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Assessing Core Competencies and Functional Practices to Facilitate Innovation in Our Ever- changing Landscape

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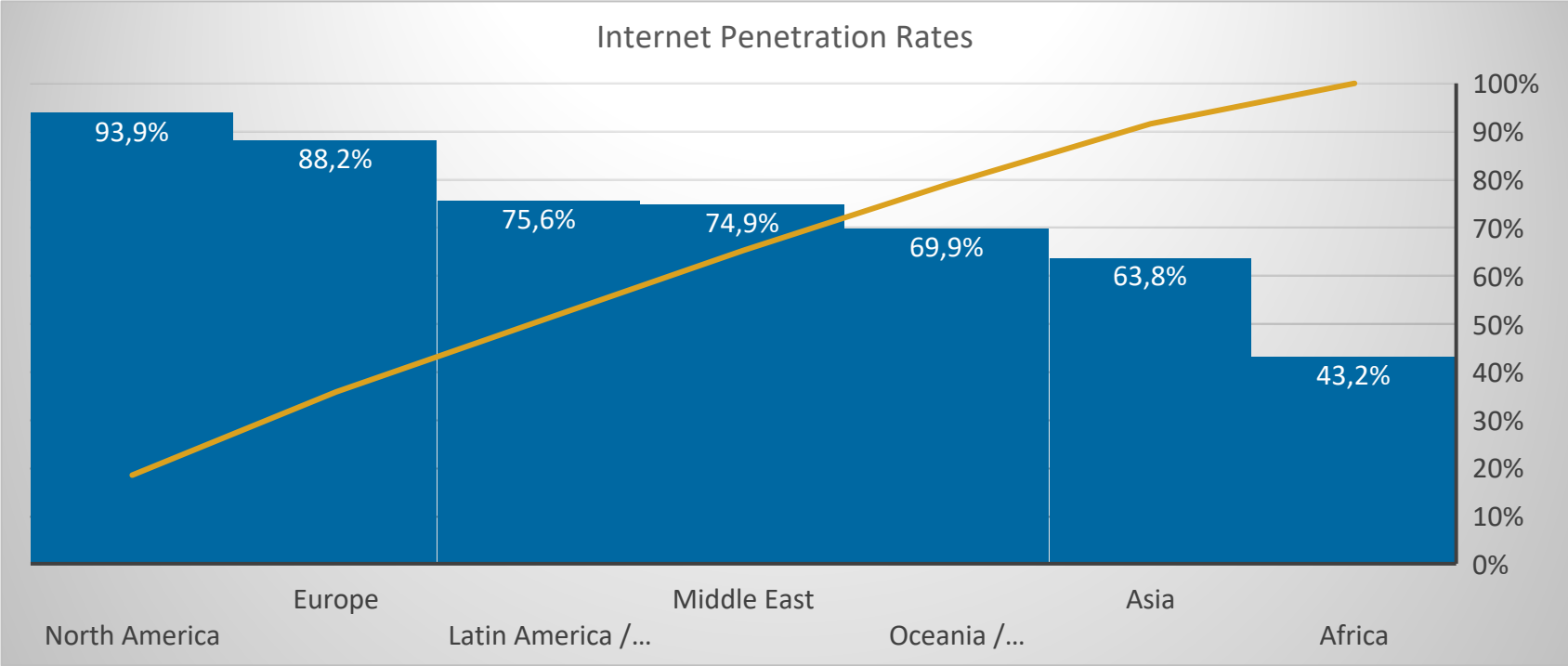


September 2021

OverGlobal Outlook on Digital Evolution and Trust

- **Break Out economies** – Rapidly evolving evolving rapidly. With momentum and significant headroom for growth, they are often highly attractive to investors.
 - China, India, Indonesia, Poland and Russia
- **Watch Out economies** – Have a number of infrastructure gaps. **Despite this, young people are showing enthusiasm for a digital future.**
 - Nigeria, Uganda, Colombia, Peru, Pakistan, Sri Lanka and **South Africa**

South African Landscape: 2021



Despite these challenges

Innovation in South Africa

Gaming and applications

NICHE STREAM

triggerfish
animation studios



eCommerce



Digital services



WumDrop



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Innovation in South Africa: Tech

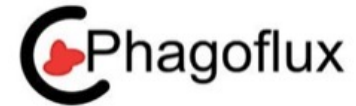
FinTech



Education



Healthcare and Bio



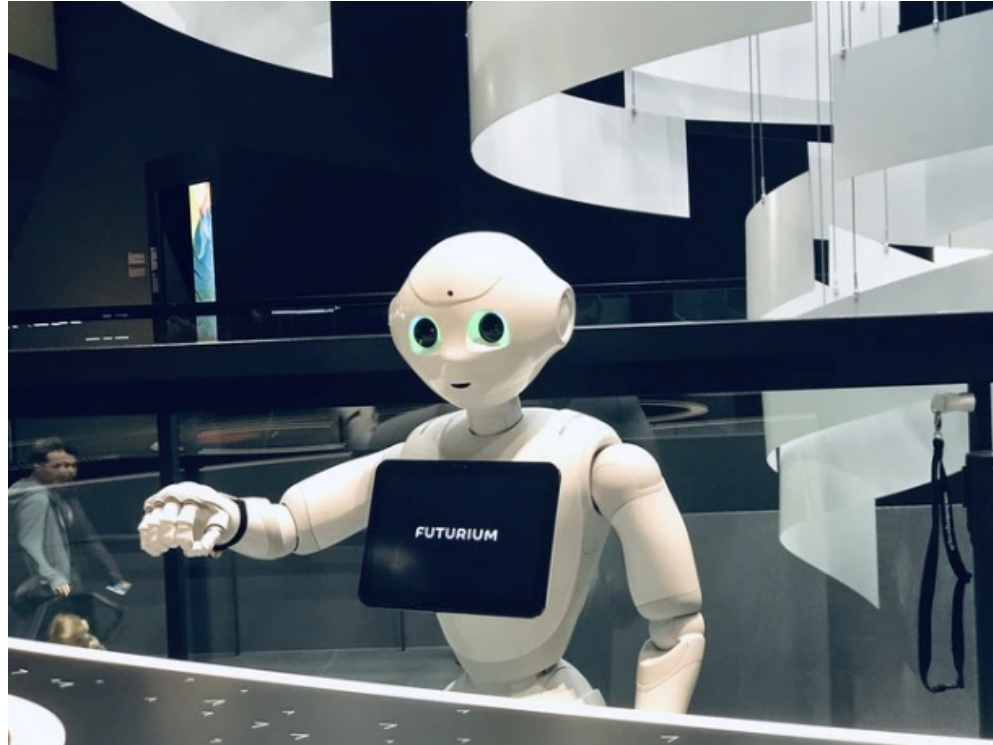
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Innovation

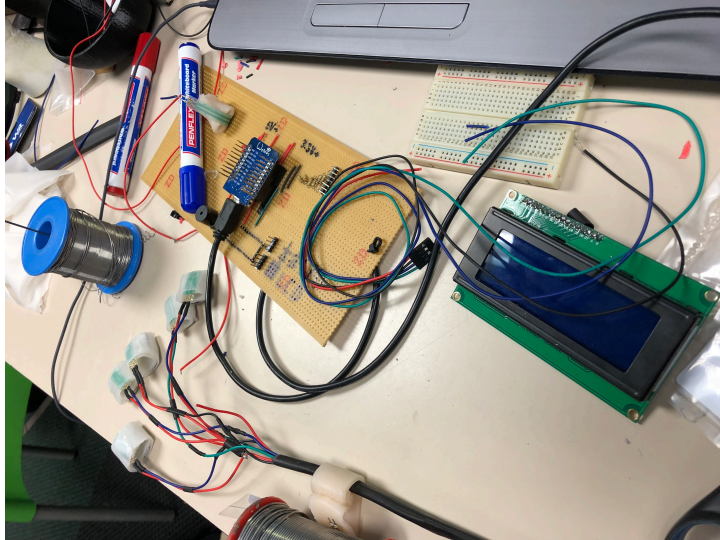
Innovation is a key force for economic growth and development. Not only can it lead to greater efficiencies and productivity, but it also stands to fundamentally change how products and processes benefit individuals' lives.

What do you see as innovation?

What we usually see:



What it looks like most of the time...



Certain core competencies are required

Competencies



Business function

New disruptive business models with innovative portfolios	Review of I4 technologies and testing MVP for sustainable business	Cross linking business units and digitisation of activities	Value chain orientation and efficient resource allocation	Fully digitised and integrated ecosystem with a focus on core competencies	Willingness of leadership and associated expertise and qualifications
Agile IT architecture with cloud systems	Digital modelling with CAD and simulation to address customer needs	Additive manufacturing	Business to business planning and real-time execution	Almost real-time access to operative information	Autonomy of activities and review job roles
Big Data analytics as core competency for central use of predictive analytics for real-time optimisation, automation and performance management	Intelligent databases for self-learning and improved decision making	Advanced asset management	Improved resource efficiencies through technology	AR, VR and human robot interactions to deliver services	Collaboration key value driver
Clear strategy for implementation with a roadmap	Interdisciplinary collaboration	Adaptive robotics with cyber physical infrastructure	Optimised sourcing and procurement	Automated and virtualised processes	Easier access to information
Ideation for innovative products and services	Rapid prototyping with 3D printing for customised solutions	Business to business lifecycle management with help of software	Prescriptive analytics	Customer focused supply chain	ICT and business competencies across disciplines
Usage of AI for Total platform management	Research and development in I4 technologies	Customised product delivery	Smart logistics and warehousing with IoT	Integrated with digital engineering	Incubators free of legacy systems
Product integration into other systems	Shortened development periods	High agility and flexibility	Smart parts and maintenance management	Predictive maintenance	Open innovation
Smart finance with clear return on investment (ROI) and smart costing	Outsource intelligence on case by case basis	Interdepartmental collaboration	Transparency across value chain	Use data to improve operational performance	Open training platforms (MOOCs)
Incubation to protect and stimulate new business model ideas	Ideation labs for innovation and creativity	Pods for interdisciplinary idea development			



New disruptive business models with innovative portfolios

Agile IT architecture with cloud systems

Big Data analytics as core competency for central use of predictive analytics for real-time optimisation, automation and performance management

Clear strategy for implementation with a roadmap

Ideation for innovative products and services

Usage of AI for Total platform management

Product integration into other systems

Smart finance with clear return on investment (ROI) and smart costing

Incubation to protect and stimulate new business model ideas

Review of I4 technologies and testing MVP for sustainable business

Digital modelling with CAD and simulation to address customer needs

Intelligent databases for self-learning and improved decision making

Interdisciplinary collaboration

Rapid prototyping with 3D printing for customised solutions

Research and development in I4 technologies

Shortened development periods

Outsource intelligence on case by case basis

Ideation labs for innovation and creativity





Cross linking business units and digitisation of activities

Additive manufacturing

Advanced asset management

Adaptive robotics with cyber physical infrastructure

Business to business lifecycle management with help of software

Customised product delivery

High agility and flexibility

Interdepartmental collaboration

Pods for interdisciplinary idea development

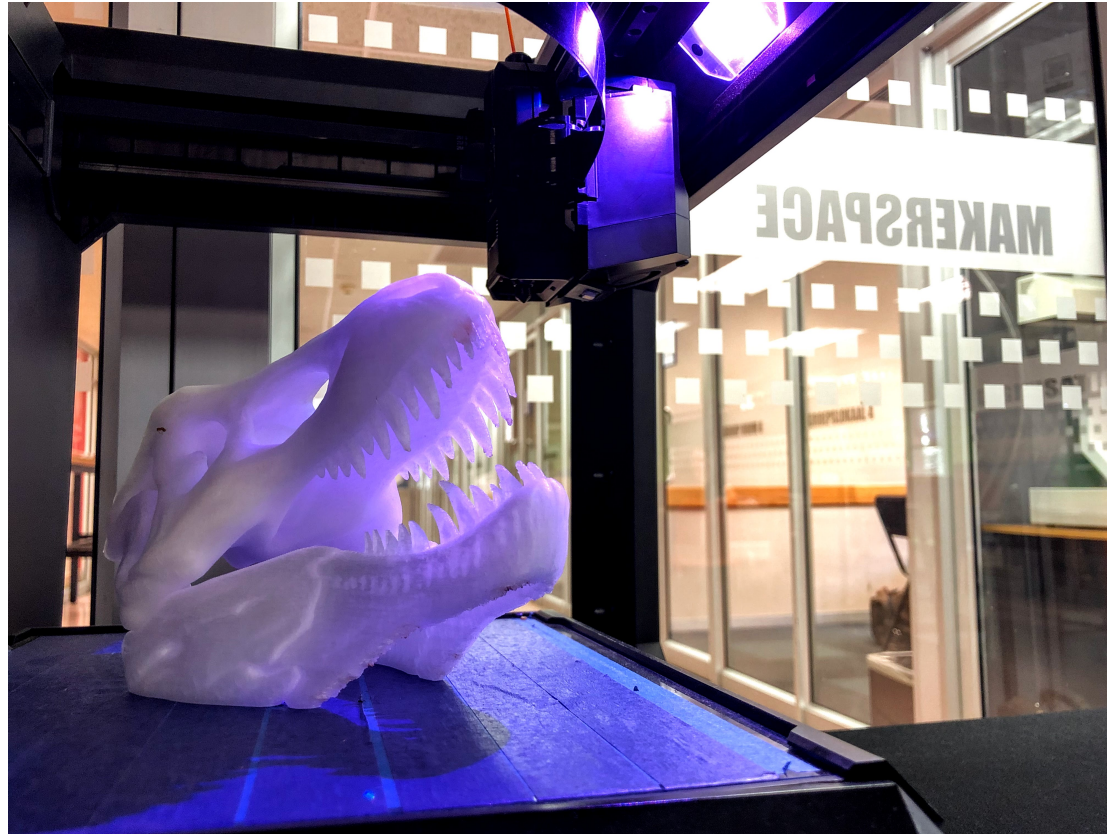


What can you do on a functional level?

Functional Practices

- Support ideation
 - Giving a voice or face to efforts
 - Collaboration within ecosystems and industry
 - Through access to key technologies
 - Ensure staff competence

Functional Practices: Give a Voice to Innovation



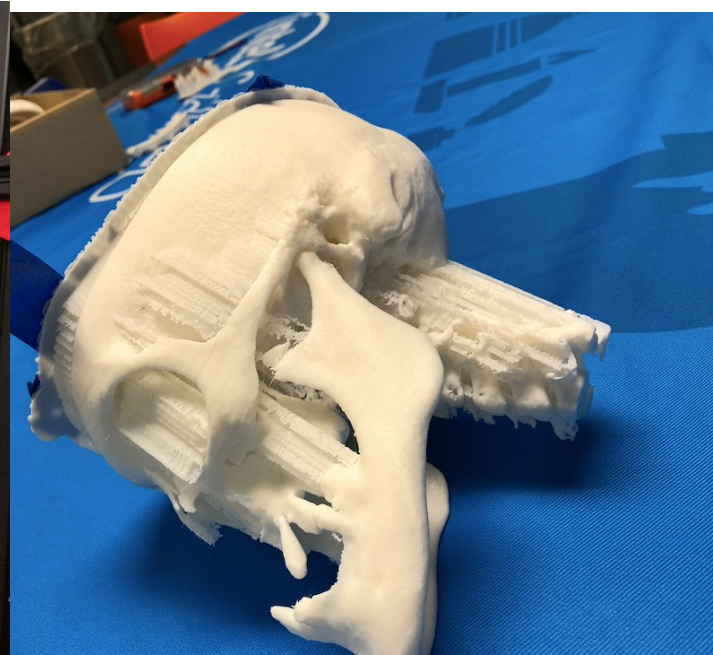
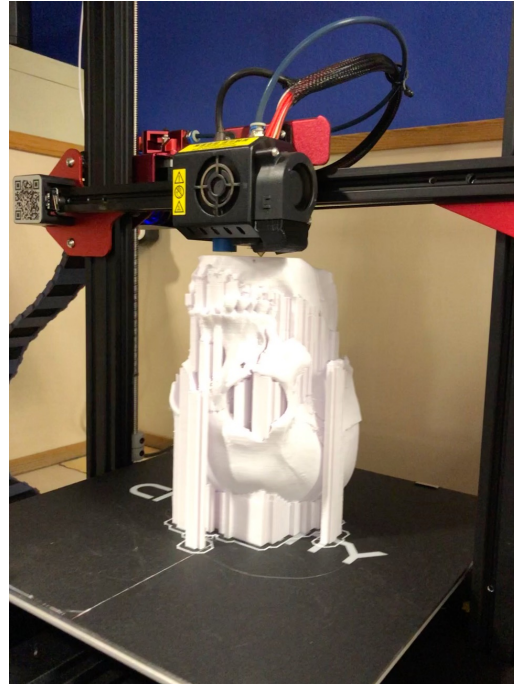
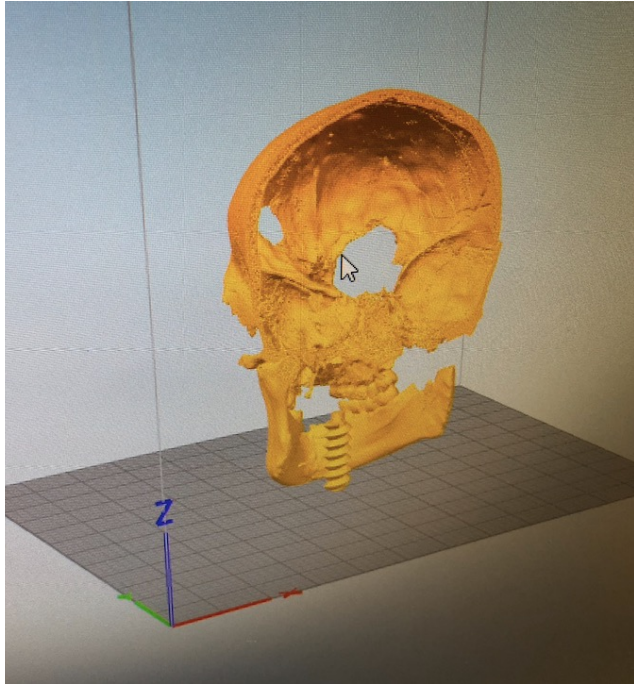
Functional Practices: Collaborate



Functional Practices: Collaborate More



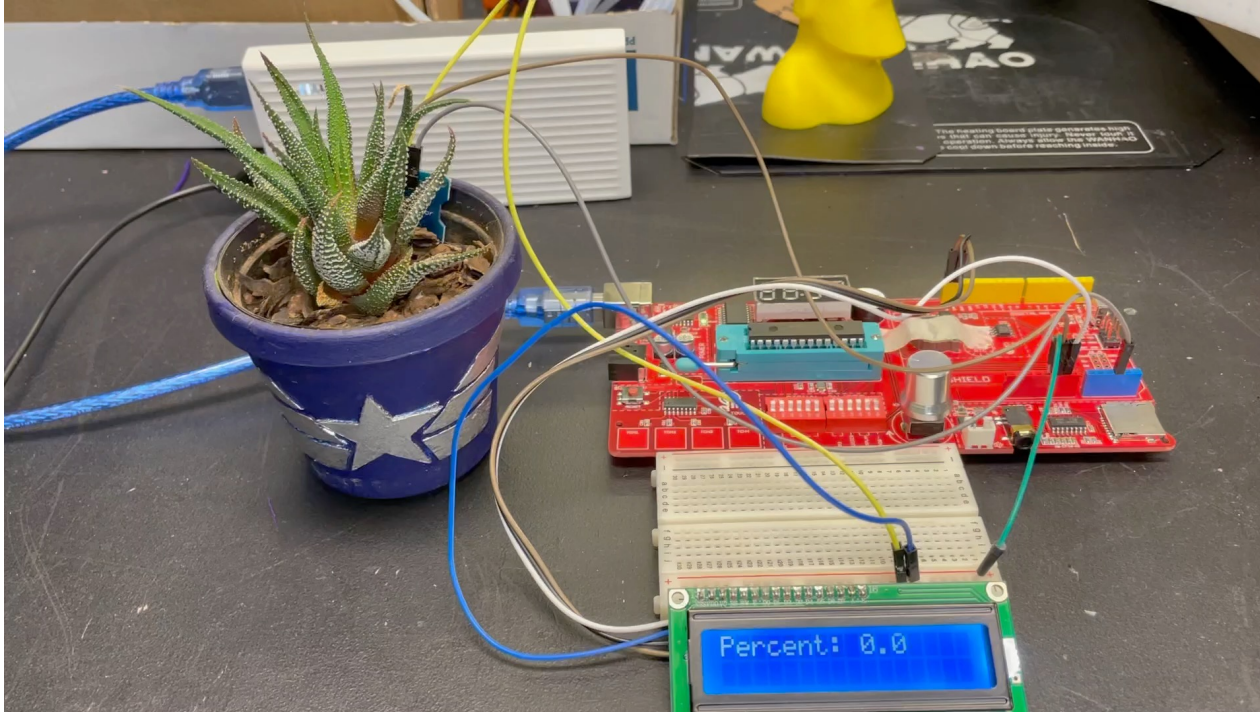
Functional Practices: Support Research Through Technology and Expertise



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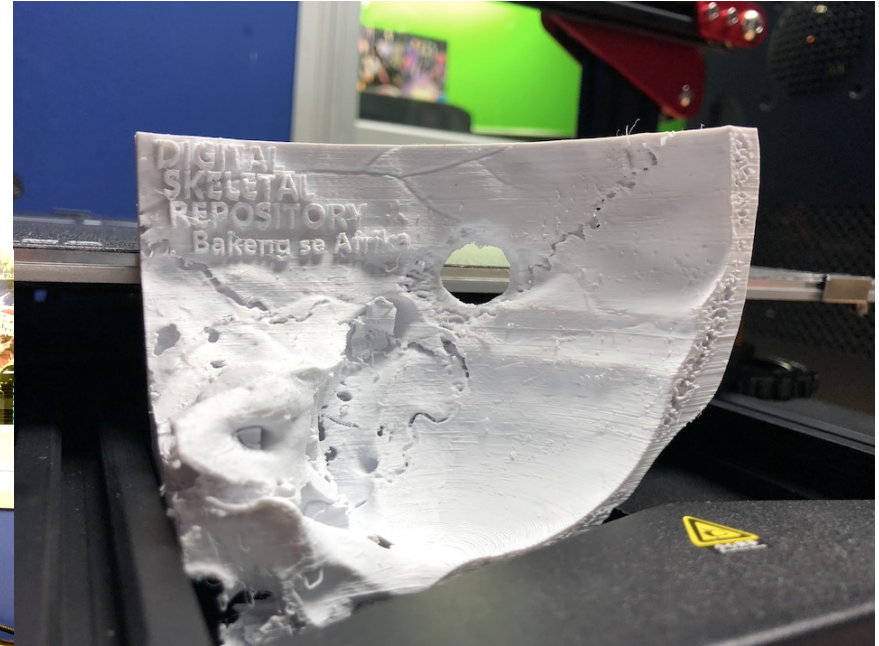
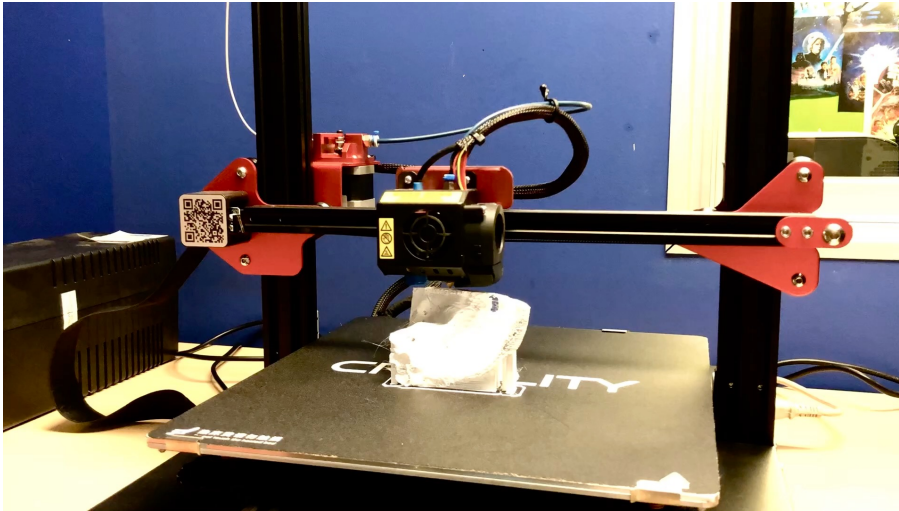


Functional Practices: Support Learning Through Technology and Expertise



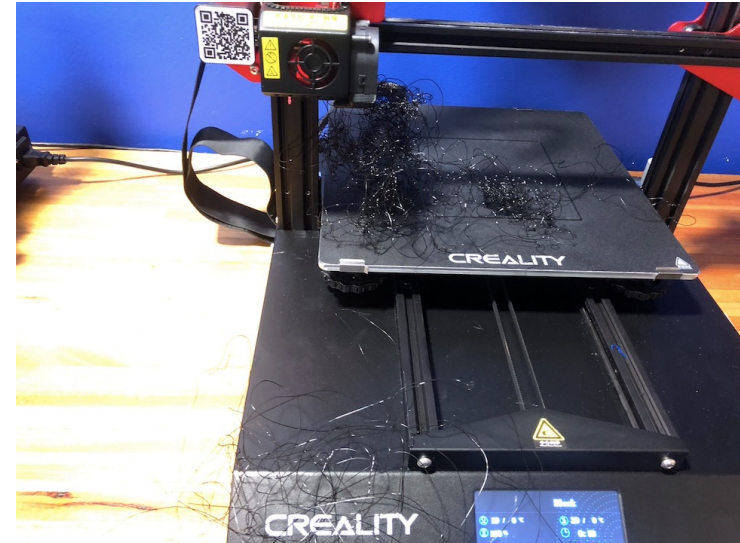
Functional Practices: Teaching, Learning & Collaboration

- Teaching and learning



Strategic Perspective: Library Leaders

- Define and measure innovation
- Balanced the new with improved
- Use innovation
- Improve how you develop ideas
- Buck up (get ready to fail)



Mistakes

- No definition of innovation
- Lack of clarity around **what** they're innovating and **why**
- Failing to appreciate how change and innovation go hand-in-hand
- No innovation framework
- Implementing ideation software or sessions without explicit use of creative thinking
- Being hard on yourself



Facilitating Innovation

“Most importantly, institutions must incorporate participation in some of the programmes that are already under way as well as forums where these skills can be applied.”

This includes libraries- and by extension, their staff.



“Innovation is the hardest fun I have had”

Thank you

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