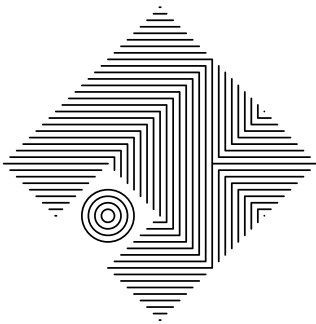


INDIA HCI 2016

7 to 9 Dec at IIT Bombay, Mumbai

www.IndiaHCI2016.org | @Indiahci2016

www.facebook.com/IndiaHCI

Schedule at a glance

	8:00 onwards	9:00 - 11:00	11:00 - 11:30	11:30 - 12:50	12:50 - 14:00	14:00 - 15:45	15:45 - 16:15	16:15 - 17:45	18:00 - 19:00	19:00 - 20:30
DAY 1	Registration opens	Worskhops and Courses	Tea (IDC/LHC)	Worskhops and Courses	Lunch (LHC)	Worskhops and Courses	Tea (LHC)	Opening Plenary Keynote 1 Per Ola Kristensson (L3 302)	Chat and networking session (IDC Design Circle)	Workshop Dreamcatcher: Capture Apps by Adobe (IDC Auditorium)

	8:00 onwards	8:30 - 9:40	9:40 - 11:00	11:00 to 11:30	11:30 - 12:50	12:50 to 14:00	14:00 - 15:20	15:20 to 15:50	15:50 - 17:00	17:00 - 19:00	19:00 onwards
DAY 2	Registration opens	Keynote 2 Amit Nanavati	Session 1a: Papers Emergent users Session 1b: Job Fair Introduction	Tea	Session 2a: Poster Summaries Session 2b: Case Studies	Lunch	Session 3a: Student Design Consortium 1 Session 3b: Panel HCI and Gender	Tea	Keynote 3 Jan Gulliksen	Campus Walk HCIPAI Meet Competition presentation	Conference Dinner (Guest House Lawns)

	8:00 onwards	8:30 - 9:40	9:40 - 11:00	11:00 - 11:30	11:30 - 12:50	12:50 - 14:00	14:00 - 15:20	15:20 - 15:50	15:50 - 17:00	17:00 - 17:30
DAY 3	Registration opens	Keynote 4 Jhumkee Iyengar	Session 4a: Papers Acessibility and Gestures Session 4b: India HCI Cafe 1 Design and Design Thinking	Tea	Session 5a: Papers Modelling and Understanding Session 5b: India HCI Cafe 2 Wearables and Screenless Interaction	Lunch	Session 6a: Student Design Consortium 2 Session 6b: India HCI Cafe 3 Short Talks	Tea	Keynote 5 Bruce Balentine	Closing Plenary Awards Vote of Thanks

7|12 Wednesday

8:00 am — **Regsitration** begins

9:00 am — **Workshops and courses**

11:00 am — Tea (IDC/LHC)

11:30 am — **Workshops and courses**

1:00 pm — Lunch (LHC)

2:00 pm — **Workshops and courses**

4:00 pm — Tea (LHC)

4:30 pm — Opening Plenary
Keynote 1: Per Ola Kristensson
(L3 302)

6:00 pm — **Chat and networking** session
(IDC Design Circle)

7:00 pm — **Dreamcatcher: Capture Apps by Adobe**
Workshop by Prabhat Mahapatra
(IDC Auditorium)

Workshops

7th December | 9:00 - 15:45

W1: HCI in Healthcare
Facilitated by Prajesh Radhamani, Prachi Sakhardande, Pankaj Doke, Priya Aswath and Sanjay Tripathi
Venue: IDC Auditorium

NASSCOM has recently stated that 'Indian Healthcare IT is now a $1 billion market'. Despite the huge market size, there is poor adoption of available HealthCare IT products by HealthCare professionals. Information Technology is yet to penetrate HealthCare industry effectively to the extent that it can influence quality of care. The "HCI in HealthCare" workshop will look at existing challenges faced by HealthCare providers in India and how to improve their IT adoption.

W2: Microinteractions Toolkit for UX/UI Designers
Facilitated by Venkatesh Rajamanickam and Ruchi Ookalkar
Venue: IDC Jr. B.Des Classroom

Microinteractions are commonly defined as the smallest unit of user interaction boiled down to a single use case. A key takeaway of the workshop will be the microinterations toolkit (which is not publicly available) and the hands on experience in using it.

W3: Kickstarter Journeys: Ideas to Products for Startups
Facilitated by Atul Manohar
Venue: IDC Conference Room 1

The journey of ideas to marketable products/ services is complex and unpredictable. This workshop will help identify and enhance the value that 'Design' brings on to the table. We are inviting individuals with start-up mindset or Startup groups to participate in the workshop. Participants will get a taste of Ideal design process followed by IT product companies. And also learn how design and user research can help in this journey.

Courses

7th December | 9:00 - 15:45

C1: Ethnography Methods: Theory and Praxis
Facilitated by Nimmi Rangaswamy & Rama Vennelakanti
Venue: LT 104

The purpose of this workshop is to introduce, consolidate and discuss the role of the ethnographic method in Human – Computer Interaction [HCI] research. The course will provide a unique opportunity to familiarize with the conceptual frameworks of ethnography as a key method in unraveling the human facets of technology adoption with a focus on end user experience.

C2: An Introduction to Eye Tracking Methods
Facilitated by Susmita Sharma and Parag Amodkar
Venue: IDC Ergonomics Lab

This short course offers an exclusive perspective of using the eye tracking in design and web usability, along with an outline on the basic yet critical canons of human perception that dominate visual decisions.
In this course, we talk about usage, know-how, and basic evaluation parameters used in the Eye Tracking Research (EMR).
The course is meant for professionals as well as academics, who are dealing with HCI evaluation methods, usage and behavior assessment of the web, learning or handheld devices. There will be an opportunity to learn from theoretical aspects, technique, case-study and experiments.

C3: Design Thinking for Solving Business Problems
Facilitated by Rashmi Sethi & Manish Kori
Venue: L3 302

Design Thinking finds its roots in Empathy; the element which puts us in our customers' shoes; it delves deeper into how people feel, think and act. It is an approach to problem-solving that uses empathy, ideation, prototyping, and experimentation to find solutions for real-life problems. This course is an introduction to the fundamentals of Design Thinking. It will focus on key concepts, methods and primary tools used in Design Thinking.

C4: Itinerative Design: a hands-on course
Matt Jones, Simon Robinson, Jennifer Pearson & Thomas Reitmaier
Venue: IDC Sr. B.Des Classroom

Users, stakeholders, and domain experts are geographically dispersed, have different literacies and speak different languages? At the Future Interaction Technology Lab (fitlab.eu) we have developed a method to address this challenge. We call it Itinerative Design
During this hands-on course, we present materials and stage similar exercises from a series of workshops we held in Mumbai, Nairobi, and Cape Town.

C5: Designing Interaction for Flexible & Deformable Displays
Facilitated by Keyur Sorathia & Aditi Singh
Venue: LT 105

Touch screen interfaces are widely adopted for existing handheld devices. Despite its wide adoption and its ability support wide variety of applications, it still possesses major limitations. Recent technological development in deformable and flexible electronics motivates to think beyond the use of rigid materials for computers and computing devices. This course will walk you through the possibilities of using deformation as a novel and natural input interaction technique. We will also learn theoretical methods to design novel and natural input interaction techniques for future flexible and deformable devices.

C6: **Improving Service Experiences by Design**
Facilitated by Ruchin Shah, Shantanu Kulkarni & Vaibhav Bakhashi
Venue: LT 106

This course will introduce participants to Design thinking and Co-creation methods.
The course will include customer journey mapping as an innovation tool which helps identify weak points in the organization's service/product offering. We will also be sharing our learnings, anecdotes, and examples of work which we have done for our customers.
Participants should be able to identify problems, prioritize them and create a crude roadmap to overcome key barriers in their service experience.

Keynote 1
Per Ola Kristensson

7th December | 16:15 - 17:45 | L3 302 | Chair: Girish Dalvi

Solution Principles for Next Generation Text Input Entry

Text entry is a common everyday computing task. However, despite its ubiquitousness, it is difficult to devise an efficient text entry method that users are willing to adopt. This talk will explain the narrow design space of text entry research and make the case that successful next-generation text entry methods are likely to be based on designs that merge behavioral solution principles with information engineering techniques. I will exemplify this idea with several new text entry methods we have developed for a variety of use-cases.

About

Per Ola Kristensson, is a University Lecturer in the Department of Engineering at the University of Cambridge and a Fellow of Trinity College, Cambridge. He is interested in designing intelligent interactive systems that enable people to be more creative, expressive and satisfied in their daily lives.
His Ph.D. thesis was on gesture keyboard technology for touchscreens and in 2007 he co-founded ShapeWriter, Inc. to commercialize this technology. He was the Director of Engineering of this company until it was acquired by Nuance Communications in 2010.

Dreamcatcher: Capture Apps by Adobe

7th December | 19:00 - 20:30 | IDC Auditorium

"Capture inspiration around you with your mobile devices and turn it into an asset you can use in your creative projects."

Worshop content

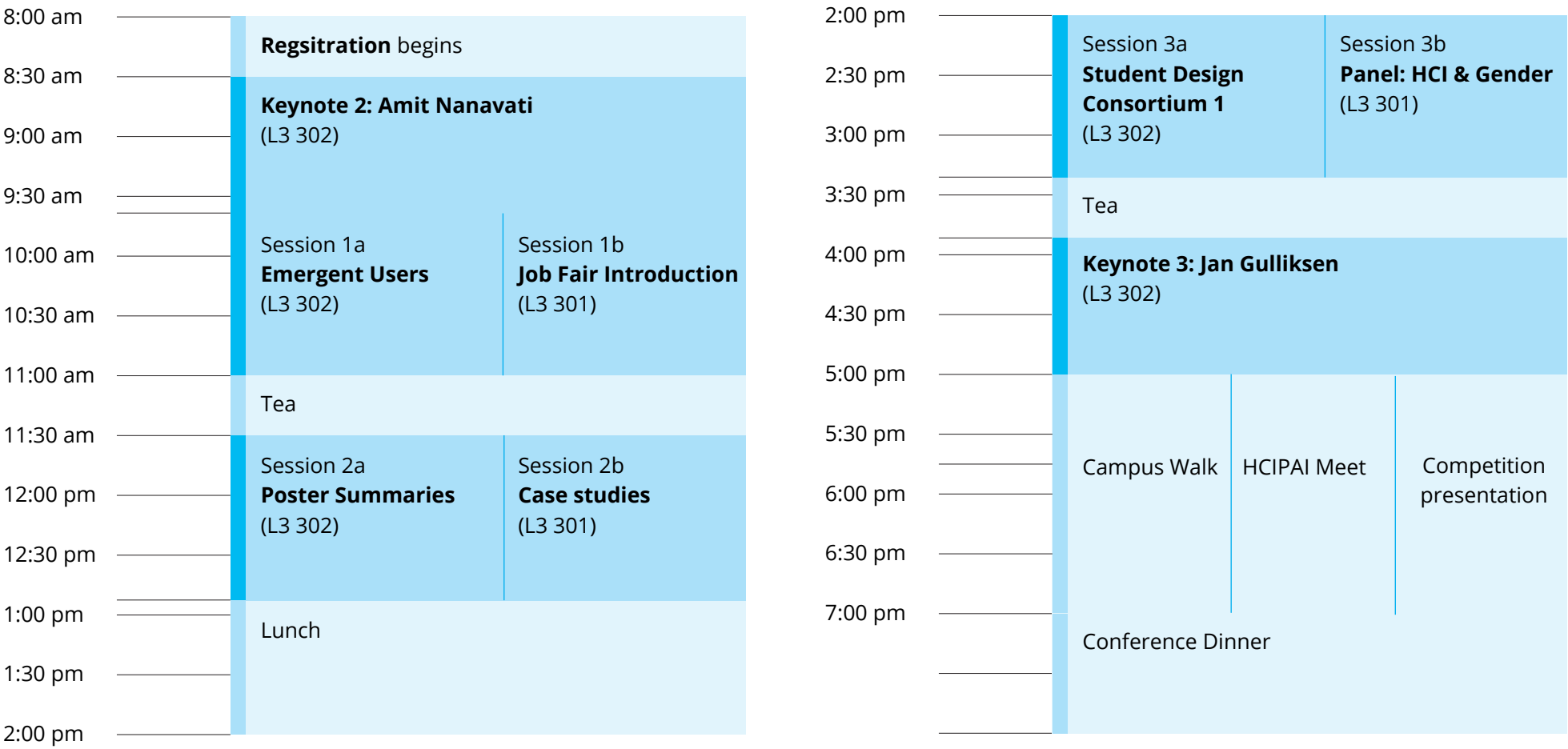
Introduction to Adobe's capture apps and learning to extract design assets such as colours, patterns, brushes and shapes from it.
Introduction to using the captured assets in all your favourite desktop and mobile apps, including Photoshop, Illustrator, Draw and Sketch.
Participants can try out the capture apps on their own devices or Adobe's sample devices (Requires wifi/data connectivity at location)
Discussions around further possibilities of capture apps and the design workflows involved (if time permits).

About the facilitator, Prabhat Mahapatra

"A designer by degree, a photographer by hobby, a painter by chance and an observer by obsession."

He studied industrial design from Industrial Design Centre (IDC), IIT Bombay and is currently working as a lead experience designer and artist-in-residence at Adobe, India.
He has been involved with the user experience of Adobe Illustrator and other projects in the design and web space.

8|12 Thursday



Keynote 2
Amit Nanavati

8th December | 8:30 - 9:40 | Chair: Pramod Khambete

HCI in Indian Context

In this talk, we will explore HCI in the Indian Context – examples, unique opportunities and challenges. An alternative title of the talk could have been "How to create interfaces for a cricket-crazy, mobile-friendly, largely social, textually illiterate nation with so many languages?" I will also talk about my uncle and the challenge of creating an interface for him.

About

Amit A. Nanavati is a Senior Technical Lead for Cognitive Automation Solutions at IBM. He joined IBM Research India in 2000 and has worked on projects in data mining, mobile, and telecom. He has been working in the area of social network analysis and he considers himself to be a "Spoken Web" evangelist — trying to promote the vision of a worldwide Spoken Web-hosted on the Telecom network, which does not require an Internet connection or the ability to read and write. He managed the Telecom Solutions Research group which won Research Division Awards for their work on Social Network Analysis and the Spoken Web projects.
Amit was named a Master Inventor in 2011 and became a member of the IBM Academy of Technology in 2013. He co-organised the SiMPE Workshop at ACM MobileHCI for 10 years. He co-authored a book on "Speech in Mobile and Pervasive Environments" published by John Wiley, the UK in 2012. He has over 35 US patents granted and over 50 publications. He became an ACM Distinguished Speaker in 2014, and an ACM Distinguished Scientist in 2015.
Prior to joining IBM, he worked for Netscape in California, after completing his Ph.D. in Computer Science from Louisiana State University. During his Ph.D., he interned at the Jet Propulsion Lab (NASA) in Pasadena.

Session 1a: Papers
Emergent Users

8th December | 9:40 - 11:00 | L3 302 | Chair: B.K.Chakravarthy

Designing Data Collection Methods for Applying Learning Analytics in Resource Constrained Schools
By Sanket Kulkarni and Venkatesh Rajamanickam

Link: http://dl.acm.org/citation.cfm?id=3014366

The use of Learning Analytics (LA) has shown significant improvements in online learning environments. This paper intends to discuss the challenges of applying LA in the context of elementary schools of India. Out of many challenges, we focus on solving the unavailability of school data in digital format. Most of the data in such schools is stored on physical mediums like notebooks. These schools also lack the critical resources like the availability of computing devices, internet and digitally literate man-power. As the primary outcome of this paper, we propose a data collection system, names as OSLA, which provides multiple ways of data collection in resource constrained environment. OSLA distributes need of resources across different touch points to tolerate the unavailability of specific computing device, internet and digitally literate manpower.

Making and Breaking the User-Usage Model—WhatsApp Adoption Amongst Emergent Users in India

By Devanuj Balkrishan, Anirudha Joshi, Chandni Rajendran, Nazreen Nizam, Chinmay Parab and Sujit Devkar

Link: http://dl.acm.org/citation.cfm?id=3014367

In this paper, we aim to relate the design of WhatsApp with its adoption in developing countries and inform the design of future products. In the last two and a half years, a large number of 'emergent users' in India, have adopted WhatsApp. They have been able to do 'account holding' tasks with a greater ease, which means they establish social online identities, manage off-line communication, share and forward content, and create and join groups with less difficulty. WhatsApp has certain design based advantages over the conventional account holding applications whose adoption is not easy by the emergent users because of certain barriers. These barriers arise due to user characteristics like lack of technology exposure and low levels of education and income. We used User-Usage model as a theoretical lens to understand how design features of WhatsApp may have helped the emergent users overcome the common barriers. This analysis was supported with the findings of contextual interviews done with 108 emergent users to understand their WhatsApp usage. We found that simplification of registration process and interaction mechanisms, reduction of choices, freeing users from cognitively intensive chores and sacrificing features that were less relevant in users' contexts were some of the ways through which the design of WhatsApp managed to remove barriers in adoption. This study helps us identify the design choices that could make other applications easier to adopt by the emergent users.

Smartphone adoption drivers and challenges in urban living: Cases from Seoul and Bangalore

By Joyojeet Pal, Anandhi Viswanathan and Ji Hye Song Joyojeet Pal, Anandhi Viswanathan and Ji Hye Song

Link: http://dl.acm.org/citation.cfm?id=3014364

Web browsing is the dominant activity among all the online based activities. With more people getting connected to the WWW(World Wide Web), its importance is further enhanced. Web browsing tasks are accomplished using the point-and-click technologies such as mouse and touch based interaction. With the advent of new technologies such as Eye gaze tracking, new paradigm of web interaction is evolving based on gaze view. Earlier works used gaze as medium of interaction to select the discrete UI elements (hyperlinks). But, there is an important need to reduce the time spent on selecting a hyperlink, as increase in time lag may lead to frustration and dissatisfaction of web browsing. In this paper, we propose a method to highlight only the probable hyperlinks than all the hyperlinks in a region of interest. This method helps to reduce the time involved in selecting an hyperlink. Our proposed method is evaluated and compared against the state-of-the-art methods. The results show that, our method reduces the number of activated hyperlinks and time to access an hyperlink.

Session 1b
Job Fair Introduction

8th December | 9:40 - 11:00 | L3 301
Chair: Ashish Ganu and Pankaj Doke

Session 2a
Poster Summaries

8th December | 11:30 - 12:50 | L3 301 | Chair: Prasad Onkar

Study on the Effect of Multimodality and Gender on Visual Attention of Webpages and Design Principles
By Sandeep Vidyapu, Samit Bhattacharya and Vijaya V Saradhi

Interactive Sketching and Sketch Based Retrieval of 3D Object for Children
By Nikhil Jamdade

Conducting Contextual Inquiry of Twitter: An Indian Perspective
By Nikhil Wani, Ganesh Bhutkar and Shreeya Ekal

Momentify
By Neha Arsid, Ravishankar Sundaram and Ambreen Khan

Web Affordances: Exploring their Influence on User Behaviour
By Pallavi Rao Gadahad

TDESK: UX Interface For The Workplace Of The Future
By Nikhil Shivpuja and Ankit Kant

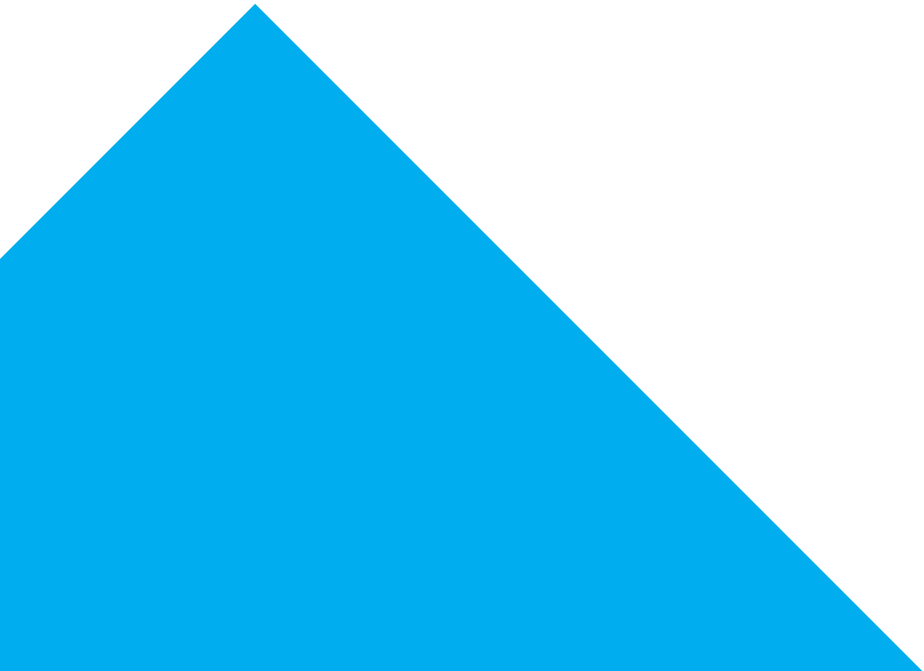
Project Merlin
By Bhawna Narula, Nitin Gautam, Krishna Jayadev Kotipalli and Rohit Nath

Smart Indic Lyrics For Language Learning
By Sonali Tandon and Priya Lakshman

TouchPIN: Numerical Passwords You Can Feel
By Gesu India, Anirudha Joshi, Manjiri Joshi and Charudatta Jadhav

CATALYST: Collaborative Platform for Learning
By Ankit Kant

Gamification And Crowdsourcing Of Dictionary Improvement For Indian Languages
By Sudheer Surendran and Sibasis Mohapatra.



Session 2b
Case studies

8th December | 11:30 - 12:50 | L3 302 | Chair: Ishneet Grover

Embodied Conversational Interfaces for the Elderly User
By Siddharth Mehrotra, Vivian Genaro Motti, Helena Frijns, Tugce Akkoc, Sena Büsra Yengeç, Oguz Calik, Marieke Peeters and Mark A. Neerincx

Link: http://dl.acm.org/citation.cfm?id=3014372

This paper describes the design and development of an embodied conversational agent (ECA) that provides a social interface for older adults. Through a user-centered design approach, we implemented a multimodal agent consisting of a virtual character and a robot. This so-called “bi-bodied conversational agent for elderly” has been evaluated in a preliminary study with end users. Through participatory design with 3 focus groups consisting of a total of 21 elderly users, the designs of both the robot and the avatar body have been iteratively refined using rapid prototyping. In addition to the two bodies, a Wizard-of-Oz control panel was developed, enabling researchers to control both bodies so as to respond to the user’s instructions, questions, and remarks.
The research resulted in a platform that can be used for future research on elderly-robot and elderly-avatar interaction.
In addition, the research resulted in insights about elderly users’ preferences regarding the design of a virtual and a robotic ECA (Embodied Conversational Agent), described in a list of user requirements that can be reused in future experiments involving ECA for elderly users.

Visual Design for Blue Ocean Services: mKRISHI® Fisheries
By Dineshkumar Singh, Divya Piplani, Karthik Srinivasan and Sujit Shinde

Link: http://dl.acm.org/citation.cfm?id=3014373

Fisheries sector is vital for the progress of economic and food security of the country. This sector generates a retail turnover of Rs. 28,511 crore and provides cheap animal protein to 138 million fish eaters. Every week 0.9 Million Indian fishermen from 3288 villages venture into the deep sea to catch their livelihood. Fishing is a high risk profession. Fishermen and the laborers, on the boat, face high navigational and operational risks due to the dynamic nature of sea wind, wave, and sea current. Lack of preparedness and forewarning increases the risk of human life and also increases risk involved in losing the boat, fishing gears and nets. Indian National Center for Ocean Information Services (INCOIS) generates Ocean State Forecast (OSF) information like Potential Fishing Zone (PFZ) advisories and remote sensing images for Wind direction and Wave height which helps fishermen to plan their trip.
An ICT based solution was required to disseminate such high tech information to low literate fishermen. To overcome these factors, mKRISHI® Fisheries a mobile based Early Warning system (EWS) was designed. This paper captures the service design concepts like Interaction design, visual design and content development used to design a very powerful Early Warning system (EWS) for the fishermen in Maharashtra.

User Experience Strategy for White Labeling Software Product
By Ashwin Umathay and Aunindra Kumar Sinha

Link: http://dl.acm.org/citation.cfm?id=3014374

White label is a term used to refer to products or services that is produced by one company and distributed and sold by another company under their own brand. The original product is created or customized for a client to adhere to the client's brand identity and visual language. This paper shares insights of the UX strategy that we need to follow while white-labelling a software product. It also re-iterates the fact that any product design including white-labelling design exercise would be successful, only when the business objective, user goals and technology parameters are well synchronized.

Session 3a
Student Design Consortium 1

8th December | 14:00 - 15:20 | L3 302
Chair: Abhishek Shrivastava

Accessible Swarachakra : A virtual Keyboard for Visually Impaired
By Medha Srivastava and Pabba Anu Bharath

Link: http://dl.acm.org/citation.cfm?id=3014375

Swarachakra is a free soft keyboard on Android devices for Indic scripts. This paper presents the design of the modified version of Swarachakra keyboard which can be easily used by visually impaired users. The layout has been modified in such a way that the alphabets are easily locatable: through tactile reference of edges and haptic markings. Logical ordering of the Indic script characters has been followed. The model uses multi-touch gestures(5) to type a combination of consonant and vowel. Audio and haptic feedback have been used to assist the exploration by touch in order to locate a key on the keyboard. Gesture shortcuts are available for certain keys to enhance the speed of typing. In this paper, we discuss the design of this application which utilizes the existing hardware support and affordances of android smartphones in order to make it accessible. We also mention in brief the outcomes of pilot studies conducted, and the scope of improvement of the application.

Design of Prediction Text Input Mechanism for Swarachakra
By Prasad Ghone

Link: http://dl.acm.org/citation.cfm?id=3014376

From the past work, it is known that prediction mechanisms slows down the text entry speed for Marathi on Swarachakra. Two main hypothesized reasons for this poor performance of current prediction mechanisms were constant shift of attention because of the current predictive interface and the difficulty in building the conceptual model of the prediction mechanism. In this project, a novel prediction mechanism for Swarachakra keyboard for Marathi was designed and developed to test for these hypothesized reasons and also to test if the new prediction mechanism improves text entry speed. A within subject evaluation was conducted with 5 users for 3 keyboards (Swarachakra with prediction chakra and corpus coverage of 47.3%, Swarachakra with prediction chakra and corpus coverage of 79.8% and Swarachakra without prediction). Swarachakra without prediction performed best among them followed by Swarachakra with prediction and with 47.3% corpus coverage.

Augmented Reality Based Integrated Intelligent Maintenance System for Production Line

By Surojit Dey and Pratiti Sarkar

Link: http://dl.acm.org/citation.cfm?id=3014377

In a production line, the maintenance is a crucial aspect to prevent untimely breakdown as it might lead to decrease in productivity and huge financial losses. This paper presents a concept to develop an integrated intelligent maintenance system for the production line which works when incorporated with an Augmented Reality (AR) device. The overall system will be integrated with the Internet of Things (IoT) for rapid access to varied and arranged information on the AR device. This will provide quick assistance to the users and help in reducing their cognitive load. This will in turn help in decreasing the time of maintenance as well as the overall working time of production line.

Introducing New Age To ICH: Revering Matters Of Significance
By Atul Kumar

Link: http://dl.acm.org/citation.cfm?id=3014378

As part of ICH (Intangible Cultural Heritage) the aspect of Hindu culture of admiring matters of significance, as well as craftsmanship and implements we apply in our everyday lives was chosen and a qualitative research was done on how these practices are still observed traditionally. However, it was noted that this heritage of connecting ourselves with our craftsmanship, art, concepts and implements is gradually being faded. The paper describes projects undertaken in order to introduce and enlighten the present generations to these traditional observations, procedures, related elements, folklore and legends, deities, and significance and semiotics through mediums which are more accessible and relatable to the younger generation.

TactAlive: Context Aware Variable Tactile Key Interface
By Shreeyash Salunke

Link: http://dl.acm.org/citation.cfm?id=3014383

In this paper, we introduce, a bidirectional haptic I/O which varies its tactility depending on the context of the device. The keys in the interface make the user alter their applied fingertip force depending on the criticality, physicality and other attributes of the context. The interface can have many levels of tactility: soft press to hard press. Beyond the utilitarian values, the interactions are designed to alter the user behavior by making them context aware. This project attempts to expand our understanding of the context, and entirely reshape our interactions based on this understanding.

Session 3b
Panel: HCI and Gender

8th December | 14:00 - 15:20 | L3 301

Panel: Sameer Chavan, Susmita Sharma, Atul Manohar, Jayati Bandyopadhyay, Navneet Nair and Rashmi Sethi

Keynote 3
Jan Gulliksen

8th December | 15:50 - 17:00 | Chair: R. Venkatesh

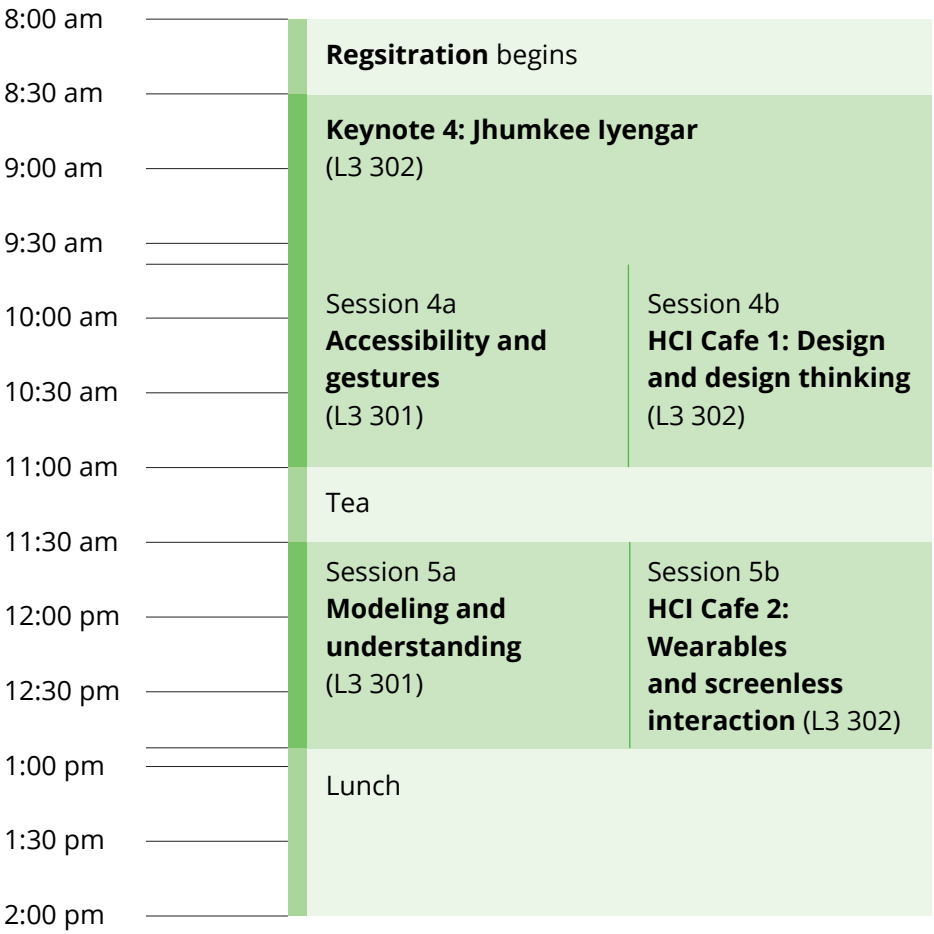
The Transforming Powers of Digitalization—HCI for Societal Impact

The digitalization is the biggest transformation that the society has been through since the industrialization. Businesses and jobs are changing at a rapid pace, old jobs disappear and new ones appear on the market. The use patterns change from traditional human-computer interaction to mobile, ubiquitous, autonomous systems with technologies taking completely new shapes. What are the role of HCI research and researchers in the future and do we have the possibility to influence policy and policymaking to improve the society and eventually make a better world?

About

Jan Gulliksen is a professor of Human Computer Interaction at KTH Royal Institute of Technology in Stockholm, Sweden. He is the chairman of the Swedish Digital commission serving the government on digitalization politics and also serving the European commission as Digital Champion of Sweden. Jan's research relates to usability, accessibility and user-centered design, digitalization and strategic leadership for digital transformation, digital work environments, and digitalization in an international context.

9|12 Friday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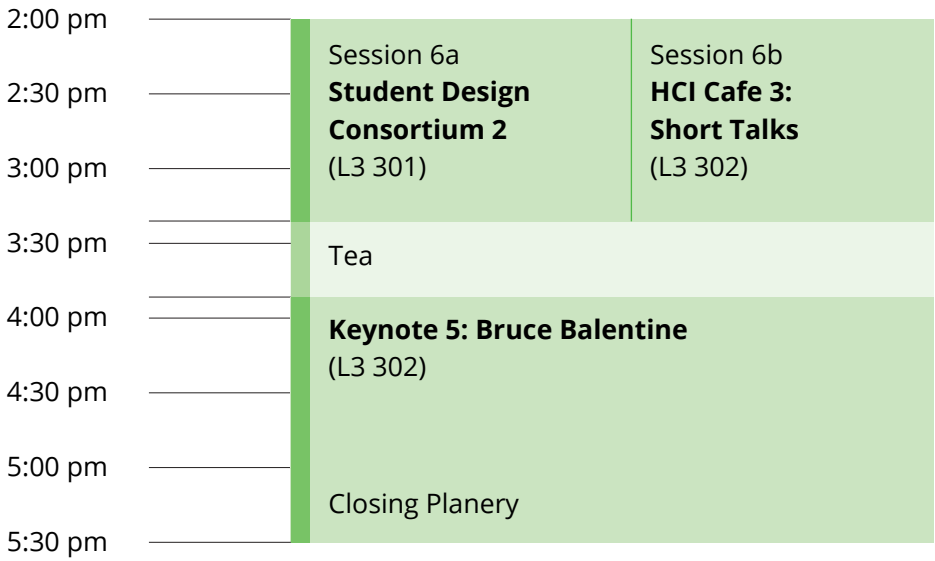
Regsitration begins
Keynote 4: Jhumkee Iyengar
(L3 302)
Session 4a
Accessibility and gestures
(L3 301)
Session 4b
HCI Cafe 1: Design and design thinking
(L3 302)
Tea
Session 5a
Modeling and understanding
(L3 301)
Session 5b
HCI Cafe 2: Wearables and screenless interaction (L3 302)
Lunch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Session 6a
Student Design Consortium 2
(L3 301)
Session 6b
HCI Cafe 3: Short Talks
(L3 302)
Tea
Keynote 5: Bruce Balentine
(L3 302)
Closing Planery

Keynote 4
Jhumkee Iyengar

9th December | 8:30 - 9:40 | Chair: Shashank Deshpande

Building Industry-Academia Design Bridges

India is projected to have a significant shortage of design professionals in the next few years. In this talk, I will speak about the importance, challenges and possible approaches for building much-needed bridges between industry and academia in the area of design, to address this issue. I will draw upon my own experiences in navigating the worlds of industry and academia to do so. Starting with a look at the current global climate of design in industry, I will first highlight the need for such bridges in order to serve the needs of a growing industry. Baselining from my experiences, I examine the implication and importance of industry readiness in our graduates. I then consider what this means from the academic perspective, in structuring the education process in order to create a design graduate pool that is better prepared and able to effectively navigate the corporate environment. I will share some successful approaches I have been using in order to service this need. This then takes us to the question of how do we achieve the difficult balance between delivering a holistic education on the one hand and the industry requirement of ready young design professionals on the other? How then do we envision a 'Design India' brand that creates global designers with Indian sensibilities? And what of our Indian-ness could we capitalize as enablers for this? I conclude by speaking about my visions for industry, for academia and for policy makers for effective bridge building.

About

As Principal Consultant, User In Design, Jhumkee provides consulting services in user experience design to startups as well as to new and established organizations. She guides project strategy, helps refine services, evangelizes, mentors and trains. Her experiences of over 25 years in the US and India have covered technical, consulting, research and project leadership roles.

In the US, she worked at Pitney Bowes and Philips Research Laboratories, on the designs of embedded consumer products as well as software-driven user interfaces for next generation products, concepts and documentation.

In India, she has been consulting in strategic design projects for multinational enterprises, offshore user experience projects and in services for the Indian market. She founded the user experience practice at Persistent Systems, an outsourced product development company. Her community orientation led her to initiate there a 'usability in e-Governance' program for Pune city, which delivered four projects. Her versatile experiences have covered enterprise applications, projects in financial services, user-research among low literacy mobile users, service strategy and design for low-cost technology applications as well as products with the focus on local usage.

Jhumkee is a Certified Instructor at LUMA Institute, a MAYA company, helping design the strategy for building a customer-focused culture and teaching Innovation through Human-Centered Design at various global corporations.

Session 4a: Papers
Accessibility and Gestures

9th December | 9:40 - 11:00 | L3 301
Chair: Sugandh Malhotra

Accessibility of Date Picker for Touchscreens
By Yash Mehta, Anirudha Joshi, Manjiri Joshi and Charudaatta Jadhav

Link: http://dl.acm.org/citation.cfm?id=3014368

With the objective of designing an accessible date picker, we heuristically evaluated features of 14 date-picking widgets / calendar for accessibility by visually impaired users. We found accessibility problems with most products. We did a comparative evaluation of various parts of products to understand the relative accessibility of the default views, the month selection interfaces and a far-away date selection interfaces with 12 blind users. We found that a brief introduction of about two minutes was enough for users to be able to successfully perform all tasks. With the exception of month selection interfaces, the differences in time taken and user rating was not significant. We also learnt about several design issues that were relevant to the design of date pickers. All these issues will help us to build an accessible date picker that can be used by many applications on smartphone.

Accessibility, effectivity, and improvements of voting methodology for visually impaired persons in the case using a web-based electric ballot system

By Takahiro Miura, Akira Kitagami, Yasuhiko Fujinawa and Takeshi Nagoya

Link: http://dl.acm.org/citation.cfm?id=3014370

Accessibility issues on ICTs grow increasingly important for responding the needs of people with disabilities, especially people with visual impairments. However, introductions of electrical ballot systems into society are delayed because of concerns about the right to vote and anonymousness of voters, the secrecy of votes, and the rejection of multiple votes, especially in Japan. In the case of introduction of electrical ballot systems for people with visual impairments, the methodology to facilitate them voting in the ballot systems has not been established yet. In this paper, our goal is to derive the implications of reasonable accommodations on electrical voting systems for visually impaired people by analyzing the availability and the effectivity of the ballot system for them. We conducted the evaluation by introducing a commercial electrical voting system whose accessibility problems had been tuned based on our advice and using the system at the trustees election of a Japanese association comprising many visually impaired people.

Mogeste: A Mobile Tool for In-Situ Motion Gesture Design
By Aman Parnami, Apurva Gupta, Gabriel Reyes, Ramik Sadana, Yang Li and Gregory Abowd. Mogeste

Link: http://dl.acm.org/citation.cfm?id=3014365

Motion gestures can be expressive, fast to access and perform, and facilitated by ubiquitous inertial sensors. However, implementing a gesture recognizer requires substantial programming and pattern recognition expertise. Although several graphical desktop-based tools lower the threshold of development, they do not support ad hoc development in naturalistic settings. We present Mogeste, a mobile tool for in-situ motion gesture design. Mogeste allows interaction designers to within minutes envision, train, and test motion gesture recognizers using inertial sensors in commodity devices. Furthermore, it enables rapid creative exploration by designers, at any time and within any context that inspires them. By supporting data collection, iterative design, and evaluation of envisioned gestural interactions within the context of its end-use, Mogeste reduces the gap between development and usage environments. In addition to the design and implementation of Mogeste, we also present findings from a user study with 7 novice designers.

Session 4b
HCI Cafe 1: Design and Design Thinking

9th December | 9:40 - 11:00 | L3 302 | Chair: Rashmi Sethi

Running a Service Design Sprint
By Navneet Nair

Over the last couple of years I have been running design sprints for clients. While most of the design problems ranged around designing interfaces, the last couple of instances were more around designing a complete service design experience. This would be a presentation around the challenges and experiences of running a Service Design Sprint. I do not have any presentation ready yet. I reckon I still have time for that.

What happens when non-designers design people's lives?
By Saloni Jha and Sameer Rawal

This is our 179th day at Digital Impact Square, Nashik. The verdict of recently held jury for the first 11 teams at this open innovation center lies in our laps. As we stare at the fate of each team, we are automatically, transported back to March 1st, 2016.

We started DISQ on an experimentation ground, to translate the philosophy of design thinking into impacting the lives of millions through social innovation. From the last 6 months we have been mentoring , coaching and sweating along with 11 teams across the following societal themes—Health and hygiene, Education, Water and Energy, Food and agriculture, Financial and Personal security and Financial and Personal Security.

The challenges thrown to the teams were not only socio-economically complex, but, also had a network of stakeholders involved—Citizens, intermediaries, Municipal Corporation, Zila Parishad, Education

Institutions, NGOs. The key goal was to come up with an innovative solution which is relevant and engaging for such a dynamic system.

We set to achieve – Empathy Maximization, Possibility maximization and Worth Maximization for Enhancing lives. In order to make this a reality, we started with some 40 Engineering students, a dozen of design students and another dozen of Management students. (Most of them either in their final year or recently graduated). The only thing we were certain about, that, there were going to be many uncertainties and challenges ahead.

The teams were formed by being mindful about the fact that we needed a balanced perspective from design, technology and business domain. This was only the beginning. Soon we realized that how much of a task it was to convince and re-shape the already set mindsets. Most of the Engineers were too tempted to get their hands dirty and were twitching to “make something”. It was integral to slow them down, in order to make them realize why it was important to deep dive into complex societal issues and fully understand “What is it that they want to innovate and how will it impact lives?”

The interesting experiment for us was—will such a multi-disciplinary team be able to work together under a design thinking philosophy—especially a team where the designer was in a minority? Will engineers appreciate the need to immerse themselves in a challenge without trying to solve it right away? Will management students , used to working in a structured, planned, outcome driven process thinking, agree to an approach that seems chaotic and allow challenges to emerge at their own pace? This was a challenge we decided to take up—because we believed that design thinking needn’t be innate – it can be nurtured and fostered—even in the most unlikely of people—provided we give them the right guidance and enroll them into the process through experience.

A few days back, these projects were reviewed by a panel of eminent jurists who came from varied background including an IAS officer, Chief Technology Officers of some of the largest companies in the world, a social venture capitalist and heads of pan India NGOs dealing with societal issues.

Today, we as proud pseudo-parents, would like to announce that 8 out of those 11 of our babies have been identified to move to the next level! The jury appreciated the depth of knowledge of each team and were impressed at the way the teams had understood the real crux of many of the social issues. Our experiment of putting a motley bunch of young, untrained students through a design process framework has shown amazing results! We are now celebrating the joy of our team's efforts in creating platforms whether it is for identifying 400 out of school children and enrolling them in school or for identifying 300 High risk mothers in Amboli village and speeding up the preventive care model.

This is just the beginning, of course—and we are aiming to build on these initial successes to prove that *yes—non designers too can design people's lives!*

Design thinking & innovation workshops: The path to meaningful innovation

By Aboli Champhekar

The focus of my presentation will be how UX practitioners and organizations can achieve meaningful innovation by successfully conducting strategic, collaborative 'Design Thinking and Innovation' workshops using various ideation techniques.

I will begin my presentation by briefly defining the design-thinking methodology (what), its importance (why) and benefits (to what effect) supported by high impact visuals/ skit. The main highlight here will be 'define' and 'ideate' phases illustrated by real life stories/ examples.

Next, I will outline what a 'Design Thinking and Innovation' workshop is and when and how we can strategically plan and facilitate such workshops.

Using examples, from workshops I have planned and facilitated, I will elaborate on the step-by-step process of a workshop and include – pre-requisites, planning, distilling business goals for the scope, defining the problem to solve, facilitating, best practices and pitfalls to avoid.

I will explain various practical tools, techniques and team games to use for breakthrough idea generation. This will be followed by a list of useful tips to tackle specific challenges and problems that could be encountered with various stakeholders.

In the concluding part I will touch upon how we can use some of the best practices of these workshops outside of a workshop setting, with limited resources, for desirable outcomes.

Creating true Omni-channel experiences by imagining 360 degrees customer experience

By Priyanka Agrawal and Tanay Kumar

As an experience design company, it is becoming extremely important for us to imagine seamless experience to the users regardless of the channel or devices they use.

Consumers, today, engage with a brand either on their website or mobile apps, or physical stores. They look through their catalogues or on social media or even via targeted marketing campaigns. They constantly switch between devices, platforms and mediums depending on the context they are accessing it in.

Making these experiences consistent and complimentary to provide full 360 degrees delightful experience is a key task for an experience design strategist.

In this presentation we will take you through the plan and thought process that is going in creating a true omni-channel experience for some of our top clients.

Session 5a Papers: **Modeling and understanding**

9th December | 11:30 - 12:50 | L3 301 | Chair: Sanjay Tripathi

Improved Gaze Likelihood based Web Browsing
By Sai Anirudh Kondaveeti, Sandeep Vidyapu and Samit Bhattacharya

Link: http://dl.acm.org/citation.cfm?id=3014371

Web browsing is the dominant activity among all the online based activities. With more people getting connected to the WWW (World Wide Web), its importance is further enhanced. Web browsing tasks are accomplished using the point-and-click technologies such as mouse and touch based interaction. With the advent of new technologies such as Eye gaze tracking, new paradigm of web interaction is evolving based on gaze view. Earlier works used gaze as medium of interaction to select the discrete UI elements (hyperlinks). But, there is an important need to reduce the time spent on selecting a hyperlink, as increase in time lag may lead to frustration and dissatisfaction of web browsing. In this paper, we propose a method to highlight only the probable hyperlinks than all the hyperlinks in a region of interest. This method helps to reduce the time involved in selecting an hyperlink. Our proposed method is evaluated and compared against the state-of-the-art methods. The results show that, our method reduces the number of activated hyperlinks and time to access an hyperlink.

Modeling individual differences in information search
By Saraschandra Karanam and Herre Van Oostendorp

Link: http://dl.acm.org/citation.cfm?id=3014363

A number of cognitive processes are involved in the process of information search: memory, attention, comprehension, problem solving, executive control and decision making. Several cognitive factors such as aging-related cognitive abilities, domain knowledge, spatial ability and need for cognition, etc. in turn influence either positively or negatively these cognitive processes. We argue that traditional click models from information retrieval community that predict user clicks do not take into account the effect of the above cognitive factors. We propose to exploit the capabilities of computational cognitive models that can simulate the effects of cognitive factors on information search behavior. In this direction, we present some ideas how to incorporate these factors into a computational cognitive model called CoLiDeS+. Preliminary analysis of our ideas on modeling and predicting individual differences in information search due to age and domain knowledge show promising outcomes.

Wellmatchedness in Euler Diagrams: An Eye Tracking Study for Information Visualisation Evaluation

By Mithileysh Sathiyanarayanan and Tobias Mulling. Wellmatchedness in Euler Diagrams

Link: http://dl.acm.org/citation.cfm?id=3014369

Euler diagrams are an important tool in the field of information visualisation and knowledge discovery which are used for visualising set-based information. From the previous papers, Euler diagrams can be effectively used when some of the non wellformedness (diagrams' syntactic relationship rules) are avoided, as they are considered to reduce user comprehension. Though there are empirical studies on wellformedness but there is no study considering wellmatchedness (diagrams' syntactic relationships to be reflected in the semantic relationships). So, in this paper we considered two main wellmatchedness principles (extra zones and duplicated curves) to test which among the two can be relaxed while generating Euler diagrams in the most effective way. In the field of visualisation and human–computer interaction (HCI), we observe the ways in which humans (users) interact with the visual representations using computers and design technologies. So, the user-study is based on the task performance (accuracy and response time), preference and eye movements of the participants. Ten participants took part in the study (eighteen diagrams were presented) and the results shows that, duplicated curves slows down and trigger extra eye movements, causing delays for the tasks. The other results we obtained from the task performance and preference will also be useful for algorithm developers and software designers on the optimal way to generate Euler diagrams for real world applications.

Session 5b

HCI Cafe 2: Wearables and screenless interaction

9th December | 11:30 - 12:50 | L3 302 | Chair: Keyur Sorathia

Wearable Visual Design Guidelines

By Ganesh Rajput

Wearables screens are very small and the resolutions can feel tiny. These devices also come in all shapes and (small) sizes. Beyond various rectangular combinations, some smartwatch and wearable screens are round. It's important to design for the resolution of the device as well, and these can vary widely from device to device.

When working on responsive websites, you may encounter resolutions as high as 2,880×1,800px on web , down to 480×320px on a small smartphone. When we designed for wearables we believed we could simply shrink the features and visual design further, this was a huge mistake.

The key is creating a design that is visually pleasing but is user-friendly and provides a functional experience. Minimalist designs are therefore ideal for smartwatches and wearables. With effective use of formatting and the limited whitespace. Use large fonts and objects that can be seen and interacted with while on the move. Use a high contrast color to grab attention and create visual interest.

These wearable guidelines would help to define the approach of visual design before creating any wearable user interfaces.

Crafting a UX Strategy for Wearables
By Hetal Jani

In recent years we've seen new, disruptive innovations in the world of wearable technology; advances that will potentially transform life, business, and the global economy.

Designing a user experience for wearables imply a different approach than traditional web or mobile UX design. It is one of the most challenging, yet interesting forms of user experience – one that combines web-based user experience with traditional user experience. One that goes beyond creating the physical product. Every interface should be designed to empower and educate the user to perform a desired activity more quickly and easily.

This talk focuses on key UX aspects for crafting user experience strategy for Wearables. On how to bring to life the wearable technology beyond the hardware, with a focus on the human centered design. The talk also covers fatal Ux flaws with wearables, who are we designing for, new questions to ask as designers and key Ux guidelines for wearables technology.

Thinking beyond screens—the rise of invisible interfaces
By Alok Kumar

In order to understand and appreciate the value of invisible interfaces we need to go back a little in time. If you think of interfaces evolution in terms of generation then desktops were the first generation, mobile was the second generation. But how the next generation of interfaces should look like?
Graphical User Interfaces was the main design paradigm of the 80s and 90s when it came down to finding solutions for man-machine interaction. we're now about to take the next step in computerization and are already exposed to embedded systems, ambient intelligence making the computer invisible. The interaction canvas has grown beyond screens to rooms, to the building, to the block, to public places, to the city and so on.
The advancements has given us an opportunity to rethink our approach to solving problems with computers and flip the relationship with them by making them more like a caring agent. Rather we becoming more computers why not make computers more human!
Don Norman beautifully articulated the problem -" The real problem with interface is the fact that it is an interface. I don't want to think of myself as using a computer, I want to think of myself as doing my job. "
Why do we need to pull out our mobile to switch ON the light when we are already inside the room and standing right in front of the switch? Why can't mobile automatically detect the location and switch ON the lights.
Invisible interfaces is a screenless mindset for a world filled with screens. Empathy is talked about a lot in the community and it is for a good reason. A screenless mindset enables one to actual understand the real users need and want and solve it seamless and not just slapping a screen to the problem. Invisible interfaces is the humanistic approach to computing which btw is the core philosophy of design thinking. My objective of the talk would be to
1. Present the case for invisible interfaces. UX ≠ UI
2. Provide a framework for designing invisible interfaces

When Talk is the New Click—Interacting with Conversational UI
By Purvi Gandhi

It's taken for granted that if we want to use the computer it needs a screen and a graphical interface. We click, we type, we touch and we drag - but is this really our preferred way of communicating?
This interface is limiting us in what we are trying to do.
Spoken language is the original interface, and we are now seeing the rise of computers and applications which we can converse with – say the Conversational UI.
However when we talk about CUI, it may not have a visual element. The interface is perceived primarily with the ears. What's more, it could be competing with ambient conversations.
This means what the device will speak, when, and how, becomes more crucial.
While the CUI itself keeps getting stronger through machine learning, advanced Natural Language Processing and Artificial Intelligence capabilities, the challenge for designers will be in designing interactions that humanize.
In this talk, I will cover the recommended practices that will enable designers to design the CUIs that effectively guide the user to the next step and enable cognition of the context.
I will also discuss the challenges faced by users while using the CUI and will conclude by discussing the future of CUI.

Session 6a
Student Design Consortium 2

9th December | 14:00 - 15:20 | L3 301
Chair: Prashant Sachan

Affective design language for mobile screens inspired by Rasa Theory
By Ritwik Dasgupta

Link: http://dl.acm.org/citation.cfm?id=3014384

The goal of the project was to create a design language based on an understanding of Indian concept of emotions and aesthetics through Rasa Theory. This will bring a fresh Eastern perspective to UI/UX design. For this, natyashastra had to be referred to understand the concept of emotions. The rasa theory, its parts, the various bhavas were understood in its essence. A design language is essential from the eastern half of the world as this is the place where the coding of emotions and its components was done centuries ago. After understanding the rasas, dance movements for each emotion was plotted to understand the movement, direction, rhythm. Directly copying the movements don't result in design, it's the accumulation of all the factors, understanding the essence of each emotion and then putting in your own input as a designer and coming out with a solution. User testing was done to gauge the user reactions for the graphic motions portraying the emotions and sample screens were made accordingly.

EYESENSE: Navigation And Aid System For The Visually Impaired
By Ankit Kant and Nikhil Shivpuja

Link: http://dl.acm.org/citation.cfm?id=3014379

This paper describes a navigation and aid system for the recently visually impaired. This system uses various data sources and a human vision inspired camera system to provide information and recommendations to the users, in the form of audio and tactile feedback. The system while being primarily for navigation, will be extensible so as to aid in all aspects of the user's life. By being completely hands-free and unobtrusive it will allow for a normal experience for both the user and the people around him.

Untapped Potential of our Sun
By Uttishta Varanasi

Link: http://dl.acm.org/citation.cfm?id=3014381

Innovation in the utilisation of energy from our sun, while addressing a modern problem in maker culture.

A narrative data visualization of Indian Stock Market
By Suchismita Naik

Link: http://dl.acm.org/citation.cfm?id=3014382

This is a classroom project focusing on narration through data sets. The main concept behind this data visualization is to map the significant events that occurred in India with respect to the rise and fall of the Indian Stock Market value for over two decades. A narrative data visualization of Indian stock market was adopted to explain this complex topic to tell the users stories through heavy datasets that are difficult to comprehend without prior knowledge.

Optimizing Kitchen Experience
By Ravishankar S and Saranya Rukmangadhan

Link: http://dl.acm.org/citation.cfm?id=3014380

The number of elderly in the developing countries has been growing at a phenomenal rate. According to the United Nations projected age structure of population for 2010, India is expected to have a total of over 91.6 million persons in 60+ age groups by 2050, the second largest population of older adults in the world after China. Growing at a rate of over 3 per cent per annum, this exceeds the annual average growth rate achieved by the younger (0-14 and 15-59) cohorts. UN projections also reveal that India has added a total of about 12.6 million aged persons between 2005 and 2010.
This project aims at exploring ways to enable active ageing. Active ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.

Now a days, there is an increasing number of elderly living independently that lead us to delve into everyday spaces and tasks which might be difficult for them. In this context, kitchen space was chosen as the area of study as it is the highest functional room in every house. All residents use this space, so it needs to be accessible by the least able to the most able person and also from smallest to the tallest. The ability to cook for self with ease and comfort forms an important part of independent living. A good and safe kitchen space is very critical and often most neglected while planning a house.The aim of this project is to study Indian kitchens, mostly the SS modular kitchen segment, and come up with evolutionary and not evolutionary design changes to eliminate or reduce ergonomic risk factors.

Session 6b
HCI Cafe 3: Short Talks

9th December | 14:00 - 15:20 | L3 302
Chair: Prachi Sakhardande

Kahinee - A rural healthcare initiative using IVR/VAS systems
By Anmol Anubhai, Shashwat Sanghavi and Rahul Patel

Kahinee is an IVR/VAS system intended to impart education and awareness in rural areas about maternal and child care, nutrition, anemia and government health schemes as well as facilities. It has been founded by Anmol Anubhai, Shashwat Sanghavi and Rahul Patel. We started this as a part of our final year engineering project (SEAS, Ahmedabad University) while being incubated at Venture Studio, Ahmedabad University (starting from November 2015). We are engineers with a background in product design.
We designed Project Kahinee after conducting thorough field study as well as user analysis in remote village of Gujarat. We conducted interviews as well as observed the working methodologies of ASHA workers(local community health workers), village doctors as well as rural citizens.
The phase one implementation of this system consists of educating and spreading awareness through short engaging audio plays and stories in the local language. We follow a unique pedagogy in which we aim at educating the rural citizens through storytelling and local music. The phase two of this system will consist of a service using which people in rural areas can leave an audio note describing their symptoms in their local language. Kahinee will send these audio notes to urban doctors. Kahinee provides a toll free number to rural citizens using which they can listen to the topics of their choice and at a later point leave their messages as well as queries. We have already completed our first pilot test with Harvard based NGO Barakat Bundle (http://barakatbundle.org/), IIPH and SEWA Rural.

There will be a back-end database maintained which will store all the details of the mobile numbers who accessed the service as well as their call duration and the particular content that they chose to listen. This database will help analyze the impact as well as health domains which require more focus and work. We presented our unique pedagogy for training and educating the rural audiences, Asha workers as well as PHC doctors about varied health issues using audio plays and folk music at the Indian Society for Training and Development, Vadodra chapter. We were presented with the Innovative Trainers Award by the same at the State level.

Guidelines for usable security
By Sonali Joshi

Security is one of the most significant aspect, be it for application, products, enterprises, corporate, home, social places etc. The security features like confidentiality, integrity, availability, etc., have become regular expectations from novice and experts alike. As security has become a sub-conscious need at a day-to-day level, it is imperative that these security features also have to be highly usable.
This talk, explains the situations where either Security or Usability gets precedence one over the above. And how user experience can be improved, when Usability and Security go hand in hand. But achieving better user experience for Usable Security has its challenges and significant work has gone into addressing them, which led to a set of heuristics.
We look at the different roles and levels that need to be considered while effectively dealing with Usable Security Approach.
We conclude the talk with a set of guidelines for the Usable Security approach.

World Cultures and Design
By Balachandra Shetty

On 29th November 2015, Lokmath a Marathi newspaper published a story named “ISIS cha paisa” on how ISIS gets its funding. The artwork it depicted had offended our muslim friends since it had holy verses placed on a picture of piggy bank. Where in islam pig is forbidden. There were riots. Newspaper had to render an apology.
Now, why we are talking such a sensitive religious topic in a design forum? The whole episode could have been averted if the designer or editor of the artwork had an understanding of certain religious sensibilities & its effect on peoples’ emotion.
Designers in India now have greater opportunities to work with international brands. It’s a call for awareness for design firms to get acquainted with cultural nuances to connect to their local audience. A greater cultural understanding can lead to product being accepted by people. Whereas lack of cultural research will lead to negative outcomes. In this talk we’ll demystify how Amazon was able to penetrate into hearts of Indians through their advertising strategy? Why US brand Gerber Baby Foods failed in Africa when they thought their product packaging made for America will work in Africa too? Why Coca Cola had to apologise its Russian & Ukrainian customers for their Christmas greetings?
Lokmath article is just one instance, in this talk we’ll focus on many such stories about various brands & products. We’ll also cover measures we can take to make sure product we design will succeed in a given culture or a region.

Designing an in-stadium mobile experience
By Shivam Sahai and Vaibhav Gupte

Mobiles have penetrated all walks of life. Recently, we came across a very interesting context to design for. A mobile app. To help basketball fans order food during a live game event at one of the major sports arenas in the US. To us, this sounded a pretty interesting design challenge. This was not a run-of-the-mill app that will be used while relaxing on a couch at home, or while waiting in a queue. The app will be used inside an arena during a live game event. The environment was completely different. From an experience point of view, we had to consider a lot of critical factors that will influence design decisions. The fans are completely engulfed in the game, they are going crazy cheering the teams, the noise levels are sky high, the arena is dimly lighted. Fans want to emotionally stay with the game. Period. So how do we craft an experience that is minimal? An experience that is non-intrusive? An experience that will not let fans miss even a minute of game's play? From the business point of view, we wanted the fans to place their orders to achieve the business objectives. This story is about how we approached this design problem. We also used a couple of interesting design techniques that helped us see the world from the user's shoes, something we would love to share during the talk.

Enhancing UX with Micro-Interactions
By Vishal Rane

If you care about user experience, you should know about Micro-interactions. Micro-interactions are one of the best techniques for providing Delightful feedback, Accomplishing an individual task, Enhancing the sense of data manipulation and Helping users visualize the results of their actions.
In UX, what matters is how you deal with users and how they feel about using the product. To boost and enhance experience of user beyond functional and pleasant design, one should combine these with micro-interactions to create a perfect product that draw user's attention and generate pleasant emotions.
Micro-interaction focuses on minor details that deserve close attention. They are those small, tiny piece of functionality that does one small task at a time, may be Changing of mobile/system Settings, Synching of data or devices, Setting an alarm or a password, Logging in, Favorite/Like and many more exciting things.
This talk will give you an understanding about Functions of Micro-interaction, Factors for designing Micro-interactions and Some of its examples.

Keynote 5
Bruce Balentine

9th December | 15:50 - 17:00 | Chair: Ravi Poovaiah

The Future of Voice: Two Trajectories

The human voice as a user interface modality has shown promise for many years. Today there is great excitement that neural networks, deep learning, artificial intelligence and big data will finally allow that promise to be fulfilled. In this talk, I reconsider speech and language technologies in this modern light. How important is speech? How is that importance changed by the explosion of mobile devices? How dependent is human conversation on consciousness and theory of mind? How does a speech interface improve lives in developing countries? Where is it all headed? In my opinion, there are two likely trajectories.

About

Bruce Balentine, Chief Scientist for Enterprise Integration Group, has devoted more than 30 years to exploring HCI and temporal media. Experienced in theoretical and applied product design, and consumed by a lifelong passion for the human voice and human hearing, Balentine creates interfaces that exploit speech recognition and synthesis, language, sonification, music and gesture. He has authored several books on speech technologies. Now in semi-retirement, Balentine has replaced product design with a preference for education, mentoring, and workshop facilitation. He holds BM and MM degrees in music composition from the University of North Texas, with interdisciplinary studies in electroacoustic music and intermedia.