From Research to Practice: The Operationalisation of Human-Computer Interaction and Service Design in an African Context

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ABSTRACT

To increase the reception, adoption and implementation of human-computer interaction and service design within Africa, this panel hopes to unpack the obstacles to its achievement as well help charter a way forward. This panel was the initiative of the South African Protea SIGCHI chapter, to increase the robustness and operationalisation of both areas as well as their reception with the region.

Additional Keywords and Phrases: Chapter development, Africa, South Africa, Community-building

CCS CONCEPTS

• **CSS CONCEPTS**; • **Social and professional topics** → Professional topics; Computing profession;

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1 INTRODUCTION

The hope of this panel is to increase the adoption of human-computer interaction (HCI) research into service design industry and vice-versa within the context of Africa and South Africa [1]. This panel therefore, hopes through rapport, that a solid foundation can be established for a linkage between academia and industry which will result in mutually beneficial solutions on how to move forward [2]. These discussions will hopefully lead onto the development of educational resources which increases both areas' robustness and operationalisation [2]. For example, the operationalisation of bodies of evidence in industrial settings to deepen knowledge and create an area for greater replication and developing strong partnerships.

The aim of this panel therefore, is to create a better understanding in the area, not only to create better interactions but at the same time, deepen the robustness of the research which surrounds it. Another objective that this panel will seek to actualize in the linkage between academia and industry is to provide measurable solutions to determine their effectiveness, while also increasing maturity in both arenas. Thus, there are two overarching questions that will be used to guide the panel and the discussion proposed. These are

- "Where are we now?"
- "Where are we going and how do we get there?"

2 WHERE ARE WE NOW?

The panel will provide insight into where academia is at present. This will be drawn from practical experiences from both arenas which culminates in the development of a benchmark. The development of a benchmark will include what the currents needs are from the community.

3 WHERE ARE WE GOING AND HOW DO WE GET THERE?

This will discuss ways to operationalise the aforementioned benchmarks and to help plot the way forward. These will include more measurable ways of how progression in these areas can be determined in addition to the following:

- How to get by when using popular science approaches
- The development and provision of educational resources which may include websites, conferences, workshops, meetups, etc. These outcomes will help to grow the area and deepen the practice.
- How to foster a connection between them

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4 AUDIENCE

Anyone with an interest of either human-computer interaction and of service design in Africa, is asked to help us charter a way forward.

5 SCHEDULED ACTIVITIES

Time	Activities
09:30 to 10:00	Introductions
10:00 to 11:30	Describing the current situation
11:30 to 12:30	Lunch
12:30 to 14:00	Establishing/developing a benchmark
14:00 to 14:30	Tea/Coffee Break
14:30 to 16:00	Developing a plan on how to operationalise the benchmark
16:00 to 16:30	Closing and thanks

6 PROPONENT AND PANELLISTS

Each of the panelists below were selected due to their knowledge in the various fields. Edward White will moderate the session.

Nathan Anderson is the Head of Product Strategy and Director of a small CX/UX focused software development company. He has 20 years of experience as a practitioner in the software development, design and media space. His work interest is in how Machine Learning influences product design approaches and how cross-functional teams can operate to manage complexity in product development. As a broadcast animator in the early part of his career, Nathan has a keen appreciation for how animation works as a communicative tool. More recently, he completed a Master's degree that examines the cognitive impact that interface animation in mobile devices can have on information integration and the resulting judgmental decisions that people make.

Hannah Morenike Adebanjo lectures at the Department of Information Technology at the Durban University of Technology, South Africa. She completed a PhD in Computer Engineering at the University of KwaZulu-Natal. As a researcher, she takes interest in the fields of Computer Vision and Image Processing and Software Development and Design. She also enjoys research around eye tracking for the evaluation of the usability and user experience of interfaces and the development of algorithms for the evaluation of eye tracking data.

Chelsea-Joy Wardle is a project manager and developer at ThoughtExpress. Her work involves merging client requirements, country legislation and technological limitations on the end users side into solutions which are both informative, versatile and attractive as a service to insurance companies, predominantly in the emerging market space. She has a Masters in Computer Science from the University of Cape Town, based at the Centre in Information and Communications Technologies for Development.

Melissa Densmore is an associate professor in the department of Computer Science at the University of Cape Town in South Africa, where she directs the HCI Lab, coordinates the South African international branch of the Hasso-Plattner Institute Research School, and helps to lead the Centre in ICT4D. Her research interests are in human computer interaction for development (HCI4D), co-design for mothers, and community-based digital content creation and collaboration. She serves on the steering committee for UCT's Innovation Builder Fund, and is a co-founder of iNethi, an NPO that supports software infrastructure and training for community-based wireless networks and services. Prior to joining UCT, Densmore completed a postdoc at Microsoft Research India, and worked in Silicon Valley as a software developer for various startups. Melissa completed her PhD at University of California, Berkeley in Information Management and Systems, has an MSc in Data Communications, Networks and Distributed Systems from University College London, and holds a BA in Computer Science from Cornell University.

Maletsabisa Molapo is a Research Scientist at IBM Research - Africa (Johannesburg lab). Her research interests lie at the intersection of Human-Computer Interaction and Artificial Intelligence (AI). She designs, builds, deploys and evaluates AI solutions for rural and low-income urban areas in Africa, with applications in education and healthcare. Within AI research, she is interested in Natural Language Processing, AI Ethics and fairness, and human-centred machine intelligence. She completed a PhD in Computer Science at the University of Cape Town (UCT), based at the Centre in Information and Communications Technologies for Development.

Derrick Cooks has over 23 years' experience in the financial services sector, having started his career at Standard Bank where he obtained extensive experience implementing strategic and complex projects in South Africa and the rest of the continent. While completing his MBA at the Gordon Institute of Business Science (University of Pretoria), he identified an opportunity to start-up a challenger consulting company to drive business transformation, by helping his clients in putting their ideas to work by infusing design into every level of the organisation. From this, Freethinking Business Consultants was born. Since then, Freethinking has over 120 consultants and services all the major banks and insurance companies in South Africa. Having completed the buyout process of the business, Derrick handed over the reins of the business to his leadership team in May 2018. This marked the next phase in Derrick's entrepreneurial pursuits in launching a Startup Consulting Firm called Think Squad and a Design and Innovation Firm called Spot On Consulting. Derrick is a business design leader and coach with extensive experience in transforming businesses at an enterprise level and at start-ups alike.

REFERENCES

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[2] Hugo, J., Marsden, G. and Walton, M. CHI 2002 Development consortium: a South African perspective. ACM SIGCHI Bulletin-a supplement to interactions, 2002 (2002), 4-ff.