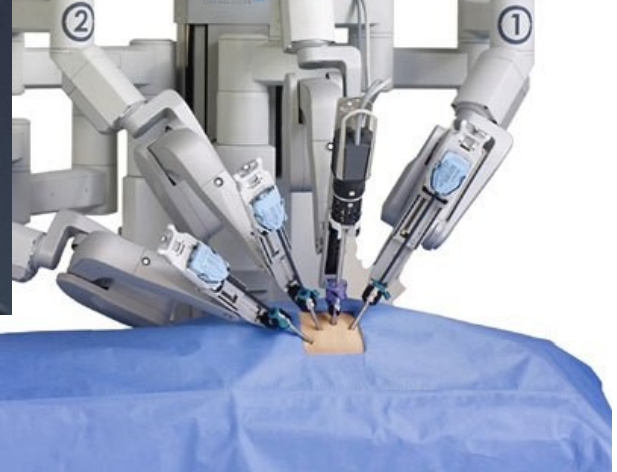
Google offered in: Afrikaans Sesotho isiZulu isiXhosa Setswana Northern Sotho



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IT in a Future World



Who creates the tech of the future?

Visionaries

Designers

Creators

- ▣ Entrepreneurs / innovators
- ▣ Researchers (Masters/PhD)
- ▣ University graduates (Bachelor)
- ▣ Diplomates (U. of Technology)
- ▣ Diplomates (smaller colleges)
- ▣ Industry certificate holders
- ▣ Self-taught talented individuals



What does Higher Education need?

- ❑ For university programmes in: Computer Science, Information Systems, Information Technology, etc.
- ❑ Required:
 - Strong Math skills
 - Strong language/communication skills
- ❑ Nice to have:
 - Coding/programming in primary/high school
 - Appreciation of technology
 - Science in primary/high school
- ❑ Not required:
 - Bad school experiences with IT

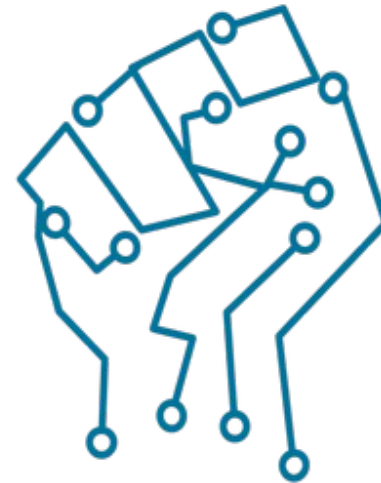


Transformation and International Trends

- ❑ Segregated education cannot continue!



- ❑ Computer Science for All
- ❑ Black in AI



Recommendations

- ❑ Train all students in Math / computational thinking / coding.
 - Math first; then coding.
 - Poor Math restricts advancement!
- ❑ Train some students in basic Computer Science (aka high school IT) where possible.
 - Need to solve the IT teacher (leaving for IT industry) problem...
- ❑ Mass skills (like coding) are not sufficient for the IT-enabled future world. Our future workforce needs a range of advanced skills that go beyond coding.

Thank you for listening!



Questions are welcome...

Contact me at: hussein@cs.uct.ac.za

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