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UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Career exploration meets mobile technology!

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Department for Education Innovation:
Research & Innovation (Higher Education)

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Informed career choices?

- 17% of the 2014 students cohort, registered for a 3 year general degree discontinued in 2015
- 14% of the 2014 students cohort, registered for a 4 year professional degree discontinued in 2015
- 45-60% of the reasons for discontinuation is incorrect course choice in academic first year
- STARS 2013-2015 results:
 - 15% don't engage in career exploration
 - 12% indicated a need for career guidance
- SA does not have university preparation programmes in general



The Kresge Foundation grant proposal: *Siyaphumelela* project

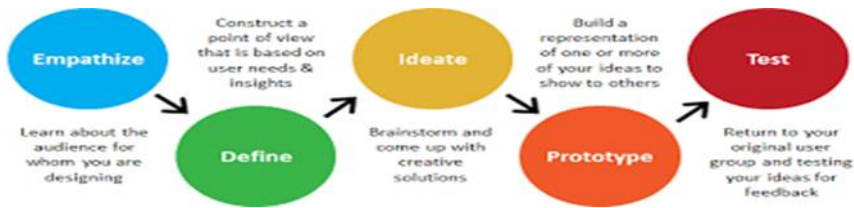
Career guidance resource: develop a DVD for distribution to our feeder schools initially as a pilot and then make it available on a DVD or online as an OER for any school in the country

Random invite from the Department of Informatics to talk about Big Data and projects for 3rd year students

Purpose & value of the *Career App.tizer*

- Purpose:
 - Introduce learners to their career interests (introductory level)
 - Career interests are linked to a range of courses
 - Courses are linked to occupations
 - Courses have admission requirements
- Value:
 - Mapping these different components on the App.
 - Start career exploration for FREE!
 - User range from Grade 10 – first years
- Theory of change
 - Align personal career interests and course choice
 - Reduce first year drop-out/ course change
 - Improve graduation



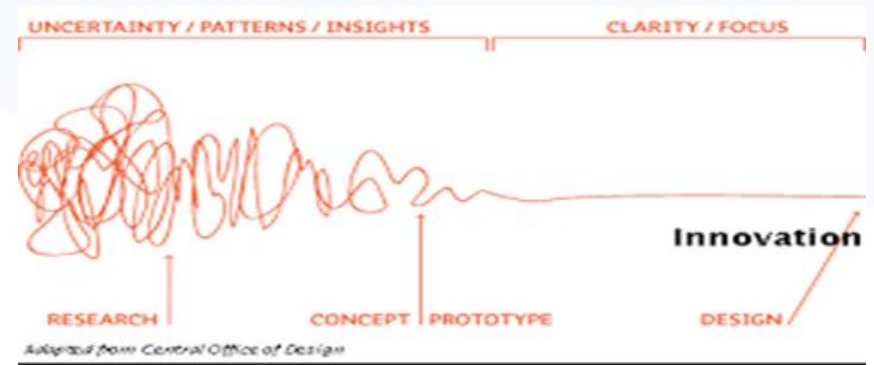


Design steps

- Draw the roadmap (deliverables, technical specifications with time-lines)
- Select a survey
 - Online survey (Oregon Vocational Interest Scale)
 - Psychometrical evaluation of the ORVIS items in relation to UP courses – Pilot (1800 high school learners and UP students)
 - Statistical modelling to determine weights (averages and SD)
- Look and feel and corporate branding
- Course verification with the Department of Enrolment and Student Admin
- Programming of code for efficiency and maximum speed
- Planning and printing for the Informatics programme requirements
- Procurement processes
- Registration of Intellectual Property and Non-disclosure agreements
- Web hosting – security, management, etc.

Infusion of disciplines

- Nexus of various disciplines:
 - Psychometrics
 - Statistical analysis
 - Data science
 - Web design
 - Programming
 - Project management
 - Design thinking
 - Data analytics
 - [Big] data
 - Artificial intelligence**



Technical process and features

Set-up/register: Biographical question

- Race, Gender, Home language, School, Grade 10 – 1st year students
- Complete survey:
 - Map to academic courses based on survey profile
 - Map courses to careers
- Search courses at UP
 - Faculty > courses > admission requirements (Admission requirements + school subject results)
- Apply at UP
- APS calculator [hidden]

Career *App.tizer* look and feel

My Details

Personal Details

Academic Details

Login Details

Personal Details

Title

Dr

First Name

Juan-Claude

Last Name

Lemmens

Gender

Male

Race

White

Year of Birth

1978

Geographic Details

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Career *App.tizer* look and feel

My Details

Personal Details

Academic Details

Login Details

My academic details

High School

Benoni High School ▼

Grade

Grade 11 ▼

Syllabus

NSC/IEB ▼

My Subjects and Marks

Mathematics ▼

65

English ▼

60

Physical Science ▼

70

Life Science ▼

66

History ▼

56

Accounting ▼

71

Business Studies ▼

50

... Pick my High School Subject ▼

Mark

... Pick my High School Subject ▼

Mark

APS: 35

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Save

Career *App.tizer* look and feel

My Subjects and Marks

Accounting ▼	82
Geography ▼	92
Information Technology ▼	80
Mathematics ▼	65
Physical Science ▼	56
Afrikaans ▼	80
English ▼	67
Life Sciences ▼	80
Life Orientation ▼	84

Admission Point
Score (APS) = 42

Career *App.tizer* look and feel

My Subjects and Marks	
Accounting	82
Geography	92
Information Technology	80
Mathematics	65
Physical Science	56
Afrikaans	80
English	67
Life Sciences	80
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Admission Point
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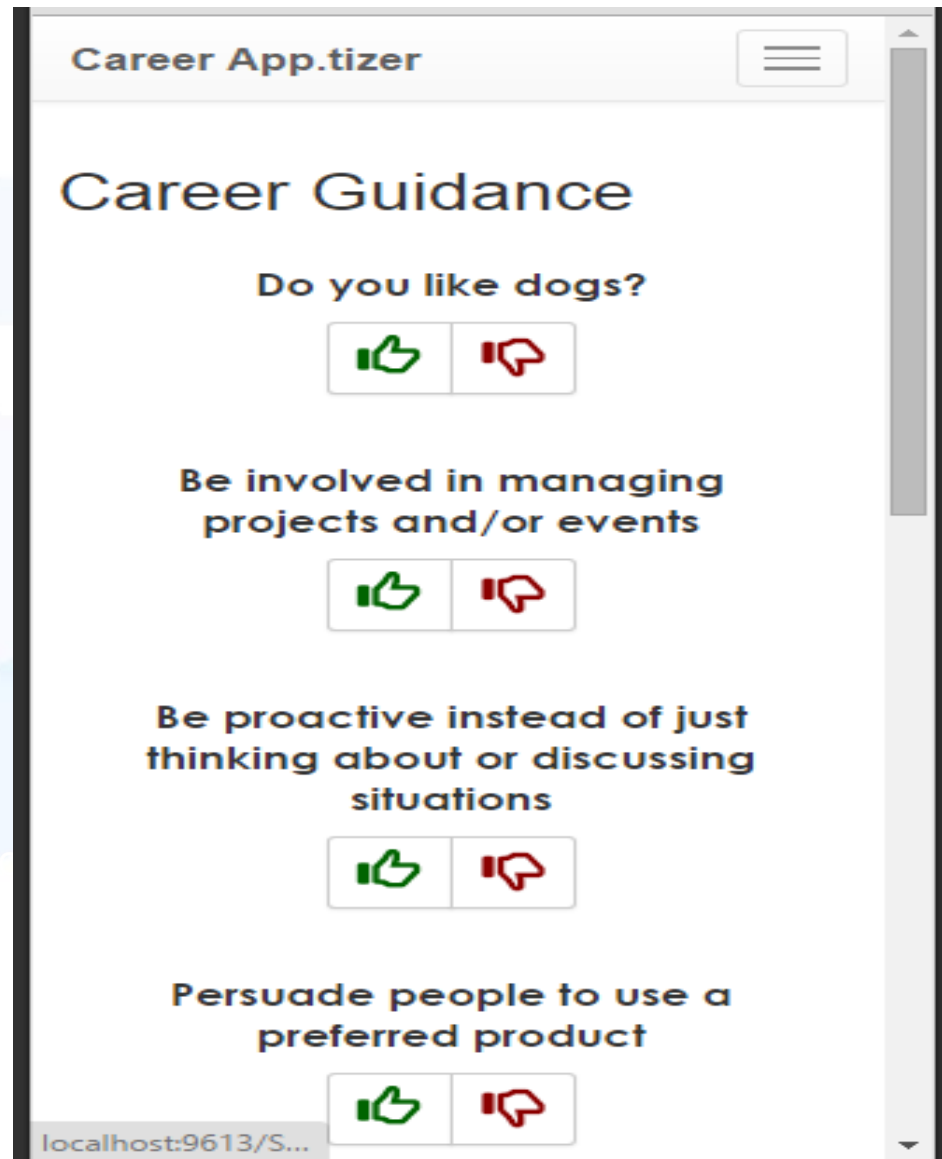
First choice: Medical Doctor (APS) = 36

- Eng, Math, PS + 3 Best subjects – Life Orientation

Second choice: LLB (APS) = 42

- Eng/Afr + 5 Best subjects – Life Orientation

Career *App.tizer* look and feel



My home page

Getting Started...



Career Guidance
Started on: 3/25/2016
[View Results](#)



Career Guidance
Started on: 3/24/2016
[View Results](#)



Career Guidance



Reports and analytics



- Criteria for success:
 - Compare Career *App.tizer* data with first year student registrations; with first-year drop-out, specifically course change as reason and ultimately with student persistence
- Proposed insights:
 - Demographic characteristics of users (age, gender, school, etc.)
 - Spatial/geographic mapping of survey uptake
 - Improve realisation rates
 - Indicate clusters of career profiles
 - Marketing material to individuals, invitation to open days
 - Academic performance of learners available earlier
 - Early identification of high achievers (JT)
 - Google analytics on webpage

Liu Yi Yu (aka: Bruce)
Gezile Ndhlovu
Christopher Park
Kristina Jovanovic

Wishful Thinking



Where to find it on the store

www.careerapptizer.co.za

Google Play store: Career App.tizer

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Career App.tizer video

<https://youtu.be/NOnW2wDjBvA>