

# Introduction to Design Thinking

## UCT Staff 1 day fast forward

### ***Background information for the Hasso Plattner Institute of Design Thinking at the University of Cape Town (d-school)***

The Hasso Plattner Institute of Design Thinking at the University of Cape Town was founded in Cape Town in August 2015 with funding, IP and academic support from Prof. Dr. Hasso Plattner - co-founder of software company, SAP AG, and chairman of its Supervisory Board - and the Hasso Plattner Trust. It is the third Institute of Design Thinking in the world, following the well-established design thinking programmes at the University of Stanford in the US and the University of Potsdam in Germany. The establishment of the HPI Schools of Design Thinking at Stanford in the US in 2005, and at Potsdam in Germany in 2007, brought academic rigour to design-led innovation practice, and made training programmes in design thinking available to academic scholars and leaders in the private and public sectors.

The d-school is an education, training and research institute, established in August 2015. Our overall objective is to promote, train and capacitate individuals and organisations in the practice of design thinking as an enabler of innovation and new outcomes that can meet the needs of people in complex socio-political and economic contexts. Design-led thinking is a practice for both problem finding and problem solving. It is an enabler of innovation and new outcomes.

Its roots lie within the design profession and it is ultimately an approach and mindset that addresses complex challenges in a holistic, creative and innovative manner by encompassing the viability (business), feasibility (technology) and desirability (human) nature of a challenge. Design Thinking has a strong human-centered approach and ensures that the end user and their needs are at the heart of its' thinking. It provides a new way of working that encourages multidisciplinary teamwork, creative thinking and an iterative learn-by-doing approach.

### ***Activities of d-school***

The d-school's overall objective is to offer training in Design Thinking's innovation methodology that meets the needs of students who want to solve problems and make a contribution to the dynamic, complex contexts they face in South Africa and on the African continent. Since its inception the d-school team has interacted with a range of UCT academics and staff. These have included Health sciences, Engineering, Humanities, CILT, Libraries, CHED and CASE.

The d-school is also exploring the future inclusion of design thinking into undergraduate curricula in collaboration with different departments and faculties across the university. The goal of this training would be to develop students who, in addition to mastering their disciplines, would leave the programme with skills in innovation and in multidisciplinary collaboration. This training would prepare students to understand how they could apply their disciplines in different sectors and settings.

In addition to these activities, the d-school is planning to hold a one-day Fast Forward to Design Thinking for UCT staff.



### ***UCT Staff Fast Forward – 1 day programme***

Collaboration, human-centred design, creative confidence and experiential learning are hallmarks of the design thinking training that the d-school offers.

This one-day fast forward is an introductory programme that will expose UCT staff to the design thinking process, and several supporting principles, methods and tools.

During the day, staff will explore a design challenge in transdisciplinary teams of 5/6. They will take a human-centred approach to exploring and framing, developing, and finally proposing a design intervention.

During the initial exploration phase, staff will conduct basic research with people within the challenge space, to develop a deeper understanding of their needs, and the contextual constraints they experience. This phase usually leads to a reframing of the challenge, as the insights gained help teams to identify and understand the real problem, or problems behind the problem.

Moving into the development phase, teams begin ideating: sharing ideas and conceptualising a range of possible solutions. Rapid, inexpensive, low-resolution prototyping follows. Here, teams build to physical models to reach consensus within the team around their idea. In a longer design thinking project, these prototypes would be used to test the teams' ideas and proposals with people in the challenge space, after which, teams would refine or redesign their design proposals based on user feedback.

This iterative process sees teams diverging and converging as they move towards solutions that are human-centred, and will ultimately be effective, appropriate and sustainable.

Design thinking helps to cultivate creative confidence as both creative-intuitive and analytical thinking are activated.

Thinking forward and abductive thought - unencumbered by pre-determined solutions and pre-conceived ideas - are encouraged, to help staff develop new solutions.