

S4YE Spark Session # 7:  
Finding the right match: Using technology to link youth  
with jobs

# 2023 INNOVATION EXCHANGE & PARTNER SUMMIT

*From Algorithms to Opportunities:  
Harnessing Innovation for Youth Employment*

November 7-8, 2023

**JOBS**



**WORLD BANK GROUP**  
Social Protection & Jobs

**S4YE** SOLUTIONS  
FOR YOUTH  
EMPLOYMENT



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with jobs

# AI-enabled job-matching for refugees

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Azza ElHayek  
Co-Founder & Partner, Skilllab





# SkillLab

Connecting people with jobs and education

# Exploring a Migrant's Journey in the Host Country's Labor Market

I am a Computer Engineer and Data Analyst at UNFAO.

"Career Guidance Service!" 🌐

I am now a Job Seeker.

Advice or Suggestions

A TON of new abilities I gotta pick up!

Hey, what can I say? I'm just too cool for this market!

What abilities do I need to learn that I can bring to the table?

I'VE GOT RELEVANT JOB!! 🐛

Ohhh, I have a \*great\* position in the labor market!

I'm SO excited for my first experience of skill profiling!

What's the PROBLEM here??

# Analysis of the Situation :

## Insufficient Labour Market Information

I lacked sufficient information about the labour market, including the in-demand skills and emerging job opportunities.

## Limited Self-Awareness

I wasn't aware of my full range of skills and competencies, which limited my options and prevented me from exploring new career paths.

## Job Title Fixation

I was fixated on job titles and didn't consider the full scope of jobs that aligned with my skills and interests.

## Inadequate Counselor Knowledge

The career counselor lacked information about my work experience, skills and interests, which led to a mismatch between my capabilities and the job requirements.

## Outdated Labour Market Info

The career counselor didn't have enough up-to-date information about the skills and competencies that are in high demand in the labour market.



Information

# Connected **LABOR MARKETS**



**People**



**Education  
Providers**

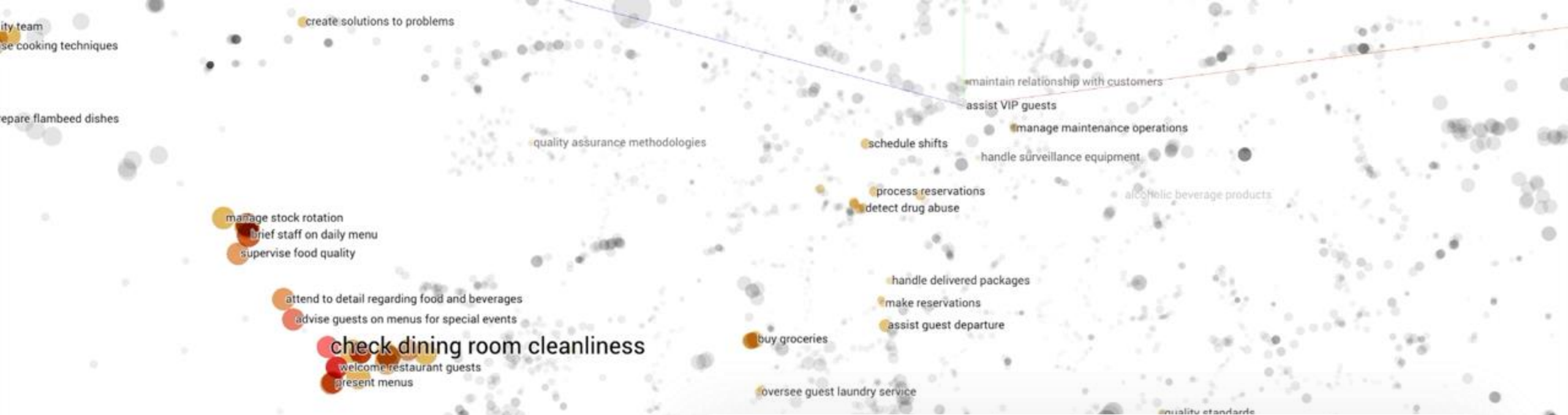


**SkillLab**



**Employers**





Connecting **PEOPLE** with  
**EDUCATION** and **JOBS**  
through a common language of

**Skills**



## Relying on titles and free-text is inaccurate and incomplete

Determining the skills people have used in their experiences or the skills employers demand is difficult. Job vacancies and resumes are not detailed enough and may not be the most reliable source of skill data.

# Job-Title Approach

## Farmer

[Redacted]

Reference number: [Redacted]

⊕ Language / Application in: Deutsch

🕒 Working hours: Full-time work

📍 Workplace: [Redacted]

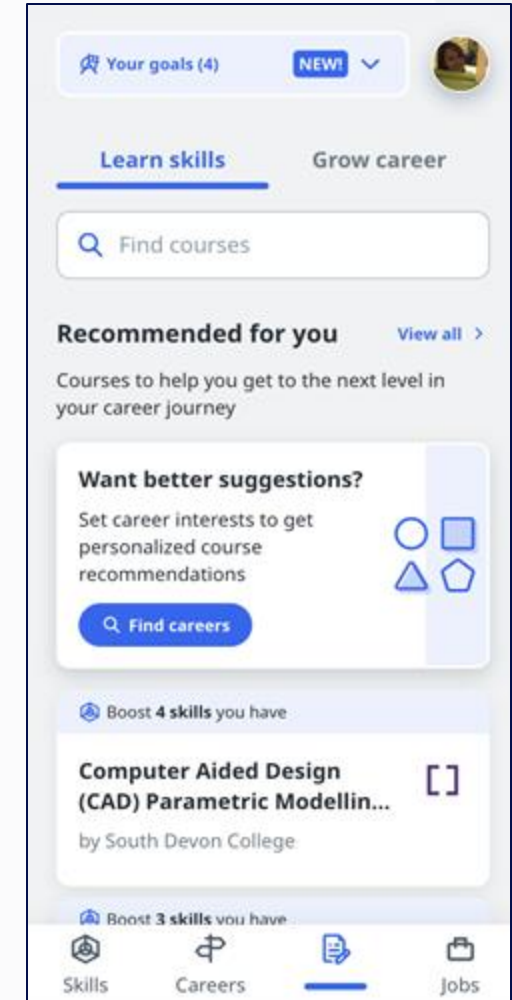
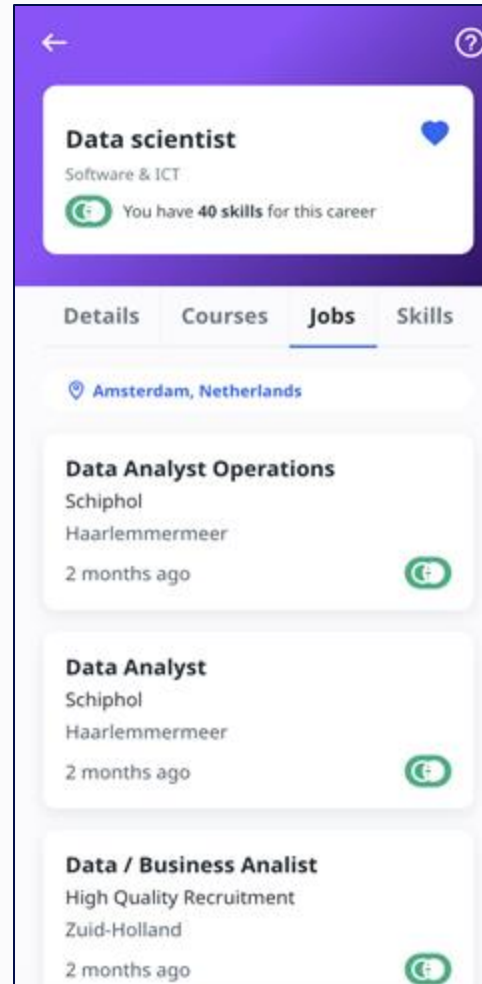
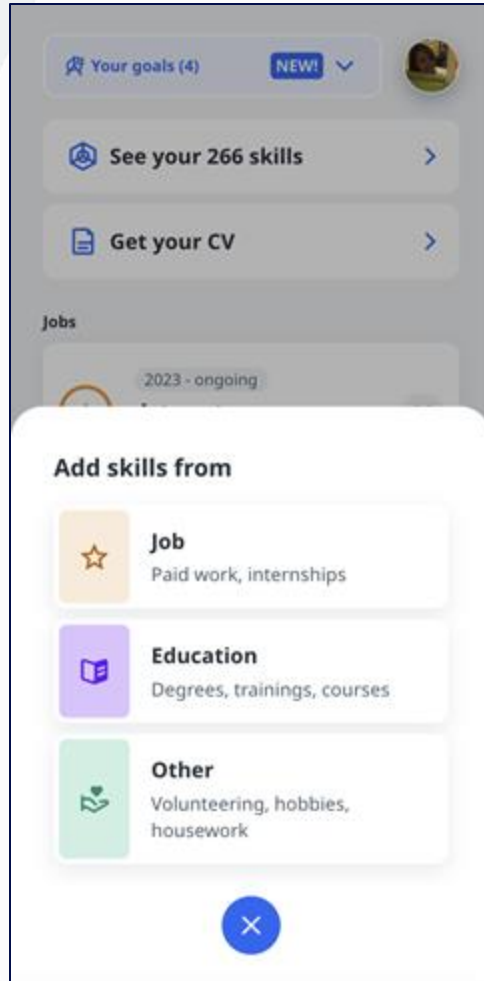
🏠 Company size: Less than 6

📄 Type of employment contract: Open-ended

📅 Online since: Nov 23, 2022

Our farm has 480 cows with 7 milking robots, 200 hectares of forage production, a biogas plant and direct marketing. Your task will mainly be driving the tractor and **repairing and maintaining the machines.**

# Gap Identification, Training .. to Employment



# EMPOWER PEOPLE TO UNLOCK THEIR POTENTIAL

“ Using those reports that are generated (by the app), they (career counselors) were able to guide better and communicate better with the employers. It created a common language where job seeker-employer-recruiter can speak. Eliminated human judgment, cultural and language barriers



*Ahmad Ibrahim- Egypt  
Project Manager -ABA-VTEC*



**Nour - Egypt**

*“The application helped me to look into occupations that I hadn’t considered before.”*



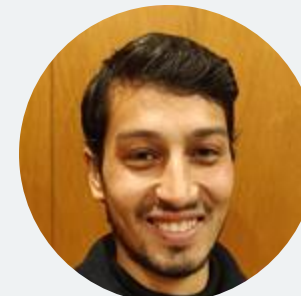
**Danielis - Ecuador**

*“The application increased my confidence in my skills.”*



**Safaa - Syria / Finland**

*“This application gave me hope that it is possible to work in the job that I want.”*

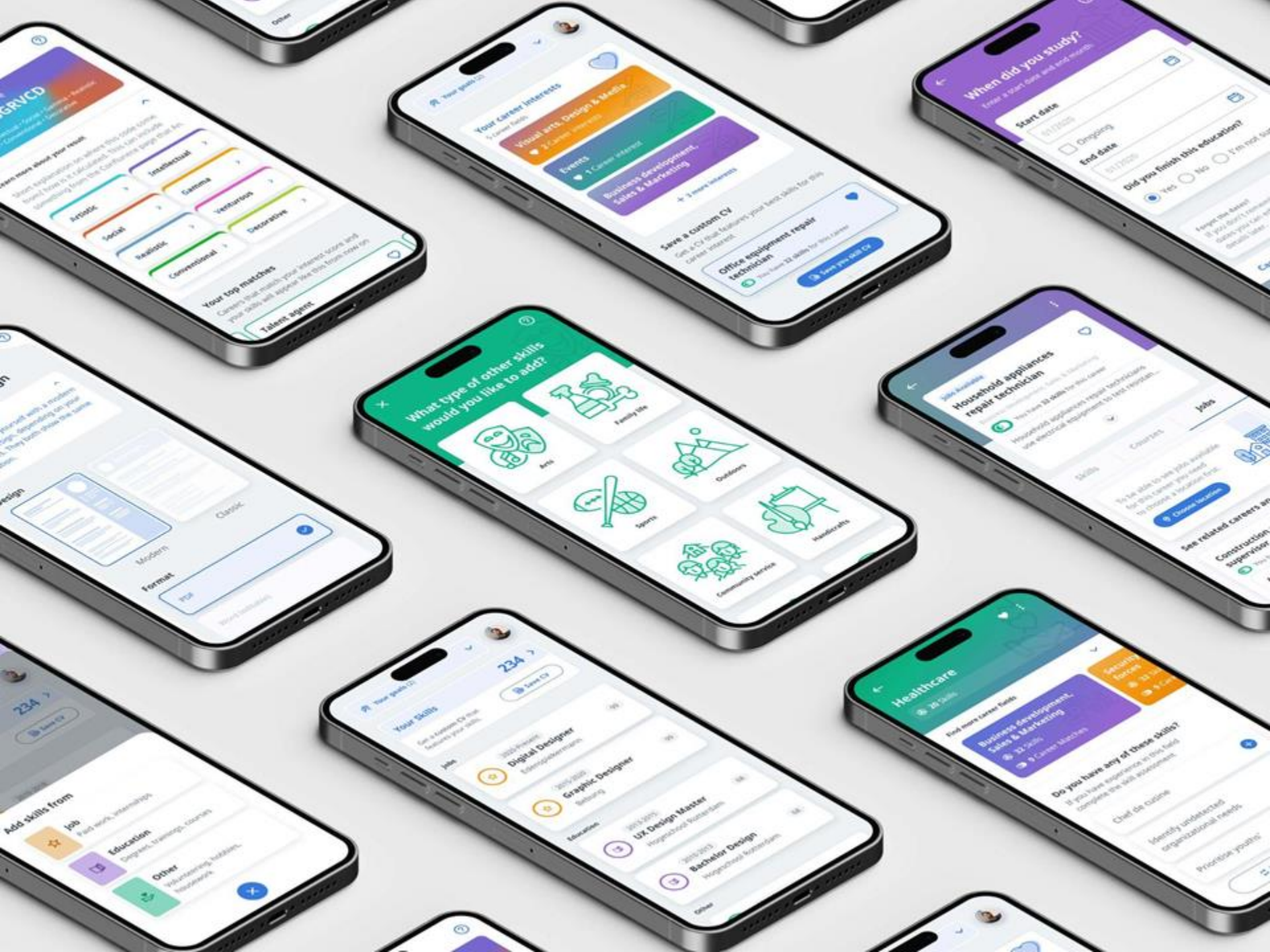


**Bilal - Palestine**

*“I found it easier to express my skills using the app than a traditional interview.”*



# SkillLab



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# **Connecting the Dots: Using a Zero-Rated platform to connect Youth and Employers**

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**Victoria Duncan**  
Head, Research & Evidence, Harambee



# Harnessing AI to Pathway Youth to Jobs



# The SA Youth Platform



SA Youth is the connective technology platform that allows young people to access learning and earning opportunities—for free—and assists employers to reach millions of young entry-level work-seekers nationally.

[sayouth.mobi](https://sayouth.mobi) | [partners.sayouth.org.za](https://partners.sayouth.org.za)



## 3,706,131

### Young work-seekers supported by SA Youth

66% female  
34% male



1% youth with  
a disability



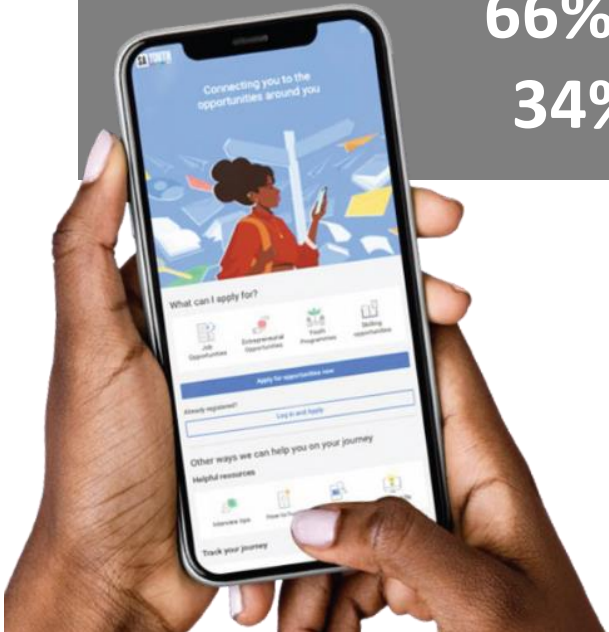
## OUR IMPACT



**1,000,689**  
youth linked to  
opportunities



**R22,3 bn+**  
in income earned by  
youth since inception



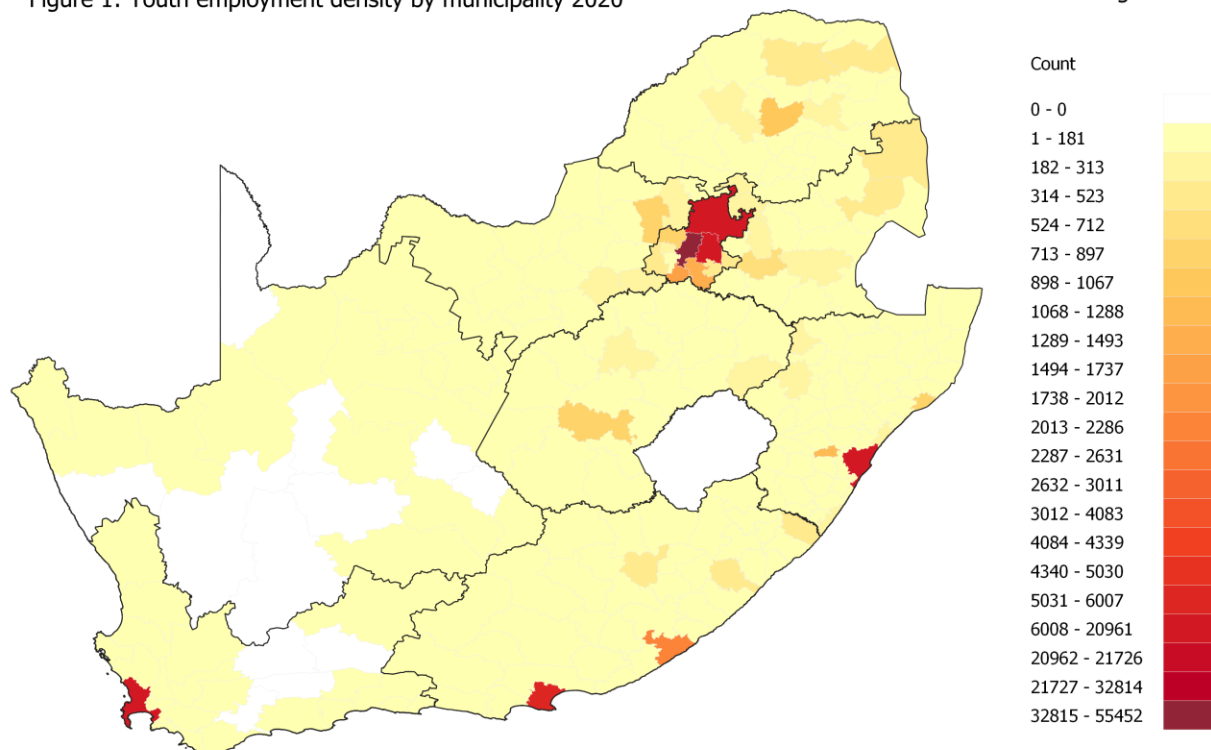
# The DBE School Assistant Programme

*Geospatial matching at work*



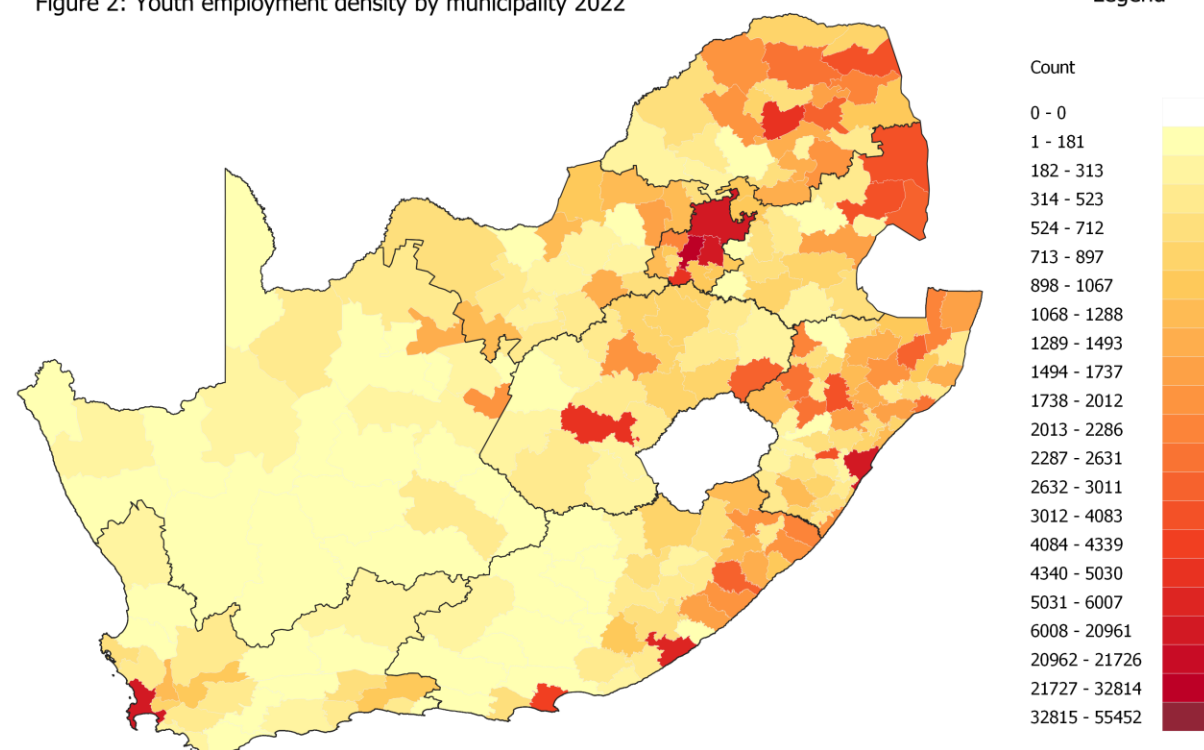
Estimated saving of  
**> ZAR 1 billion**  
in transport costs across all  
4 phases

Figure 1: Youth employment density by municipality 2020



Source: Harambee EJ survey 2020 for 161,097 responses

Figure 2: Youth employment density by municipality 2022



Source: Harambee EJ survey 2022 for 315,650 responses

*The map on the left illustrates the distribution of employment opportunities for youth before the programme; the map on the right shows the difference the DBE School Assistant Programme makes, and the geographical spread of opportunities.*

# Example: Overcoming Gender Barriers

Women face higher systemic barriers to labour market entry, which is can be exacerbated through AI technology.

The SA Youth ranking algorithm seeks to address this by adjusting the weight distribution in the ranking.

In practice:



Weighting = 0.95



Weighting = 1



## Reflections on our experience

Approach the outcomes of big data analyses with caution - well aware that the market biases we are aiming to counter, are also inherit in parts of our own data and we deliberately compensate for inclusivity, like in the gender example above.

Where we have found huge value is the **utilization of technology and tools to translate dirty data into something that makes sense**. Examples of this includes:

- Using machine learning techniques to segment data for ring-fenced analyses and studies
- Using smart technology to assess voice notes for communication and literacy
- Leveraging AI to structure and understand free text inputs

All Emerging technologies are **critical for supporting additional developments** to the SA Youth platform and informing the recommendation engine algorithm, in addition to supporting our research and advocacy work

We hire for data science skills internally, but have struggled to keep the right talent; hence we deliberately partner to get access to these technologies and experts



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# Connecting to opportunities at a hyperlocal level in India

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**Nihal Rustgi**  
Director of Marketing, Apna.co

# Apna is the **fastest** **growing and largest jobs** **& professional social** **network for India**

Digital Identity | Professional Networking | Community | Jobs



Economically disadvantaged family

**BIRTH**

Born with economic advantages

High school drop out

**EDUCATION**

Access to quality education

Limited to friends, family & neighbors

**NETWORK**

Global network of peers & mentors

Seeking jobs for basic survival

**CAREER**

Switches jobs for career progressions

Family to feed

**DEPENDENCIES**

High income family, nuclear family

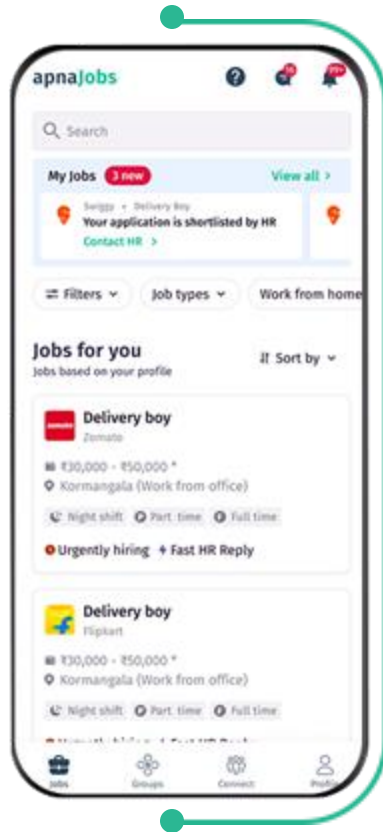
RU Ghaziabad

DC New Delhi

**SMART PHONE**

**INTERNET**

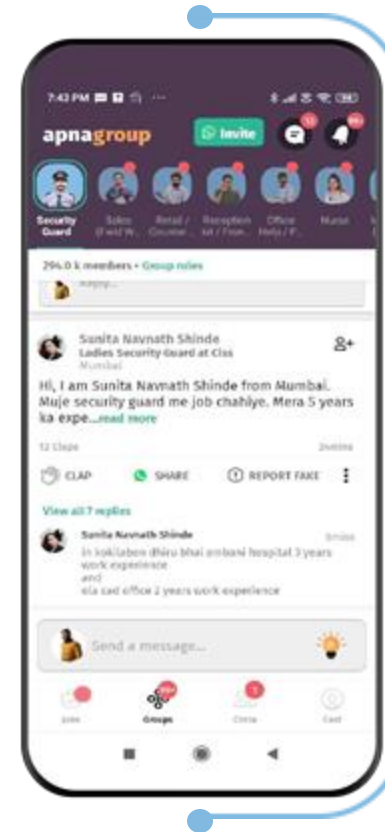
## Jobs



## Digital Identity



## Community



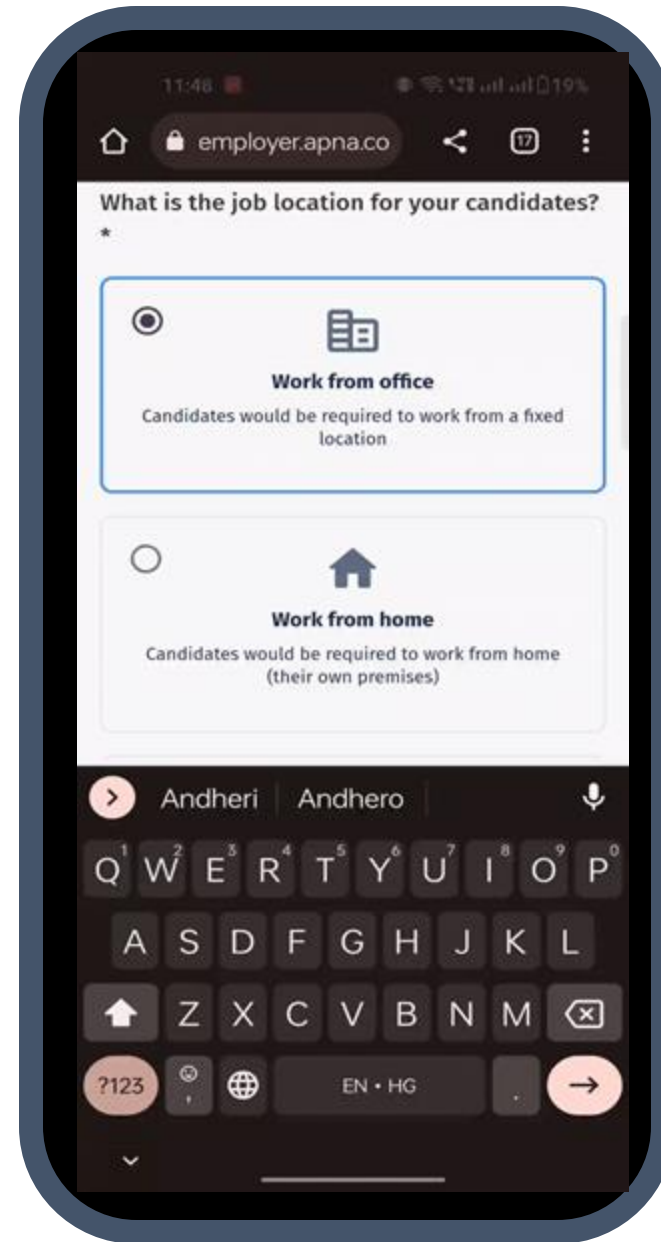
We have built our product around 3 values that  
**changed hiring meaningfully**





# Hyperlocal

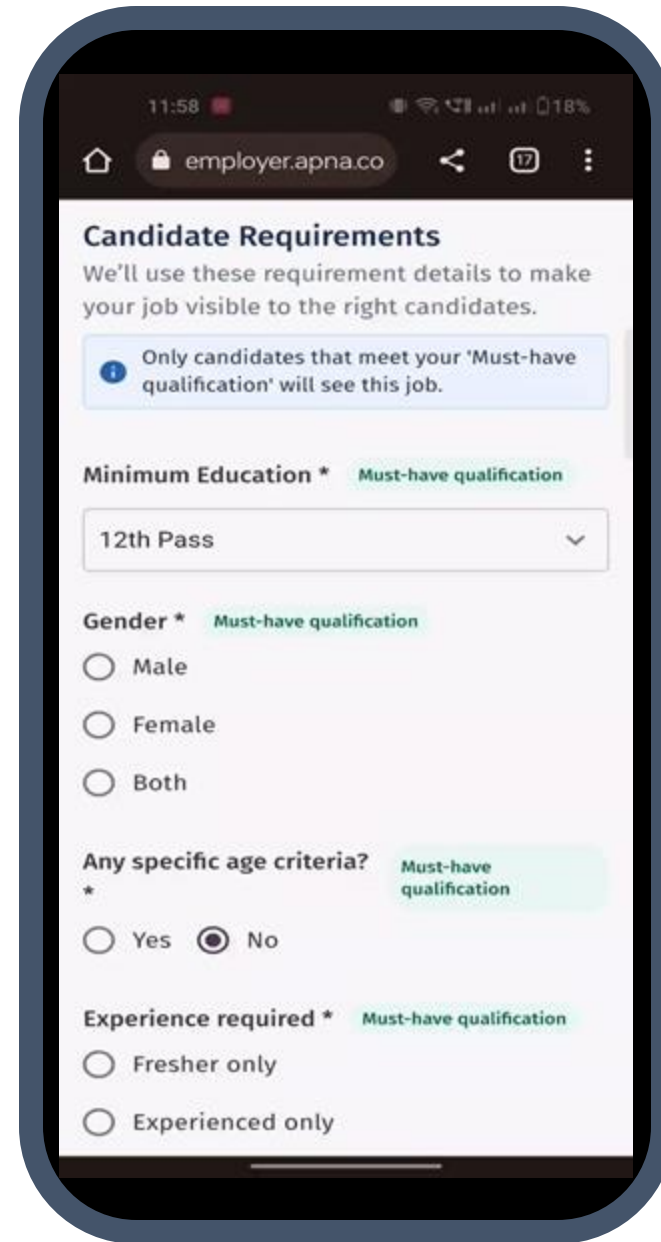
Enabling pincode based hiring





# Relevancy

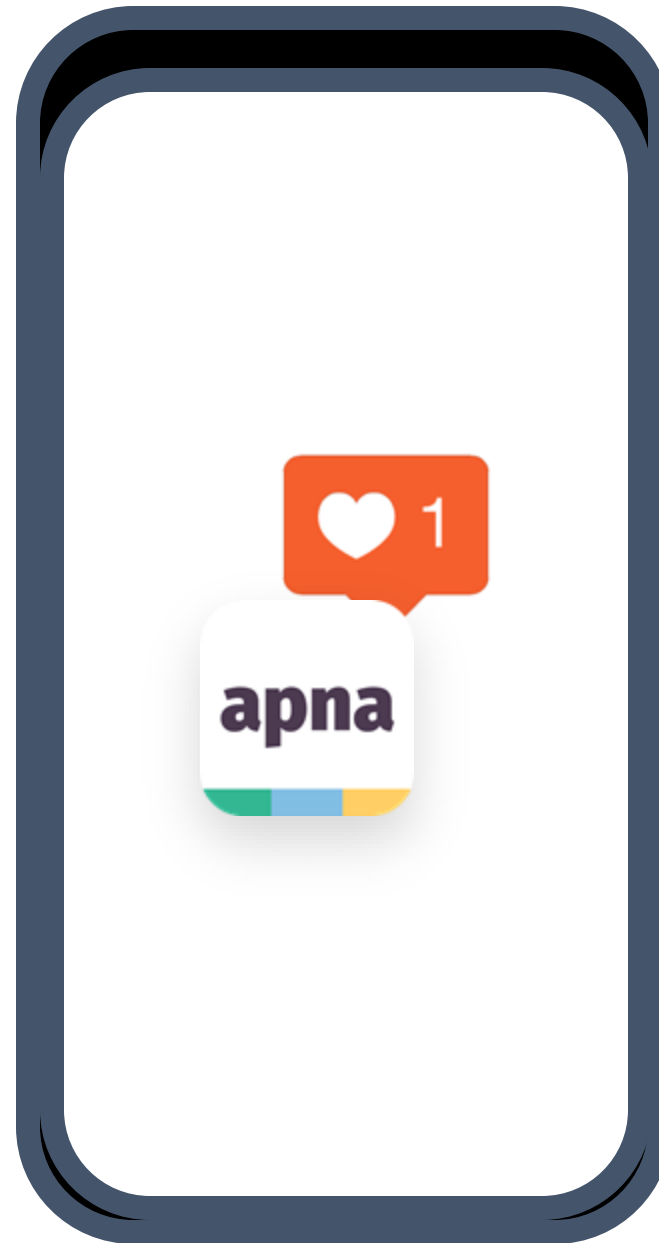
AI-matching delivers highly relevant candidate





## Speed & Volume

121 unique candidates connect with employers every minute



# Apna is the **largest and fastest growing professional opportunities platform in India**

apna



**~51 Mn+**

registered job seekers with detailed profiles



**545k+**

registered recruiters on the platform



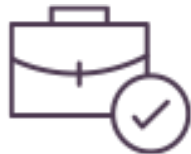
**174**

Metros & Tier-2/3 Cities



**~5 Mn**

candidates connected to recruiters every month



**~100k**

jobs activated on the platform every month



**70**

industries & job categories

## INVESTORS

TIGERGLOBAL



INSIGHT PARTNERS

SEQUOIA

Lightspeed

Maverick Ventures

GSV Ventures

GREENOAKS GLOBAL OPERATIONS

rocketship.vc

