

Innovation and design: Cousin concepts that can solve pressing problems

Innovation and design go together: Innovation is associated with risk, with drive, with creativity ... For the designer needs to innovate to create a design that is user-centred.



Gavin Mageni, Group Manager,
SABS Design Institute.

With South Africa's 6th Innovation Summit coming up at the end of the month, a new voice has joined South African industry leaders traditionally associated with innovation like the IDC, Telkom, Sasol and Eskom. The SABS Design Institute is the official design partner of the Summit and it is hoped that this partnership will create awareness of the essential role that design plays in the innovation value chain.

Participation in the Summit will also offer the Design Institute an opportunity to communicate what it stands for and what it intends to do for the country in future. Harnessing design in the broadest sense of the word holds a social benefit, as well as adding economic value. The role of the Design Institute is helping all users and executors of design in all spheres of society to improve their ability to produce socio-economic value for the country.

With a rich history of more than 40 years, the Design Institute's strategic intent has been realigned to address current national priorities (job creation, poverty alleviation and equality) with a focus on facilitating design support and design capacity building, while creating a general awareness of the value-adding quality of design.

The first steps

The first steps towards establishing the Design Institute in 1965 were taken to stimulate the steadily developing manufacturing industry in South Africa during the second part of the previous century. The Design Institute created product design award schemes that recognised the design value of products such as the Dolos breakwater and foreshore protection block, the Snapper plug, the Microjet irrigation system, the wind-up radio and the Lodox Statcan, amongst many other examples.

Today the Design Institute is a centre for the knowledge and delivery of design as a national change agent; helping to improve South Africa's competitiveness through design; managing the design process for the national good and connecting design talent with design users. The Design Institute has become focussed on societal issues, including leadership, governance, and performance issues.

In order to understand the role of the Design Institute, the term 'design' should be defined. All of the human interventions that have changed the world to make it a liveable place have been designed, be it an education system, a mobile phone network or a consumer product. Design can be seen as a problem-solving process or an improvement process that can be applied to business, to civil society, to government.

Design in business

The design process can be used to solve a problem in business, for example. The design process uses creativity and rational thinking at different points and is best done by a team of people, each bringing a specific set of skills to the table.

The design process starts with a need that arises in a specific context. The first step in meeting this need is to understand it. Once the need is understood, a process of creating starts. This is where the rational side of the problem is put aside for a while and where anything is possible. Constraints are then added and ideas are filtered to see which ones are better than others are. Then follows validation, which is essentially prototyping. Trial and error is very much part of the design process. It is important to create controlled failure. At the centre of the process is the idea that the progression is not linear, learning is not linear and mistakes must be made in a quantified, careful way to reduce risk and improve the chances of success. Prototyping is in fact a risk mitigation exercise. It is a very cheap and controllable way of proving that the fundamental principles are true or not in the real world.

The design process then moves to consolidating or synthesising the ideas. The solution can then be engineered, implemented and finally operated. In this way the design process can be applied to a gadget, to a business process or a service delivery entity in government, for example.

And innovation?

But where does innovation fit in? Successful innovation is first, and most importantly, about creating value. To this end there is a symbiotic or mutually advantageous relationship between innovation and design and design has an important part to play in delivering innovative ideas.

The competitiveness of any economy depends on its ability to innovate for economic sustainability and global relevance. Here the example of post-war Japan springs to mind, and more recently South Korea and now China as well. Economic sustainability translates in the ability to meet current and future demands in the spheres of new products, new systems, new technologies, and new platforms, creating new ways of doing existing tasks faster, easier and cheaper.

Innovation needs design because innovation can only be deemed being such when it becomes available in the market as a successful commercialised entity - be it a product or a service. And this is where design comes in: Design input makes an innovation desirable, safe and cost-effective because design is essentially user-centred.

Innovation is generally associated with the willingness to take risk, original thinking, and a will to drive an idea through to a conclusion. Add to this the conscious process of design described above and innovation is born.

Finally, the will to do things better and to add value to the South African society and economy is top of the agenda at the SABS Design Institute. In the coming months action will be taken to make this a reality.

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