ICT Business Hub: Proposal for Jobs Summit

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1 Problem statement

On the expanded definition of unemployment about 37% of South Africans are unemployed, but the numbers for young people are much higher – currently 67.4% for youth under the age of 25. The rapid spread of digital technology has created a wide range of new employment and income generation opportunities. In addition, digital technology offers new opportunities to those who are already self-employed, via the utilization of technology such as 3D printing, laser cutting, CAD design, electronics and robotics. In theory these opportunities could provide one important means of addressing the high level of youth unemployment in South Africa. However, the benefits of these technologies – the "digital dividends" – have been slow to filter down into the developing world in general, and poorer communities in South Africa in particular. Reasons for this include:

- Limited (or no) exposure to these technologies, and the opportunities that they represent. This is particularly true for the "maker" technologies, as well as digital opportunities in the creative industries, such as music and film.
- Although the internet offers the possibility of self-education in a variety of skills, many young people do not know how to take advantage of these opportunities.
- Access to employment and/or income generation and/or business development opportunities in the digital economy are in large part determined and bounded by the social networks that young people have access to. By definition, most of South Africa's unemployed youth are socially marginalised, and are thus excluded from such networks.

Given the significant development opportunities presented by taking advantage of digital dividends, there are many initiatives around the world that have focused on increasing the digital capacity of a local economy. One of these initiatives is the development of "technology (tech) hubs".

Jobs impact

The impact of tech hubs on employment is varied: Firstly, tech hubs are often envisaged as the catalyst that will drive the development of ICT nodes or clusters in a particular place, thereby leveraging the initial investment into a development of a wider digital ecosystem. The hubs facilitate encounters between the public and private sector, academia and business, mentors and digital innovators, and potential business partners. An important point here is that networking opportunities can be virtual as well as real. Linkages between a hub in Gauteng and ecosystems such as IAMsterdam in the Netherlands offer opportunities for beneficial networking and access to collaborative opportunities, particularly in the creative arts and maker activities.

Secondly, the hubs provide an opportunity for young people to access skills development and training resources in a cost-effective and practical manner, either through on-line training or through the supervised use of maker technology, robotics and electronics.

Thirdly, the hubs will provide subsidised access to a range of technology, including 3D printers and electronics kits, that will allow young people to set themselves up in business at a very low initial cost.

Fourthly, the hubs can play a role in facilitating digital employment. The online labour market is growing (estimated to involve about 50 million workers around the world and $4 billion in annual transactions), offering short-term and micro employment opportunities in a range of areas. The type of work that can be done in this way is rapidly expanding, and there are opportunities to outsource administrative work in the South African public sector to these hubs, thus creating a digital expanded public works programme.

Finally, the proposed ICT Hubs will have an impact on the social marginalisation of the most vulnerable young people in urban areas.

In order for the proposed hubs to achieve these goals, they need to be located in easily accessible locations for the target users, and need to be managed and staffed by suitably skilled people. The intention is for each ICT Hub to become self-funding after an initial 2-year set up period, through a combination of user fees and corporate sponsorship.

2 Theory of change

The hubs will function primarily as "ecosystem builders", and their main operational goals and activities will centre around the following:

- Exposing young people to opportunities in the digital economy, including those as "makers" (which for this purpose includes laser cutting, electronics, robotics and 3D printing) and the opportunities available in the creative industries. This will be achieved through events that showcase new technologies (including practical demonstrations of that technology) and opportunities in the digital economy, and resources at the hub that identify relevant opportunities for on-line learning and on-line employment.
- Giving young people the opportunity to be integrated into networks where they will have a greater likelihood of finding markets for products that they currently produce, finding digital employment, accessing mentorship opportunities, meeting business partners/sources of business, and meeting potential business funders. These goals will be achieved through regular networking functions and innovation competitions, as well as the development of strategic partnerships. They will also be achieved through careful selection of the hub's location, which should facilitate this network integration (as discussed in more detail below).
- Be a place that offers shared working space, access to online learning and employment opportunities, coaching and business support, and the ability to access maker equipment, such as laser cutters, 3D printers and tools for electronics and robotics development.

3 Existing initiatives/experience

The proposed ICT hubs will be based in large part on existing successful initiatives that have targeted unemployed young people, such as Makerspace in Durban. The business plan has been drawn up in consultation with Makerspace, incorporating the lessons that they have learned over the past three years. We have also drawn on the insights of other industry experts in determining what works and what doesn't work in ICT hub development.

4 Constituency participation in implementation

There is potential for the business constituency to participate in the implementation of the proposed initiative.

5 Benefits

What social/economic groups would benefit from the proposal directly and indirectly? Please use the following table, and do not list more than 5 groups. Please describe the benefits as precisely as possible.

Group	**Job creation**	**Other benefits**	**Time frame for success**
Unemployed young people in urban and peri-urban areas	They will learn new skills, have access to technology and equipment they would ordinarily not be able to afford, and access to networks that can assist with new business ventures and business support and funding	Social inclusion	2 years

6 Cost and potential sources of funding

What social/economic groups would bear the cost of implementing the proposal directly or indirectly? Please use the following table, and do not list more than 5 groups. Please describe the costs as precisely as possible. In the case of financial costs, who would pay them?

Group	**Anticipated costs**	**Potential sources of funding to implement the project**	**Time frame for impact**
	R750 000 per year per centre	Government, CSI, skills development	2 years

7 Risks

The main risk is that the ICT Hubs will not be able to generate sufficient income to become self-funding after a period of two years. Achieving self-sufficiency will depend on keeping the cost base of the hubs as low as possible, such as through preferential rental agreements, as well as being able to generate income through membership fees, renting out of equipment and corporate sponsorship.

The second risk is that the Hubs will not be able to attract sufficient membership of the target demographic, or that members will be unwilling to pay the (low) membership fee

8 Risk mitigation

In order to address the identified risks, the tech hubs have been envisaged as a form of **social franchise**: they will all be branded in the same way, and each one will operate on a similar basis. This operational model will be tested and refined during the pilot phase. The use of a franchise model will greatly reduce the costs for each individual hub, will facilitate joint fund raising and marketing, will enhance the value of the Hub "brand", and reduce operational risks.

In addition, this social franchise model will be overseen and implemented in partnership with Seriti Institute, which has extensive experience in designing and managing work creation programmes.

9 Additional comments