

# HCI Goes to the Zoo: Discussion Topics

## **Session 1: Motivation. Opportunities for technology at the zoo**

- Identify big themes and opportunities that emerge from these papers.
- What other big opportunities are not captured here?

## **Session 2: ACI at the Zoo. Technology for primates**

- Learning from primate cognition research
- Animal (and comparative) research as part of the zoo experience?
- Animal research tasks vs. enrichment vs. play
- Interspecies interaction and play

## **Session 3: ACI at the Zoo. Technology for non-primates**

- The significance of designing for non-primates
- Learning from / analogy with ACI for domestic cats and dogs
- Smart devices and environments vs. computer interfaces
- Looking beyond existing forms of enrichment: what else does technology make possible?
- Cognitive enrichment for non-primates

## **Session 4: Supporting animal husbandry**

- Known challenges, constraints and practices
- Responding to shifts in animal welfare expectations, husbandry, zoo staffing
- Visitor facing vs 'back of house' operations

## **Session 5: Visitor experience, education and conservation**

- Challenges of technology vs. naturalism, vs. the animals themselves
- Information and education in free choice, recreational environments
- Contributing to and measuring education outcomes
- Influencing and measuring conservation attitudes & behaviours
- Responding to varied and shifting visitor interests and expectations
- Visitor-animal interaction: opportunities and challenges
- Extending the experience beyond the zoo walls

## **Session 6: Zoo Design Challenges**

Groups apply their ideas to specific known problems or domains within the zoo. For example, Melbourne Zoo's Gorilla population often experiences stress during busy holiday periods; what role can technology play in monitoring or enriching animal welfare, or managing guest behaviour?

## Papers to be Presented

<b>Session</b>	<b>Authors</b>	<b>Title</b>
<b>1-Motivation</b>	Sarah Ritvo and Suzanne Macdonald	Instrument of Agency: ACI as a Mechanism for Choice, Environmental Control, and Preference Assessment for Captive Animals
<b>1-Motivation</b>	Patricia Pons and Javier Jaen	Tangible User Interfaces for Zoo Enrichment
<b>2-Primates</b>	Nick Hermans and Berry Eggen	Beyond Barriers: Exploring Opportunities of Digital Technology to Encourage Personal Interaction between Captive Orangutans and Zoo Visitors.
<b>2-Primates</b>	Christopher Martin and Robert Shumaker	Great Ape Touch-Panel Tasks: a Platform for Research, Enrichment, and Conservation
<b>2-Primates</b>	Marcus Carter, Sarah Webber and Sally Sherwen	Designing for Enrichment and Wellbeing of Orang-utans and Gorillas.
<b>3-Non-primates</b>	Bethany Krebs and Jason Watters	Using Technology Driven Environments to Promote Animal Well-Being in Zoos
<b>3-Non-primates</b>	Fiona French, Clara Mancini and Helen Sharp	Trunk-enabled Toys
<b>3-Non-primates</b>	Scott Mitchell, Liam Fennessy, Sally Sherwen and Alexander Radevski	Smart Species, Sensors and Simple Objects
<b>4-Keeping</b>	Johannes Karlsson, Keni Ren, Peter Björk and Johan Haake	Digital Zoo - A Testbed for an Interactive Zoo at Lycksele Zoo
<b>4-Keeping</b>	Jason Wark, Matthew Heintz, Tony Niemann, Marisa Shender, Adrienne Horrigan, Katie Gillespie and Megan Ross	ZooMonitor: An electronic data collection app developed for animal husbandry managers
<b>4-Keeping</b>	Brent Auernheimer and Sara A. Blake	Ensuring the safety of animal-keeper protocols
<b>5-Visitors</b>	Nick Taylor, Mei Yii Lim and Leigh Morris	Beyond the Pandas: Enhancing the Visitor Experience at Edinburgh Zoo
<b>5-Visitors</b>	Patrick C. Shih and Christena Nippert-Eng	From Quantified Self to Quantified Other: Engaging the Public on Promoting Animal Well-being

