



**CHI 2015**  
**CROSSINGS**  
SEOUL • KOREA

**Conference Program**

COEX Convention & Exhibition Center

18-23 April 2015

[chi2015.acm.org](http://chi2015.acm.org)



The 33rd Annual CHI Conference on Human Factors in Computing Systems (CHI)

Monday – 20 April 2015

- 08:30 - 9:20 ... **Opening Plenary Keynote, “Crossing: HCI, Design and Sustainability”**  
Lou Yongqi, *Dean, College of Design and Innovation, Tongji University*
- 10:00 – 11:30 ... Coffee Break  
Video Showcase  
Student Game Competition Exhibit
- 11:30 - 12:50 ... Technical Sessions
- 12:50 - 14:30 ... Lunch Break (on your own)
- 14:30 - 15:50 ... Technical Sessions
- 15:50 - 16:30 ... Coffee Break
- 16:30 - 17:50 ... Technical Sessions
- 18:00 - 19:30 ... **Opening Reception & Exhibit Hall Grand Opening**

Tuesday – 21 April 2015

- 08:30 - 9:20 ... **Morning Keynote, “UX Design in the IoT Era”**  
Donghoon Chang, *VP, Head of Design Strategy Team and UX Center in Corporate Design Center, Samsung Electronics*
- 09:30 - 10:50 ... Technical Sessions  
(Note: Exhibit Hall open 10:30 - 17:30)
- 10:50 - 11:30 ... Coffee Break  
Interactivity Demos Open in Exhibit Hall
- 11:30 - 12:50 ... Technical Sessions
- 12:50 - 14:30 ... Lunch Break (on your own)
- 14:30 - 15:50 ... Technical Sessions
- 15:50 - 16:30 ... Coffee Break  
Interactivity Demos Open in Exhibit Hall
- 16:30 - 17:50 ... Technical Sessions
- 18:00 - 19:30 ... **Job Fair in Exhibit Hall**

Wednesday – 22 April 2015

- 08:30 - 9:20 ... **Morning Keynote, “Journey to a Better Life”**  
David Min, *Senior Research Fellow, LG Electronics*
- 09:30 - 10:50 ... Technical Sessions  
(Note: Exhibit Hall open 10:30 - 17:30)
- 10:50 - 11:30 ... Coffee Break  
Interactivity Demos Open in Exhibit Hall
- 11:30 - 12:50 ... Technical Sessions
- 12:50 - 14:30 ... Lunch Break (on your own)
- 14:30 - 15:50 ... Technical Sessions
- 15:50 - 16:30 ... Coffee Break  
Interactivity Demos Open in Exhibit Hall
- 16:30 - 17:50 ... Technical Sessions

Thursday – 23 April 2015

- 08:30 - 9:20 ... **Morning Keynote, ACM-W Athena Lecture**  
**“Large-Scale Behavioral Data: Potential and Pitfalls”**  
Susan T. Dumais, *ACM Fellow, Distinguished Scientist, Microsoft*
- 09:30 - 10:50 ... Technical Sessions  
(Note: Exhibit Hall open 10:30 - 13:30)
- 10:50 - 11:30 ... Coffee Break  
Interactivity Demos Open in Exhibit Hall
- 11:30 - 12:50 ... Technical Sessions
- 12:50 - 14:30 ... Lunch Break (on your own)  
(Note: Exhibit Hall closes at 13:30)
- 14:30 - 15:50 ... Technical Sessions
- 15:50 - 16:30 ... Coffee Break
- 16:30 - 17:50 ... **Closing Plenary Keynote**  
**“Cultural Crossing from Local to Global through Music: Technology, Media and Future”**  
PSY, *Social Media Innovator*



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**WIFI** (please note: case sensitive):  
network name: CHI2015  
user name: chi2015  
password: chi2015

# Welcome to CHI 2015

Welcome to CHI 2015, the premier international forum for human-computer interaction (HCI). The theme for the conference this year is CROSSINGS which represents our excitement about crossing into Asia for the first time and also reflects CHI's core principle of crossing disciplines, crossing people and technology, crossing research and business, crossing physical and digital, crossing you and me. The city of Seoul provides a fantastic location to showcase groundbreaking research and innovation from across Asia. In addition to a rich technical program with breakthroughs across a diversity of HCI topics, we are holding four special symposia devoted to insights from the Chinese, Japanese and ASEAN HCI communities. Throughout the conference, you will hear fresh perspectives from exciting Asian speakers along with other special presentations from speakers of wide-ranging backgrounds and viewpoints. Enjoy your CROSSINGS!

사용자 경험 (UX)와 HCI (Human-Computer Interaction) 분야의 대표적인 학술회의인 CHI 2015로 여러분을 초대합니다. CHI 2015는 30년 넘는 CHI 학회 역사상 처음으로 아시아에서 열리는 학회입니다. 올해 학회 테마는 “교차하기 (CROSSINGS)”입니다. 이는 사람과 기술, 학교와 기업을 잇는 CHI의 학문간 융합과 교차를 상징합니다. 이번 CHI 2015는 전세계의 최신 UX 및 HCI 연구와 획기적이고 혁신적인 기술을 체험할 수 있는 최적의 장소입니다. 이와 더불어 중국, 일본 그리고 아세안 국가 HCI 커뮤니티들의 다양한 HCI 노하우, 인사이트를 체험할 수 있는 4개의 특별 심포지엄도 열릴 예정입니다. 학회 기간동안 전세계 발표자들의 폭넓은 경험과 관점을 담은 발표를 듣고 새로운 아이디어와 시각을 체험할 수 있을 것입니다. 아무쪼록 CHI 2015에 오셔서 지금까지 경험해보시지 못했던 새로운 UX/HCI 기술을 경험을 하시기를 기원합니다.

Bienvenue à CHI 2015, le forum international majeur sur l'Interaction Homme-Machine (IHM). Cette année, le thème de la conférence est “CROSSINGS” (carrefours, passades), d'abord pour exprimer notre enthousiasme à franchir de nouvelles frontières et nous retrouver en Asie pour la première fois, mais aussi pour mettre en avant l'essence même de CHI, qui est à la croisée des disciplines, à la croisée des personnes et de la technologie, à la croisée des mondes académique et industriel, à la croisée des mondes physique et numérique, à la croisée de vous et moi. La ville de Séoul est l'endroit idéal pour mettre en avant la recherche et l'innovation de pointe issues de toutes les contrées d'Asie. Outre un programme riche en contributions scientifiques dans toutes les facettes de l'IHM, nous organisons quatre symposiums dédiés spécifiquement aux avancées des communautés IHM de Chine, du Japon et de l'ASEAN. Tout au long de la conférence, vous aurez le plaisir d'entendre des intervenants Asiatiques ouvrir de nouvelles perspectives, ainsi que de nombreuses présentations originales d'orateurs de tous horizons. Bons “CROSSINGS”!

欢迎参加CHI 2015,这个在人机交互(HCI)领域里顶级的国际会议与论坛。今年会议的主题是CROSSINGS(跨越),我们很高兴地第一次在亚洲举办此研讨会,并体现了CHI跨越不同学科、跨越人员跟技术、跨越研究与产业、跨越实体和虚拟、以及跨越你我的基本原则。首尔市提供了一个绝佳的地理位置来展示亚洲不同区域的尖端与创新研究。除了丰富多采的会议议程及人机交互多样化的主题外,我们还提供了来自中国,日本和东南亚人机交互社群的四个特别专题讨论会。整个会议期间,你将会聆听到亚洲演讲者令人兴奋的崭新观点以及不同背景和角度的特别演示。尽情体验你的“跨越”吧!

Selamat datang di CHI 2015, sebuah forum internasional ternama di bidang Interaksi Manusia dan Komputer (HCI). Tema konferensi tahun ini adalah CROSSINGS yang menggambarkan kegembiraan untuk menyeberang ke Asia untuk pertama kalinya, dan juga melambangkan refleksi kita tentang prinsip utama konferensi CHI yaitu lintas disiplin, lintas manusia dan teknologi, lintas riset dan bisnis, lintas fisik dan digital, lintas Anda dan kami. Kota Seoul memberikan lokasi yang luar biasa untuk memamerkan berbagai terobosan penelitian dan inovasi terbaru dari seluruh Asia. Di dalam konferensi kali ini, selain program teknis yang kaya dengan berbagai terobosan baru di bidang HCI, kami juga akan menggelar empat simposium khusus untuk memberikan berbagai wawasan dari komunitas HCI di China, Jepang dan negara-negara ASEAN lainnya. Selama konferensi, Anda juga akan mendengar berbagai perspektif baru dari banyak pembicara Asia yang menarik bersama dengan presentasi khusus dari banyak pembicara lainnya dengan latar belakang dan sudut pandang yang beraneka ragam. Selamat menikmati CROSSINGS Anda

ヒューマン=コンピュータ=インタラクションの最高峰の国際会議であるCHI 2015によこそ!今年の会議のテーマは“CROSSINGS”,はるか海を渡って,初めてアジアにこの会議を迎え入れる喜びと,学問領域・人々と技術・研究と実学・現実世界と仮想世界・この場にいる私たちを結びつけるというCHIの本質を表しています。既存の考え方や見識を打ち破るようなアジアからの研究成果や新しいアイデアを世に発信するため,ここソウルに一堂に会することとなりました。HCIに関連する様々な研究トピックにおける重要な成果を発表するプログラムに加え,中国・日本・ASEAN諸国のHCI研究コミュニティにおける研究動向を共有するため,本会議では4つのシンポジウムを併催しています。今年のCHIでは,幅広い経験や見識を持つ専門家が届ける発表とともに,アジアからの参加者が示す新しい研究の捉え方に耳を傾けてください。どうぞあなた自身の“CROSSINGS”を見つけてください!



Willkommen bei CHI 2015, der weltweit führenden Konferenz für Mensch-Computer-Interaktion. Das Leitmotiv der diesjährigen Konferenz ist CROSSINGS – CHI überschreitet Grenzen. Es steht für unsere Vorfreude und Erwartung auf die erste CHI-Konferenz in Asien und drückt die wesentlichen Prinzipien von CHI aus: Disziplinäre Grenzen überschreiten, Grenzen zwischen Mensch und Technologie überwinden, den Austausch zwischen Forschung und Wirtschaft fördern, Grenzen zwischen der physischen und digitalen Welt verringern, und nicht zuletzt einen fruchtbaren Austausch zwischen Konferenzteilnehmern aus allen Ländern und Kulturen ermöglichen. Seoul ist eine hervorragende Stadt, um erstklassige Forschung und Innovation aus Asien zu präsentieren. Unser umfangreiches technisches Programm stellt bahnbrechende Forschungsergebnisse aus vielfältigen Themengebieten der Mensch-Computer-Interaktion vor. Darüber hinaus werden wir dieses Jahr vier spezielle Symposien veranstalten, die neuen Erkenntnissen aus den chinesischen, japanischen und südostasiatischen Forschungsgemeinschaften gewidmet sind. Die gesamte Konferenz hindurch werden Ihnen neue Perspektiven geboten, zum Beispiel in eingeladenen Vorträgen von hochkarätigen Referenten aus Asien und vielen weiteren Vortragenden mit den verschiedensten Hintergründen und Standpunkten. Viel Spaß beim Grenz-Überschreiten!

ยินดีต้อนรับสู่ CHI 2015 ซึ่งเป็นที่ประชุมสำหรับศาสตร์ปฏิสัมพันธ์ระหว่างคนและคอมพิวเตอร์ ชื่อการประชุมวิชาการนี้คือ การก้าวข้ามซึ่งเป็นเรื่องตื่นเต้นที่เราจะก้าวข้ามมายังเอเชียครั้งแรก และสะท้อนหลักของการก้าวข้ามระหว่างศาสตร์ก้าวข้ามระหว่างและเทคโนโลยี ก้าวข้ามระหว่างการวิจัยและธุรกิจ ก้าวข้ามระหว่างกายภาพกับดิจิทัล ก้าวข้ามระหว่างคุณและผม เมืองโซลเป็นสถานที่ที่ตื่นตาตื่นใจเป็นที่แสดงผลงานของการวิจัยและนวัตกรรมในทวีปเอเชีย นอกจากนี้เราจะมีโปรแกรมที่เข้มข้นด้านเทคโนโลยีของหัวข้อ HCI เราจัดงานได้อย่างที่ได้จากจีน ญี่ปุ่น และชุมชน HCI เอเชีย. ตลอดการประชุมคุณจะได้ชมมุมมองที่หน้าตื่นตาตื่นใจจากวิทยากรของเอเชีย ด้วยการนำเสนอจากมุมมองที่หลากหลาย ขอให้มีความสุขกับการก้าวข้าม

मानव-कम्प्यूटर-अंतःक्रिया (HCI) के प्रमुख अंतरराष्ट्रीय मंच, काई २०१५ (CHI 2015), में आपका स्वागत है। सम्मेलन में इस वर्ष का विषय है पार-गमन (CROSSINGS)। यह एशिया में पहली बार पार-गमन से जुड़े उत्साह और जोश को तथा काई (CHI) के मूल सदिशों - लोगो और प्रौद्योगिकी की crossings, अनुसंधान और व्यापार की crossings, भौतिक और डिजिटल crossings, तथा आपकी और मेरी crossings का प्रतिनिधित्व करता है। सियोल शहर, एशिया भर के अभूतपूर्व अनुसंधान और नवाचार प्रदर्शनी करने के लिए एक शानदार स्थान है। मानव-कम्प्यूटर-अंतःक्रिया (HCI) विषयों की विविध सफलताओं से सम्पूर्ण एक तकनीकी कार्यक्रम के अलावा, हम मानव-कम्प्यूटर-अंतःक्रिया (HCI) के चीनी, जापानी और एशियन समुदायों की अंतरदृष्टि द्वारा समर्पित चार वंशिक संगोष्ठियों का आयोजन कर रहे हैं। सम्मेलन के दौरान, आप रोमांचक एशियाई वक्ताओं के साथ साथ विभिन्न अनुभवी वक्ताओं की वंशिक प्रस्तुतियों तथा नए दृष्टिकोण सुनेंगे। पार-गमन (CROSSINGS) के आनंद की शुभकामनाएं!

Bienvenidos a CHI 2015, el principal foro internacional para la interacción humano-computadora (IHC). El tema de la conferencia este año es CROSSINGS (Travesías), que representa nuestro entusiasmo de emprender una travesía rumbo a Asia por primera vez. También representa el principal fundamento de CHI: realizar travesías entre disciplinas, gente y tecnología, entre investigaciones y negocios, travesías entre lo físico y lo digital, de aquí a allá, travesías entre tú y yo. La ciudad de Seúl es una fantástica sede para mostrar la investigación más revolucionaria e innovadora que hay alrededor de Asia. Además de un amplio programa técnico con innovaciones en diversos temas de IHC, tendremos cuatro simposios dedicados a la comprensión de las comunidades de IHC que existen en China, Japón y ASEAN. A lo largo de la conferencia escucharás frescas perspectivas de fascinantes expositores Asiáticos, así como presentaciones especiales con expositores que cuentan con una variedad inmensa de perspectivas y experiencias. ¡Disfruten sus travesías

Bem-vindo ao CHI 2015, o fórum internacional privilegiado de Interação Humano-Computador (HCI). O tema da conferência deste ano é CONEXÕES, que representa o nosso entusiasmo sobre a primeira conexão com a Ásia e também reflete o princípio multi-disciplinar do CHI, conectando pessoas e tecnologia, pesquisa e negócio, meios físicos e digitais, enfim, você e eu. A cidade de Seul oferece uma localização fantástica para destacar pesquisa e inovação por toda a Ásia. Além de um programa técnico rico em descobertas numa diversidade de temas em HCI, estamos realizando quatro simpósios especiais dedicados às descobertas nas comunidades chinesas, japonesas e ASEAN HCI. Ao longo da conferência, você vai ouvir novas perspectivas de palestrantes asiáticos, juntamente com outras apresentações especiais de palestrantes com variados perfis e pontos de vista. Desfrute de suas CONEXÕES!

مرحبا بكم في CHI 2015، المنتدى الدولي الاساسي للتفاعل بين الإنسان والكمبيوتر (CHI). وكان موضوع المؤتمر هذا العام هو المعابر التي تمثل لدينا الإثارة حول العبور الى آسيا لأول مرة، ويعكس أيضا المبدأ الاساسي من التخصصات المعبر، عبور الناس والتكنولوجيا، وعبور البحوث والأعمال التجارية، وعبور المادية والرقمية، وعبور لي ولكم! مدينة سيول يوفر موقع رائع لإبراز فتحة البحث والابتكار من أنحاء آسيا. وبالإضافة إلى برنامج فني غني في اختراقات في أنحاء مجموعة متنوعة من الموضوعات HCI، نجري أربعة الندوات الخاصة المكرسة لرؤى من المجتمعات من الصين واليابان ودول رابطة أمم جنوب شرق آسيا. خلال المؤتمر، سوف تسمعون وجهات نظر جديدة من مكبرات الصوت الآسيوية مثيرة جنبا إلى جنب مع عروض خاصة أخرى من المتحدثين من خلفيات وجهات النظر واسعة النطاق! استمتع المعابر الخاصة بكم!

## General Conference Chairs



Bo Begole, Huawei Technologies

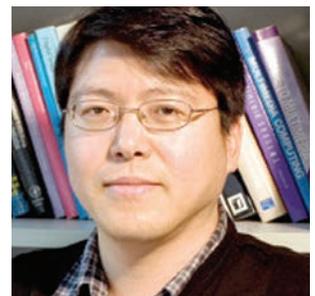


Jinwoo Kim, Yonsei University, Korea

## Technical Program Chairs



Kori Inkpen, Microsoft Research



Wontack Woo, KAIST

MONDAY

8:30 - 10:00

Opening Plenary Keynote (Hall D1)  
Lou Yongqi - *Crossing: HCI, Design and Sustainability*



10:00 - 11:30 – Coffee Break (Level 300/400 Foyers) • Student Games Competition (Hall E Foyer) • Video Showcase (Room 401)

401	402	403	E1/E2	E3	E4	E5	E6
<b>Papers</b> Non-Rigid Interaction Surfaces	<b>Papers</b> What Do I Hear? Communicating with Sound	<b>Papers</b> Rethinking Evaluation for Today's HCI	<b>Papers</b> Improving Game Experiences	<b>Papers</b> Facebook Newsfeeds & Friendships	<b>Papers</b> Activism in Wikipedia & Beyond	<b>Papers</b> HMDs & Wearables to Overcome Disabilities	<b>Papers</b> Visualizing Data

11:30 - 12:50

12:50 - 14:30 – Lunch Break

<b>Special</b> SIGCHI Social Impact Award	<b>Papers</b> Interaction in 3D Space	<b>Papers</b> Understanding & Evaluating Performance	<b>Papers</b> Music & Art	<b>Papers</b> Supporting Change in Developing Countries	<b>Papers</b> Privacy, Security & Interruptions	<b>Papers</b> Making & Sharing Assistive Technologies	<b>Papers</b> Matching & Facilitating Social Interactions
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14:30 - 15:50

15:50 - 16:30 – Coffee Break (Level 300/400 Foyers)



<b>Papers</b> Makers & Hackers	<b>Papers</b> How Fast Can You Type on Your Phone?	<b>Papers</b> Understand & Enhancing Learning	<b>Papers</b> Family Communication	<b>Papers</b> Crowdsourcing Fans & Friends	<b>Papers</b> Managing Personal Privacy	<b>Papers</b> Health Sensors & Monitoring	<b>Papers</b> Collaborative Tables, Walls & Rooms
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16:30 - 17:50

18:00 - 19:30 – Conference Reception & Exhibit Grand Opening • Interactivity (Hall C2/C3)

7:00 - 8:20 – Women's Breakfast (Room 327ABC)

8:30 - 9:20

Tuesday Morning Keynote (Hall D1)  
Donghoon Chang - *UX Design in the IoT Era*



9:20 - 9:30 – Break

401	402	403	E1/E2	E3	E4	E5	E6
<b>Papers</b> Muscle-Computer Interfaces	<b>Papers</b> Phones for More Than Just Talking & Text	<b>Papers</b> Search & Recommendations	<b>Papers</b> Kids Haptic, Wearable, Tangible Learning	<b>Papers</b> Motivation & Participation	<b>Papers</b> Sustainability & Recycling	<b>Papers</b> The Value of the Village in Caregiving	<b>Papers</b> I Like What I See - Interface Aesthetics

9:30 - 10:50

10:50 - 11:30 – Coffee Break • WIP Posters Rotation I, Doctoral Consortium Posters • Interactivity (Hall C2/C3)



<b>Papers</b> Smartwatch Interaction	<b>Papers</b> Tangible Interactions	<b>Papers</b> New Evaluation Approaches	<b>Special</b> Foundations & Trends in HCI I	<b>Papers</b> Evaluating Crowdsourcing	<b>Papers</b> Smart Smartphone Authentication	<b>Papers</b> Healthcare Bias, Engagement & Adaptation	<b>Papers</b> Storytelling in InfoVis
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11:30 - 12:50

12:50 - 14:30 – Lunch Break

<b>Special</b> SIGCHI Lifetime Research Award	<b>Panel</b> Grip, Move & Tilt: Novel Interaction	<b>Papers</b> Interactive Video & Collaborative Annotations	<b>Papers</b> HCI for the Elderly	<b>Papers</b> The Impact of Crowd Work on Workers	<b>Papers</b> Social Media and Mobile Camera Privacy	<b>Papers</b> DIY Healthcare: Apps & Wearables	<b>Papers</b> Social Embodied Interaction
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14:30 - 15:50

15:50 - 16:30 – Coffee Break • WIP Posters Rotation I, Student Design & Student Research Posters • Interactivity (Hall C2/C3)



<b>Papers</b> Design and 3D Object Fabrication	<b>Papers</b> Understanding & Extending Touch Interfaces	<b>Papers</b> Sharing & Collaboration @Work	<b>Papers</b> Families and Their Use of Technology	<b>Papers</b> Understanding Crowdsourcing in Many Domains	<b>Papers</b> Eco-Green: Encouraging Energy Conservation	<b>Papers</b> Sports Tracking & Training	<b>Papers</b> Feeling & Communicating Emotions
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16:30 - 17:50

18:00 - 19:30 • Job Fair & Recruiting Boards (Hall C2/C3)

TUESDAY

Opening Plenary Keynote (Hall D1)  
Lou Yongqi - *Crossing: HCI, Design and Sustainability*



8:30 - 10:00

10:00 - 11:30 – Coffee Break (Level 300/400 Foyers) • Student Games Competition (Hall E Foyer) • Video Showcase (Room 401)

E7	307	308	317A	317BC	318A	318BC
	Panel Transfer of HCI Research Innovations	alt.chi Augmentation	Course (C01) Designing Websites for Adults 55+	Course (C02) Cross-Device, Context-dependent UI		Course (C04) Body, Whys & Videotape: Somatic Approaches

11:30 - 12:50

12:50 - 14:30 – Lunch Break

Course (C07) Actionable Inexpensive Games Research 1/2	Papers Reflecting Upon Design Reflection	Case Studies Industrial Innovation	Course (C06) Intro to Human-Computer Interaction 1/2	Course (C05) Design for Searching & Finding 1/2	SIG Interactive Childhood	Course (C08) Design for Online Video & Television 1/2
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14:30 - 15:50

15:50 - 16:30 – Coffee Break (Level 300/400 Foyers)

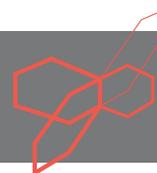
Course (C07) Actionable Inexpensive Games Research 2/2	Papers The Value of Things	alt.chi New User Interfaces	Course (C06) Intro to Human-Computer Interaction 2/2	Course (C05) Design for Searching & Finding 2/2		Course (C08) Design for Online Video & Television 2/2
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16:30 - 17:50

18:00 - 19:30 – Conference Reception & Exhibit Grand Opening • Interactivity (Hall C2/C3)

7:00 - 8:20 – Women's Breakfast (Room 327ABC)

Tuesday Morning Keynote (Hall D1)  
Donghoon Chang - *UX Design in the IoT Era*



8:30 - 9:20

9:20 - 9:30 – Break

E7	307	308	317A	317BC	318A	318BC
Course (C11) Methods for Child Computer Interaction 1/2	Papers Supporting Creativity through UX Design	Case Studies Art & Life	Course (C09) Designing & Assessing Using Task Models 1/2	Course (C10) Learn to Sketch (Even if You Can't Draw) 1/2		Course (C12) Practical UX Research Methodologies 1/2

9:30 - 10:50

10:50 - 11:30 – Coffee Break • WIP Posters Rotation I, Doctoral Consortium Posters • Interactivity (Hall C2/C3)

Course (C11) Methods for Child Computer Interaction 2/2	Panel You've Been Acquired!	alt.chi HCI Methodology	Course (C09) Designing & Assessing Using Task Models 2/2	Course (C10) Learn to Sketch (Even if You Can't Draw) 2/2	SIG Gender-Inclusive Software	Course (C12) Practical UX Research Methodologies 2/2
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11:30 - 12:50

12:50 - 14:30 – Lunch Break

Course (C15) HCI Lessons: From Earth to Outer Space 1/2	Papers Innovation in Theories & Products	Case Studies Education & Work	Course (C14) Mobile Human-Computer Interaction 1/2	Course (C13) Methods for HCI Research 1/2		Course (C16) Sketching User Experiences 1/2
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14:30 - 15:50

15:50 - 16:30 – Coffee Break • WIP Posters Rotation I, Student Design & Student Research Posters • Interactivity (Hall C2/C3)

Course (C15) HCI Lessons: From Earth to Outer Space 2/2	Papers Critical Design	Special Human Computer Interaction Journal I	Course (C14) Mobile Human-Computer Interaction 2/2	Course (C13) Methods for HCI Research 2/2	SIG Start and Run a SIGCHI Local Chapter	Course (C16) Sketching User Experiences 2/2
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16:30 - 17:50

18:00 - 19:30 • Job Fair & Recruiting Boards (Hall C2/C3)

MONDAY

TUESDAY

8:30 - 9:20

Wednesday Morning Keynote (Hall D1)  
David Min - *Journey to a Better Life*



9:20 - 9:30 – Break

401	402	403	E1/E2	E3	E4	E5	E6
<b>Papers</b> HMDs in Augmented & Virtual Reality	<b>Papers</b> Tangible Interaction with Phones	<b>Papers</b> Neighborhoods & Disadvantaged Communities	<b>Papers</b> Player Performance & Experience in Games	<b>Papers</b> Bridging People & Beliefs with Social Media	<b>Special</b> Enhanced Security with Passwords & CAPTCHAs	<b>Papers</b> Accessibility at Home & on The Go	<b>Papers</b> Telepresence Video, Robots, and Walls

9:30 - 10:50

10:50 - 11:30 – Coffee Break • WIP Posters Rotation 2 • Interactivity (Hall C2/C3) ☕

<b>Papers</b> Digital & Materials Fabrication	<b>Papers</b> Tactile Notifications for Phones & Wearables	<b>Papers</b> Automation and Interactive Feedback	<b>Papers</b> Art & Performance	<b>Papers</b> Bridging People & Beliefs with Social Media	<b>Special</b> Foundations & Trends in HCI 2	<b>Papers</b> Quantified Self for Humans & Pets	<b>Papers</b> Visualizing Statistics & Graphs
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11:30 - 12:50

12:50 - 14:30 – Lunch Break

<b>Special</b> SIGCHI Lifetime Practice Award	<b>Papers</b> Understanding Everyday Use of Mobile Phones	<b>Papers</b> GUI Size, Resolution & Layout	<b>Papers</b> Kids Social, Emotional & Special Needs	<b>Papers</b> HCI for Civic Engagement	<b>Papers</b> Security Feedback & Warnings	<b>Papers</b> Wellness & Wearables	<b>Papers</b> Task Interruption & Resumption
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14:30 - 15:50

15:50 - 16:30 – Coffee Break • WIP Posters Rotation 2 • Interactivity (Hall C2/C3) ☕

<b>Papers</b> Using Random Body Parts for Input	<b>Papers</b> Brain & Physiological Data use for HCI	<b>Papers</b> Software Engineering Tools	<b>Papers</b> HCI at Home	<b>Papers</b> Voting & Volunteerism	<b>Papers</b> Socio-Political Interactions	<b>Papers</b> Understanding Health through Online Behavior	<b>Papers</b> Natural User Interfaces for InfoVis
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16:30 - 17:50

WEDNESDAY

8:30 - 9:20

Thursday Morning Keynote, ACM-W Athena Lecture (Hall D1)  
Susan T. Dumais, *ACM Fellow* - *Large-Scale Behavioral Data: Potentials and Pitfalls*



9:20 - 9:30 – Break

401	402	403	E1/E2	E3	E4	E5	E6
<b>Papers</b> Augmented & Virtual Reality in the Real World	<b>Papers</b> Gesture Elicitation & Recognition	<b>Papers</b> Programming Environments	<b>Papers</b> Digital Collections, Practice & Legacy	<b>Papers</b> Multilingual Communication	<b>Papers</b> Empowering Users	<b>Papers</b> Accessibility for Vision Impaired Users	<b>Papers</b> Interactive & Multi-Surface Maps

9:30 - 10:50

10:50 - 11:30 – Coffee Break • Interactivity (Hall C2/C3) ☕

<b>Papers</b> Robot Personalities	<b>Papers</b> Mid-Air Gestures and Interaction	<b>Papers</b> MOOCS & e-Learning	<b>Papers</b> Understanding Gamers	<b>Papers</b> Bridging Communities	<b>Papers</b> Gender & Technology	<b>Papers</b> Coping & Wellbeing Through HCI	<b>Papers</b> Interacting with Floors & Situated Displays
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11:30 - 12:50

12:50 - 14:30 – Lunch Break

<b>Papers</b> Multi-Device Interaction	<b>Papers</b> Speech & Auditory Interfaces	<b>Papers</b> Email & Social Media at Work	<b>Papers</b> Understanding & Protecting Kids Tech Use	<b>Papers</b> Social Media & Citizen Science	<b>Papers</b> Disasters & Humanitarian Events	<b>Papers</b> Home Physiotherapy & Rehabilitation	<b>Papers</b> Interaction Techniques for Tables & Walls
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14:30 - 15:50

15:50 - 16:30 – Coffee Break (Level 300/400 Foyers) ☕

<b>Closing Plenary Keynote</b> (Hall D1) PSY - <i>Cultural Crossing from Local to Global through Music: Technology, Media, and Future</i>
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16:30 - 17:50



THURSDAY

Wednesday Morning Keynote (Hall D1)  
David Min - *Journey to a Better Life*

8:30 - 9:20

9:20 - 9:30 – Break

E7	307	308	317A	317BC	318A	318BC
Course (C18) Speech-based Interaction 1/2	Panels Experience Design for Games	alt.chi Arts and Philosophy	Course (C17) Intro to Creating Musical Interfaces 1/2			Course (C19) Designing Surveys for HCI Research 1/2

9:30 - 10:50

10:50 - 11:30 – Coffee Break • WIP Posters Rotation 2 • Interactivity (Hall C2/C3) ☕

Course (C18) Speech-based Interaction 2/2	Panel Transdisciplinary Design in Education	Special Human Computer Interaction Journal 2	Course (C17) Intro to Creating Musical Interfaces 2/2	Special Student Research Competition Finals	SIG Online Deliberative Processes and Tech	Course (C19) Designing Surveys for HCI Research 2/2
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11:30 - 12:50

12:50 - 14:30 – Lunch Break

Course (C22) Rapid Design Labs - Design-Led Innovation 1/2	Panels 10 Years of alt.chi	Course (C20) Designing Wearable Interfaces 1/2	Course (C21) Experience Sampling to Collect Deep Data 1/2	Special Student Design Competition Finals		Course (C23) Conceptual Models: Core to Good Design 1/2
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14:30 - 15:50

15:50 - 16:30 – Coffee Break • WIP Posters Rotation 2 • Interactivity (Hall C2/C3) ☕

Course (C22) Rapid Design Labs - Design-Led Innovation 2/2	Papers UX Methods 4	Course (C20) Designing Wearable Interfaces 2/2	Course (C21) Experience Sampling to Collect Deep Data 2/2	Special Student Game Competition Finals	SIG Understanding Sports	Course (C23) Conceptual Models: Core to Good Design 2/2
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16:30 - 17:50

WEDNESDAY

Thursday Morning Keynote, ACM-W Athena Lecture (Hall D1)  
Susan T. Dumais, *ACM Fellow* - *Large-Scale Behavioral Data: Potential and Pitfalls*

8:30 - 9:20

9:20 - 9:30 – Break

E7	307	308	317A	317BC	318A	318BC
Course (C25) Interaction Design for Reading Devices	Panel Mobile Devices Revolutionizing UI	Case Studies Observation & Interaction		Course (C24) Vision-Driven: Beyond Tangible Bits		Course (C26) Introduction to Positive Computing

9:30 - 10:50

10:50 - 11:30 – Coffee Break • Interactivity (Hall C2/C3) ☕

Course (C28) Benefit from Using ISO Standards	Panel Why Google Cannot Be the #1 in Korea?	alt.chi Mindfulness and Care		Course (C27) Designing with the Mind in Mind		
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11:30 - 12:50

12:50 - 14:30 – Lunch Break

	Papers Interacting with GUIs	Case Studies Special Environments				
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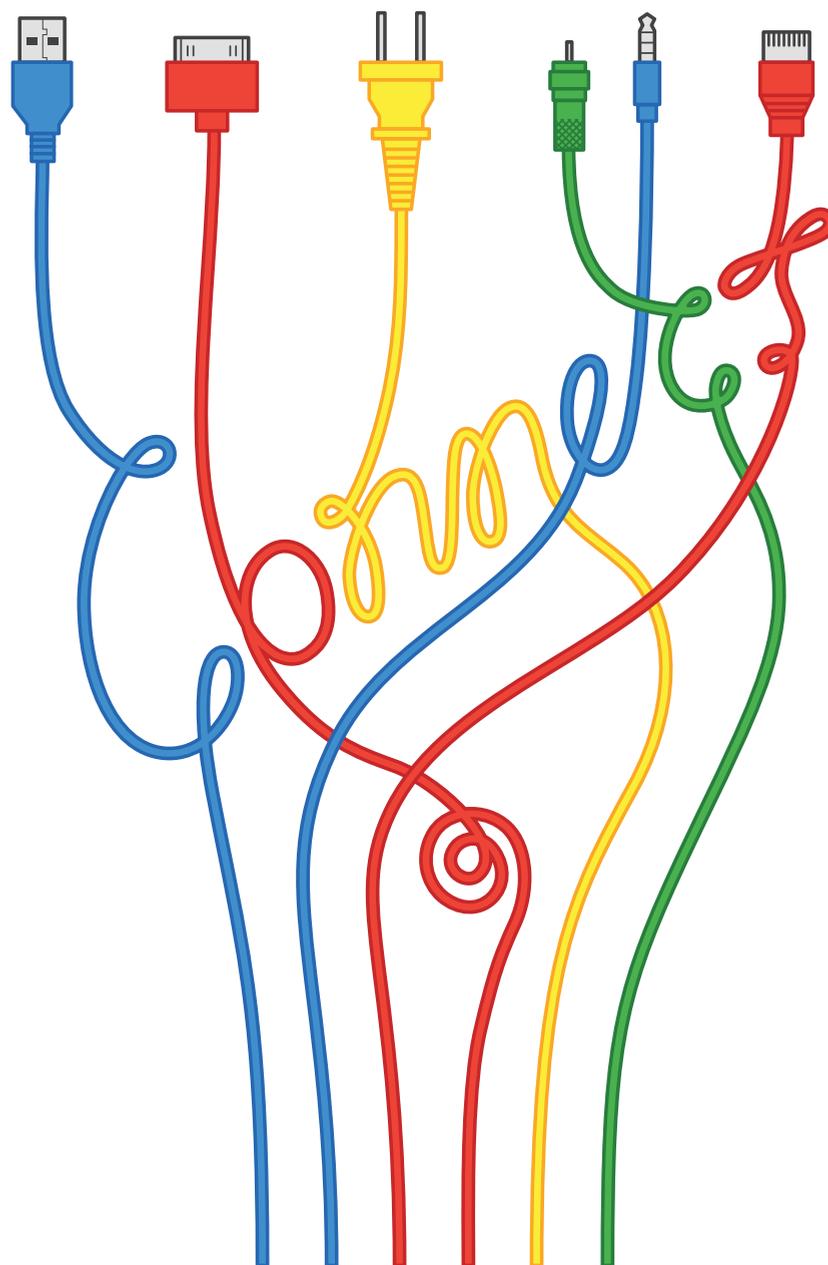
14:30 - 15:50

15:50 - 16:30 – Coffee Break (Level 300/400 Foyers) ☕

Closing Plenary Keynote (Hall D1)  
PSY - *Cultural Crossing from Local to Global through Music: Technology, Media, and Future*

16:30 - 17:50

THURSDAY



C H I 2 0 1 5

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Check out Google's CHI 2015 mobile site to see our schedule of events, accepted papers, who is attending and more!



<http://goo.gl/Du2Ein>

## General Conference Chairs

Jinwoo Kim, *Yonsei University, Korea*  
Bo Begole, *Huawei, USA*

## Technical Program

### Technical Program Chairs

Wootack Woo, *KAIST, Korea*  
Kori Inkpen, *Microsoft Research, USA*

### Papers and Notes

Andy Cockburn, *University of Canterbury, New Zealand*  
Joanna McGrenere, *University of British Columbia, Canada*  
Jun Rekimoto, *University of Tokyo, Japan*

### Best of CHI Awards

Mark Billingham, *University of Canterbury, New Zealand*

### Panels

Khai Truong, *UNC Charlotte, USA*  
Elaine M. Huang, *University of Zurich, Switzerland*

### Case Studies

Danielle Cooley, *USA*  
Joonhwan Lee, *Seoul National University, Korea*

### Courses

Regina Bernhaupt, *Ruwido, Austria*  
Matt Jones, *Swansea University, United Kingdom*

### Interactivity

Julie Rico Williamson, *University of Glasgow, United Kingdom*  
Juhyun Eune, *Seoul National University, Korea*

### Video Showcase

Jinwook Seo, *Seoul National University, Korea*  
Rodrigo de Oliveira, *YouTube, USA*

### SIGs

Enrico Rukzio, *Ulm University, Germany*  
Simone Barbosa, *PUC-Rio, Brazil*

### Doctoral Consortium

Si-Jung "Jun" Kim, *University of Nevada Las Vegas, USA*  
Jaime Teevan, *Microsoft Research, USA*  
Susan Fussell, *Cornell University, USA*

### Workshops

Jürgen Steimle, *Max Planck Institute for Informatics, Germany*  
Bongshin Lee, *Microsoft Research, USA*

### Works in Progress

Shamsi Iqbal, *Microsoft Research, USA*  
Shaun Lawson, *University of Lincoln, UK*  
Shendong Zhao, *National University of Singapore, Singapore*

### Student Design Competition

Youn-Kyung Lim, *KAIST, Korea*  
Anirudha Joshi, *IIT Bombay, India*

### Student Research Competition

Seungyon "Claire" Lee, *Google, USA*  
Derek Reilly, *Dalhousie University, Canada*  
Geehyuk Lee, *KAIST, Korea*

### Student Game Competition

Floyd Muller, *RMIT University, Australia*  
Alessandro Canossa, *Northeastern University, USA*  
Soojin Jun, *Yonsei University, Korea*

### alt.chi

Silvia Lindtner, *University of California, Irvine, USA*  
Morgan Ames, *Intel, USA*  
Henry Duh, *UTAS, Australia*

### TOCHI papers

Jeff Nichols, *IBM, USA*

### Conference Theme/Local Heroes

Kyle Hyunsuk Kim, *Hongik University, Korea*

## Operations

### Student Volunteers Coordinators

Jon Haber, *University of Calgary, Canada*  
Siroberto Scerbo, *Virginia Tech, USA*  
Jieun Wee, *Seoul National University, Korea*

### Chair's Assistants

Yoojin Lee, *Yonsei University, Korea*  
Nikolas Martelaro, *Stanford University, USA*

### Data Management

Max Van Kleek, *University of Southampton, UK*  
BoYu Gao, *Konkuk University, Korea*

### Design

Elizabeth Dykstra-Erickson, *Splunk, Inc.*  
Jina Wu, *Cisco Systems*

### Opening Animation Director

Chris Inkyong Whang, *Hongik University, Korea*

### Technical Liason

Sara Drenner, *BI Worldwide, USA*  
Scooter Morris, *University of California, San Francisco, USA*

### Proceedings

Deana Brown, *Georgia Tech, USA*  
Jaejeung Kim, *KAIST, Korea*

### Posters

Hyunjoo Song, *Seoul National University, Korea*

### Infrastructure Accessibility

Jongbae Kim, *Yonsei University, Korea*

### Digital Accessibility

Jeff Bigham, *Carnegie Mellon University, USA*

### Local Hospitality

Junho Choi, *Yonsei University, Korea*

### Video Previews

Stéphane Huot, *Inria, France*  
Fanny Chevalier, *Inria, France*

### Social Media

Max Wilson, *University of Nottingham, UK*  
Kwangsue Cho, *Yonsei University, Korea*

### Scheduling

Christophe Hurter, *ENAC, France*  
Juho Kim, *MIT, USA*

### Mobile Applications

Stephen Oney, *Carnegie Mellon University, USA*  
Jason Wiese, *Carnegie Mellon University, USA*  
Eiji Hayashi, *Carnegie Mellon University, USA*  
Célia Martinie, *Université Toulouse 3, France*

### Translations

Susan Fussell, *Cornell University, USA*  
Naomi Yamashita, *NTT, Japan*

### Webmaster

Juho Kim, *MIT, USA*  
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### Conference Management

Janeé Pelletier, *Conference & Logistics Consultants, USA*  
Allison Perrelli, *Conference & Logistics Consultants, USA*

### Sponsors, Exhibits & Recruitment

Carol Klyver, *Foundations of Excellence, USA*

### Registration

Yvonne Lopez, *Executive Events Inc., USA*  
Brooke Daley, *Executive Events Inc., USA*

### PCS Liaison

Max van Kleek, *University of Southampton, UK*  
Carol Klyver, *Foundations of Excellence, USA*  
Scooter Morris, *University of California, San Francisco, USA*

### Women's Breakfast Event

Allison Druin, *University of Maryland, USA*

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## ■ ACM SIGCHI

CHI 2015 is sponsored by ACM's Special Interest Group on Computer-Human Interaction (ACM SIGCHI). ACM, the Association for Computing Machinery, is an educational and scientific society uniting the world's computing educators, researchers, and professionals to inspire dialogue, share resources, and address the field's challenges. ACM strengthens the profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking. ACM offers its more than 100,000 worldwide members cutting edge technical information through world class journals and magazines, dynamic special interest groups, and globally recognized conferences. Visit [www.acm.org](http://www.acm.org) for more information about ACM.

SIGCHI is the premier international society for professionals, academics, and students who are interested in human-computer interaction (HCI). We provide a forum for the discussion of all aspects of HCI through our conferences, including our flagship CHI conference, publications, web sites, email discussion groups, and other services. We advance education in HCI through courses, workshops, and outreach, and we promote informal access to a wide range of individuals and organizations involved in HCI. Members can be involved in HCI-related activities with others in their region through local SIGCHI chapters. Come to the SIGCHI Town Hall meeting on Wednesday at 12:50 in Room 308 or visit [www.sigchi.org](http://www.sigchi.org) to learn more about SIGCHI.

### Membership Information

Please contact ACM's Member Services Department

Online: [www.acm.org](http://www.acm.org)

Tel: +1-800-342-6626 (USA/Canada)  
+1-212-626-0500 (International)

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Email: [acmhelp@acm.org](mailto:acmhelp@acm.org)

Write: Association for Computing Machinery, Inc.  
General Post Office  
PO. Box 30777  
New York, NY 10087-0777, USA

## ■ CHI 2015 OVERVIEW

The CHI 2015 technical program showcases presentations of outstanding research in human-computer interaction (HCI), demonstrations of new and innovative technology, discussions of timely and controversial issues, and presentations of the latest developments in HCI design and practice. The CHI technical program includes presentations in multiple formats, recorded in the *CHI 2015 Proceedings and Extended Abstracts* available from the ACM Digital Library and on the CHI 2015 USB key.

## ■ SATURDAY– SUNDAY EVENTS

### Doctoral Consortium - Invitation Only Room 308AB

Selected doctoral students present and explore their research topics with senior researchers and other students in a two-day interdisciplinary workshop. Doctoral Consortium posters are displayed in the Commons and brief descriptions appear in the *CHI 2015 Extended Abstracts*.

*Doctoral Consortium Mentors:*

Gregory Abowd, Mark Blythe, Susan Fussell (Co-Chair), Darren Gergle, Jim Hollan, Si-Jung "Jun" Kim (Co-Chair), Alice Oh, Jaime Teevan (Co-Chair)

### Workshops - Invitation Only

**Level 300**

Workshops provide a valuable opportunity for small communities of people with diverse perspectives to engage in rich one- and two-day discussions about a topic of common interest. Workshop participants are pre-selected based on submitted position papers and a brief description of each workshop appears in the CHI 2015 Extended Abstracts. Some workshops choose to display a poster in the Exhibit Hall E Poster Area.

### Asian CHI Symposia - Open to Public

**Level 300**

CHI 2015 is offering a series of special symposia for topics pertinent to HCI communities across Asia. These symposia may contain content in English or in a regional language. Participants include both presenters and audience members. The symposia descriptions appear in the CHI 2015 Extended Abstracts.

## ■ TECHNICAL PROGRAM | MONDAY — THURSDAY

CHI 2015 received over 3200 submissions and accepted over 1000 presentations and events distributed across 15 parallel sessions over four days. With so many presentations happening at once, how do you choose? CHI 2015 offers the following resources to help you make the most of your conference experience:

### Choosing sessions to attend

1. This *CHI 2015 Conference Program* describes the venues and offers at-a-glance summaries of all events in the main technical program, as well as times and locations.
2. The *CHI 2015 USB key* provided when you register includes the *CHI 2015 Conference Proceedings and Extended Abstracts*, also available in the ACM Digital Library, and the CHI 2015 Video Previews (see below). Extra USB keys are available for purchase at the Registration Desk.
3. The free *CHI 2015 MobileApp* contains the full CHI 2015 program as well as a personal interactive schedule to help you keep track of events you would like to see. The CHI 2015 Proceedings and Extended Abstracts as well as Video Previews (below) can be loaded into the Mobile App for easy access. That app can be downloaded from Apple's App Store and Google Play. A web version can be accessed at: <http://chi2015.acm.org/mobileapp>.
4. The *CHI 2015 Video Previews* are 30-second video overviews of most presentations in the main technical program. You can browse Video Previews on the CHI 2015 USB, the CHI 2015 web site and the CHI 2015 Mobile App.
5. *CHI 2015 Student Volunteers* (SVs) are available to point you in the right direction or answer questions about the program.

## ■ CHI 2015 CONFERENCE PROCEEDINGS

The *CHI 2015 Conference Proceedings* contain Papers and Notes, the most rigorously reviewed and prestigious material in the main technical program. The CHI 2015 Program Committee received 2125 submissions for Papers and Notes. Each was reviewed by one or more Associate Chairs, as well as three or more external reviewers. After a rebuttal phase, the 200+ senior Associate Chairs met in person within specialized subcommittees to discuss and select the accepted papers. The CHI 2015 acceptance rate was 23%.

The CHI 2015 Papers and Notes document research that makes a lasting and significant contribution to our knowledge and understanding of human-computer interaction. CHI Conference Proceedings are read and cited worldwide, with a broad impact on the development of HCI principles, theories, techniques, and their practical application.

### CHI Papers

*20-minute presentations*

Papers present significant contributions to research, development, and practice in all areas of human-computer interaction.

### CHI Notes

*10-minute presentations*

Notes are briefer and more focused than CHI Papers but follow the same rigorous review process.

### TOCHI Papers

*20-minute presentations*

TOCHI papers were published within the past year in SIGCHI's flagship journal, *ACM Transactions on Computer-Human Interaction*.

## ■ CHI 2015 EXTENDED ABSTRACTS

The *CHI 2015 Extended Abstracts* record interactive events designed to provoke, intrigue, teach and inspire the CHI audience and capture a history of HCI practice.

### Courses

**Rooms 317A, 317BC, 318BC, E7**

*One or two 80-minute units*

*List on page 53*

Courses provide professional development opportunities for existing and prospective HCI community members. Pre-register to receive the course notes and an identifier on your badge that permits entry to the course. You may register for any unfilled courses at the Registration Desk.

### Case Studies

**Room 308ABC**

*20-minute presentations*

Case Studies describe examples of best practices in human-computer interaction. The goal is to explain methods that deliver reliable, high-quality results based on real-world experience and to present the lessons learned.

### Panels

**Room 307ABC**

*80-minute sessions*

Panels take various formats but always involve significant interaction among panelists and audience members around a specified topic. The goal is to stimulate thought and discussion on current issues in human-computer interaction.

### alt.chi

**Room 308ABC**

*20-minute presentations*

Entering its tenth year, alt.chi offers an outlet for unusual, controversial, alternative or thought-provoking work that does not fit within the standard CHI submission process. The format encourages lively audience participation.

### Special Interest Groups (SIGs)

**Room 318A**

*80-minute sessions*

SIGs offer a forum for conference attendees who share similar interests to discuss a specified topic. Previous SIGs have launched new conferences and publications or generated new CHI activities.

### Video Showcase

**Room 401**

*80-minute session*

*List on page 52*

The CHI 2015 Video Showcase features engaging videos that offer a variety of perspectives on human-computer interaction, including novel interfaces, reflective pieces and future envisionments. Come and enjoy the videos during Monday morning break (10:00 – 11:30) followed by the Golden Mouse award ceremony. The People's Choice Video award will be announced at the Closing Plenary.

### Interactivity

**Hall C2/C3**

*Hands-on demonstrations*

*List on page 62*

Interactivity offers hands-on demonstrations that let you see, hear and touch interactive visions of the future. They take the form of prototypes, demonstrations, artworks, design experiences and inspirational technologies. Interactivity offers an alternative to CHI's traditional text format to present advances in the field. Interactivity promotes and provokes discussion about the role of technology through hands-on engagement. Come see Interactivity at the CHI 2015 Conference Reception and Exhibits Grand Opening (Monday 18:00 – 19:30, Hall C2/C3) and during coffee breaks.

**Works in Progress (WIP)**

Posters

*List on page 56*

Works in Progress present work at an early stage that can benefit from one-on-one discussions with colleagues. WIP Posters will be displayed in two rotations; the first rotation on Tuesday (21st April) and the second on Wednesday (22nd April). Morning and afternoon coffee breaks on Tuesday and Wednesday are designated sessions during which WIP authors will be available at their posters to informally discuss their research with colleagues. These sessions will also feature some structured interactive activities where authors will describe their work. Please come and hear about their ground-breaking work at these times.

**Hall C2/C3****Doctoral Consortium**

Posters

*List on page 54*

Doctoral Consortium students are available to discuss their research in the DC Spotlight session Tuesday during morning coffee break (10:50 – 11:30).

**Room 308AB****Student Research Competition**

Posters and 80-minute session

*List on page 54*

The Student Research Competition (SRC) is a branch of the ACM Student Research Competition. Students' posters are on display in Hall C2/C3 with author presentations during Tuesday's afternoon break (15:50-16:30). Final presentations are held on Wednesday (11:30 – 12:50, Room 317BC). Winners are announced at the Closing Plenary.

**Student Design Competition**

Posters and 80-minute session

*List on page 55*

The Student Design Competition (SDC) challenges students to design a product, application, technology, or service that enable people who are a new and completely unexplored user group in any country to appropriate things and technologies around them. Monday 10:00 – 11:30 (Room 327ABC) is the Closed Jury Session. Semi-finalist posters are displayed in the Hall C2/C3 poster area, and authors will be presenting their work to all attendees during Tuesday's afternoon break (15:50 – 16:30). The SDC jury selects four finalists to present on Wednesday (14:30 – 15:50, Room 317BC). The winner is announced at the Closing Plenary.

**Student Game Competition**

Demonstrations and 80-minute session

*List on page 55*

The Student Game Competition (SGC) challenges students to design games in three categories: Games for a Purpose, Innovative Interface, and Innovative Game Design. Students demonstrate their games on Monday (10:00 – 11:30, Hall E Foyer). The final presentations and ceremony is held on Wednesday (16:30 – 17:50, Room 317BC). Winners are also announced at the Closing Plenary.

**■ SIMULTANEOUS TRANSLATION SUPPORT**

This year, CHI is planning to provide simultaneous translation from English to Chinese, Japanese and Korean in the main auditorium throughout the first and last day of conference, covering the Opening and Closing sessions along with other sessions. Additional translation support such as machine translation and closed captioning will be available for other sessions throughout the conference.

**Translation Chairs:**Susan Fussell, *Cornell University, USA*Naomi Yamashita, *NTT, Japan***Translation Support Committee:**Bo Begole, *Huawei R&D, USA*Fanny Chevalier, *INRIA, France*Henry Duh, *University of Tasmania, Australia*Stéphane Huo, *Université Paris-Sud, France*Walter Lasecki, *University of Rochester, USA*Yoojin Lee, *Yonsei University, Korea*Rodrigo de Oliveira, *Google, USA*Masayuki Otani, *Kyoto University, Japan*Eunice Sari, *University of Western Australia, Australia*Saiph Savage, *Universidad Nacional Autónoma de México, México*Juergen Steimle, *MIT, TU Darmstadt, Germany*Sakol Teeravarunyou, *King Mongkut's University of Technology, Thailand*Bimlesh Wadhwa, *National University of Singapore, Singapore*Koji Yatani, *University of Tokyo, Japan*

## ■ SPECIAL DAYTIME EVENTS

### Student Games Exhibition

*Hall E Foyer*

*Monday, 10:00 – 11:30*

CHI attendees can try out the games from the Student Games Competition (listed on page 55) during this special morning break.

### Women's Breakfast

*Room 327ABC*

*Tuesday, 7:00 – 8:30*

This breakfast offers participants the opportunity to broaden personal professional networks in the field of HCI and to engage in discussions on such topics as mentoring networks, work-life balance, diverse success paths, and personal-branding. During this program participants share their stories of success and challenge which can inspire CHI women who may be longtime leaders or new to the field.

### ACM SIGCHI Town Hall Lunch

*Room 308*

*Wednesday, 12:50 – 14:30*

SIGCHI officers present ongoing programs and activities, followed by an audience Q&A session. Participants interested in shaping SIGCHI's future are encouraged to attend. An informal lunch is available on a first-come, first-served basis.

## ■ SPECIAL EVENING EVENTS

### Conference Reception & Exhibits Grand Opening

*Hall C2/C3*

*Monday, 18:00 – 19:30*

Catch up with old friends and meet new ones at the CHI 2015 Conference Reception! Explore almost 50 hands-on demonstrations and performances at the Grand Opening of Exhibits and Interactivity. The reception features Korean themed food choices and live performances. Admission and drinks tickets are included with your conference registration; additional tickets may be purchased at the Registration Desk. Tickets are not available at the door.

### Job Fair & Recruiting Boards

*Hall C2/C3*

*Tuesday, 18:00 – 19:30*

Recruiters and job candidates are invited to take advantage of the CHI 2015 Job Fair on Tuesday evening. Visit the Recruiting Boards and designated exhibit booths throughout the conference to find out more about available positions.

#### CHI 2015 Hero Sponsor Recruiters:

Samsung                      Booths 1-3

#### CHI 2015 Champion Sponsor Recruiters:

Golfzon                      Booths 17 & 18

Google                      Booths 21 & 22

#### CHI 2015 Contributing Sponsor Recruiters:

Disney Research            Recruiting Board

Facebook                    Booth 16

#### CHI 2015 Additional Recruiters:

Bentley University           Recruiting Board

Cisco Systems              Recruiting Board

Robert Bosch                Recruiting Board

GE                              Recruiting Board

LG                                Recruiting Board

Samsung SDS, CX Team    Booth 11

SAP                              Booths 34 & 35

SMART Technologies       Recruiting Board

Splunk, Inc.                   Recruiting Board

### Hospitality Receptions

*various locations*

*Wednesday evening*

Private and public receptions are often hosted by different companies, universities, and other organizations on Wednesday evening. Your badge is your ticket to enter if these are public, so please be sure to wear it.

## ■ OPENING HOURS

### Registration and Merchandise Desk

Register for the CHI 2015 Conference and Workshops at the Registration Desk located on Saturday and Sunday morning in the Level 300 Foyer and for the CHI 2015 Conference and Courses (subject to availability) Sunday afternoon through Thursday in the Hall D1 Foyer of the Convention Center. CHI 2015 Merchandise, including plush toy tigers and T-shirts, will be available for purchase (subject to availability).

Saturday	07:30 – 12:00	Level 300 Foyer
Sunday	07:30 – 10:00	Level 300 Foyer
Sunday	16:00 – 18:00	Hall D1 Foyer
Monday	07:30 – 19:00	Hall D1 Foyer
Tuesday	07:30 – 19:00	Hall D1 Foyer
Wednesday	07:30 – 17:30	Hall D1 Foyer
Thursday	07:30 – 16:30	Hall D1 Foyer

### The Commons (Exhibit Hall)

*Hall C2/C3*

Hall C2/C3 is on Level 3F (3rd floor) of the COEX Convention and Exhibition Center. Here you can enjoy a beverage and light snack during coffee breaks, talk with colleagues or explore Exhibits, Posters and Interactivity demonstrations and performances. Opens on Monday evening.

Monday	18:00 – 19:30	Opening Reception
Tuesday	10:30 – 18:00	(18:00 – 19:30 Job Fair)
Wednesday	10:30 – 17:30	
Thursday	10:30 – 13:30	

### Coffee Breaks

Regularly scheduled morning and afternoon coffee breaks are complimentary for all registered CHI 2015 attendees:

Monday	10:00 – 11:30	Level 300&400 Foyers
	15:50 – 16:30	Level 300&400 Foyers
Tuesday-Wednesday	10:50 – 11:30	Hall C2/C3
	15:50 – 16:30	Hall C2/C3
Thursday	10:50 – 11:30	Hall C2/C3
	15:50 – 16:30	Level 300&400 Foyers

### Speaker Ready Room

*Room 306*

Speakers and session chairs may use this room as a central check-in point and speakers may reserve a projector to prepare materials and rehearse their presentations. Sign up early with the staff person, since appointments are on a first-come, first-served basis and only one projector is available.

Sunday-Wednesday	08:00 – 17:00
Thursday	08:00 – 14:00

### Media/Press Office

*Room 309*

CHI 2015 welcomes members of the media. Please stop by the Media Office Monday through Thursday to get information on scheduled Media Events this week, and to learn more about CHI 2015, SIGCHI, and future CHI conferences. CHI 2015 media coordinators will be happy to schedule interviews with select authors at the conference. The Media Office hours are the same as the Registration Desk.

## ■ CHI INFORMATION AND POLICIES

### CHI 2015 Information Desk

*Hall C2/C3*

Student Volunteers staff the Information desk during Exhibits hours. They are happy to help answer your questions or find someone who can. At other times, stop by the Registration Desk for information.

### Student Volunteers

*Room 301AB*

CHI 2015 has well over 100 Student Volunteers, easily identified by their bright colored SV t-shirts. Most are graduate students in human-computer interaction and some are seeking jobs or internships.

### Name Badges

Your CHI 2015 name badge serves as your admission pass to conference sessions and events. Please wear your name badge at all times while inside the convention center. Conference management reserves the right to deny admission to anyone not wearing a CHI 2015 name badge.

### Internet Café

*Hall C2/C3*

Enjoy chatting with colleagues during the breaks at the Internet Café, located in the Exhibit Hall. CHI 2015 provides access to power for your mobile devices in addition to wireless access.

### Wireless Access

CHI 2015 offers wireless high-speed internet access throughout the convention center including in all meeting rooms. Also, please be considerate of your colleagues and limit your time spent online.

### Blogging & Photosharing

CHI encourages conference attendees to blog CHI. Please add the category or keyword "CHI 2015" to your blog entries so that others may find them easily. We encourage photosharing by services such as Flickr, but please add a "CHI 2015" tag to your photos and "#chi2015" to your tweets.

### Photography and Recording

Photographing crowd scenes and people interacting with technology is common at CHI and attendees should be aware that their image might be captured. Please use common courtesy when taking photos or video of individuals that are later uploaded to YouTube, Flickr or similar sites and ask permission before posting pictures of identifiable people. The use of any type of audio or video recording device is not permitted during any part of the conference.

### Smoking Policy

The COEX Convention and Exhibition Center is a non-smoking facility and smoking is permitted outside only in designated areas.

## ASIAN CHI SYMPOSIA

CHI 2015 is offering a series of special symposia for topics pertinent to HCI communities across Asia. These symposia may contain content in English or in a regional language. Participants include both presenters and audience members. The symposia descriptions appear in the CHI 2015 Extended Abstracts.

### S01 Chinese CHI Symposium: Chinese HCI Society Room 318AB

Saturday April 18th - Sunday April 19th <http://chchi2015.icachi.org/>

Chinese CHI is the Chinese leading forum for research in all areas of Human-Computer Interaction. It attracts an international community of practitioners, researchers, academics and students from a wide range of disciplines including user experience design, software engineering, human factors, information systems, social science and creative industries among other disciplines.

#### Organizers:

Hao-Chuan Wang, *National Tsing Hua University, Taiwan*  
 Gary Hsieh, *University of Washington, USA*  
 Xiaojun Bi, *Google, USA*  
 Henry Duh, *University of Tasmania, Australia*  
 Yihsiu Chen, *HTC Creative Labs, USA*

### S02 Crossing HCI for Development in Asia Pacific Room 319

Sunday April 19th <http://hci4d.uxindo.com/>

Asia Pacific is well-known for its wide diversity in languages and cultures, which subsequently make the ICT landscapes in the region to be unique and diverse in many terms. This symposium provides an excellent opportunity for academia and professionals to showcase the latest HCI for Development (HCI4D) research, case studies, and industrial engagement in Asia Pacific.

As a part of Asian CHI Symposia (ACHIS) of CHI 2015 conference, we welcome participation from academia and professionals who are interested in the research and development of HCI in Asia Pacific. Under the big conference theme "CROSSINGS", we would like to bring cross-exchange of information and transfer of knowledge in this multidisciplinary environment and socioeconomic aspects of research in Human-Computer Interaction (HCI).

This symposium is open to everyone interested in HCI and UX.

#### Organizers:

Eunice Sari, *University of Western Australia, Australia*  
 Bimlesh Wadhwa, *National University of Singapore, Singapore*  
 Adi Tedjasaputra, *UX Indonesia, Indonesia*  
 Masitah Ghazali, *Universiti Teknologi Malaysia, Malaysia*  
 Anirudha Joshi, *IIT Bombay, India*

### S03 Japanese CHI Symposium I: Emerging Japanese HCI Research Collection Room 317B

Saturday April 18th <http://hci.tokyo/>

This symposium showcases the latest work from Japan on interactive systems and user interfaces that address under-explored problems and demonstrate unique approaches.

In addition to circulating ideas and sharing a vision of future research in human-computer interaction, this symposium aims to foster the social network among young researchers and create a fresh community.

#### Organizers:

Jun Kato, *National Institute of Advanced, Japan*  
 Hiromi Nakamura, *The University of Tokyo, Japan*  
 Yuta Sugiura, *Keio University, Japan*  
 Taku Hachisu, *University of Electro-Communications, Japan*  
 Daisuke Sakamoto, *The University of Tokyo, Japan*  
 Koji Yatani, *The University of Tokyo, Japan*  
 Yoshifumi Kitamura, *Tohoku University, Japan*

### S04 Japanese CHI Symposium 2: Japanese Culture and Kansei Room 309

Sunday April 19th <http://user-engineering.net/SIGCHI2015/index.html>

Psychologically, «Kansei» is related to emotion and cognition and sociologically is related to culture and history. Historically, the origin of the concept of «Kansei» as a Japanese term goes back to «Aesthesis» by Aristotle and «Aesthetics» concepts by Baumgarten and Kant. When this concept was imported to Japan in Meiji era, about 150 years ago, the concept was translated as «Bigaku» or the science of beauty as well as was translated as «Kansei» or the concept with the connotation including sensitivity, sensibility, emotion and feeling. Hence Kansei is related to the science of beauty in its historical background in Japan.

JSKE (Japan Society of Kansei Engineering) started a series of KEER (Kansei Engineering and Emotion Research) conference and ISASE (International Symposium on Affective Science and Engineering) in the latter sense of aesthetics. This is a peculiar situation of the Japanese language. Similarly, the term «Kansei» can be interpreted differently from country to country, and from culture to culture.

This symposium is organized to discuss the concept of «Kansei» from different cultural perspectives. For example, «kawaii» is now used internationally as can be found in Wikipedia (<http://en.wikipedia.org/wiki/Kawaii>) and OED. At the same time, this symposium aims not only to differentiate the differences among various cultures, but also expects to find out the common aspects based on the fact that we are all the human beings with the emotional system and the cognitive system.

#### Organizers:

Hisao Shiizuka, *Fuzzy Logic System Institute, Japan*  
 Masaaki Kurosu, *The Open University of Japan, Japan*  
 Michiko Ohkura, *Shibaura Institute of Technology, Japan*

## ■ LIFETIME RESEARCH AWARD

The SIGCHI Lifetime Research Award is presented to individuals for outstanding contributions to the study of human-computer interaction. This award recognizes the very best, most fundamental and influential research contributions. It is awarded for a lifetime of innovation and leadership.

**Jim Hollan** is Professor of Cognitive Science & Computer Science and Engineering at UC San Diego, where he co-directs the Design Lab. Following a postdoc in AI at Stanford, Hollan led the UCSD Intelligent Systems Group in the Institute for Cognitive Science and the Future Technologies Group at NPRDC. He left UCSD to become Director of the MCC Human Interface Lab and subsequently established the Computer Graphics and Interactive Media Research Group at Bellcore. He then moved to the University of New Mexico as Chair of the Computer Science Department. He returned to UC San Diego in 1997. Hollan's early work explored graphical interfaces to aid understanding of complex dynamic systems. This work resulted in a series of training systems (e.g., Steamer and Mboard) and one of the first object-oriented graphics editors. The science that accompanied these development efforts made significant contributions to understanding direct manipulation interfaces and advancing research on mental models. The next phase of Hollan's research focused on designing multimodal interfaces to high-functionality systems. He led the Human Interface Lab at MCC in creating the Human Interface Tool Suite (HITS), which was among the first prototyping systems to integrate gestures, graphics, sketching, and natural language. Other work begun at MCC on history-enriched digital objects, collaborative filtering, and beyond-being-there continued when he moved to Bellcore, where he initiated a large scale project to explore multiscale information visualization. The resulting system, Pad++, was a precursor to current zoomable interfaces. When he returned to UCSD he focused on developing distributed cognition as a theoretical and methodological base for advancing HCI research. In recent work, Hollan and his students are developing tools (ChronoViz) to aid visualization and analysis of multiple streams of video and other time-based data and exploring techniques to help reestablish the context of interrupted activities.

## ■ LIFETIME PRACTICE AWARD

The SIGCHI Lifetime Practice Award is presented to individuals for outstanding contributions to the practice and understanding of human-computer interaction. This award recognizes the very best and most influential applications of human-computer interaction. It is awarded for a lifetime of innovation and leadership.

**Susan M. Dray** has worked to advance human-centered design since 1979, initially in a human factors research group at Honeywell, and later championing usability of corporate systems at American Express. She was one of the founders of SIGCHI in 1982. Since 1993, her consulting firm, Dray & Associates, has provided user experience research for a long list of clients to help them create innovative products and services that are useful, usable, and desirable. Through her publications, teaching, mentoring, and many speaking engagements, Susan has contributed significantly to the evolution of UX research practice, especially in field research, naturalistic usability evaluation, and international usability and user research. Extensive experience doing research in developing countries led to her involvement in forming a professional community focused on user-centered design for development (UCD4D), applying UCD to technological aspects of economic development. She is currently pursuing this interest as a Fulbright Scholar on the faculty at the Technological University of Panama. Susan is a Fellow of the Human Factors and Ergonomics Society, recipient of the SIGCHI Lifetime Service Award, member of the CHI Academy and an ACM Distinguished Engineer. She is a long-time Column/Forum editor for Interactions and served as Director of Publications on the Board of the User Experience Professionals Association. Susan holds a doctorate in Psychology from UCLA.

**Bill Verplank** is an interaction designer and educator known for his diagrams and sketches. He studied engineering at Stanford and MIT. At Xerox, he participated in testing and refining (and presenting at CHI'83), the Xerox Star. He helped write (and diagram) the SIGCHI Curricula. At Stanford, he learned to teach visual thinking from Bob McKim and helped Terry Winograd create an HCI design course. He was hired by industrial designer Bill Moggridge at ID2 and started "interaction design". At Interval Research, he developed design methods: "body storming" and "informance design"; and pioneered tangible user-interfaces (TEI) and experimented with haptic force-feedback. When Interval closed in 2000, he joined Max Mathews at Stanford's CCRMA to develop a course on HCI for computer

music and a conference (spun off from CHI) called NIME (New Interfaces for Musical Expression). He was on the steering committee at the Interaction Design Institute (IDI) and once or twice a year continues to teach at Copenhagen Institute of Interaction Design (CIID).

## ■ LIFETIME SERVICE AWARD

The SIGCHI Lifetime Service Award goes to individuals who have contributed to the growth of SIGCHI in a variety of capacities. This award is for extended services to the community at large over a number of years.

**Michel Beaudouin-Lafon** is Professor of Computer Science, Classe Exceptionnelle, at Université Paris-Sud (France) and a senior fellow of Institut Universitaire de France. He has worked in human-computer interaction for 30 years and was elected to the ACM SIGCHI Academy in 2006. His research interests include fundamental aspects of interaction, novel interaction techniques, computer-supported cooperative work and engineering of interactive systems. He has published over 150 papers and is an ACM Distinguished Speaker. His current research is conducted in the Ex Situ group, a joint lab between Université Paris-Sud, CNRS and Inria, where he heads the 22M€ Digiscope project. Michel is heavily involved in the management of research. He has been vice-president of the computer science department at Université Paris-Sud. He was director of LRI, the laboratory for computer science joint between Université Paris-Sud and CNRS (280 faculty, staff, and Ph.D. students), where he now heads the Human-Centered Computing lab. He participates in the evaluation of many research institutions and research proposals at the French, European and international levels. He currently sits on the Scientific Committee of CNRS for Computer Science. Michel has worked tirelessly to develop HCI in France. He has advised twenty-eight Ph.D. students and has served on more than 100 Ph.D. and French "habilitation" committees. He founded and co-directs two international masters in HCI, and is co-director of the graduate school in computer science. He founded AFHIM, the Francophone association for human-computer interaction, and was its first president. Michel has also been active in ACM and SIGCHI for over 20 years. He has served on the program committees of many conferences, especially CHI and UIST, several times (7) as chair or co-chair. He was chair of UIST 2001, co-chair of IHM 2004, co-chair of ECSCW 2005, and Technical Program Co-chair for CHI 2013 in Paris. He sits on the editorial boards of ACM Books and ACM TOCHI. He has served on the ACM Council and the ACM Publications Board, and on several award and nominating committees of ACM and SIGCHI. He is currently serving on the ACM Europe Council and on EUACM, the new European policy office of ACM.

**Jean Scholtz** worked as a student volunteer at her first CHI conference in 1988. Since then, she has volunteered at many CHI conferences in various positions including: reviewer; session chair; associate reviewer; co-chair of late breaking submissions, co-chair of Technical notes, Co-chair of Organizational Overviews, Co-Industry Liaison, Co-chair of Panels, and Special Area Chair – robotics. She was also the Vice-Chair of Finance of the SIGCHI from 1997–2001. Jean was involved in starting a local SIGCHI in Portland, OR in 1991. CHIFOO (The Computer Human Interaction Forum of Oregon) is still going strong. She also was involved in starting a local Chapter in the District of Columbia in the late 90's. Jean's research in the CHI area started with studying transfer of skill in programming languages and identifying the elements needed for tutoring systems to help experienced programmers move to new languages. She continued this work as a faculty member at Portland State University where she developed a master's degree track in HCI. She spent several years working at Intel where she conducted usability tests and did user requirements for audio and video conferencing systems. She moved to the east coast with her husband and worked at the National Institute of Standards (NIST) and Technology where she helped in developing test environments and metrics for Urban Search and Rescue Robots and Explosive Ordnance Disposal Robots. She was also the driving force behind the NIST Industry Usability Reporting (IUSR) Project. This project developed the Common Industry Format (CIF) that enabled companies to request usability data on software being considered for purchase. The CIF became an ANSI/INCITS standard in 2001 and an ISO standard in 2006. Jean also served as a program manager at the Defense Advanced Research Projects Agency (DARPA) where she managed work in Collaborative Systems and the Invisible Computing Initiative. Today Jean is retired from NIST but is a chief scientist in the Visual Analytics Group at the Pacific Northwest National Laboratory in Richland, WA. She works part-time and spends the rest of her time gardening and creating mosaics at her home on the Oregon Coast.

## ■ SOCIAL IMPACT AWARD

This award is given to individuals who promote the application of human-computer interaction research to pressing social needs.

**Leysia Palen** is an Associate Professor of Computer Science, and Chair and Associate Professor of Information Science at the University of Colorado Boulder. She is also a Full Adjunct Professor at the University of Agder in Norway. Palen is a graduate of the University of California, San Diego with a BS in Cognitive Science, and of the University of California, Irvine with an MS and PhD in Information and Computer Science. Prof. Palen is a leader in the area of crisis informatics, an area she forged with her graduate students and colleagues at CU-Boulder. She brings her training in human-computer interaction (HCI), computer-supported cooperative work and social computing to bear on understanding and advancing socio-technical issues of societal import. Prof. Palen is the author of over 70 articles and a co-edited book in the areas of human computer interaction, computer supported cooperative work, mobility, and crisis informatics. She was awarded an NSF CAREER in 2006. She is an Associate Editor for the Human Computer Interaction Journal (Taylor and Francis) and for the Computer-Supported Cooperative Work Journal (Springer).

## ■ CHI ACADEMY

The CHI Academy is an honorary group of individuals who have made substantial contributions to the field of human-computer interaction. These are the principal leaders of the field, whose efforts have shaped the disciplines and/or industry, and led the research and/or innovation in human-computer interaction.

**Stephen Brewster** is a Professor of Human-Computer Interaction in the School of Computing Science at the University of Glasgow. He got his PhD in auditory interfaces at the University of York. After a period spent working in Finland and Norway, he has worked in Glasgow since 1995. His research focuses on multimodal HCI, or using multiple sensory modalities and control mechanisms (particularly hearing, touch and gesture) to create a rich, natural interaction between human and computer. His work has a strong experimental focus, applying perceptual research to practical situations. A long term focus has been on mobile interaction and how we can design better user interfaces for users who are on the move. He pioneered the study of non-speech audio and haptic interaction for mobile devices with work starting in the 1990's. According to Google Scholar, he has 375 publications. He has served as an Associate Chair, Sub-Committee Chair and Papers Chair, and has chaired the Interactivity, Doctoral Consortium and Student Design Competition tracks at CHI.

**Andy Cockburn** is a Professor in the Department of Computer Science and Software Engineering at the University of Canterbury in Christchurch, New Zealand, where he directs the Human Computer Interaction Lab. Andy's research focuses on designing, evaluating and modelling user interfaces that exploit underlying human factors. His contributions include many interface designs that use human spatial memory to support expertise development in basic tasks such as file retrieval, command invocation, window switching, and scrolling. With his colleagues and students he has published more than 150 papers, with several receiving best paper and honourable mention awards. Dr. Cockburn serves on the Editorial Board of ACM ToCHI, and he was papers co-chair for CHI 2014 and 2015.

**Anind K. Dey** is the Charles M. Geschke Chair, and Director of the Human-Computer Interaction Institute at Carnegie Mellon University. He has spent much of career doing research at the intersection of human-computer interaction, ubiquitous computing and machine learning, with a particular focus on context-aware computing. He has authored over 100 papers on these topics and serves on the editorial board of several journals. Before joining the faculty at Carnegie Mellon University, Anind was a Senior Researcher at Intel Labs in Berkeley. Anind received his PhD in computer science from Georgia Tech, along with a Masters of Science in both Computer Science and Aerospace Engineering. He received his Bachelors of Applied Science in Computer Engineering from Simon Fraser University.

**Ernest Edmonds** is a Research Professor specializing in creative technologies and interactive art systems and is based at the University of Technology, Sydney and at De Montfort University Leicester. His publications include nearly 300 books and papers, including some of the first articles about interactive art (1970), iterative design methods (1974), user interface architectures (1982) and the support of creativity (1989). He founded HCI research centres including Loughborough University Computer Human Interaction Research Centre and the Creativity and Cognition Studios at the University of Technology, Sydney. In 1993, he founded the Creativity & Cognition conference series, a SIGCHI sponsored event since 1999, and was a founding member of the Steering Committee of the ACM SIGART/SIGCHI Intelligent User Interface Conferences. He is well known for his pioneering use of computers in art and has exhibited artwork in many countries. The Victoria and Albert Museum London collects his art and archives. He is currently an active member of the Art.CHI community and will be the Arts Exhibit Chair at CHI2016.

**Scott MacKenzie** is an Associate Professor of Electrical Engineering and Computer Science at York University, Toronto. His research is in human-computer interaction with an emphasis on human performance measurement and modeling, experimental methods and evaluation, interaction devices and techniques, Fitts' law, text entry, touch-based and sensor-based input, language modeling, mobile computing, and accessible computing. He earned a PhD in Education from the University of Toronto in 1991.

**Sharon Oviatt** is internationally known for her work on human-centered, multimodal, mobile, and educational interfaces, as well as interface design and evaluation. She has published over 150 articles in a multidisciplinary range of venues. She was recipient of the inaugural *ICMI* Sustained Accomplishment Award for innovative, long-lasting, and influential contributions to defining the field of multimodal and multimedia interaction, interfaces, and systems. She also was recipient of an NSF Special Creativity Award for pioneering research on mobile multimodal interfaces. Sharon was one of the founders of the *ACM International Conference on Multimodal Interfaces*, and has served as General or Program Chair five times. She is an Associate Editor of the main journals and edited book collections in the field of human-centered interfaces. Sharon currently serves as President and Director of Incaa Designs Nonprofit. For most of her career, she has been in academics, where she has been as a professor of Computer Science, Psychology, and also Linguistics. She received her PhD in Experimental Psychology at University of Toronto. In 2013, Sharon published *The Design of Future Educational Interfaces* (Routledge Press). Her latest book, *The Paradigm Shift to Multimodality in Contemporary Computer Interfaces* (co-authored with Phil Cohen) will be published in 2015.

**Catherine Plaisant** is a Senior Research Scientist at the University of Maryland Institute for Advanced Computer Studies, and Associate Director of Research of the Human-Computer Interaction Lab. She earned a PhD in industrial engineering in France. She enjoys working everyday with PhD students and nurturing the supportive environment of the Maryland HCIL community. Inspiration and fun have come from working closely with epidemiologists, engineers, librarians, geographers, intelligence analysts and teachers. Or was it when throwing ideas or polishing interfaces with physicians, literary scholars, social workers, families or persons with disabilities? Early pioneering work focused on touchscreen interfaces, search and browsing, then information visualization became a central theme of research, as well as evaluation strategies. Recent projects include novel designs for electronic health record systems and visual analytics environments for the analysis of temporal event sequences. She co-authored with Ben Shneiderman the 4th and 5th Editions of *Designing the User Interface*. She launched the Information Visualization and Visual Analytics Challenges, and has served on the editorial boards of Information Visualization and Interacting with Computers, and as guest editor of multiple special issues. Most happy outdoors, enjoying life with friends and family.

## ■ PAST HONOREES

### SIGCHI Lifetime Research Award

- 2014 Steve Whittaker
- 2013 George G. Robertson
- 2012 Dan Olsen
- 2011 Terry Winograd
- 2010 Lucy Suchman

### SIGCHI Lifetime Practice Award

- 2014 Gillian Crampton Smith
- 2013 Jakob Nielsen
- 2012 Joy Mountford
- 2011 Larry Tesler
- 2010 Karen Holtzblatt

### SIGCHI Lifetime Achievement Award

- 2009 Sara Kiesler
- 2008 Bill Buxton
- 2007 James D. Foley
- 2006 Gary M. Olson, Judith S. Olson
- 2005 Tom Landauer
- 2004 Thomas P. Moran
- 2003 John M. Carroll
- 2002 Donald A. Norman
- 2001 Ben Shneiderman
- 2000 Stuart K. Card
- 1998 Douglas Engelbart

### SIGCHI Lifetime Service Award

- 2014 Wendy Mackay, Tom Hewett
- 2013 Joseph A. Konstan
- 2012 Mike Atwood, Kevin Schofield
- 2011 Arnie Lund, Jim Miller
- 2010 Mary Czerwinski
- 2009 Clare-Marie Karat, Steven Pemberton
- 2008 John Karat, Marian Williams
- 2007 Richard I. Anderson
- 2006 Susan M. Dray
- 2005 Sara Bly, John 'Scooter' Morris, Don Patterson, Gary Perlman, Marilyn Mantei Tremaine
- 2004 Robin Jeffries, Gene Lynch
- 2003 Lorraine Borman
- 2002 Dan R. Olsen Jr.
- 2001 Austin Henderson

### SIGCHI Social Impact Award

- 2014 Richard E. Ladner
- 2013 Sara J. Czaja
- 2012 Batya Friedman
- 2011 Alan Newell, Clayton Lewis
- 2010 Allison Druin, Ben Bederson
- 2009 Helen Petrie
- 2008 Vicki Hanson
- 2007 Gregory Abowd, Gary Marsden
- 2006 Ted Henter
- 2005 Gregg Vanderheiden

### CHI Academy Members

- Class of 2014 John C. Tang, Jeff A. Johnson, Susan Dray, Jodi L. Forlizzi, Keith Edwards, Ken Hinckley, Richard H. R. Harper, Gary Marsden
- Class of 2013 Patrick Baudisch, Victoria Bellotti, Clarisse Sieckenius de Souza, Alan Dix, Rebecca E. Grinter, Eric Horvitz, Bonnie Nardi, Thomas S. Tullis

- Class of 2012 Ben Bederson, Steve Benford, Hugh Dubberly, Carl Gutwin, Joy Mountford, Alan Newell, Yvonne Rogers
- Class of 2011 Ravin Balakrishnan, Steven Feiner, Joseph Konstan, James Landay, Jenny Preece, Abigail (Abi) Sellen, Dennis Wixon
- Class of 2010 Susanne Bødker, Mary Czerwinski, Austin Henderson, David Kieras, Arnie Lund, Larry Tesler, Shumin Zhai
- Class of 2009 Mark Ackerman, Bill Gaver, Clayton Lewis, Wendy E. Mackay, Aaron Marcus, Elizabeth Mynatt, Tom Rodden
- Class of 2008 Gregory Abowd, Paul Dourish, Wendy Kellogg, Randy Pausch, Mary Beth Rosson, Steve Whittaker
- Class of 2007 Joëlle Coutaz, Karen Holtzblatt, Gerhard Fischer, Robert J. K. Jacob, Jun Rekimoto, Chris Schmandt
- Class of 2006 Scott Hudson, Hiroshi Ishii, Michel Beaudouin-Lafon, Jakob Nielsen, Peter Pirolli, George Robertson
- Class of 2005 Ron Baecker, Susan Dumais, John Gould, Saul Greenberg, Bonnie E. John, Andrew Monk
- Class of 2004 George Furnas, Jonathan Grudin, Brad Myers, William Newman, Dan R. Olsen Jr., Brian Shackel, Terry Winograd
- Class of 2003 Thomas Green, James D. Hollan, Robert E. Kraut, Gary M. Olson, Peter G. Polson
- Class of 2002 William A. S. Buxton, John M. Carroll, Douglas C. Engelbart, Sara Kiesler, Thomas K. Landauer, Lucy A. Suchman
- Class of 2001 Stuart K. Card, James D. Foley, Morten Kyng, Thomas P. Moran, Judith S. Olson, Ben Shneiderman

## ■ ACM/SIGCHI BEST OF CHI AWARDS

The SIGCHI "Best of CHI" awards honor exceptional papers published at the CHI conference. The top 5% of submissions are chosen by the associate chairs to receive an award. Among these, the associate chairs and a separate Best Papers Committee select the very best 1% of submissions to receive a Best Paper award.



The CHI Associate Chairs nominated 5% of the Paper and Notes submissions. 84 papers and notes received Honorable Mention, designated by a medallion logo.



The separate Best Papers committee selected the top 1% of total submissions. 21 Papers and Notes received a Best Paper award, designated by a trophy logo.

Mark Billinghurst (*Chair*), *University of Canterbury, New Zealand*; Carl Gutwin, *University of Saskatchewan*; Mark Blythe, *University of Northumbria*; N. Sadat Shami, *IBM*; Caroline Appert, *CNRS & Univ. Paris Sud*; Alexander De Luca, *University of Munich*

## ■ PEOPLE'S CHOICE BEST TALK AWARD

The People's Choice Best Talk Awards are meant to celebrate the very best of in-conference presentations. Did a presenter go the extra mile to make their talk genuinely interesting and informative? Did a speaker make you stop and think about something new? Did a presentation make an otherwise dull topic come alive? Nominate the speaker for a People's Choice Best Talk Award! It takes only a moment, and helps to reward those who spend the extra time to make help make the conference truly memorable and extraordinary.

You may cast as many votes as you wish, provided they don't occupy the same time slot (overlapping sessions are ok). Please, do not wait until the end of the conference to choose a single 'best'. Think of your votes as nominations for awards made to the best that the conference has to offer. Vote using the CHI 2015 mobile application or the voting site: <http://chi2015.acm.org/vote>. Your Voter ID is on the back of your name badge. Winners of the People's Choice Best Talk Awards will be announced at the CHI 2015 closing plenary!

■ OPENING PLENARY

**Crossing: HCI, Design and Sustainability**

Lou Yongqi

Monday 20 April, 9:00

Hall D1

Two great inventions that opened the era of human-computer interaction design—desktop and mouse—are now disappearing. Computers are becoming smaller and smaller, smarter and smarter. Everyone is now surrounded by many visible and invisible computers, which are all highly connected through the Internet ubiquitously. A new world of artificial intelligence is emerging. When the intelligence of human-being is expanded to his/her surroundings, condensed into a new kind of Intelligent life, the relationship between human-being and the rest of the world has been redefined. How to cross the boundaries and to enable the sustainable interaction between nature (the 1st system), human-beings (the 2nd system), artificial world (the 3rd system), and the cyber world (the 4th system), becomes an interesting proposition and merits new design. But before that, it's necessary to rethink the anthropocentric view and even design itself. The most attractive feature of design is optimistic. What makes a human being human, lies in that one is not leading a kind of life which merely has needs to be fulfilled, but can also use his/her subjective initiative to control and conduct his/her behavior for a certain common value. Today sustainability is not only a value of ethics, but a value of surviving. How to use and encourage a new kind of HCI design, to generate sustainable behaviors and social changes, further, to redesign the commensalism of the four systems mentioned above will be the main focus of my talk.

**Biography**



Prof. Dr. Lou Yongqi is Dean of the College of Design and Innovation at Tongji University in Shanghai. He is a full professor at Tongji, Visiting Professor at the School of Art, Design, and Architecture at Aalto University in Finland, and Visiting Professor at the School of Design of Politecnico di Milano in Italy. Lou has been the pioneer in China for design-driven innovation education

that connects design, business, and technology. He advances these issues through his leadership of two institutions at Tongji University: the College of Design and Innovation, and the Sino-Finnish Centre. He also furthers this agenda through international collaboration.

Lou is a leading figure in sustainable interdisciplinary design education, research, and practice. Lou was the first designer in China to connect social innovation and sustainable design thinking with rural development. This is the subject of his latest book, *Design Harvests: An Acupunctural Design Approach Toward Sustainability*. Lou's design works include the United Nations Pavilion of World Expo 2010, the LiangPing New Jindai Sustainable School funded by the China-US Center for Sustainable Development, and the TsingTao Horticultural Expo 2014.

Lou is Vice President of CUMULUS, the International Association of Universities and Colleges of Art, Design, and Media. He is Founding Executive Editor of *She Ji — the Journal of Design, Innovation, and Economics* published by Tongji University and in cooperation with Elsevier. In 2014, the President of Finland honoured Lou with the Order of the Lion of Finland as a Knight, First Class.

■ TUESDAY MORNING KEYNOTE

**UX Design in the IoT Era**

Donghoon Chang

Tuesday 21 April, 9:00

Hall D1

The current advancement of IoT technology has accelerated the era of hyper-connectivity in our lives. This has vastly driven convergence among different fields along with the expansion of our thoughts and behaviors. However, to provide meaningful experiences, these relational expansions and unprecedented possibilities opened up by IoT need to be founded on core human values. Furthermore, harmonious integration between technology and design is also essential. Today, I would like to talk about what must be done in order to foster the IoT as a human-centered innovation and how UX design can realize the well balanced and harmonious IoT environment.

**Biography**

Donghoon Chang is Executive VP, Head of Design Strategy Team and UX Center in Corporate Design Center, Samsung Electronics. Since joining Samsung in 2006, he has played a critical role in establishing the company's design vision for the future which has gradually shifted from a focus on style and convenience to a holistic user experience design and has developed mid to long-term design strategies, including 'Design 3.0' which envisions design that delivers new meaning and delight to people and contributes to society by creating sustainable and innovative value.



Chang received two MFA degrees from the School of the Art Institute of Chicago (Chicago, USA) and Seoul National University (Seoul, Korea). He worked for IBM Korea and Time & Space Tech inc. as a communications specialist and art director respectively. Before joining Samsung, he was a professor at Ewha Womans University (Seoul, Korea) where he taught visual design, information design as well as user experience design. He was selected as 'the 2nd most creative people in the world' by Fast Company in 2013.

■ WEDNESDAY MORNING KEYNOTE

**Journey to a Better Life**

David Min

Wednesday 22 April, 9:00

Hall D1

New technologies and devices are coming out every day along with the rapid growth of the internet and enhancement of hardware performance. These trends are connected and tangled with each other. This era of «Smart» brings us great benefits and convenience, but there are still many technical hurdles and interface obstacles to be crossed. Now we are able to access massive amount of data, but at the expense of privacy and security. How can we untie this knot? We all strive for the same goal: "to make people's lives better," no matter how we define our role in life. In this talk, we will present what we do in LG Electronics to address this goal within the aspects of software engineering and UX design, and also discuss what we should care about when delivering innovative products to the world.

**Biography**

David Min is a Senior Research Fellow at LG Electronics and is head of the Software Center. He is known for spearheading one of the most successful SmartTV platforms in the industry, providing a superior user experience and an open API for 3rd party developers.

David studied computer science and statistics at Seoul National University for BS degree and computer science at Korea Advanced Institute of Science & Technology for MS degree. After four years work at Samsung Co. as an IT system analyst, he went to the USA to enroll in the computer science PhD program at the University of Illinois at Urbana-Champaign. After finishing his advanced studies at UIUC, he worked for many years at various companies in computer, software, and consumer electronics industries, including Digital Equipment Corp. (now HP), Microsoft, Samsung Electronics. David joined LG Electronics in 2006.




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**THURSDAY MORNING KEYNOTE**
**ACM-W Athena Lecture: Large-Scale Behavioral Data: Potential and Pitfalls**  
 Susan Dumais

*Thursday 23 April, 9:00*
*Hall D1*

Over the last decade, the rise of web services has made it possible to gather traces of human behavior in situ at a scale and fidelity previously unimaginable. Large-scale behavioral data enables researchers and practitioners to detect adverse drug reactions and interactions, to understand how information diffuses through social networks, how people browse and search for information, how individual learning strategies are related to educational outcome, etc. Using examples from search, I will highlight how observational logs provide a rich new lens onto the diversity of searchers, tasks, and interactivity that characterize information systems today, and how experimental logs have revolutionized the way in which web-based systems are designed and evaluated. Although logs provide a great deal of information about what people are doing, they provide little insight about why they are doing so or whether they are satisfied. Complementary methods from observations, laboratory studies and panels are necessary to provide a more complete understanding of and support for search which is increasingly a core fabric of people's everyday lives. The CHI community should lead the way in shaping best practices and policy in behavioral log studies.

**Biography**

Susan Dumais, ACM Fellow, a Distinguished Scientist at Microsoft and Deputy Managing Director of the Microsoft Research Lab in Redmond. Prior to joining Microsoft Research, she was at Bell Labs and Bellcore, where she worked on Latent Semantic Analysis, techniques for combining search and navigation, and



organizational impacts of new technology. Her current research focuses on user modeling and personalization, context and search and temporal dynamics of information. She has worked closely with several Microsoft groups (Bing, Windows Desktop Search, SharePoint, and Office Online Help) on search-related innovations. Susan has published widely in the fields of information science, human-computer interaction and cognitive science, and holds several patents on novel retrieval algorithms and interfaces. Susan is also an adjunct professor in the Information School at the University of Washington. She is Past-Chair of ACM's Special Interest Group in Information Retrieval (SIGIR), and serves on several editorial boards, technical program committees, and government panels. She was elected to the CHI Academy in 2005, an ACM Fellow in 2006, received the SIGIR Gerard Salton Award for Lifetime Achievement 2009, was elected to the National Academy of Engineering (NAE) in 2011, and received the ACM Athena Lecturer Award, and Tony Kent Strix Award in 2014.

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**CLOSING PLENARY**
**Cultural Crossing from Local to Global through Music: Technology, Media, and Future PSY**
*Thursday 23 April, 16:30*
*Hall D1*

Many people think that the global success of the song Gangnam Style has contributed to the tremendous success of the Korean Wave. Being in front of experts in technology and human interactions, I'd like to share my thinking and story about questions like the following: What was the effect of global social media such as YouTube on the global crossing of local culture? How do I plan and utilize the new way of interacting with audience across national and cultural boundaries? Reflecting on the great success of Gangnam Style, what was the main trigger to the big bang of the spread of the Korean wave? As both a musician and an entrepreneur, what do I think is the new process from the ideation of a new song to a global distribution, publicity, and performance of that song? For the creativity that can be appreciated by global audience, how do I think about the technology and media of the future, in terms of creative works? I am looking forward to sharing my experience and opinion here at CHI 2015.

**Biography**

Jai Sang Park, better known as PSY, is a singer-songwriter, record producer, rapper and entrepreneur. He is best known for producing the first video on YouTube to have exceeded 1 billion views. Gangnam Style is still the most viewed video at over 2.14 billion views, breaking the software counter on the online service. His provocative and irreverent lyrics and style have led to dozens of music awards across the globe.



PSY is a recipient of Korea's Ministry of Culture's Okgwan Order of Cultural Merit. PSY studied at Boston University and Berklee College of Music. In addition to music performances, he has given speeches at Harvard and Oxford Universities. PSY speaks about creative processes and impact of social media on our modern cross-cultural society.



**Opening Plenary Keynote**

8:30 – 10:00

Hall D1

Lou Yonqi

*Crossing: HCI, Design and Sustainability*

10:00 – 11:30

Video Showcase Presentation

Preview games from Student Games Competition

Room 401

Hall E Foyer



10:00 – 11:30  
Coffee Break

Level 300/400 Foyers

**401 Papers: Non-Rigid Interaction Surfaces**

CHAIR: JÖRG MÜLLER



bioLogic: Natto Cells as Nanoactuators for Shape Changing Interfaces

*Lining Yao, Jifei Ou, Chin-Yi Cheng, Helene Steiner, Wen Wang, Guanyun Wang, Hiroshi Ishii*

Control of Non-Solid Diffusers by Electrostatic Charging

*Deepak R. Sahoo, Diego Martinez Plasencia, Sriram Subramanian*

Investigation of Material Properties for Thermal Imaging-Based Interaction

*Yomna Abdelrahman, Alireza Sahami Shirazi, Niels Henze, Albrecht Schmidt*

ShapeClip: Towards Rapid Prototyping with Shape-Changing Displays for Designers

*John Hardy, Christian Weichel, Faisal Taher, John Vidler, Jason Alexander*

FluxPaper: Reinventing Paper with Dynamic Actuation Powered by Magnetic Flux

*Masa Ogata, Masaaki Fukumoto*

**402 Papers: What do I hear? Communicating with Sound**

CHAIR: IAN OAKLEY



TabLETS Get Physical: Non-Visual Text Entry on Tablet Devices

*João Guerreiro, André Rodrigues, Kyle Montague, Tiago Guerreiro, Hugo Nicolau, Daniel Gonçalves*

VocalSketch: Vocally Imitating Audio Concepts

*Mark Cartwright, Bryan Pardo*

An Evaluation of Multidimensional Controllers for Sound Design Tasks

*Robert Tubb, Simon Dixon*

AnnoTone: Record-time Audio Watermarking for Context-aware Video Editing

*Ryohei Suzuki, Daisuke Sakamoto, Takeo Igarashi*

Exploring Gesture Sonification to Support Reflective Craft Practice

*Thomas Smith, Simon J Bowen, Bettina Nissen, Jonathan Hook, Arno Verhoeven, John Bowers, Peter Wright, Patrick Olivier*

**403 Papers: Rethinking Evaluation for Today's HCI**

CHAIR: WENDY E. MACKAY



Remote Paper Prototype Testing

*Kevin Chen, Haoqi Zhang*

Controlling In-The-Wild Evaluation Studies

*Sandy Claes, Niels Wouters, Karin Slegers, Andrew Vande Moere*

Evaluation Probes

*Anna Luusua, Johanna Ylipulli, Marko Jurmu, Henrika Pihlajaniemi, Piia Markkanen, Timo Ojala*

Real-World Affinity Diagramming Practices: Bridging the Paper-Digital Gap

*Gunnar Harboe, Elaine M. Huang*

Situational Ethics: Re-thinking Approaches to Formal Ethics Requirements for Human-Computer Interaction

*Cosmin Munteanu, Heather Molyneaux, Wendy Moncur, Mario Romero, Susan O'Donnell, John Vines*

**E1/E2 Papers: Improving Game Experiences**

CHAIR: LENNART E. NACKE



The Royal Corgi: Exploring Social Gaze Interaction for Immersive Gameplay

*Melodie Vidal, Remi Bismuth, Andreas Bulling, Hans Gellersen*

Exploring 3D User Interface Technologies for Improving the Gaming Experience

*Arun Kulshreshth, Joseph LaViola Jr.*

Quantifying and Mitigating the Negative Effects of Local Latencies on Aiming in 3D Shooter Games

*Zenja Ivkovic, Ian Stavness, Carl Gutwin, Steven Sutcliffe*

First Person vs. Third Person Perspective in Digital Games: Do Player Preferences Affect Immersion?

*Alena Denisova, Paul Cairns*

VIZMO Game Browser: Accessing Video Games by Visual Style and Mood

*Jin Ha Lee, Sungsoo (Ray) Hong, Hyerim Cho, Yea-Seul Kim*

**E3 Papers: Facebook Newsfeeds & Friendships**

CHAIR: DAVID SHAMMA



“I Always Assumed That I Wasn’t Really That Close to [Her]”: Reasoning About Invisible Algorithms in the News Feed

*Motahhare Esлами, Aimee N. Rickman, Kristen Vaccaro, Amrithossein Aleyasen, Andy Vuong, Karrie G. Karahalios, Kevin Hamilton, Christian Sandvig*

News Feed: What’s in it for Me?

*Paul Lapides, Apoorve Chokshi, Sheelagh Carpendale, Saul Greenberg*

Understanding User Beliefs About Algorithmic Curation in the Facebook News Feed

*Emilee Rader, Rebecca Gray*

Modelling What Friendship Patterns on Facebook Reveal about Personality and Social Capital

*Yong Liu, Jayant Venkatanathan, Jorge A. Goncalves, Evangelos Karapanos, Vassilis Kostakos*

**E4 Papers: Activism in Wikipedia & Beyond**

CHAIR: GARY HSIEH

Cross-language Wikipedia Editing of Okinawa, Japan

*Scott A. Hale*

Societal Controversies in Wikipedia Articles

*Erik Borra, Esther Weltevrede, Paolo Ciuccarelli, Andreas Kaltenbrunner, David Laniado, Giovanni Magni, Michele Mauri, Richard Rogers, Tommaso Venturini*



The Heart Work of Wikipedia: Gendered, Emotional Labor in the World’s Largest Online Encyclopedia

*Amanda Menking, Ingrid Erickson*



Barriers to the Localness of Volunteered Geographic Information

*Shilad W. Sen, Heather Ford, David R. Musicant, Mark Graham, Oliver S. Keyes, Brent Hecht*

How Activists Are Both Born and Made: An Analysis of Users on Change.org

*Shih-Wen Huang, Minhyang (Mia) Suh, Benjamin Mako Hill, Gary Hsieh*

**E5 Papers: HMDs & Wearables to Overcome Disabilities**

CHAIR: SHAUN K. KANE

Personalized, Wearable Control of a Head-mounted Display for Users with Upper Body Motor Impairments

*Meethu Malu, Leah Findlater*

Designing Conversation Cues on a Head-Mounted Display to Support Persons with Aphasia

*Kristin Williams, Karyn Moffatt, Denise McCall, Leah Findlater*

Head-Mounted Display Visualizations to Support Sound Awareness for the Deaf and Hard of Hearing

*Dhruv Jain, Leah Findlater, Jamie Gilkeson, Benjamin Holland, Ramani Duraiswami, Dmitry Zotkin, Christian Vogler, Jon Froehlich*

Using Interactive Machine Learning to Support Interface Development Through Workshops with Disabled People

*Simon Katan, Mick Grierson, Rebecca Fiebrink*



Tongue-in-Cheek: Using Wireless Signals to Enable Non-Intrusive and Flexible Facial Gestures Detection

*Mayank Goel, Chen Zhao, Ruth Vinisha, Shwetak N. Patel*

**E6 Papers: Visualizing Data**

CHAIR: CHRISTOPHE HURTER



MatrixWave: Visual Comparison of Event Sequence Data

*Jian Zhao, Zhicheng Liu, Mira Dontcheva, Aaron Hertzmann, Alan Wilson*

The Effects of Representation and Juxtaposition on Graphical Perception of Matrix Visualization

*Xiaotong Liu, Han-Wei Shen*

g-Miner: Interactive Visual Group Mining on Multivariate Graphs

*Nan Cao, Yu-Ru Lin, Liangyue Li, Hanghang Tong*

Trajectory Bundling for Animated Transitions

*Fan Du, Nan Cao, Jian Zhao, Yu-Ru Lin*

**307 Panel: Transfer of HCI Research Innovations**

Technology Transfer of HCI Research Innovations: Challenges and Opportunities

*Parmit K. Chilana, Mary P. Czerwinski, Tovi Grossman, Chris Harrison, Ranjitha Kumar, Tapan S. Parikh, Shumin Zhai*

**308 alt.chi: Augmentation**

CHAIR: AARON QUIGLEY

ChameleonMask: Embodied Physical and Social Telepresence Using Human Surrogates

*Kana Misawa, Jun Rekimoto*

Consider the Moon. Human-Computer Bricolage of Extended Objects

*Cosima Rughinis, Razvan Rughinis*

The Broken Dream of Pervasive Sentient Ambient Calm Invisible Ubiquitous Computing

*Matthew P. Aylett, Aaron Quigley*

A Formal Analysis of the ISO 9241-210 Definition of User Experience

*Alexander Mirnig, Alexander Meschtscherjakov, Daniela Wurhofer, Thomas Meneweger, Manfred Tscheligi*

**317A C01: Designing Websites for Adults 55+ I/I**

Designing Websites for Adults 55+: Toward Universal Design

*Jeff A. Johnson*

**317BC C02: Cross-Device, Context-dependent UI I/I**

Design and Adaptation for Cross-Device, Context-dependent User Interfaces

*Fabio Paternò*

**318BC C04: Body, Whys & Videotape: Somatic Approaches I/I**

Body, Whys & Videotape: Somatic Approaches to Experience in HCI

*Thecla Schiphorst, Lian Loke*

12:50 – 14:30  
Lunch Break

Restaurants, bars  
& cafés available  
nearby

**401 Special: SIGCHI Social Impact Award**

CHAIR: LORENTERVEEN

SIGCHI Social Impact Award Talk  
*Leysia Palen*

**402 Papers: Interaction in 3D Space**

CHAIR: KENING ZHU

Physical Loci: Leveraging Spatial, Object and Semantic Memory for Command Selection  
*Simon T. Perrault, Eric Lecolinet, Yoann Pascal Bourse, Shengdong Zhao, Yves Guiard*

 LeviPath: Modular Acoustic Levitation for 3D Path Visualisations  
*Themis Omirou, Asier Marzo, Sue Ann Seah, Sriram Subramanian*

Twist and Learn: Interface Learning in 3DOF Exploration of 3D Scatterplots  
*Mark Showman, James Bown, Andrea Szymkowiak, Kenneth C. Scott-Brown*

THING: Introducing a Tablet-based Interaction Technique for controlling 3D Hand Models  
*Merwan Achibet, Géry Casiez, Anatole Lécuyer, Maud Marchal*

The Roly-Poly Mouse: Designing a Rolling Input Device Unifying 2D and 3D Interaction  
*Gary Perelman, Marcos Serrano, Mathieu Raynal, Celia Picard, Mustapha Derras, Emmanuel Dubois*

**403 Papers: Understanding & Evaluating Performance**

CHAIR: RICHARD C. DAVIS

ModelTracker: Redesigning Performance Analysis Tools for Machine Learning  
*Saleema Amershi, Max Chickering, Steven M. Drucker, Bongshin Lee, Patrice Simard, Jina Suh*

How Good is 85%? A Survey Tool to Connect Classifier Evaluation to Acceptability of Accuracy  
*Matthew Kay, Shwetak N. Patel, Julie A. Kientz*

Examining the Peak-End Effects of Subjective Experience  
*Andy Cockburn, Philip Quinn, Carl Gutwin*

Survival Analysis: Objective assessment of Wait Time in HCI  
*Siddhartha Asthana, Pushpendra Singh, Parul Gupta*

**E1/E2 Papers: Music & Art**

CHAIR: JONATHAN HOOK

Deformable Interfaces for Performing Music  
*Giovanni Maria Troiano, Esben W. Pedersen, Kasper Hornbæk*

Sculpting a Mobile Musical Soundtrack  
*Adrian Hazzard, Steve Benford, Gary Burnett*

Walking by Drawing  
*Daniela K. Rosner, Allison Chambliss, Jeremy Friedland, Hidekazu Saegusa*

 ArtMaps: Interpreting the Spatial Footprints of Artworks  
*Tim Coughlan, Laura Carletti, Gabriella Giannachi, Steve Benford, Derek McAuley, Dominic Price, Cristina Locatelli, Rebecca Sinker, John Stack*

**E3 Papers: Supporting Change in Developing Countries**

CHAIR: ANIRUDHA JOSHI

 Sangeet Swara: A Community-Moderated Voice Forum in Rural India  
*Aditya Vashista, Edward Cutrell, Gaetano Borriello, William Thies*

Mobile Phones for Maternal Health in Rural India  
*Neha Kumar, Richard J Anderson*

Residual Mobilities: Infrastructural Displacement and Post-Colonial Computing in Bangladesh  
*Syed Ishtiaque Ahmed, Nusrat Jahan Mim, Steven J. Jackson*

Más Tecnología, Más Cambio? Investigating an Educational Technology Project in Rural Peru  
*Emeline Therias, Jon Bird, Paul Marshall*

**E4 Papers: Privacy, Security & Interruptions**

CHAIR: EMILEE RADER

Playing the Legal Card: Using Ideation Cards to Raise Data Protection Issues within the Design Process  
*Ewa Luger, Lachlan Urquhart, Tom Rodden, Michael Golembewski*

Crowdsourced Exploration of Security Configurations  
*Qatrunnada Ismail, Tousif Ahmed, Apu Kapadia, Michael Reiter*

 Open Book: A Socially-inspired Cloaking Technique that Uses Lexical Abstraction to Transform Messages  
*Eric Gilbert*

Sensors Know When to Interrupt You In the Car: Detecting Driver Interruptibility Through Monitoring of Peripheral Interactions  
*SeungJun Kim, Jaemin Chun, Anind K. Dey*

**E5 Papers: Making & Sharing Assistive Technologies**

CHAIR: SURANGA NANAYAKKARA

Being Seen: Co-Interpreting Parkinson's Patient's Movement Ability in Deep Brain Stimulation Programming  
*Helena M. Mentis, Rita Shewbridge, Sharon Powell, Paul Fishman, Lisa Shulman*

Designing for and with People with Parkinson's: A Focus on Exergaming  
*Roisin McNaney, Madeline Balaam, Amey Holden, Guy Schofield, Daniel Jackson, Mary Webster, brook galna, gillian barry, Dadirayi Mhiripiri, Lynn rochester, Patrick Olivier*

 LApp: A Speech Loudness Application for People with Parkinson's on Google Glass  
*Roisin McNaney, Ivan Poliakov, John Vines, Madeline Balaam, Pengfei Zhang, Patrick Olivier*

The Virtual Meditative Walk: Virtual Reality Therapy for Chronic Pain Management  
*Diane Gromala, Xin Tong, Amber Choo, Mehdi Karamnejad, Chris D. Shaw*

 Sharing is Caring: Assistive Technology Designs on Thingiverse  
*Erin Buehler, Stacy Branham, Abdullah Ali, Jeremy J. Chang, Megan Kelly Hofmann, Amy Hurst, Shaun K. Kane*

**E6 Papers: Matching & Facilitating Social Interactions**

CHAIR: JOFISH KAYE

Understanding the Role of Community in Online Dating  
*Christina Masden, W. Keith Edwards*

Making Social Matching Context-Aware - Design Concepts and Open Challenges

*Julia M. Mayer, Starr Roxanne Hiltz, Quentin Jones*

The Known Stranger: Supporting Conversations between Strangers with Personalized Topic Suggestions

*Tien T. Nguyen, Duyen T. Nguyen, Shamsi T. Iqbal, Eyal Ofek*

Augmenting Social Interactions: Realtime Behavioural Feedback using Social Signal Processing Techniques

*Ionut Damian, Chiew Seng Sean Tan, Tobias Baur, Johannes Schöning, Kris Luyten, Elisabeth Andre***E7 C07: Actionable Inexpensive Games Research 1/2**

Actionable Inexpensive Games User Research

*Lennart E. Nacke, Steve Engels, Pejman Mirza-Babaei***307 Papers: Reflecting Upon Design Reflection**

CHAIR: RON WAKKARY

Understanding Long-Term Interactions with a Slow Technology: An Investigation of Experiences with FutureMe  
*William Odorn*

Reflective Informatics: Conceptual Dimensions for Designing Technologies of Reflection

*Eric P.S. Baumer*

Stock Lamp: An Engagement-Versatile Visualization Design  
*Yuzuru Tanahashi, Kwan-Liu Ma*

Real-Time Representation Versus Response Elicitation in Biosensor Data

*Mark Matthews, Jaime Snyder, Lindsay Reynolds, Jacqueline T. Chien, Adam Shih, Jonathan W. Lee, Geri Gay***308 Case Studies: Industrial Innovation**

CHAIR: DONGWHAN KIM

12 Way Mirror – Reflecting on Window Displays.  
*Lida Theodorou, Patrick G.T. Healey*

Industry Is Changing, And So Must We  
*Umer Farooq, Joseph T. Munko*

BodyGuard: A Case Study of Telecare Product Innovation and Development

*Andrea Taylor, Lorna Bernard, Hugh Pizey, Craig Whittet, Samantha Davies, David Hammond, Julian Edge*

Volvo Single View of Vehicle: Building a Big Data Service from Scratch in the Automotive Industry

*Paweł Woźniak, Robert Valton, Morten Fjeld***317A C06: Intro to Human-Computer Interaction 1/2**

Introduction to Human-Computer Interaction

*Jonathan Lazar, Simone D. J. Barbosa***317BC C05: Design for Searching & Finding 1/2**

Design for Searching &amp; Finding

*Daniel Russell, Jaime Teevan, Meredith Ringel Morris, Marti Hearst, Ed H. Chi***318A SIG: Interactive Childhood**

CCI SIG: Interactive Childhood - Crossing Cultures and Continents

*Janet C. Read, Juan Pablo Hourcade, Allison Druin, Panos Markopoulos, Tilde Bekker, Ole Sejer Iversen***318BC C08: Design for Online Video & Television 1/2**

Interaction Design for Online Video and Television

*David Geerts, Pablo Cesar*

15:50 – 16:30  
Coffee Break  
Level 300/400  
Foyers

**401 Papers: Makers & Hackers**

CHAIR: ELLENYI-LUEN DO



Tutorial Authorship and Hybrid Designers:  
The Joy (and Frustration) of DIY Tutorials

*Ron Wakkary, Markus Lorenz Schilling, Matthew A. Dalton, Sabrina Hauser, Audrey Desjardins, Xiao Zhang, Henry W. J. Lin*

Hybrid Practice in the Kalahari: Design Collaboration through Digital Tools and Hunter-Gatherer Craft

*Jennifer Jacobs, Amit Zoran*

The Proper Care and Feeding of Hackerspaces: Care Ethics and Cultures of Making

*Austin L. Toombs, Shaowen Bardzell, Jeffrey Bardzell*

Patterns of Physical Design Remixing in Online Maker Communities

*Lora Oehlberg, Wesley Willett, Wendy E. Mackay*

**402 Papers: How Fast Can you Type on your Phone?**

CHAIR: MICHAEL ROHS



Effects of Language Modeling and its Personalization on Touchscreen Typing Performance

*Andrew Fowler, Kurt Partridge, Ciprian Chelba, Xiaojun Bi, Tom Ouyang, Shumin Zhai*

VelociTap: Investigating Fast Mobile Text Entry using Sentence-Based Decoding of Touchscreen Keyboard Input

*Keith Vertanen, Haythem Memmi, Justin Emge, Shyam Reyal, Per Ola Kristensson*

Text Entry on Tiny QWERTY Soft Keyboards

*Luis A. Leiva, Alireza Sahami, Alejandro Catala, Niels Henze, Albrecht Schmidt*

Performance and User Experience of Touchscreen and Gesture Keyboards in a Lab Setting and in the Wild

*Shyam Reyal, Shumin Zhai, Per Ola Kristensson*

**403 Papers: Understand & Enhancing Learning**

CHAIR: CHRIS QUINTANA



Using Time-Anchored Peer Comments to Enhance Social Interaction in Online Educational Videos

*Yi-Chieh Lee, Wen-Chieh Lin, Fu-Yin Cherng, Hao-Chuan Wang, Ching-Ying Sung, Jung-Tai King*

Designing a Physical Aid to Support Active Reading on Tablets

*Andrea Bianchi, So-Ryang Ban, Ian Oakley*

Motivation as a Lens to Understand Online Learners: Towards Data-Driven Design with the OLEI Scale

*René F. Kizilcec, Emily Schneider*

Large-Scale Educational Campaigns

*Yun-En Liu, Christy Ballweber, Eleanor O'Rourke, Eric Butler, Phonraphee Thummaphan, Zoran Popović*

**E1/E2 Papers: Family Communication**

CHAIR: SIÂN E. LINDLEY



Couples' Communication Channels: What, When & Why?

*Henriette Cramer, Maia L. Jacobs*

The Messaging Kettle: Prototyping Connection over a Distance between Adult Children and Older Parents

*Margot Brereton, Alessandro Sora, Kate Vaisutis, Paul Roe*

The Effect of Signal Expense and Dependability on Family Communication in Rural and Northern Canada

*Roberta M. Melvin, Andrea Bunt, Erick Oduor, Carman Neustaedter*

Texting while Parenting: How Adults Use Mobile Phones while Caring for Children at the Playground

*Alexis Hiniker, Kiley Sobel, Hyewon Suh, Yi-Chen Sung, Charlotte P. Lee, Julie A. Kientz*

Exploring Time-Dependent Concerns about Pregnancy and Childbirth from Search Logs

*Adam Fourney, Ryan W. White, Eric Horvitz*

**E3 Papers: Crowdsourcing Fans & Friends**

CHAIR: SHAUN LAWSON



Run Spot Run: Capturing and Tagging Footage of a Race by Crowds of Spectators

*Martin D. Flintham, Raphael Velt, Max L. Wilson, Edward J. Anstead, Steve Benford, Anthony Brown, Timothy Pearce, Dominic Price, James Sprinks*

Crowdsourcing Synchronous Spectator Support: (go on, go on, you're the best)n-1

*Franco Curmi, Maria Angela Ferrario, Jon Whittle, Florian Mueller*

Bootlegger: Turning Fans into Film Crew

*Guy Schofield, Tom Bartindale, Peter Wright*

In-group Questions and Out-group Answers: Crowdsourcing Daily Living Advice for Individuals with Autism

*Hwajung Hong, Eric Gilbert, Gregory D. Abowd, Rosa I. Arriaga*

**E4 Papers: Managing Personal Privacy**

CHAIR: SAMEER PATIL



Your Location has been Shared 5,398 Times! A Field Study on Mobile App Privacy Nudging

*Hazim Almuhiemedi, Florian Schaub, Norman Sadeh, Idris Adjerid, Alessandro Acquisti, Joshua Gluck, Lorrie Cranor, Yuvraj Agarwal*

Can an Algorithm Know the "Real You"?: Understanding People's Reactions to Hyper-personal Analytics Systems

*Jeffrey Warshaw, Tara Matthews, Steve Whittaker, Chris Kau, Mateo Bengualid, Barton A. Smith*

Privacy Tipping Points in Smartphones Privacy Preferences

*Fuming Shih, Ilaria Liccardi, Daniel Weitzner*

VeilMe: An Interactive Visualization Tool for Privacy Configuration of Using Personality Traits

*Yang Wang, Liang Gou, Anbang Xu, Michelle X. Zhou, Huahai Yang, Hernan Badenes*

**E5 Papers: Health Sensors & Monitoring**

CHAIR: REGAN L. MANDRYK



No News is Good News: Remote Monitoring of Implantable Cardioverter-Defibrillator Patients  
*Mikael B. Skov, Pauline G. Johansen, Charlotte S. Skov, Astrid Lauberg*



Smart Homes that Monitor Breathing and Heart Rate  
*Fadel Adib, Hongzi Mao, Zachary Kabelac, Dina Katabi, Robert C. Miller*

Balancing Accuracy and Fun: Designing Camera Based Mobile Games for Implicit Heart Rate Monitoring  
*Teng Han, Xiang Xiao, Lanfei Shi, John Canny, Jingtao Wang*



Measuring Photoplethysmogram-Based Stress-Induced Vascular Response Index to Assess Cognitive Load and Stress  
*Yongqiang Lyu, Xiaomin Luo, Jun Zhou, Chun Yu, Congcong Miao, Tong Wang, Yuanchun Shi, Ken-ichi Kameyama*

**E6 Papers: Collaborative Tables, Walls & Rooms**

CHAIR: HARALD REITERER



Fluid Grouping: Quantifying Group Engagement around Interactive Tabletop Exhibits in the Wild  
*Florian Block, James Hammerman, Michael Horn, Amy Spiegel, Jonathan Christiansen, Brenda Phillips, Judy Diamond, E. Margaret Evans, Chia Shen*

Up Close and Personal: Collaborative Work on a High-Resolution Multitouch Wall Display  
*Mikkel R. Jakobsen, Kasper Hornbæk*



Flexible Ecologies And Incongruent Locations  
*Paul K. Luff, Naomi Yamashita, Hideaki Kuzuoka, Christian Heath*

Mapping out Work in a Mixed Reality Project Room  
*Derek Reilly, Andy Echenique, Andy Wu, Anthony Tang, W. Keith Edwards*

**E7 C07: Actionable Inexpensive Games Research 2/2**

Actionable Inexpensive Games User Research  
*Lennart E. Nacke, Steve Engels, Pejman Mirza-Babaei*

**307 Papers: The Value of Things**

CHAIR: MARK BLYTHE



The Challenges of Using Biodata in Promotional Filmmaking  
*Stuart Reeves, Sarah E. Martindale, Paul Tennent, Steve Benford, Joe Marshall, Brendan Walker*

On Vintage Values: The Experience of Secondhand Fashion Reacquisition  
*Anne E. Bowser, Oliver L. Haimson, Edward F. Melcer, Elizabeth F. Churchill*



Your Money's No Good Here: The Elimination of Cash Payment on London Buses  
*Gary Pritchard, John Vines, Patrick Olivier*

Informing and Improving Retirement Saving Performance using Behavioral Economics Theory-driven User Interfaces  
*Junius Gunaratne, Oded Nov*

**308 alt.chi: New User Interfaces**

CHAIR: TOVI GROSSMAN



Emergent Interfaces: Constructive Assembly of Identical Units  
*Alexandru Dancu, Stig Anton Nielsen, Kening Zhu, Ayça Ünlüer, Max Witt, Catherine Hedler, Hanna Frank, Axel Pelling, Christian Carlsson, Morten Fjeld*

Your Paper is Dead! Bringing Life to Research Articles with Animated Figures  
*Tovi Grossman, Fanny Chevalier, Rubaiat Habib Kazi*

"I Woke Up as a Newspaper": Designing-in Interaction Analytics  
*Michael Evans, Lianne Kerlin, Caroline Jay*

Not all Days are Equal: Investigating The Meaning In The Digital Calendar  
*Daniel Buzzo, Nicolo Merendino*

**317A C06: Intro to Human-Computer Interaction 2/2**

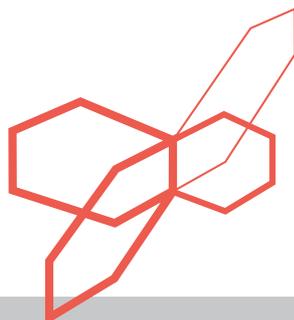
Introduction to Human-Computer Interaction  
*Jonathan Lazar, Simone D. J. Barbosa*

**317BC C05: Design for Searching & Finding 2/2**

Design for Searching & Finding  
*Daniel Russell, Jaime Teevan, Meredith Ringel Morris, Marti Hearst, Ed H. Chi*

**318BC C08: Design for Online Video & Television 2/2**

Interaction Design for Online Video and Television  
*David Geerts, Pablo Cesar*



18:00 – 19:30

Conference Reception and Exhibit Grand Opening  
Interactivity

List on page 62

Hall C2/C3  
Hall C2/C3

7:00 – 8:20

Women's Breakfast

Room 327ABC



**Tuesday Morning Keynote**

8:30 – 9:20

Hall D1

**Donghoon Chang**

UX Design in the IoT Era

9:20 – 9:30  
Break

TUESDAY

**401 Papers: Muscle-Computer Interfaces**

CHAIR: CHRIS HARRISON

Understanding Gesture Expressivity through Muscle Sensing  
*Baptiste Caramiaux, Marco Donnarumma, Atsu Tanaka*

Informing the Design of Novel Input Methods with Muscle Coactivation Clustering  
*Myroslav Bachynskiy, Gregorio Palmas, Antti Oulasvirta, Tino Weinkauf*

Advancing Muscle-Computer Interfaces with High-Density Electromyography  
*Christoph Amma, Thomas Krings, Jonas Böer, Tanja Schultz*

Proprioceptive Interaction  
*Pedro Lopes, Alexandra Ion, Willi Mueller, Daniel Hoffmann, Patrik Jonell, Patrick Baudisch*

**402 Papers: Phones for more than Just Talking & Text**

CHAIR: NAOMIYAMASHITA

AudioScope: Smartphones as Directional Microphones in Mobile Audio Augmented Reality Systems  
*Florian Heller, Jan Borchers*

ScanShot: Detecting Document Capture Moments and Correcting Device Orientation  
*Jeungmin Oh, Woohyeok Choi, Joohyun Kim, Uichin Lee*

Mechanics of Camera Work in Mobile Video Collaboration  
*Brennan Jones, Anna Witcraft, Scott Bateman, Carman Neustaedter, Anthony Tang*

User Interfaces for Smart Things - A Generative Approach with Semantic Interaction Descriptions  
*Simon Mayer, Andreas Tschofen, Anind K. Dey, Friedemann Mattern*

 Reducing the Stress of Coordination: Sharing Travel Time Information Between Contacts on Mobile Phones  
*Frank R. Bentley, Ying-Yu Chen, Christian Holz*

You Can't Smoke Here: Towards Support for Space Usage Rules in Location-aware Technologies  
*Pavel Andreevich Samsonov, Xun Tang, Johannes Schöning, Werner Kuhn, Brent Hecht*

**403 Papers: Search & Recommendations**

CHAIR: SUSAN DUMAIS

Blended Recommending: Integrating Interactive Information Filtering and Algorithmic Recommender Techniques  
*Benedikt Loepp, Katja Herrmann, Juergen Ziegler*

A Large-Scale Study of User Image Search Behavior on the Web  
*Jaimie Y. Park, Neil O'Hare, Rossano Schifanella, Alejandro Jaimes, Chin-Wan Chung*

DynamicMaps: Similarity-based Browsing through a Massive Set of Images  
*Yanir Kleiman, Joel Lanir, Dov Danon, Yasmin Felberbaum, Daniel Cohen-Or*

 S.O.S.: Does Your Search Engine Results Page (SERP) Need Help?  
*Maximilian Speicher, Andreas Both, Martin Gaedke*

**E1/E2 Papers: Kids Haptic, Wearable, Tangible Learning**

CHAIR: KORI INKPEN

FeelSleeve: Haptic Feedback to Enhance Early Reading  
*Nesra Yannier, Ali Israr, Jill Fain Lehman, Roberta L. Klatzky*

 BodyVis: A New Approach to Body Learning Through Wearable Sensing and Visualization  
*Leyla Norooz, Matthew Louis Mauriello, Anita Jorgensen, Brenna McNally, Jon E. Froehlich*

Exploring Expressive Augmented Reality: The FingAR Puppet System for Social Pretend Play  
*Zhen Bai, Alan F. Blackwell, George Coulouris*

 Learning from Mixed-Reality Games: Is Shaking a Tablet as Effective as Physical Observation?  
*Nesra Yannier, Kenneth R. Koedinger, Scott E. Hudson*

**E3 Papers: Motivation & Participation**

CHAIR: MEREDITH R. MORRIS

 Gauging Receptiveness to Social Microvolunteering  
*Erin L. Brady, Meredith Ringel Morris, Jeffrey P. Bigham*

Mobile Gamification for Crowdsourcing Data Collection: Leveraging the Freemium Model  
*Kristen Dergousoff, Regan Mandryk*

 Unequal Time for Unequal Value: Implications of Differing Motivations for Participation in Timebanking  
*Patrick C. Shih, Victoria Bellotti, Kyungsik Han, John M. Carroll*

 A Muddle of Models of Motivation For Using Peer-to-Peer Economy Systems  
*Victoria Bellotti, Alexander Ambard, Daniel Turner, Christina Gossman, Kamila Demkova, John M. Carroll*

**E4 Papers: Sustainability & Recycling**

CHAIR: ADRIAN K. CLEAR



Analysis of Recycling Capabilities of Individuals and Crowds to Encourage and Educate People to Separate Their Garbage Playfully  
*Pascal Lessel, Maximilian Altmeyer, Antonio Krüger*

Why and what did we throw out? Probing on Reflection through the Food Waste Diary  
*Eva Ganglbauer, Geraldine Fitzpatrick, Florian Güldenpfennig*



Energy Babble: Mixing Environmentally-Oriented Internet Content to Engage Community Groups  
*William Gaver, Mike Michael, Tobie Kerridge, Alex Wilkie, Andy Boucher, Liliana Ovalle, Matthew Plummer Fernandez*

Beyond the Individual: The Contextual Wheel of Practice as a Research Framework for Sustainable HCI  
*Johanne Mose Entwistle, Mia Kruse Rasmussen, Nervo Verdezoto, Robert S. Brewer, Mads Schaarup Andersen*

**E5 Papers: The Value of the Village in Caregiving**

CHAIR: LENA MAMYKINA



Effects of Public Commitments and Accountability in a Technology-Supported Physical Activity Intervention  
*Sean A. Munson, Erin Krupka, Caroline Richardson, Paul Resnick*



Rare World: Towards Technology for Rare Diseases  
*Haley MacLeod, Kim Oakes, Danika Geisler, Kay Connelly, Katie Siek*

Health Vlogs as Social Support for Chronic Illness Management  
*Jina Huh, Leslie S. Liu, Tina Neogi, Kori M. Inkpen, Wanda Pratt*

Looking for Respite and Support: Technological Opportunities for Spousal Caregivers  
*Matthieu Tixier, Myriam Lewkowicz*



Barriers and Negative Nudges: Exploring Challenges in Food Journaling  
*Felicia Cordeiro, Daniel A. Epstein, Edison Thomaz, Elizabeth Bales, Arvind K. Jagannathan, Gregory D. Abowd, James Fogarty*

**E6 Papers: I Like What I See - Interface Aesthetics**

CHAIR: SIMON J. BOWEN



Computation of Interface Aesthetics  
*Aliaksei Miniukovich, Antonella De Angeli*



Patina Engraver: Visualizing Activity Logs as Patina in Fashionable Trackers  
*Moon-Hwan Lee, Seijin Cha, Tek-Jin Nam*

Real-time Guidance Camera Interface to Enhance Photo Aesthetic Quality  
*Yan Xu, Joshua Ratcliff, James Scovell, Gheric Speiginer, Ronald Azuma*

Infographic Aesthetics: Designing for the First Impression  
*Lane Harrison, Katharina Reinecke, Remco Chang*

ISOTYPE Visualization – Working Memory, Performance, and Engagement with Pictographs  
*Steve Haroz, Robert Kosara, Steven Franconeri*

**E7 CHI: Methods for Child Computer Interaction I/2**

Research Methods for Child Computer Interaction  
*Janet C. Read, Shuli Gilutz*

**307 Papers: Supporting Creativity through UX Design**

CHAIR: LUCIANO GAMBERINI



Using Metrics of Curation to Evaluate Information-Based Ideation  
*Andruid Kerne, Andrew Webb, Steven M. Smith, Rhema Linder, Nic Lupfer, Yin Qu, Jonathan Moeller, Sashikanth Damaraju*

GEM-NI: A System for Creating and Managing Alternatives In Generative Design  
*Loutfouz Zaman, Wolfgang Stuerzlinger, Christian Neugebauer, Rob Woodbury, Maher Elkhaldi, Naghmi Shireen, Michael Terry*



Motif: Supporting Novice Creativity through Expert Patterns  
*Joy Kim, Mira Dontcheva, Wilmot Li, Michael S. Bernstein, Daniela Steinsapir*

DesignScape: Design with Interactive Layout Suggestions  
*Peter O'Donovan, Aseem Agarwala, Aaron Hertzmann*

Using Game Principles in UX Research: A Board Game for Eliciting Future User Needs  
*Karin Slegers, Sanne Ruelens, Jorick Vissers, Pieter Duysburgh*

**308 Case Studies: Art & Life**

CHAIR: FRISINA CHRIS



Artistic Distance: Body Movements as Launching Points For Art Inquiry  
*Kimiko Ryokai, Noriko Misra, Yoshinori Hara*

TRANSFORM: Embodiment of "Radical Atoms" at Milano Design Week  
*Hiroshi Ishii, Daniel Leithinger, Sean Follmer, Amit Zoran, Philipp Schoessler, Jared Counts*

Moving on its Own: How do Audience Interacts with an Autonomous Moving Artwork  
*Florent Levillain, Sébastien Lefort, Elisabetta Zibetti*

Colormaps that Improve Perception of High-Resolution Ocean Data  
*Francesca Samsel, Mark Petersen, Terece Geld, Greg Abram, Joanne Wendelberger, James Ahrens*

**317A C09: Designing & Assessing Task Models I/2**

Designing and Assessing Interactive Systems Using Task Models  
*Philippe Palanque, Célia Martinie*

**317BC C10: Learn to Sketch (Even if You Can't Draw) I/2**

Learn to Sketch (Even if You Can't Draw): Hands-on Sketching Course  
*Stephanie Föhrenbach*

**318BC C12: Practical UX Research Methodologies I/2**

Practical UX Research Methodologies  
*Sarah E. Garcia*

WIP Posters Rotation I	List on page 56	Hall C2/C3
Doctoral Consortium Posters	List on page 54	Hall C2/C3
Interactivity	List on page 62	Hall C2/C3

10:50 – 11:30  
Coffee Break  
Hall C2/C3

## 401 Papers: Smartwatch Interaction

CHAIR: DANIEL ASHBROOK



Investigating the Information Transfer Efficiency of a 3x3 Watch-back Tactile Display

*Jaeyeon Lee, Jaehyun Han, Geehyuk Lee*

SplitBoard: A Simple Split Soft Keyboard for Wristwatch-sized Touch Screens

*Jonggi Hong, Seongkook Heo, Poika Isokoski, Geehyuk Lee*

Beats: Tapping Gestures for Smart Watches

*Ian Oakley, DoYoung Lee, MD, Rasel Islam, Augusto Esteves*

WatchConnect: A Toolkit for Prototyping Smartwatch-Centric Cross-Device Applications

*Steven Houben, Nicolai Marquardt*

It's About Time: Smartwatches as Public Displays

*Jennifer Pearson, Simon Robinson, Matt Jones*

## 402 Papers: Tangible Interactions

CHAIR: OTMAR HILLIGES



TUIkit: Evaluating Physical and Functional Experiences of Tangible User Interface Prototypes

*Jorick Vissers, David Geerts*

Lamello: Passive Acoustic Sensing for Tangible Input Components

*Valkyrie Savage, Andrew Head, Björn Hartmann, Dan B. Goldman, Gautham Mysore, Wilmot Li*

WonderLens: Optical Lenses and Mirrors for Tangible Interactions on Printed Paper

*Rong-Hao Liang, Chao Shen, Yu-Chien Chan, Guan-Ting Chou, Liwei Chan, De-Nian Yang, Mike Y. Chen, Bing-Yu Chen*

FugaciousFilm: Exploring Attentive Interaction with Ephemeral Material

*Hyosun Kwon, Shashank Jaiswal, Steve Benford, Sue Ann Seah, Peter Bennett, Boriana Koleva, Holger Schnädelbach*

3D Printing Pneumatic Device Controls with Variable Activation Force Capabilities

*Marynel Vázquez, Eric Brockmeyer, Ruta Desai, Chris Harrison, Scott E. Hudson*

## 403 Papers: New Evaluation Approaches

CHAIR: DAVID ENGLAND



Bridging the Theory-Practice Gap: Lessons and Challenges of Applying the Attachment Framework for Sustainable HCI Design

*Christian Remy, Silke Gegenbauer, Elaine M. Huang*

The Transfer of Learning as HCI Similarity: Towards an Objective Assessment of the Sensory-Motor Basis of Naturalness

*François Béard, Amélie Rochet-Capellan*



Formalizing Agreement Analysis for Elicitation Studies: New Measures, Significance Test, and Toolkit

*Radu-Daniel Vatavu, Jacob O. Wobbrock*

Exploring the Effect of Pre-operational Priming Intervention on Number Entry Errors

*Yunqiu Li, Patrick Oladimeji, Harold Thimbleby*

## E1/E2 Special: Foundations &amp; Trends in HCI I

CHAIR: GREGORY ABOWD



A Survey of Augmented Reality

*Mark Billinghurst, Adrian Clark, Gun Lee*

Augmented Reality Expert Panel Discussion

*Mark Billinghurst, Woontack Woo, Thad Starner, Shahram Izadi*

## E3 Papers: Evaluating Crowdsourcing

CHAIR: BONGWON SUH



Comparing Person- and Process-centric Strategies for Obtaining Quality Data on Amazon Mechanical Turk

*Tanushree Mitra, C.J. Hutto, Eric Gilbert*

Crowdsourced Feedback With Imagery Rather Than Text: Would Designers Use It?

*David A. Robb, Stefano Padilla, Britta Kalkreuter, Mike J. Chantler*



Measuring Crowdsourcing Effort with Error-Time Curves

*Justin Cheng, Jaime Teevan, Michael S. Bernstein*

The Effects of Sequence and Delay on Crowd Work

*Walter S. Lasecki, Jeffrey M. Rzeszutarski, Adam Marcus, Jeffrey P. Bigham*

Crowd Size, Diversity and Performance

*Lionel Robert, Daniel M. Romero*

## E4 Papers: Smart Smartphone Authentication

CHAIR: ANDREA BIANCHI



I Know What You Did Last Week! Do You? Dynamic Security Questions for Fallback Authentication on Smartphones

*Alina Hang, Alexander De Luca, Heinrich Hussmann*

Improving Accuracy, Applicability and Usability of Keystroke Biometrics on Mobile Touchscreen Devices

*Daniel Buschek, Alexander De Luca, Florian Alt*

SwiPIN - Fast and Secure PIN-Entry on Smartphones

*Emanuel von Zezschwitz, Alexander De Luca, Bruno Brunkow, Heinrich Hussmann*

Glass Unlock: Enhancing Security of Smartphone Unlocking through Leveraging a Private Near-eye Display

*Christian Winkler, Jan Gugenheimer, Alexander De Luca, Gabriel Haas, Philipp Speidel, David Dobbstein, Enrico Rukzio*



I Feel Like I'm Taking Selfies All Day! Towards Understanding Biometric Authentication on Smartphones

*Alexander De Luca, Alina Hang, Emanuel von Zezschwitz, Heinrich Hussmann*

Interrupt Now or Inform Later?: Comparing Immediate and Delayed Privacy Feedback

*Sameer Patil, Roberto Hoyle, Roman Schlegel, Apu Kapadia, Adam J. Lee*

**E5 Papers: Healthcare Bias, Engagement & Adaptation**

CHAIR: TAE-JUNGYUN



From Care Plans to Care Coordination: Opportunities for Computer Support of Teamwork in Complex Healthcare

*Ofra Amir, Barbara J. Grosz, Krzysztof Z. Gajos, Sonja M. Swenson, Lee M. Sanders*

Technological and Organizational Adaptation of EMR Implementation in an Emergency Department

*Sun Young Park, Yunan Chen, Scott Rudkin*

Engaging Pregnant Women in Kenya with a Hybrid Computer-Human SMS Communication System

*Trevor Perrier, Nicola Dell, Brian DeRenzi, Richard Anderson, John Kinuthia, Jennifer Unger, Grace John-Stewart*

It Is All About Perspective: An Exploration of Mitigating Selective Exposure with Aspect Indicators

*Q. Vera Liao, Wai-Tat Fu, Sri Shilpa Mamidi*

**E6 Papers: Storytelling in InfoVis**

CHAIR: CHARLES PERIN



Storytelling in Information Visualizations: Does it Engage Users to Explore Data?

*Jeremy Boy, Jean-Daniel Fekete, Françoise Detienne*

Understanding Data Videos: Looking at Narrative Visualization through the Cinematography Lens

*Fereshteh Amini, Nathalie Henry Riche, Christophe Hurter, Bongshin Lee, Pourang Irani*

How Deceptive are Deceptive Visualizations?: An Empirical Analysis of Common Distortion Techniques

*Anshul Vikram Pandey, Katharina Rall, Margaret L. Satterthwaite, Oded Nov, Enrico Bertini*

STRATOS: Using Visualization to Support Decisions in Strategic Software Release Planning

*Bon Adriel Aseniero, Tiffany Wun, David Ledo, Guenther Ruhe, Anthony Tang, Sheelagh Carpendale*

**E7 C11: Methods for Child Computer Interaction 2/2**

Research Methods for Child Computer Interaction

*Janet C. Read, Shuli Gilutz*

**307 Panel: You've Been Acquired!**

You've Been Acquired!

*Iram W. Mirza, Meng Chee*

**308 alt.chi: HCI Methodology**

CHAIR: HENRY DUH



HCI as an Inter-Discipline

*Alan F. Blackwell*

The User Experience Designer's Charlatan Test: A First Step towards UX Sanity Checking

*Jonathan S. Arnowitz*

Design + Ethnography + Futures: Surrendering in uncertainty

*Yoko Akama, Sarah Pink, Annie Fergusson*

Deep Cover HCI: Value, Ethics, and Practice

*Julie R. Williamson, Daniel Sundén*

**317A C09: Designing & Assessing Task Models 2/2**

Designing and Assessing Interactive Systems Using Task Models

*Philippe Palanque, Célia Martinie*

**317BC C10: Learn to Sketch (Even if You Can't Draw) 2/2**

Learn to Sketch (Even if You Can't Draw):

Hands-on Sketching Course

*Stephanie Foehrenbach*

**318A SIG: Gender-Inclusive Software**

SIG: Gender-Inclusive Software: What We Know About Building It

*Margaret M. Burnett, Elizabeth F. Churchill, Michael J. Lee*

**318BC C12: Practical UX Research Methodologies 2/2**

Practical UX Research Methodologies

*Sarah E. Garcia*

12:50 – 14:30  
Lunch Break  
Restaurants, bars & cafés available nearby

**401 Special: SIGCHI Lifetime Research Award**

CHAIR: SCOTT R. KLEMMER

SIGCHI Lifetime Research Award Talk

*James Hollan***402 Papers: Grip, Move & Tilt: Novel Interaction**

CHAIR: JESSICA CAUCHARD

 Supporting Subtlety with Deceptive Devices and Illusory Interactions*Fraser Anderson, Tovi Grossman, Daniel Wigdor, George Fitzmaurice*Understanding Users' Touch Behavior on Large Mobile Touch-Screens and Assisted Targeting by Tilting Gesture  
*Youli Chang, Sehi L'Yi, Kyle Koh, Jinwook Seo*

One-Handed Bend Interactions with Deformable Smartphones

*Audrey Girouard, Jessica Lo, Md Riyadh, Farshad Daliri, Alexander Keith Eady, Jerome Pasquero*

Grip Change as an Information Side Channel for Mobile Touch Interaction

*Matei Negulescu, Joanna McGrenere*

An Experimental Comparison of Vertical and Horizontal Dynamic Peephole Navigation

*Jens Müller, Roman Rädle, Hans-Christian Jetter, Harald Reiterer***403 Papers: Interactive Video & Collaborative Annotations**

CHAIR: AMY OGAN

RIMES: Embedding Interactive Multimedia Exercises in Lecture Videos

*Juho Kim, Elena L. Glassman, Andres Monroy-Hernandez, Meredith Ringel Morris*

A Framework for Automatically Generating Interactive Instructional Scaffolding

*Eleanor O'Rourke, Erik Andersen, Sumit Gulwani, Zoran Popovic* Mudslide: A Spatially Anchored Census of Student Confusion for Online Lecture Videos*Elena L. Glassman, Juho Kim, Andres Monroy-Hernandez, Meredith Ringel Morris* Making Software Tutorial Video Responsive*Cuong Nguyen, Feng Liu*

Gaze-Based Annotations for Reading Comprehension

*Shiwei Cheng, Zhiqiang Sun, Lingyun Sun, Kirsten Yee, Anind K. Dey***E1/E2 Papers: HCI for the Elderly**

CHAIR: MARIA K. WOLTERS

An Age Old Problem: Examining the Discourses of Ageing in HCI and Strategies for Future Research

*John Vines, Gary Pritchard, Peter C. Wright, Patrick Olivier, Katie Brittain*

Long-Term Use of Motion-Based Video Games in Care Home Settings

*Kathrin M. Gerling, Regan L. Mandryk, Conor Linehan*

CoFaçade: A Customizable Assistive Approach for Elders and Their Helpers

*Jason Chen Zhao, Richard C. Davis, Pin Sym Foong, Shengdong Zhao*

"My hand doesn't listen to me!": Adoption and Evaluation of a Communication Technology for the 'Oldest Old'

*Barbara Barbosa Neves, Rachel L. Franz, Cosmin Munteanu, Ronald Baecker***E3 Papers: The Impact of Crowd Work on Workers**

CHAIR: JAIMETEEVAN

Working with Machines: The Impact of Algorithmic and Data-Driven Management on Human Workers

*Min Kyung Lee, Daniel Kusbit, Evan Metsky, Laura Dabbish*

TurkBench: Rendering the Market for Turkers

*Benjamin V. Hanrahan, Jutta K. Willamowski, Saiganesh Swaminathan, David B. Martin*

Exploring the Role of Activity Trace Design on Evaluations of Online Worker Quality

*Jennifer Marlow, Laura A. Dabbish, Jodi L. Forlizzi* We Are Dynamo: Overcoming Stalling and Friction in Collective Action for Crowd Workers*Niloufar Salehi, Lilly C. Irani, Michael S. Bernstein, Ali Alkhatib, Eva Ogbe, Kristy Milland, Clickhappier*

Understanding Malicious Behavior in Crowdsourcing Platforms: The Case of Online Surveys

*Ujwal Gadiraju, Ricardo Kawase, Stefan Dietze, Gianluca Demartini***E4 Papers: Social Media and Mobile Camera Privacy**

CHAIR: PAM BRIGGS

"I Saw Images I Didn't Even Know I Had" Understanding User Perceptions of Cloud Storage Privacy

*Jason W. Clark, Peter Edwin Snyder, Damon McCoy, Chris Kanich*

Sensitive Lifelogs: A Privacy Analysis of Photos from Wearable Cameras

*Roberto Hoyle, Robert Templeman, Denise Anthony, David Crandall, Apu Kapadia*

Somebody's Watching Me? Assessing the Effectiveness of Webcam Indicator Lights

*Rebecca S. Portnoff, Linda N. Lee, Serge Egelman, Pratyush Mishra, Derek Leung, David Wagner*

From Third to Surveilled Place: The Mobile in Irish Pubs

*Norman Makoto Su, Lulu Wang*

Is This Thing On? Crowdsourcing Privacy Indicators for Ubiquitous Sensing Platforms

*Serge Egelman, Raghudeep Kannavara, Richard Chow*

**E5 Papers: DIY Healthcare: Apps & Wearables**

CHAIR: DAVID COYLE



Blood Pressure Beyond the Clinic: Rethinking a Health Metric for Everyone

*Logan Kendall, Dan Morris, Desney Tan*

Concealing or Revealing Mobile Medical Devices? Designing for Onstage and Offstage Presentation

*Aisling Ann O’Kane, Yvonne Rogers, Ann E. Blandford*



Understanding Individual Differences for Tailored Smoking Cessation Apps

*Jeni Paay, Jesper Kjeldskov, Mikael B. Skov, Lars Lichon, Stephan Rasmussen*

FeedFinder: A Location-Mapping Mobile Application for Breastfeeding Women

*Madeline Balaam, Rob Comber, Selina Sutton, Ed Jenkins, Andy Garbett*

**E6 Papers: Social Embodied Interaction**

CHAIR: GINAVENOLIA



Using an Interactive Avatar’s Facial Expressiveness to Increase Persuasiveness and Socialness

*Jennifer Hyde, Elizabeth J. Carter, Sara Kiesler, Jessica K. Hodgins*

Study on Gaze Direction Perception of Face Image Displayed on Rotatable Flat Display

*Ikkaku Kawaguchi, Hideaki Kuzuoka, Yusuke Suzuki*

DynamicDuo: Co-presenting with Virtual Agents

*Ha Trinh, Lazlo Ring, Timothy Bickmore*

My Self and You: Tension in Bodily Sharing of Experience

*Helena M. Mentis, Jarmo Laaksolahti, Kristina Höök*

**E7 C15: HCI Lessons: From Earth to Outer Space 1/2**

HCI Lessons: From Earth to Outer Space...and Back

*Guy André Boy, Jeffrey M. Bradshaw, Soyeon Yi*

**307 Papers: Innovation in Theories & Products**

CHAIR: VOLKER WULF



From User-Centered to Adoption-Centered Design: A Case Study of an HCI Research Innovation Becoming a Product

*Parmit K. Chilana, Andrew J. Ko, Jacob Wobbrock*

Creating Sustainable Cyberinfrastructures

*David P. Randall, E. Ilana Diamant, Charlotte P. Lee*



Standards and/as Innovation: Protocols, Creativity, and Interactive Systems Development in Ecology

*Steven J. Jackson, Sarah Barbrow*

Does Distance Still Matter? Revisiting the CSCW Fundamentals on Distributed Collaboration

*Pernille Bjorn, Morten Esbensen, Rasmus Eskild Jensen, Stina Matthiessen*

**308 Case Studies: Education & Work**

CHAIR: LUIS A. LEIVA



Connective MOOC for K-12 Teacher Professional Development in Native American Pueblo Schools

*Josephine Kilde, Lorenzo Gonzales*

Rapid Usability Assessment of an Enterprise Application in an Agile Environment with CogTool

*Anil Shankar, Honray Lin, Hans-Frederick Brown, Colson Rice*

Testing the Effectiveness of iPad Math Game: Lessons Learned from Running a Multi-Classroom Study

*Kristen Pilner Blair, Jay Pfaffman, Maria Cutumisu, Nicole Hallinen, Daniel Schwartz*

Historical Research Using Email Archives

*Sudheendra Hangal, Vihari Piratla, Chaiyasit Manovit, Peter Chan, Monica S. Lam, Glynn Edwards*

**317A C14: Mobile Human-Computer Interaction 1/2**

Mobile Human-Computer Interaction

*Niels Henze, Enrico Rukzio*

**317BC C13: Methods for HCI Research 1/2**

Methods for Human-Computer Interaction Research

*Sandy J.J. Gould, Duncan P. Brumby, Anna L. Cox, Geraldine Fitzpatrick, Jettie Hoonhout, David Lamas, Effie Law*

**318BC C16: Sketching User Experiences 1/2**

Sketching User Experiences: The Hands-on Course

*Nicolai Marquardt, Saul Greenberg*

WIP Posters Rotation I	List on page 56	Hall C2/C3
Student Design Posters	List on page 55	Hall C2/C3
Student Research Posters	List on page 54	Hall C2/C3
Interactivity	List on page 62	Hall C2/C3

15:50 – 16:30  
Coffee Break  
Hall C2/C3

## 401 Papers: Design and 3D Object Fabrication

CHAIR: DAVID KIM



 Tactum: A Skin-Centric Approach to Digital Design and Fabrication

*Madeline Gannon, Tovi Grossman, George Fitzmaurice*

 A Layered Fabric 3D Printer for Soft Interactive Objects

*Huashu Peng, Jennifer Mankoff, Scott E. Hudson, James McCann*

 Platener: Low-Fidelity Fabrication of 3D Objects by Substituting 3D Print with Laser-Cut Plates

*Dustin Beyer, Serafima Gurevich, Stefanie Mueller, Hsiang-Ting Chen, Patrick Baudisch*

D-Coil: A Hands-on Approach to Digital 3D Models Design

*Huashu Peng, Amit Zoran, François V. Guimbretière*

## 402 Papers: Understanding &amp; Extending Touch Interfaces

CHAIR: THEOPHANISTSANDILAS



 Performance and Ergonomics of Touch Surfaces: A Comparative Study using Biomechanical Simulation

*Myroslav Bachynskyi, Gregorio Palmas, Antti Oulasvirta, Jürgen Steimle, Tino Weinkauff*

 How Much Faster is Fast Enough? User Perception of Latency & Latency Improvements in Direct and Indirect Touch

*Jonathan Deber, Ricardo Jota, Clifton Forlines, Daniel Wigdor*

The Effect of Edge Targets on Touch Performance

*Daniel Avrahami*

FlickBoard: Enabling Trackpad Interaction with Automatic Mode Switching on a Capacitive-sensing Keyboard

*Ying-Chao Tung, Ta Yang Cheng, Neng-Hao Yu, Chiuuan Wang, Mike Y. Chen*

ExtensionSticker: A Proposal for a Striped Pattern Sticker to Extend Touch Interfaces and its Assessment

*Kunihiro Kato, Homei Miyashita*

## 403 Papers: Sharing &amp; Collaboration @ Work

CHAIR: STEVEN M. DRUCKER



 MUBox: Multi-User Aware Personal Cloud Storage

*Michael Nebeling, Matthias Geel, Oleksiy Syrotkin, Moira Norrie*

DocuViz: Visualizing Collaborative Writing

*Dakuo Wang, Judith S. Olson, Jingwen Zhang, Trung Nguyen, Gary M. Olson*

Communication through Boundary Objects in Distributed Agile Teams

*Johan Kaj Blomkvist, Johan Persson, Johan Aberg*

How to Drive a London Bus: Measuring Performance in a Mobile and Remote Workplace

*Gary W. Pritchard, Pam Briggs, John Vines, Patrick Olivier*

## E1/E2 Papers: Families and Their Use of Technology

CHAIR: JENNIFER MARLOW



Managing Children's Online Identities: How Parents Decide what to Disclose about their Children Online

*Tawfiq Ammari, Priya Kumar, Cliff Lampe, Sarita Schoenebeck*

Understanding and Supporting Fathers and Fatherhood on Social Media Sites

*Tawfiq Ammari, Sarita Schoenebeck*

Family Rituals and the Potential For Interaction Design: A Study of Christmas

*Daniela Petrelli, Ann Light*

Look, My Baby Is Using an iPad! An Analysis of YouTube Videos of Infants and Toddlers Using Tablets

*Juan Pablo Hourcade, Sarah L. Mascher, David C. Wu, Luiza Pantoja*

## E3 Papers: Understanding Crowdwork in Many Domains

CHAIR: UICHIN LEE



Apparition: Crowdsourced User Interfaces That Come To Life As You Sketch Them

*Walter S. Lasecki, Juho Kim, Nick Rafter, Onkur Sen, Jeffrey P. Bigham, Michael S. Bernstein*

Sensors: Adaptive, Rapidly Deployable, Human-Intelligent Sensor Feeds

*Gierad Laput, Walter S. Lasecki, Jason Wiese, Robert Xiao, Jeffrey P. Bigham, Chris Harrison*

Exploring Privacy and Accuracy Trade-Offs in Crowdsourced Behavioral Video Coding

*Walter S. Lasecki, Mitchell Gordon, Winnie Leung, Ellen Lim, Jeffrey P. Bigham, Steven P. Dow*

Crowdsourcing Stereotypes: Linguistic Bias in Metadata Generated via GWAP

*Jahna Otterbacher*

**E4 Papers: Eco-Green: Encouraging Energy Conservation**

CHAIR: GERMAINE IRWIN



Tiree Energy Pulse: Exploring Renewable Energy Forecasts on the Edge of the Grid.

*Will Simm, Maria Angela Ferrario, Adrian Friday, Peter Newman, Stephen Forshaw, Mike Hazas, Alan Dix*

Designing Persuasive Technology to Manage Peak Electricity Demand in Ontario Homes

*Valerie Sugarman, Edward Lank*

Eco-Forecasting for Domestic Electricity Use

*Jesper Kjeldskov, Mikael B. Skov, Jeni Paay, Dennis Lund, Tue Madsen, Michael Nielsen*

Beyond Eco-Feedback: Adding Online Manual and Automated Controls to Promote Workplace Sustainability

*Ray Yun, Azizan Aziz, Peter Scupelli, Bertrand Lasternas, Chenlu Zhang, Vivian Loftness*

Understanding the Role of Thermography in Energy Auditing: Current Practices and the Potential for Automated Solutions

*Matthew Louis Mauriello, Leyla Norooz, Jon E. Froehlich***E5 Papers: Sports Tracking & Training**

CHAIR: HAO-HUA CHU

Keepin' it Real: Challenges when Designing Sports-Training Games

*Mads Møller Jensen, Majken K. Rasmussen, Florian Mueller, Kaj "Floyd" Grønbaek*

Flow is Not Enough: Understanding the Needs of Advanced Amateur Runners to Design Motivation Technology

*Kristina M. Knaving, Paweł W. Woźniak, Morten Fjeld, Staffan L. Björk*

Jogging with a Quadcopter

*Florian Mueller, Matthew Muirhead*

ClimbSense - Automatic Climbing Route Recognition using Wrist-worn Inertia Measurement Units

*Felix Kosmalla, Florian Daiber, Antonio Krüger***E6 Papers: Feeling & Communicating Emotions**

CHAIR: RONGRONG WANG

Towards Multimodal Affective Feedback - Interaction between Visual and Haptic Modalities

*Akshita Akshita, Harini Alagarai Sampath, Bipin Indurkha, Eunhwa Lee, Yudong Bae*

Emotions Mediated Through Mid-Air Haptics

*Marianna Obrist, Sriam Subramanian, Elia Gatti, Benjamin Long, Thomas Carter*

In the Heat of the Moment: Subjective Interpretations of Thermal Feedback During Interaction

*Graham Wilson, Gavin Davidson, Stephen Brewster*

EnviroPulse: Providing Feedback about the Expected Affective Valence of the Environment

*Deltcho Valtchanov, Mark Hancock***E7 C15: HCI Lessons: From Earth to Outer Space 2/2**

HCI Lessons: From Earth to Outer Space... and Back

*Guy André Boy, Jeffrey M. Bradshaw, Soyeon Yi***307 Papers: Critical Design**

CHAIR: GIULIO JACUCCI



Expanding and Refining Design and Criticality in HCI

*James Pierce, Phoebe J. Sengers, Tad Hirsch, Tom Jenkins, William W. Gaver, Carl DiSalvo*

Immodest Proposals: Research Through Design and Knowledge

*Jeffrey Bardzell, Shaowen Bardzell, Lone Koefoed Hansen*

Making Multiple Uses of the Obscure 1C Digital Camera: Reflecting on the Design, Production, Packaging and Distribution of a Counterfunctional Device

*James Pierce, Eric Paulos*

Pause Moment Experience in SNS Communication

*Jae-eul Bae, Youn-kyung Lim, Jin-bae Bang, Myung-suk Kim***308 Special: Human Computer Interaction Journal I**

CHAIR: SHARON OVIATT

Providing Adaptive Health Updates Across the Personal Social Network

*Wendy Moncur, Judith Masthoff, Ehud Reiter, Yvonne Freer, Hien Nguyen*

User Experience of On-Screen Interaction Techniques: An Experimental Investigation of Clicking, Sliding, Zooming, Hovering, Dragging, and Flipping

*S. Shyam Sundar, Saraswathi Bellur, Jeeyun Oh, Qian Xu, Haiyan Jia*

WallTop: Manage Overflowing Windows on a Large Display

*Xiaojun Bi, Seok-Hyung Bae, Ravin Balakrishnan***317A C14: Mobile Human-Computer Interaction 2/2**

Mobile Human-Computer Interaction

*Niels Henze, Enrico Rukzio***317BC C13: Methods for HCI Research 2/2**

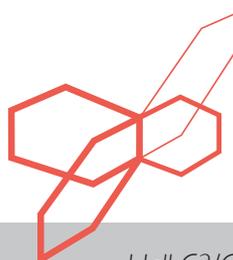
Methods for Human-Computer Interaction Research

*Sandy J.J. Gould, Duncan P. Brumby, Anna L. Cox, Geraldine Fitzpatrick, Jettie Hoonhout, David Lamas, Effie Law***318A SIG: Start and Run a SIGCHI Local Chapter**

How and Why to Start and Run a SIGCHI Local Chapter

*Tuomo Kujala***318BC C16: Sketching User Experiences 2/2**

Sketching User Experiences: The Hands-on Course

*Nicolai Marquardt, Saul Greenberg*

18:00 – 19:30

Job Fair &amp; Recruiting Boards

Hall C2/C3



**Wednesday Morning Keynote**

8:30 – 9:20

David Min

Hall D1

*Journey to a Better Life*

9:20 – 9:30  
Break

**401 Papers: HMDs in Augmented & Virtual Reality**

CHAIR: SHAHRAM IZADI

Eye-Wearable Technology for Machine Maintenance: Effects of Display Position and Hands-free Operation

*Xianjun Sam Zheng, Cedric Foucault, Patrik Matos da Silva, Siddharth Dasari, Tao Yang, Stuart Goose*

Belt: An Unobtrusive Touch Input Device for Head-worn Displays

*David Dobbstein, Philipp Hock, Enrico Rukzio*

Content Destabilization for Head-Mounted Displays

*Felix Lauber, Sophia Cook, Andreas Butz*

A Dose of Reality: Overcoming Usability Challenges in VR Head-Mounted Displays

*Mark McGill, Daniel Boland, Roderick Murray-Smith, Stephen A. Brewster*

Accuracy of Pedometry on a Head-mounted Display

*Ilias Apostolopoulos, Dan Corning, Eelke Folmer*

Level-Ups: Motorized Stilts that Simulate Stair Steps in Virtual Reality

*Dominik Schmidt, Rob Kovacs, Vikram Mehta, Udayan Umapathi, Sven Köhler, Lung-Pan Cheng, Patrick Baudisch*

**402 Papers: Tangible Interaction with Phones**

CHAIR: SHENGDONG ZHAO



Acoustruments: Passive, Acoustically-Driven, Interactive Controls for Handheld Devices

*Gierad Laput, Eric Brockmeyer, Scott E. Hudson, Chris Harrison*

HaptiCase: Back-of-Device Tactile Landmarks for Eyes-Free Absolute Indirect Touch

*Christian Corsten, Christian Cherek, Thorsten Karrer, Jan Borchers*

The Trial of Bendi in a Coffeehouse: Use of a Shape-Changing Device for a Tactile-Visual Phone Conversation

*Young-Woo Park, Joohee Park, Tek-Jin Nam*

SpecTrans: Versatile Material Classification for Interaction with Textureless, Specular and Transparent Surfaces

*Munehiko Sato, Shigeo Yoshida, Alex Olwal, Boxin Shi, Atsushi Hiyama, Tomohiro Tanikawa, Michitaka Hirose, Ramesh Raskar*

**403 Papers: UI Impact on Performance & Decisions**

CHAIR: TOM GROSS

Displayed Uncertainty Improves Driving Experience and Behavior: The Case of Range Anxiety in an Electric Car

*Malte F. Jung, David Sirkin, Turgut M. Gür, Martin Steinert*

Designing Information for Remediating Cognitive Biases in Decision-Making

*Yunfeng Zhang, Rachel K. E. Bellamy, Wendy A. Kellogg*

Quick Affective Judgments: Validation of a Method for Primed Product Comparisons

*Jussi P. P. Jokinen, Johanna Maria Silvennoinen, Piia M. Perälä, Pertti O. Saariluoma*



Effects of Ad Quality & Content-Relevance on Perceived Content Quality.

*Henriette Cramer*

**E1/E2 Papers: Player Performance & Experience in Games**

CHAIR: JAN D. SMEDDINCK

The Goal of Scoring: Exploring the Role of Game Performance in Educational Games

*Casper Harteveld, Steven C. Sutherland*



Moving Beyond Fun: Evaluating Serious Experience in Digital Games

*Ioanna Iacovides, Anna L. Cox*



Now You Can Compete With Anyone: Balancing Players of Different Skill Levels in a First-Person Shooter Game

*Rodrigo Vicencio-Moreira, Regan L. Mandryk, Carl Gutwin*

All about that Base: Differing Player Experiences in Video Game Genres and the Unique Case of MOBA Games

*Daniel Johnson, Lennart E. Nacke, Peta A. Wyeth*

**E3 Papers: Neighborhoods & Disadvantaged Communities**

CHAIR: KATHARINA REINECKE

Exploring Learning Ecologies among People Experiencing Homelessness

*Angelika Strohmayer, Rob Comber, Madeline Balaam*

The Promise of the Sharing Economy among Disadvantaged Communities

*Tawanna R. Dillahunt, Amelia R. Malone*



Practice-based Design of a Neighborhood Portal: Focusing on Elderly Tenants in a City Quarter Living Lab

*Claudia Müller, Dominik Hornung, Theodor Hamm, Volker Wulf*

This Digital Life: A Neighborhood-Based Study of Adolescents' Lives Online

*Jessica A. Pater, Andrew D. Miller, Elizabeth D. Mynatt*

**E4 Papers: Enhanced Security with Passwords & CAPTCHAs**

CHAIR: SERGE EGELMAN

Towards Making Random Passwords Memorable:  
Leveraging Users' Cognitive Ability Through Multiple Cues  
*Mahdi Nasrullah Al-Ameen, Matthew Wright, Shannon Scielzo*

ActivPass: Your Daily Activity is Your Password  
*Sourav Kumar Dandapat, Swadhin Pradhan, Bivas Mitra, Romit Roy Choudhury, Niloy Ganguly*

Constructing Secure Audio CAPTCHAs by Exploiting  
Differences between Humans and Machines  
*Hendrik Meutzner, Santosh Gupta, Dorothea Kolossa*

Easy to Draw, but Hard to Trace? On of the Observability of  
Grid-based (Un)lock Patterns  
*Emanuel von Zeszschwitz, Alexander De Luca, Philipp Janssen, Heinrich Hussmann*

On the Effectiveness of Pattern Lock Strength Meters –  
Measuring the Strength of Real World Pattern Locks  
*Youngbae Song, Geumhwan Cho, Seongyeol Oh, Hyoungshick Kim, Jun Ho Huh*

**E5 Papers: Accessibility at Home & on The Go**

CHAIR: HIRONOBU TAKAGI

RegionSpeak: Quick Comprehensive Spatial Descriptions  
of Complex Images for Blind Users  
*Yu Zhong, Walter S. Lasecki, Erin Brady, Jeffrey P. Bigham*

An Assisted Photography Framework to Help Visually  
Impaired Users Properly Aim a Camera  
*Marynel Vázquez, Aaron Steinfeld*

FingerReader: A Wearable Device to Explore Printed  
Text on the Go  
*Roy Shilkrot, Jochen Huber, Wong Meng Ee, Pattie Maes, Suranga Chandima Nanayakkara*

Collaborative Accessibility: How Blind and Sighted  
Companions Co-Create Accessible Home Spaces  
*Stacy M. Branham, Shaun K. Kane*

**E6 Papers: Telepresence Video, Robots, and Walls**

CHAIR: JOHNTANG

ImmerseBoard: Immersive Telepresence Experience using a  
Digital Whiteboard  
*Keita Higuchi, Yinpeng Chen, Philip A. Chou, Zhengyou Zhang, Zicheng Liu*

Can You See Me Now? How Field of View Affects  
Collaboration in Robotic Telepresence  
*Steven J. Johnson, Irene Rae, Bilge Mutlu, Leila A. Takayama*

Sharing Domestic Life through Long-Term Video Connections  
*Carman Neustaedter, Carolyn Pang, Azadeh Forghani, Erick Oduor, Serena Hillman, Tejinder K. Judge, Michael Massimi, Saul Greenberg*

Accuracy of Deictic Gestures to Support Telepresence on  
Wall-sized Displays  
*Ignacio Avellino, Cédric Fleury, Michel Beaudouin-Lafon*

WIP Posters Rotation 2  
Interactivity

List on page 59  
List on page 62

**E7 C18: Speech-based Interaction I/2**

Speech-based Interaction: Myths, Challenges,  
and Opportunities  
*Cosmin Munteanu, Gerald Penn*

**307 Papers: Experience Design for Games**

CHAIR: FLORIAN MUELLER

Automatic Game Progression Design through Analysis of  
Solution Features  
*Eric Butler, Erik Andersen, Adam M. Smith, Sumit Gulwani, Zoran Popovic*

Pass the Ball: Enforced Turn-Taking in Activity Tracking  
*John Rooksby, Mattias Rost, Alistair Morrison, Matthew Chalmers*

The Data Driven Lives of Wargaming Miniatures  
*Dimitrios Paris Darzentas, Michael A. Brown, Martin Flintham, Steve Benford*

Provenance for the People: An HCI Perspective on the  
W3C PROV Standard through an Online Game  
*Khaled Bachour, Richard Wetzel, Martin Flintham, Trung Dong Huynh, Tom Rodden, Luc Moreau*

**308 alt.chi: Arts and Philoosphy**

CHAIR: MORGAN AMES

Reimagining Digital Fabrication as Performance Art  
*Laura Devendorf, Daniela K. Rosner*

Behind The Scenes at HCI's Turn To The Arts  
*Rachel Jacobs, Steve Benford, Ewa A. Luger*

Touch OfThe Eye: Does Observation Reflect Haptic  
Metaphors In Art Drawing?  
*Suk Kyoung Choi, Steve DiPaola*

Games Against Health: A Player-Centered  
Design Philosophy  
*Conor Linehan, Sabine Harrer, Ben J. Kirman, Shaun W. Lawson, Marcus Carter*

**317A C17: Intro to Creating Musical Interfaces I/2**

Introduction to Creating Musical Interfaces  
*Michael J. Lyons, Sidney S. Fels*

**318BC C19: Designing Surveys for HCI Research I/2**

Designing Surveys for HCI Research  
*Hendrik Müller, Aaron Sedley*



10:50 – 11:30  
Coffee Break  
Hall C2/C3

**401 Papers: Digital & Materials Fabrication**

CHAIR: STEFANIE MUELLER



Foundations of Materials Experience: An Approach for HCI  
*Elisa Giaccardi, Elvin Karana*

PaperPulse: An Integrated Approach for Embedding Electronics in Paper Designs  
*Raf Ramakers, Kashyap Todi, Kris Luyten*

Data-Things: Digital Fabrication Situated within Participatory Data Translation Activities  
*Bettina Nissen, John Bowers*

Being the Machine: Reconfiguring Agency and Control in Hybrid Fabrication  
*Laura Devendorf, Kimiko Ryokai*

**402 Papers: Tactile Notifications for Phones & Wearables**

CHAIR: MAX WILSON



OmniVib: Towards Cross-body Spatiotemporal Vibrotactile Notifications for Mobile Phones  
*Jessalyn Alvina, Simon T. Perrault, Thijs Roumen, Shengdong Zhao, Maryam Azh, Morten Fjeld*

NotiRing: A Comparative Study of Notification Channels for Wearable Interactive Rings  
*Thijs Roumen, Simon T. Perrault, Shengdong Zhao*

Skin Drag Displays: Dragging a Physical Tactor across the User's Skin Produces a Stronger Tactile Stimulus than Vibrotactile  
*Alexandra Ion, Edward Jay Wang, Patrick Baudisch*

Cruise Control for Pedestrians: Controlling Walking Direction using Electrical Muscle Stimulation  
*Max Pfeiffer, Tim Dünste, Stefan Schneegass, Florian Alt, Michael Rohs*

Affordance++: Allowing Objects to Communicate Dynamic Use  
*Pedro Lopes, Patrik Jonell, Patrick Baudisch*

**403 Papers: Automation and Interactive Feedback**

CHAIR: DAVIDE SPANO



"Automation Surprise" in Aviation: Real-Time Solutions  
*Frederic Dehais, Vsevolod Peysakhovich, Sébastien Scannella, Jennifer Fongue, Thibault Gateau*

The Role of Environmental Predictability and Costs in Relying on Automation  
*Steven C. Sutherland, Casper Harteveld, Michael E. Young*

An Architecture for Generating Interactive Feedback in Probabilistic User Interfaces  
*Julia Schwarz, Jennifer Mankoff, Scott E. Hudson*

IDSense: A Human Object Interaction Detection System Based on Passive UHF RFID  
*Hanchuan Li, Can Ye, Alanson P. Sample*

**E1/E2 Papers: Art & Performance**

CHAIR: THECLA SCHIPHORST



What if HCI Becomes a Fashion Driven Discipline?  
*Yue Pan, Erik Stolterman*

The Smartphone Project - An Augmented Dance Performance  
*Leif Oppermann, Clemens Putschli, Constantin Brosda, Oleksandr Lobunets, Fabien Prioiville*

I'd Hide You: Performing Live Broadcasting in Public  
*Stuart Reeves, Christian Greiffenhagen, Martin Flintham, Steve Benford, Matt Adams, Ju Row Farr, Nicholas Tandavantij*

Making the Invisible Visible: Design to Support the Documentation of Participatory Arts Experiences  
*Jonathan Hook, Rachel Clarke, John McCarthy, Kate Anderson, Jane Dudman, Peter Wright*

Trap it! : A Playful Human-Biology Interaction for a Museum Installation  
*Seung Ah Lee, Engin Bumbacher, Alice M. Chung, Nate Cira, Byron Walker, Ji Young Park, Barry Starr, Paulo Blikstein, Ingmar H. Riedel-Kruse*

**E3 Papers: Bridging People & Beliefs with Social Media**

CHAIR: N. SADAT SHAMI



Modeling Ideology and Predicting Policy Change with Social Media: Case of Same-Sex Marriage  
*Amy X. Zhang, Scott Counts*

"Is it Weird to Still Be a Virgin?:" Anonymous, Locally Targeted Questions on Facebook Confession Boards  
*Jeremy Birnholtz, Nicholas Aaron Ross Merola, Arindam Paul*

Social Media Dynamics of Global Co-presence During the 2014 FIFA World Cup  
*Jae Won Kim, Dongwoo Kim, Brian Keegan, Joon Hee Kim, Suin Kim, Alice Oh*

Bridges into the Unknown: Personalizing Connections to Little-known Countries  
*Yelena Mejova, Javier Borge-Holthoefer, Ingmar Weber*

**E4 Special: Foundations & Trends in HCI 2**

CHAIR: YVONNE ROGERS



Choice Architecture for Human-Computer Interaction  
*Anthony Jameson, Bettina Berendt, Silvia Gabrielli, Federica Cena, Cristina Gena, Fabiana Vernero, Katharina Reinecke*

Designing for Healthy Lifestyles: Design Considerations for Mobile Technologies to Encourage Consumer Health and Wellness  
*Sunny Consolvo, Predrag V. Klasnja, David W. McDonald, James A. Landay*

**E5 Papers: Quantified Self for Humans & Pets**

CHAIR: RODRIGO DE OLIVEIRA

Change of Heart: Emotion Tracking to Promote Behavior Change

*Victoria Hollis, Artie Konrad, Steve Whittaker*

Beyond Self-Tracking and Reminders: Designing Smartphone Apps That Support Habit Formation

*Katarzyna Stawarz, Anna L. Cox, Ann Blandford*



Problematising Upstream Technology through Speculative Design: The Case of Quantified Cats and Dogs

*Shaun Lawson, Ben Kirman, Conor Linehan, Tom Feltwell, Lisa Hopkins*

Re-Centering Multispecies Practices: A Canine Interface for Cancer Detection Dogs

*Clara Mancini, Rob Harris, Brendan Aengenheister, Claire Guest*

**E6 Papers: Visualizing Statistics & Graphs**

CHAIR: BENJAMIN BACH

(s|qu)eries: Visual Regular Expressions for Querying and Exploring Event Sequences

*Emanuel Zraggen, Steven M. Drucker, Danyel Fisher, Robert DeLine*

Statsplorer: Guiding Novices in Statistical Analysis

*Chat Wacharamanotham, Krishna Subramanian, Sarah Theres Völkel, Jan Borchers*



Investigating the Direct Manipulation of Ranking Tables for Time Navigation

*Romain Vuillemot, Charles Perin*



Dynamic Opacity Optimization for Scatter Plots

*Justin Matejka, Fraser Anderson, George Fitzmaurice*

Evaluating How Level of Detail of Visual History Affects Process Memory

*Eric D. Ragan, John R. Goodall, Albert Tung*

**E7 C18: Speech-based Interaction 2/2**

Speech-based Interaction: Myths, Challenges, and Opportunities

*Cosmin Munteanu, Gerald Penn*

**307 Panel: Transdisciplinary Design in Education**

Transdisciplinary Interaction Design in Design Education  
*Eli Blevis, Ilpo K. Koskinen, KunPyo Lee, Susanne Bødker, Lin-Lin Chen, Youn-kyung Lim, Huaxin Wei, Ron Wakkary*

**308 Special: Human Computer Interaction Journal 2**

CHAIR: SCOTT R. KLEMMER

What Designers Talk About When They Talk About Context  
*Jared S. Bauer, Mark W. Newman, Julie A. Kientz*

Multi-sited Design: An Analytical Lens for Transnational HCI  
*Amanda M. Williams, Silvia Lindtner, ken t. anderson, Paul Dourish*

A Design Thinking Rationality Framework: Framing and Solving Design Problems in Early Concept Generation

*Jieun Kim, Hokyoung Ryu*

A Situated Approach of Roles and Participation in Open Source Software Communities

*Flore Barcellini, Francoise Detienne, Jean-marie Burkhardt*

**317A C17: Intro to Creating Musical Interfaces 2/2**

Introduction to Creating Musical Interfaces

*Michael J. Lyons, Sidney S. Fels*

**317BC Special: Student Research Competition Finals**

Student Research Competition

*Thad Starner, Regan L. Mandryk, Tilde Bekker, John Tang, Xiangshi Ren*

**318A SIG: Online Deliberative Processes and Tech**

Design for Online Deliberative Processes and Technologies: Towards a Multidisciplinary Research Agenda

*Weiyu Zhang, Lu Xiao, Anna Przybylska, Anna De Liddo, Gregorio Convertino, Todd Davies, Mark Klein*

**318BC C19: Designing Surveys for HCI Research 2/2**

Designing Surveys for HCI Research

*Hendrik Müller, Aaron Sedley*

12:50 – 14:30  
Lunch Break

*Restaurants, bars  
& cafés available  
nearby*

**401 Special: SIGCHI Lifetime Practice Award**

CHAIR: JACOB ROBERT

SIGCHI Lifetime Practice Award Talk  
*Susan Dray*

**402 Papers: Understanding Everyday Use of Mobile Phones**

CHAIR: MATT JONES

Demand in My Pocket: Mobile Devices and the Data Connectivity Marshalled in Support of Everyday Practice  
*Carolynne Lord, Mike Hazas, Adrian K. Clear, Oliver Bates, Rosalind Whittam, Janine Morley, Adrian Friday*

An In-Situ Study of Mobile App & Mobile Search Interactions  
*Juan Pablo Carrascal, Karen Church*

The Composition and Use of Modern Mobile Phonebooks  
*Frank R. Bentley, Ying-Yu Chen*

To Call or to Recall? That's the Research Question  
*Juan Pablo Carrascal, Rodrigo de Oliveira, Mauro Cherubini*

**403 Papers: GUI Size, Resolution & Layout**

CHAIR: ENRICO RUKZIO

Effects of Display Size and Resolution on User Behavior and Insight Acquisition in Visual Exploration  
*Khairi Reda, Andrew E. Johnson, Michael E. Papka, Jason Leigh*

Subjective and Objective Effects of Tablet's Pixel Density  
*Lars Lischke, Sven Mayer, Katrin Wolf, Alireza Sahami, Niels Henze*

Push-Edge and Slide-Edge: Scrolling by Pushing Against the Viewport Edge  
*Sylvain Malacria, Jonathan Aceituno, Philip Quinn, Géry Casiez, Andy Cockburn, Nicolas Roussel*

Investigating Visual Feedforward for Target Expansion Techniques  
*Maxime Guillon, François Leitner, Laurence Nigay*

GACA: Group-Aware Command-based Arrangement of Graphic Elements  
*Pengfei Xu, Hongbo Fu, Chiew-Lan Tai, Takeo Igarashi*

**E1/E2 Papers: Kids Social, Emotional & Special Needs**

CHAIR: KONSTANTINOS KAZAKOS

Designing Social and Emotional Skills Training: The Challenges and Opportunities for Technology Support  
*Petr Slovák, Ran Gilad-Bachrach, Geraldine Fitzpatrick*

Designing Autism Research for Maximum Impact  
*Elizabeth J. Carter, Jennifer Hyde*

Networked Empowerment on Facebook Groups for Parents of Children with Special Needs  
*Tawfiq Ammari, Sarita Schoenebeck*

Toward 3D-Printed Movable Tactile Pictures for Children with Visual Impairments  
*Jeeun Kim, Tom Yeh*

Multimodal Analysis in Participatory Design with Children: A Primary School Case Study  
*Jan Derboven, Maarten Van Mechelen, Karin Slegers*

The Fun-Serious Ambiguity in Educational Game  
*Jan Derboven, Bieke Zaman, Jorick Vissers, David Geerts, Dirk De Grooff*

**E3 Papers: HCI for Civic Engagement**

CHAIR: JOHN VINES

HCI, Civic Engagement & Trust  
*Mike Harding, Bran Knowles, Nigel Davies, Mark Rouncefield*

 Factful: Engaging Taxpayers in the Public Discussion of a Government Budget  
*Juho Kim, Eun-Young Ko, Jonghyuk Jung, Chang Won Lee, Nam Wook Kim, Jihee Kim*

Contesting the City: Enacting the Political Through Digitally Supported Urban Walks  
*Clara Crivellaro, Rob Comber, Martyn Dade-Robertson, Simon J. Bowen, Peter Wright, Patrick Olivier*

 Data-in-Place: Thinking through the Relations Between Data and Community  
*Alex S. Taylor, Siân E. Lindley, Tim Regan, David Sweeney, Vasillis Vlachokyriakos, Lillie Grainger, Jessica Lingel*

**E4 Papers: Security Feedback & Warnings**

CHAIR: ALEXANDER DE LUCA



Scaling the Security Wall: Developing a Security Behavior Intentions Scale (SeBIS)  
*Serge Egelman, Eyal Peer*

How Polymorphic Warnings Reduce Habituation in the Brain—Insights from an fMRI Study

*Bonnie Brinton Anderson, C. Brock Kirwan, David Eargle, Jeffrey L. Jenkins, Seth Howard, Anthony Vance*

Improving SSL Warnings: Comprehension and Adherence  
*Adrienne Porter Felt, Alex Ainslie, Robert W. Reeder, Sunny Consolvo, Somas Thyagaraja, Alan Bettles, Helen Harris, Jeff Grimes*

A Spoonful of Sugar? The Impact of Guidance and Feedback on Password-Creation Behavior

*Richard Shay, Lujo Bauer, Nicolas Christin, Lorrie Faith Cranor, Alain Forget, Saranga Komanduri, Michelle L. Mazurek, William Melicher, Sean M. Segreti, Blase Ur*

**E5 Papers: Wellness & Wearables**

CHAIR: MARIANNA OBRIST

Snot, Sweat, Pain, Mud, and Snow - Performance and Experience in the Use of Sports Watches  
*Jakob Tholander, Stina Nylander*

Contextual Influences on the Use and Non-Use of Digital Technology While Exercising at the Gym  
*Misha Patel, Aisling Ann O’Kane*



TastyBeats: Designing Palatable Representations of Physical Activity  
*Rohit Ashok Khot, Jeewon Lee, Deepti Aggarwal, Larissa Hjorth, Florian ‘Floyd’ Mueller*



As Light as your Footsteps: Altering Walking Sounds to Change Perceived Body Weight, Emotional State and Gait  
*Ana Tajadura-Jiménez, Maria Basia, Ophelia Deroy, Merle Fairhurst, Nicolai Marquardt, Nadia Bianchi-Berthouze*

**E6 Papers: Task Interruption & Resumption**

CHAIR: MARTIN HALVEY

SwitchBack: Using Focus and Saccade Tracking to Guide Users’ Attention for Mobile Task Resumption  
*Alexander Mariakakis, Mayank Goel, Md Tanvir Islam Aumi, Shwetak N. Patel, Jacob O. Wobbrock*

EyeBookmark: Assisting Recovery from Interruption during Reading  
*Jaemin Jo, Bohyoung Kim, Jinwook Seo*



The Effects of Chronic Multitasking on Analytical Writing  
*Danielle M. Lottridge, Christine Rosakranse, Catherine S. Oh, Sean J. Westwood, Katherine A. Baldoni, Abrey S. Mann, Clifford I. Nass*



What Makes Interruptions Disruptive? A Process-Model Account of the Effects of the Problem State Bottleneck on Task Interruption and Resumption  
*Jelmer P. Borst, Niels A. Taatgen, Hedderik van Rijn*

Interruptibility of Software Developers and its Prediction Using Psycho-Physiological Sensors  
*Manuela Züger, Thomas Fritz*

**E7 C22: Rapid Design Labs - Design-Led Innovation 1/2**

Rapid Design Labs—A Tool to Turbocharge Design-Led Innovation  
*Jim E. Nieters, Carola Fellenz Thompson*

**307 Panel: 10 Years of alt.chi**

10 Years of alt.chi: Reflections and Outlook  
*Morgan G. Ames, Silvia Lindtner, Barry Brown, Daniela K. Rosner, Sidney S. Fels, Roel Vertegaal*

**308 C20: Designing Wearable Interfaces 1/2**

The Glass Class: Designing Wearable Interfaces  
*Mark Billinghurst, Dr. Thad Starner*

**317A C21: Experience Sampling to Collect Deep Data 1/2**

Using Experience Sampling Methodology to Collect Deep Data About Your Users  
*Kathy K. Baxter, Anna Avrek, Bob Evans*

**317BC Special: Student Design Competition Finals**

Student Design Competition  
*Elisa Giaccardi, Will Odom, Zhiyong Fu, Jung-Joo Lee*

**318BC C23: Conceptual Models: Core to Good Design 1/2**

Conceptual Models: Core to Good Design  
*Jeff A. Johnson*

WEDNESDAY



15:50 – 16:30  
Coffee Break  
Hall C2/C3

WIP Posters Rotation 2  
Interactivity

List on page 59  
List on page 62

Hall C2/C3  
Hall C2/C3

**401 Papers: Using Random Body Parts for Input**

CHAIR: PATRICK BAUDISCH

**iSkin: Flexible, Stretchable and Visually Customizable On-Body Touch Sensors for Mobile Computing***Martin Weigel, Tong Lu, Gilles Bailly, Antti Oulasvirta, Carmel Majidi, Jürgen Steimle***Cyclops: Wearable and Single-Piece Full-Body Gesture Input Devices***Liwei Chan, Chi-Hao Hsieh, Yi-Ling Chen, Shuo Yang, Da-Yuan Huang, Rong-Hao Liang, Bing-Yu Chen***Bodyprint: Biometric User Identification on Mobile Devices Using the Capacitive Touchscreen to Scan Body Parts***Christian Holz, Senaka Buthpitiya, Marius Knaust***NailO: Fingernails as an Input Surface***Hsin-Liu (Cindy) Kao, Artem Dementyev, Joseph A. Paradiso, Chris Schmandt***Exploring Subtle Foot Plantar-based Gestures with Sock-placed Pressure Sensors***Koumei Fukahori, Daisuke Sakamoto, Takeo Igarashi***402 Papers: Brain & Physiological Data use for HCI**

CHAIR: JACOB ROBERT

**Classification Accuracy from the Perspective of the User: Real-Time Interaction with Physiological Computing***Stephen H. Fairclough, Alexander J. Karran, Kiel Gilleade***Measurable Decision Making with GSR and Pupillary Analysis for Intelligent User Interface***Jianlong Zhou, Jinjun Sun, Fang Chen, Yang Wang, Ronnie Taib, Ahmad Khawaji, Zhidong Li***Designing Implicit Interfaces for Physiological Computing: Guidelines and Lessons Learned using fNIRS***Erin Treacy Solovey, Daniel A. Afegan, Evan M. Peck, Samuel W. Hincks, Robert J.K. Jacob***Examining the Reliability of Using fNIRS in Realistic HCI Settings for Spatial and Verbal Tasks***Horia A. Maior, Matthew Pike, Sarah Sharples, Max L. Wilson***403 Papers: Software Engineering Tools**

CHAIR: FENGTIAN

**StructJumper: A Tool to Help Blind Programmers Navigate and Understand the Structure of Code***Catherine M. Baker, Lauren R. Milne, Richard E. Ladner***OverCode: Visualizing Variation in Student Solutions to Programming Problems at Scale***Elena L. Glassman, Jeremy Scott, Rishabh Singh, Philip J. Guo, Robert C. Miller***An Interactive System for Data Structure Development***Jibin Ou, Martin Vechev, Otmar Hilliges***Polymorphic Blocks: Formalism-Inspired UI for Structured Connectors***Sorin Lerner, Stephen R. Foster, William G. Griswold***E1/E2 Papers: HCI at Home**

CHAIR: DAVID GEERTS

**Investigating Genres and Perspectives in HCI Research on the Home***Audrey Desjardins, Ron Wakkary, William Odom***Building Change: Constructive Design of Smart Domestic Environments for Goal Achievement***Ryan Brotman, Winslow Burleson, Jodi Forlizzi, William Heywood, Jisoo Lee***uCap: An Internet Data Management Tool for the Home***Marshini Chetty, Hyojoon Kim, Srikanth Sundaresan, Sam Burnett, Nick Feamster, W. Keith Edwards***Mediating Attention for Second Screen Companion Content***Timothy Neate, Matt Jones, Michael Evans***E3 Papers: Voting & Volunteerism**

CHAIR: ANDRES MONROY-HERNANDEZ

**Social Media Effectiveness for Public Engagement: Example of Small Nonprofits***Youyang Hou, Cliff Lampe***Exploring Barriers to the Adoption of Mobile Technologies for Volunteer Data Collection Campaigns***Sunyoung Kim, Jennifer Mankoff, Eric Paulos***"Everyone Is Talking about It!": A Distributed Approach to Urban Voting Technology and Visualisations***Lisa Koeman, Vaiva Kalnikaitė, Yvonne Rogers***Design Challenges in Supporting Distributed Knowledge: An Examination of Organizing Elections***Nina Boulus-Rødje, Pernille Bjorn***E4 Papers: Socio-Political Interactions**

CHAIR: LIANG GOU

**The Politics of Measurement and Action***Kathleen H. Pine, Max Liboiron***Beyond Participatory Production: Digitally Supporting Grassroots Documentary***David Philip Green, Simon J. Bowen, Christopher Newell, Guy Schofield, Tom Bartindale, Clara Crivellaro, Alia Sheikh, Peter C. Wright, Patrick Olivier***Designing Political Deliberation Environments to Support Interactions in the Public Sphere***Bryan Semaan, Heather Faucett, Scott P. Robertson, Misa Maruyama, Sara Douglas***Debating Poverty Porn on Twitter: Social Media as a Place for Everyday Socio-Political Talk***Phil Brooker, John Vines, Selina Sutton, Julie Barnett, Tom Feltwell, Shaun Lawson*

**E5 Papers: Understanding Health through Online Behavior**

CHAIR: MARY P. CZERWINSKI



## Recognizing Depression from Twitter Activity

*Sho Tsugawa, Yusuke Kikuchi, Fumio Kishino, Kosuke Nakajima, Yuichi Itoh, Hiroyuki Ohsaki*

## You Tweet What You Eat: Studying Food Consumption Through Twitter

*Sofiane Abbar, Yelena Mejova, Ingmar Weber*

## Rethinking the Mobile Food Journal: Exploring Opportunities for Lightweight Photo-Based Capture

*Felicia Cordeiro, Elizabeth Bales, Erin Cherry, James Fogarty*

## Collective Sensemaking in Online Health Forums

*Lena Mamykina, Drashko Nakikj, Noemie Elhadad***E6 Papers: Natural User Interfaces for InfoVis**

CHAIR: BONGSHIN LEE



## Opportunities and Challenges for Data Physicalization

*Yvonne Jansen, Pierre Dragicevic, Petra Isenberg, Jason Alexander, Abhijit Karnik, Johan Kildal, Sriram Subramanian, Kasper Hornbæk*

## Exploring Interactions with Physically Dynamic Bar Charts

*Faisal Taher, John Hardy, Abhijit Karnik, Christian Weichel, Yvonne Jansen, Kasper Hornbæk, Jason Alexander*

## Evaluating the Memorability of Physical Visualizations

*Simon Stusak, Jeannette Schwarz, Andreas Butz*

## Personality as a Predictor of User Strategy: How Locus of Control Affects Search Strategies on Tree Visualizations

*Alvitta Ottley, Huahai Yang, Remco Chang*

## SketchSliders: Sketching Widgets for Visual Exploration on Wall Displays

*Theophanis Tsandilas, Anastasia Bezerianos, Thibaut Jacob***E7 C22: Rapid Design Labs - Design-Led Innovation 2/2**

## Rapid Design Labs—A Tool to Turbocharge Design-Led Innovation

*Jim E. Nieters, Carola Fellenz Thompson***307 Papers: UX Methods 4**

CHAIR: BENJAMIN V. HANRAHAN



## Two-Level Personas for Nested Design Spaces

*Anke Dittmar, Maximilian Hensch*

## The Work of Mad Men that Makes the Methods of Math Men Work: Practically Occasioned Segment Design

*Michael F. Clarke*

## Flow of Competence in UX Design Practice

*Colin M. Gray, Austin L. Toombs, Shad D. Gross*

## Usees

*Eric P. S. Baumer***308 C20: Designing Wearable Interfaces 2/2**

## The Glass Class: Designing Wearable Interfaces

*Mark Billingham, Dr. Thad Starner***317A C21: Experience Sampling to Collect Deep Data 2/2**

## Using Experience Sampling Methodology to Collect Deep Data About Your Users

*Kathy K. Baxter, Anna Avrek, Bob Evans***317BC Special: Student Game Competition Finals**

## Student Game Competition

*Casper Hartevelt, Peter Lee, Seth Cooper***318A SIG: Understanding Sports**

## Understanding Sports-HCI by Going Jogging at CH

*Florian Mueller, Joe Marshall, Rohit Ashok Khot, Stina Nylander, Jakob Tholander***318BC C23: Conceptual Models: Core to Good Design 2/2**

## Conceptual Models: Core to Good Design

*Jeff A. Johnson*



**Thursday Morning Keynote, ACM-W Athena Lecture**

8:30 – 9:20

Hall D I

Susan T. Dumais, ACM Fellow

Large-Scale Behavioral Data: Potential and Pitfalls

9:20 – 9:30  
Break

**401 Papers: Augmented & Virtual Reality in the Real World**

CHAIR: MORTEN FJELD



Substitutional Reality: Using the Physical Environment to Design Virtual Reality Experiences

*Adalberto L. Simeone, Eduardo Velloso, Hans Gellersen*

The Semantic Paintbrush: Interactive 3D Mapping and Recognition in Large Outdoor Spaces

*Ondrej Miksik, Vibhav Vineet, Morten Lidegaard, Ram Prasaath, Matthias Niessner, Stuart Golodetz, Stephen L. Hicks, Patrick Perez, Shahram Izadi, Philip HS Torr*

User-Defined Game Input for Smart Glasses in Public Space

*Ying-Chao Tung, Chun-Yen Hsu, Han-Yu Wang, Silvia Chyou, Jhe-Wei Lin, PEI-JUNG WU, Andries Valstar, Mike Y. Chen*

Retargeting Technical Documentation to Augmented Reality

*Peter Mohr, Bernhard Kerbl, Michael Donoser, Dieter Schmalstieg, Denis Kalkofen*

**402 Papers: Gesture Elicitation & Recognition**

CHAIR: NIELS HENZE



Using Soft-Constraints to Reduce Legacy and Performance Bias in Gesture Elicitation Studies

*Jaime Ruiz, Daniel Vogel*

Unistroke Gesture Recognition Through Polyline Approximation and Alignment

*Vittorio Fucella, Gennaro Costagliola*

Gesture On: Enabling Always-On Touch Gestures for Fast Mobile Access from the Device Standby Mode

*Hao Lu, Yang Li*

Optimizing Touchscreen Keyboards for Gesture Typing

*Brian A. Smith, Xiaojun Bi, Shumin Zhai*

Design and Evaluation of a Self-Correcting Gesture Interface based on Error Potentials from EEG

*Felix Putze, Christoph Amma, Tanja Schultz*

**403 Papers: Programming Environments**

CHAIR: JOONHWAN LEE



Constructing Conceptual Knowledge Artefacts: Activity Patterns in the Ontology Authoring Process

*Markel Vigo, Caroline Jay, Robert Stevens*

Helping Users Bootstrap Ontologies: An Empirical Investigation

*Yuhao Zhang, Tania Tudorache, Matthew Horridge, Mark A. Musen*

A Spreadsheet Model for Handling Streaming Data

*Kerry Shih-Ping Chang, Brad A. Myers*



TextAlive: Integrated Design Environment for Kinetic Typography

*Jun Kato, Tomoyasu Nakano, Masataka Goto*

Power, Empowerment and Open Source Usability

*Mikko Rajanen, Netta Iivari*

**E1/E2 Papers: Digital Collections, Practice & Legacy**

CHAIR: WILL ODOM



Digital Collections and Digital Collecting Practices

*Rebecca D. Watkins, Abigail Sellen, Siân E. Lindley*

Medium, Access, and Obsolescence: What Kinds of Objects are Lasting Objects?

*Jane Gruning, Julia Bullard, Melissa Ocepek*

Things That Make Us Reminisce: Everyday Memory Cues as Opportunities for Interaction Design

*Doménique van Gennip, Elise van den Hoven, Panos Markopoulos*

Curatorial Agents: How Systems Shape Our Understanding of Personal and Familial Digital Information

*Rebecca Gulotta, Alex Sciuto, Aisling G. Kelliher, Jodi L. Forlizzi*

**E3 Papers: Multilingual Communication**

CHAIR: HAO-CHUAN WANG



Improving Multilingual Collaboration by Displaying How Non-native Speakers Use Automated Transcripts and Bilingual Dictionaries

*Ge Gao, Naomi Yamashita, Ari MJ Hautasaari, Susan R. Fussell*

Effect of Machine Translation in Interlingual Conversation: Lessons from a Formative Study

*Kotaro Hara, Shamsi T. Iqbal*

Supporting the Modern Polyglot - A Comparison of Multilingual Search Interfaces

*Ben Steichen, Luanne Freund*



New Interaction Tools for Preserving an Old Language

*Beryl Plimmer, Liang He, Tariq Zaman, Kasun Karunanayaka, Alvin W. Yeo, Garen Jengan, Rachel Blagojevic, Ellen Yi-Luen Do*

**E4 Papers: Empowering Users**

CHAIR: MAARTENHISSEN

Quantifying the Creativity Support of Digital Tools through the Creativity Support Index

*Erin Cherry, Celine Latulipe*

Mixed-Initiative Approaches to Global Editing in Slideware

*Darren Edge, Sumit Gulwani, Natasa Milic-Frayling, Mohammad Raza, Reza Adhitya Saputra, Chao Wang, Koji Yatani*

"ForTelling" the Present: Using the Delphi Method to Understand Personal Information Management Practices

*William Jones, Robert Capra, Anne Diekema, Jaime Teevan, Manuel Pérez-Quiñones, Jesse David Dinneen, Bradley Hemminger*

On the benefits of providing versioning support for end users: An empirical study

*Sandeep Kaur Kuttal, Anita Sarma, Gregg Rothermel***E5 Papers: Accessibility for Vision Impaired Users**

CHAIR: XIAOJUAN MA

Privacy Concerns and Behaviors of People with Visual Impairments

*Tousif Ahmed, Roberto Hoyle, Kay Connelly, David Crandall, Apu Kapadia*

Participatory Design of Therapeutic Video Games for Young People with Neurological Vision Impairment

*Jonathan Waddington, Conor Linehan, Kathrin Gerling, Kieran Hicks, Timothy L. Hodgson*

ColourID: Improving Colour Identification for People with Impaired Colour Vision

*David R. Flatla, Alan R. Andrade, Ross D. Teviotdale, Dylan L. Knowles, Craig Stewart*

ColorBless: Augmenting Visual Information for Colorblind People with Binocular Luster Effect

*Soon Hau Chua, Haimo Zhang, Muhammad Hammad, Shengdong Zhao, Sahil Goyal, Karan Singh***E6 Papers: Interactive & Multi-Surface Maps**

CHAIR: BRENT HECHT

TerraGuide: Design and Evaluation of a Multi-Surface Environment for Terrain Visibility Analysis

*Matthew Oskamp, Christophe Bortolaso, Robin Harrap, T.C. Nicholas Graham*

Lightweight Relief Shearing for Enhanced Terrain Perception on Interactive Maps

*Wesley Willett, Bernhard Jenny, Tobias Isenberg, Pierre Dragicevic*

An Evaluation of Interactive Map Comparison Techniques

*María-Jesús Lobo, Emmanuel Pietriga, Caroline Appert*

Ethermap - Real-time Collaborative Map Editing

*Thore Fechner, Dennis Wilhelm, Christian Kray***E7 C25: Interaction Design for Reading Devices I/I**

Interaction Design for Reading Devices and Apps

*Jennifer Pearson, Simon Robinson***307 Panel: Mobile Devices Revolutionizing UI**

How Mobile Devices are Revolutionizing User Interaction

*Hwanyong Lee, Victor Erukhimov, Neil Trevett, Alon Oh-bach, Tom Olson***308 Case Studies: Observation & Interaction**

CHAIR: FRANK R. BENTLEY

The 6th Finger: Practical Challenges in the Design of a Multitouch Audio Appliance

*Wolfgang Beer, Christian Salomon, Mario Winterer, Karl Putzhammer, Bernhard Schauer, Thomas Rechberger*

Photo Based Observation Method: How to quickly observe the behavior of the user

*HeeJeong Son, Hyunsoo Kim, Hyojung Kim*

Representation Strategies Adopted by Participants in a Population Stereotype Hunt: A Case Study for Icon Design

*Avijit Sengupta, Klarissa T.T. Chang, Maffee Peng-Hui Wan, Wen Yong Chua*

When Value is Greater than Money: A Micropayment System in Uganda

*Rasmus Prentow, Rasmus Steiniche, Simone D. Johansen, Jeni Paay, Ivan Aaen, Jesper Kjeldskov***317BC C24: Vision-Driven: Beyond Tangible Bits I/I**

Vision-Driven: Beyond Tangible Bits, Towards Radical Atoms

*Hiroshi Ishii, Daniel Leithinger, Sean Follmer, Lining Yao, Jifei Ou***318BC C26: Introduction to Positive Computing I/I**

Introduction to Positive Computing – Technology that fosters wellbeing

*Rafael A. Calvo, Dorian Peters*

10:50 – 11:30  
Coffee Break  
Hall C2/C3

**401 Papers: Robot Personalities**

CHAIR: MALTE F. JUNG

Too Much Humanness for Human-Robot Interaction: Exposure to Highly Humanlike Robots Elicits Aversive Responding in Observers

*Megan Strait, Lara Vujovic, Victoria Floerke, Matthias Scheutz, Heather Urry*

 Look Like Me: Matching Robot Personality via Gaze to Increase Motivation

*Sean Andrist, Bilge Mutlu, Adriana Tapus*

 The Social Impact of a Robot Co-Worker in Industrial Settings

*Allison Sauppé, Bilge Mutlu*

Robots, Pancakes, and Computer Games: Designing Serious Games for Robot Imitation Learning

*Benjamin Walther-Franks, Jan David Smeddinck, Peter Szmids, Andrei Haidu, Michael Beetz, Rainer Malaka*

**402 Papers: Mid-Air Gestures and Interaction**

CHAIR: YANG LI

 Accurate, Robust, and Flexible Real-time Hand Tracking

*Toby Sharp, Cem Keskin, Duncan Robertson, Jonathan Taylor, Jamie Shotton, David Kim, Christoph Rhemann, Ido Leichter, Alon Vinnikov, Yichen Wei, Daniel Freedman, Pushmeet Kohli, Eyal Krupka, Andrew Fitzgibbon, Shahram Izadi*

Investigating the Dexterity of Multi-Finger Input for Mid-Air Text Entry

*Srinath Sridhar, Anna Maria Feit, Christian Theobalt, Antti Oulasvirta*

Myopoint: Pointing and Clicking Using Forearm Mounted Electromyography and Inertial Motion Sensors

*Faizan Haque, Mathieu Nancel, Daniel Vogel*

Joint Estimation of 3D Hand Position and Gestures from Monocular Video for Mobile Interaction

*Jie Song, Fabrizio Pece, Gábor Sörös, Marion Koelle, Otmar Hilliges*

zSense: Enabling Shallow Depth Gesture Recognition for Greater Input Expressivity on Smart Wearables

*Anusha Withana, Roshan Peiris, Nipuna Samarasekara, Suranga Nanayakkara*

**403 Papers: MOOCS & e-Learning**

CHAIR: JUHO KIM

Providing Adaptive Support in an Interactive Simulation for Learning: An Experimental Evaluation

*Samad Kardan, Cristina Conati*

 Interactive Cloud Experimentation for Biology: An Online Education Case Study

*Zahid Hossain, Xiaofan Jin, Engin W. Bumbacher, Alice M. Chung, Stephen Koo, Jordan D. Shapiro, Cynthia Y. Truong, Sean Choi, Nathan D. Orloff, Paulo Blikstein, Ingmar H. Riedel-Kruse*

Mining Memories: Designing a Platform to Support Social Media Based Writing

*John Sadauskas, Daragh Byrne, Robert K. Atkinson*

Wait-Learning: Leveraging Wait Time for Second Language Education

*Carrie J. Cai, Philip J. Guo, James Glass, Robert C. Miller*

**E1/E2 Papers: Understanding Gamers**

CHAIR: TONI-JAN KEITH MONSERRAT

Masters of Control: Behavioral Patterns of Simultaneous Unit Group Manipulation in StarCraft 2

*Eddie Q. Yan, Jeff Huang, Gifford K. Cheung*

Cooperative Game Play with Avatars and Agents: Differences in Brain Activity and the Experience of Play

*Daniel Johnson, Peta Wyeth, Madison Clark, Christopher Watling*

Examining Game World Topology Personalization

*Sauvik Das, Alexander E. Zook, Mark O. Riedl*

The Use of Games as Extrinsic Motivation in Education

*Chris Preist, Robert Jones*

Exploring Cyberbullying and Other Toxic Behavior in Team Competition Online Games

*Haewoon Kwak, Jeremy Blackburn, Seungyeop Han*

**E3 Papers: Bridging Communities**

CHAIR: EDWARD CUTRELL

Computer-Enabled Project Spaces: Connecting with Palestinian Refugees across Camp Boundaries

*George Yerosis, Konstantin Aal, Thomas von Rekowski, David William Randall, Markus Rohde, Volker Wulf*

Transnationalism, Indigenous Knowledge and Technology: Insights from the Kenyan Diaspora

*Kagonya Awori, Wally Smith, Frank Vetere*

Collective Intelligence in Computer-Mediated Collaboration Emerges in Different Contexts and Cultures

*David Engel, Anita Williams Woolley, Ishani Aggarwal, Christopher F. Chabris, Masamichi Takahashi, Keichi Nemoto, Carolin Kaiser, Young Ji Kim, Thomas W. Malone*

Google+ Communities as Plazas and Topic Boards

*Michael J. Brzozowski, Phil Adams, Ed H. Chi*

**E4 Papers: Gender & Technology**

CHAIR: ANTONELLA DE ANGELI

## Gender and Tenure Diversity in GitHub Teams

*Bogdan Vasilescu, Daryl Posnett, Baishakhi Ray, Mark G.J. van den Brand, Alexander Serebrenik, Prem Devanbu, Vladimir Filkov*

## Offline Strangers, Online Friends: Bridging Classroom Gender Segregation with WhatsApp

*Preeti Mudliar, Nimmi Rangaswamy*

## Online Inspiration and Exploration for Identity Reinvention

*Oliver L. Haimson, Anne E. Bowser, Edward F. Melcer, Elizabeth F. Churchill*

## Unequal Representation and Gender Stereotypes in Image Search Results for Occupations

*Matthew Kay, Cynthia Matuszek, Sean A. Munson***E5 Papers: Coping & Wellbeing Through HCI**

CHAIR: JINA HUH

## Finding the Adaptive Sweet Spot: Balancing Compliance and Achievement in Automated Stress Reduction

*Artie Konrad, Victoria Bellotti, Nicole Crenshaw, Simon Tucker, Les Nelson, Honglu Du, Peter Pirolli, Steve Whittaker*

## SoberDiary: A Phone-based Support System for Assisting Recovery from Alcohol Dependence

*Chuang-wen You, Kuo-Cheng Wang, Ming-Chyi Huang, Yen-Chang Chen, Cheng-Lin Lin, Po-Shiun Ho, Hao-Chuan Wang, Polly Huang, Hao-Hua Chu*

## Solutionism, the Game: Design Fictions for Positive Aging

*Mark Blythe, Jamie Steane, Jenny Roe, Caroline Oliver*

## Design Considerations for Patient Portal Adoption by Low-Income, Older Adults

*Celine Latulipe, Amy Gatto, Ha T. Nguyen, David P. Miller, Sara A. Quandt, Alain G. Bertoni, Alden Smith, Thomas A. Arcury***E6 Papers: Interacting with Floors & Situated Displays**

CHAIR: DIEGO MARTINEZ PASENCIA



## BaseLase: An Interactive Focus+Context Laser Floor

*Jörg Müller, Dieter Eberle, Constantin Schmidt*

## Ergonomic Interaction for Touch Floors

*Dominik Schmidt, Johannes Frohnhofer, Sven Knebel, Florian Meinel, Mariya Perchyk, Julian Risch, Jonathan Striebel, Julia Wachtel, Patrick Baudisch*

## Display Blindness? Looking Again at the Visibility of Situated Displays using Eye-tracking

*Nicholas S. Dalton, Emily Collins, Paul Marshall*

## Detecting User Intention at Public Displays from Foot Positions

*Bernd Huber, Joong Ho Lee, Ji-Hyung Park***E7 C28: Benefit from Using ISO Standards I/I**

## How You Could Benefit from Using ISO Standards

*Nigel Bevan***307 Panel: Why Google Cannot Be the # 1 in Korea?**

## Why Google Cannot Be the # 1 in Korea?: In Search for Critical Success Factors from Local User Experience

*Jinsoo Kim, Sungwon Beck, Sungeon Kim, Kihyun Jung***308 alt.chi: Mindfulness and Care**

CHAIR: SILVIA LINDTNER

## Being Reasonable: A Manifesto for the Inclusion of Disabled People in SIGCHI Conferences

*Reuben Kirkham, John Vines, Patrick Olivier*

## Crossing Cultural and Theoretical Borders:

## Towards Mindfulness through a Cigarette and a Torii Gate

*Yoko Akama, Ann Light*

## Communication in the Changing Dyadic Interaction of Diverse Players

*Mark Rice, Hong Huei Tay, Jamie NG, Ranieri Koh*

## Captchat: A Messaging Tool to Frustrate Ubiquitous Surveillance

*Paul Dunphy, Johannes Schöning, James Nicholson, Patrick Olivier***317BC C27: Designing with the Mind in Mind I/I**

## Designing with the Mind in Mind: The Psychological Basis for UI Design Guidelines

*Jeff A. Johnson*

12:50 – 14:30

Lunch Break

*Restaurants, bars  
& cafés available  
nearby*

**401 Papers: Multi-Device Interaction**

CHAIR: MICHAEL NEBELING

A Diary Study on Combining Multiple Information Devices in Everyday Activities and Tasks  
*Tero Jokela, Jarno Ojala, Thomas Olsson*

Spatially-aware or spatially-agnostic? Elicitation and Evaluation of User-Defined Cross-Device Interactions  
*Roman Rädle, Hans-Christian Jetter, Mario Schreiner, Zhihao Lu, Harald Reiterer, Yvonne Rogers*

Weave: Scripting Cross-Device Wearable Interaction  
*Pei-Yu Chi, Yang Li*

MultiFi: Multi Fidelity Interaction with Displays On and Around the Body  
*Jens Grubert, Matthias Heinisch, Aaron Quigley, Dieter Schmalstieg*

**402 Papers: Speech & Auditory Interfaces**

CHAIR: COSMIN MUNTEANU

Form Follows Sound: Designing Interactions from Sonic Memories  
*Baptiste Caramiaux, Alessandro Altavilla, Scott G. Pobiner, Atau Tanaka*

Repurposing Conversation: Experiments with the Continuous Speech Stream  
*Donald McMillan, Antoine Loriette, Barry Brown*

The CADENCE Corpus: A New Resource for Inclusive Voice Interface Design  
*Maria K. Wolters, Jonathan Kilgour, Sarah E. MacPherson, Myroslava Dzikovska, Johanna D. Moore*

Empirical Evidence for a Diminished Sense of Agency in Speech Interfaces  
*Hannah Limerick, James W. Moore, David Coyle*

To Beep or Not to Beep? Comparing Abstract versus Language-Based Multimodal Driver Displays  
*Ioannis Politis, Stephen A. Brewster, Frank Pollick*

**403 Papers: Email & Social Media at Work**

CHAIR: PERNILLE BJORN

Lost in Email: Pulling Users Down a Path of Interaction  
*Benjamin V. Hanrahan, Manuel A. Perez-Quinones*

Balancing Boundaries: Using Multiple Devices to Manage Work-Life Balance  
*Rowanne Fleck, Anna L. Cox, Rosalyn A V Robison*

Working 9-5? Professional Differences in Email and Boundary Management Practices  
*Marta E. Cecchinato, Anna L. Cox, Jon Bird*

 Inferring Employee Engagement from Social Media  
*N. Sadat Shami, Michael Muller, Aditya Pal, Mikhail Masli, Werner Geyer*

Mailing Lists: Why Are They Still Here, What's Wrong With Them, and How Can We Fix Them?  
*Amy X. Zhang, Mark S. Ackerman, David R. Karger*

**E1/E2 Papers: Understanding & Protecting Kids Tech Use**

CHAIR: SVETLANA YAROSH

Regulating Access to Adult Content (with Privacy Preservation)  
*Karen Renaud, Joseph Maguire*

 Resilience Mitigates the Negative Effects of Adolescent Internet Addiction and Online Risk Exposure  
*Pamela J. Wisniewski, Haiyan Jia, Na Wang, Sajjing Zheng, Heng Xu, Mary Beth Rosson, John M. Carroll*

Generation Like: Comparative Characteristics in Instagram  
*Jin Yea Jang, Kyungsik Han, Patrick C. Shih, Dongwon Lee*

Investigating High School Students' Perceptions of Digital Badges in Afterschool Learning  
*Katie Davis, Eve Klein*

**E3 Papers: Social Media & Citizen Science**

CHAIR: ELENA L. GLASSMAN

 Piggyback Prototyping: Using Existing, Large-Scale Social Computing Systems To Prototype New Ones  
*Catherine Grevet, Eric Gilbert*

Situated Social Media Use: A Methodological Approach to Locating Social Media Practices and Trajectories  
*Thomas Hillman, Alexandra Weilenmann*

 Break It Down: A Comparison of Macro- and Microtasks  
*Justin Cheng, Jaime Teevan, Shamsi T. Iqbal, Michael S. Bernstein*

 Designing for Citizen Data Analysis: A Cross-Sectional Case Study of a Multi-Domain Citizen Science Platform  
*Ramine Tinati, Max Van Kleek, Elena Simperl, Markus Luczak-Rösch, Robert Simpson, Nigel Shadbolt*

DIYbio Things: Open Source Biology Tools as Platforms for Hybrid Knowledge Production and Scientific Participation  
*Stacey Kuznetsov, Carrie Doonan, Nathan Wilson, Swarna Mohan, Scott E. Hudson, Eric Paulos*

 Is This How We (All) Do It?: Butler Lies and Ambiguity Through a Broader Lens  
*Megan French, Madeline E. Smith, Jeremy Birnholtz, Jeff T. Hancock*

**E4 Papers: Disasters & Humanitarian Events**

CHAIR: TAWANNA R. DILLAHUNT

CrowdMonitor: Mobile Crowd Sensing for Assessing Physical and Digital Activities of Citizens during Emergencies  
*Thomas Ludwig, Christian Reuter, Tim Siebigteroth, Volkmar Pipek*

XHELP: Design of a Cross-Platform Social-Media Application to Support Volunteer Moderators in Disasters  
*Christian Reuter, Thomas Ludwig, Marc-André Kaufhold, Volkmar Pipek*

Building a Birds Eye View: Collaborative Work in Disaster Response  
*Joel E. Fischer, Stuart Reeves, Tom Rodden, Steve Reece, Sarvapali D. Ramchurn, David Jones*

Success & Scale in a Data-Producing Organization: The Socio-Technical Evolution of OpenStreetMap in Response to Humanitarian Events  
*Leysia Palen, Robert Soden, T. Jennings Anderson, Mario Barrenechea*

**E5 Papers: Home Physiotherapy & Rehabilitation**

CHAIR: YI-PING HUNG

Physio@Home: Exploring Visual Guidance and Feedback Techniques for Physiotherapy Exercises

*Richard Tang, Xing-Dong Yang, Scott Bateman, Joaquim Jorge, Anthony Tang*

Lessons Learnt from Deploying an End-User Development Platform for Physical Rehabilitation

*Daniel Tetteroo, Paul Vreugdenhil, Ivor Grisel, Marc Michielsen, Els Kuppens, Diana Vanmulken, Panos Markopoulos*

Exergames for Physiotherapy and Rehabilitation: A Medium-term Situated Study of Motivational Aspects and Impact on Functional Reach

*Jan David Smeddinck, Marc Herrlich, Rainer Malaka*

 Resilience Ex Machina: Learning a Complex Medical Device for Haemodialysis Self-Treatment

*Paul Noble*

Understanding Design Tradeoffs for Health Technologies: A Mixed-Methods Approach

*Katie O'Leary, Jordan Eschler, Logan Kendall, Lisa M. Vizer, James D. Ralston, Wanda Pratt*

**E6 Papers: Interaction Techniques for Tables & Walls**

CHAIR: TOM BARTINDALE

G-raff: An Elevating Tangible Block for Spatial Tabletop Interaction

*Chang Min Kim, Tek-Jin Nam*

Modeling Distant Pointing for Compensating Systematic Displacements

*Sven Mayer, Katrin Wolf, Stefan Schneegass, Niels Henze*

Is Moving Improving? Some Effects of Locomotion in Wall-Display Interaction

*Mikkel R. Jakobsen, Kasper Hornbæk*

Gaze+RST: Integrating Gaze and Multitouch for Remote Rotate-Scale-Translate Tasks

*Jayson Turner, Jason Alexander, Andreas Bulling, Hans Gellersen*

Designing for Exploratory Search on Touch Devices

*Khalil Klouche, Tuukka Ruotsalo, Diogo Cabral, Salvatore Andolina, Andrea Bellucci, Giulio Jacucci*

**307 Papers: Interacting with GUIs**

CHAIR: DAVID R. FLATLA

Clutching Is Not (Necessarily) the Enemy

*Mathieu Nancel, Daniel Vogel, Edward Lank*

Visual Grouping in Menu Interfaces

*Duncan P. Brumby, Susan Zhuang*



Color Portraits : From Color Picking to Interacting with Color

*Ghita Jalal, Nolwenn Maudet, Wendy E. Mackay*

The Emergence of Interactive Behavior: A Model of Rational Menu Search

*Xiuli Chen, Gilles Bailly, Duncan P. Brumby, Antti Oulasvirta, Andrew Howes*

Selective Undo Support for Painting Applications

*Brad A. Myers, Ashley Lai, Tam Minh Le, YoungSeok Yoon, Andrew R. Faulring, Joel R. Brandt*

**308 Case Studies: Special Environments**

CHAIR: FRANCESCA SAMSEL

Voice or Gesture in the Operating Room

*Helena M. Mentis, Kenton P. O'Hara, Gerardo Gonzalez, Abigail Sellen, Robert Corish, Antonio Criminisi, Rikin Trivedi, Pierre Theodore*

Can Androids Be Salespeople in the Real World?

*Miki Watanabe, Kohei Ogawa, Hiroshi Ishiguro*

An Outlook for Content UX in TV: The Emergence of Augmented Content

*Sung Woo Kim, Eun Hye Park, Yae Eun Lee, Jong Sung Lee, Da Hee Lee, Eun Jin Kim*

A consensual and non-ambiguous set of gestures to interact with UAV in infantrymen

*Florent Taralle, Alexis Paljic, Sotiris Manitsaris, Jordane Grenier, Christophe Guettier*



15:50 – 16:30  
Coffee Break  
Level 300/400  
Foyers



**Closing Plenary Keynote**

16:30 – 17:50

Hall D1

PSY

*Cultural Crossing from Local to Global through Music: Technology, Media, and Future*



## WORKSHOPS

CHI 2015 workshops take place on Level 300 at the Convention Center. Workshops are accessible only to pre-registered attendees.

Saturday 18 April – Sunday 19 April (2 days)		Room	Sunday 19 April (1 day)		Room
W01	Art.CHI <i>David England, Linda Candy, Celine Latulipe, Theda Schiphorst, Ernest a Edmonds, Younghui Kim, Sean Clark, Andruid Kerne</i>	310AB	W17	Design-Led Inquiry for Mobile Lives <i>Konstantinos Kazakos, David Kirk, Abigail Durrant, David Chatting, Paulina Yurman, Jo-Anne Bichard, Jaemin Paik</i>	312
W02	Designing Alternative Systems for local Communities <i>Vasillis Vlachokyriakos, Rob Comber, Clara Crivellaro, Nick Taylor, Stacey Kuznetsov, Andrea Kavanaugh, Christopher A. Le Dantec, Joon Kim</i>	311	W18	Developing Skills for Social and Emotional Wellbeing <i>Petr Slovák, Greg Wadley, David Coyle, Anja Thieme, Naomi Yamashita, Reeva M Lederman, Stefan schutt, Mia Doces</i>	314
W03	Between the Lines: Reevaluating the Online/Offline Binary <i>Sarah Vieweg, Oliver L. Haimson, Michael Massimi, Kenton O'Hara, Elizabeth F. Churchill</i>	312	W19	Ecological Perspectives in HCI: Promise, Problems, and Potential <i>Eli Blevis, Susanne Bødker, John Flach, Jodi Forlizzi, Heekyoung Jung, Victor Kaptelinin, Bonnie Nardi, Antonio Rizzo</i>	313
W04	Beyond Personal Informatics: Designing for Experiences with Data <i>Chris Elsdon, David Kirk, Mark Selby, Chris Speed</i>	317A	W20	End-User Development in the Internet of Things Era <i>Daniel Tetteroo, Panos Markopoulos, Stefano Valtolina, Fabio Paternò, Volkmar Pipek, Margaret Burnett</i>	315
W05	Collaborating with Intelligent Machines: Interfaces for Creative Sound <i>Florian Grote, Kristina Andersen, Peter Knees</i>	320	W21	Everyday Telepresence: Emerging Practices and Future Research <i>Irene Rae, Bilge Mutlu, Gary M. Olson, Judith S. Olson, Leila A. Takayama, Gina Venolia</i>	320
W06	Crossing Domains: Diverse Perspectives on Players <i>Gareth R. White, Joonhwan Lee, Daniel Johnson, Peta Wyeth, Pejman Mirza-Babaei</i>	313	W22	Experiencing Autonomous Vehicles: Crossing the Boundaries between a Drive and a Ride <i>Alexander Meschtscherjakov, Manfred Tscheligi, Dalila Szostak, Rabintra Ratan, Roderick McCall, Ioannis Politis, Sven Krome</i>	316
W07	Crossing HCI and Health: Advancing Health and Wellness Technology Research in Home and Community Settings <i>Marilyn R. Lennon, Lynne Baillie, Jettie Hoonhout, Judy Robertson, Geraldine Fitzpatrick</i>	314	W23	Exploring the Challenges of Making Data Physical <i>Jason Alexander, Yvonne Jansen, Kasper Hornbæk, Johan Kildal, Abhijit Karnik</i>	321
W08	Designing for Sharing in Local Communities <i>Lone Malmberg, Ann Light, Geraldine Fitzpatrick, Victoria Bellotti, Margot Brereton</i>	315	W24	Gamifying Research: Strategies, Opportunities, Challenges, Ethics <i>Sebastian Deterding, Seth Cooper, Alessandro Canossa, Lennart E. Nacke, Casper Hartevelt, Jennifer R. Whitson</i>	322
W09	Developing HCI Education Crossing Asia <i>Anind K. Dey, Yuanchun Shi, Feng Tian, Shiwei Cheng</i>	316	W25	How WEIRD is HCI? Extending HCI Principles to Other Countries and Cultures <i>Christian Sturm, Alice Oh, Sebastian Linxen, Jose Abdelnour Nocera, Susan M. Dray, Katharina Reinecke</i>	323
W10	Embarrassing Interactions <i>Sebastian Deterding, Andrés Lucero, Jussi Holopainen, Chulhong Min, Adrian Cheok, Annika Waern, Steffen Walz</i>	321	W26	Knowledge Production in Interaction Design <i>Kristina Höök, Peter Dalsgaard, Stuart Reeves, Jeffrey Bardzell, Jonas Löwgren, Erik Stolterman, Yvonne Rogers</i>	317A
W11	Ethical Encounters in HCI: Research in Sensitive Settings <i>Jenny Waycott, Hilary Davis, Anja Thieme, Stacy Branham, John Vines, Cosmin Munteanu</i>	324	W27	Leveraging and Integrating Eastern and Western Insights for Human Engagement Studies in HCI <i>Effie Lai-Chong Law, Chaklam Silpasuwanchai, Xiangshi Ren, Jeffrey Bardzell, Torkil Clemmensen, Yan Liu</i>	326
W12	Expanding the Boundaries: A SIGCHI HCI & Sustainability Workshop <i>Adrian K. Clear, Chris Preist, Somya Joshi, Lisa P. Nathan, Samuel Mann, Bonnie A. Nardi</i>	322	W28	Mobile Collocated Interactions: From Smartphones to Wearables <i>Andrés Lucero, James Clawson, Kent Lyons, Joel E. Fischer, Daniel Ashbrook, Simon Robinson</i>	317B
W13	Smart for Life: Designing Smart Home Technologies that Evolve with Users <i>Sarah Mennicken, Amy Hwang, Rayoung Yang, Jesse Hoey, Alex Mihailidis, Elaine M. Huang</i>	323	W29	Principles, Techniques and Perspectives on Optimization and HCI <i>Per Ola Kristensson, Xiaojun Bi, Andrew Howes, Antti Oulasvirta, Roderick Murray-Smith, Harold Thimbleby, John Williamson, Shumin Zhai</i>	324
W14	Text Entry on the Edge <i>James Clawson, Ahmed Sabbir Arif, Stephen Brewster, Mark Dunlop, Per Ola Kristensson, Antti Oulasvirta</i>	325	W30	Supporting Children to Engage in Play for Wellbeing <i>Kevin Marshall, Gavin Wood, Janet C. Read, Svetlana (Lana) Yarosh, Madeline Balaam, Jung-Joo Lee</i>	325
W15	What to Study in HCI? <i>Kasper Hornbæk, Antti Oulasvirta, Stuart Reeves, Susanne Bødker</i>	326			

## ASIAN CHI SYMPOSIA

CHI 2015 is offering a series of special symposia for topics pertinent to HCI communities across Asia. These symposia may contain content in English or in a regional language. Participants include both presenters and audience members. The symposia descriptions appear in the CHI 2015 Extended Abstracts.

	<b>Saturday 18 April – Sunday 19 April (2 days)</b>	<b>Room</b>
S01	Chinese CHI Symposium in CHI 2015 <i>Hao-Chuan Wang, Gary Hsieh, Xiaojun Bi, Henry Duh, Yihsiu Chen</i>	318AB
	<b>Sunday 19 April (1 day)</b>	<b>Room</b>
S02	ASEAN CHI Symposium: Crossing HCI for Development in Asia Pacific <i>Eunice Sari, Bimlesh Wadhwa, Adi Tedjasaputra, Masitah Ghazali, Anirudha N Joshi</i>	319
S03	Japanese CHI Symposium I: Emerging Japanese HCI Research Collection <i>Jun Kato, Hiromi Nakamura, Yuta Sugiura, Taku Hachisu, Daisuke Sakamoto, Koji Yatani, Yoshifumi Kitamura</i>	317B
S04	Japanese CHI Symposium: Japanese Culture and Kansei <i>Hisao Shiizuka, Masaaki Kurosu, Michiko Ohkura</i>	309

## VIDEO SHOWCASE

Video Showcase features engaging videos that offer a variety of perspectives on human-computer interaction, including novel interfaces, reflective pieces and future envisions. Come and enjoy the videos during Monday morning break followed by the Golden Mouse award ceremony.

<b>Monday</b>	<b>Room</b>
10:00 – 11:30 Video Showcase	401

### Videos

VS01	TagMe: An Easy-to-Use Toolkit for Turning the Personal Environment into an Extended Communications Interface <i>Judith Amores, Xavier Benavides, Pattie Maes</i>
VS02	Cyclops: Wearable and Single-Piece Full-Body Gesture Input Devices <i>Liwei Chan, Chi-Hao Hsieh, Yi-Ling Chen, Shuo Yang, Da-Yuan Huang, Rong-Hao Liang, Bing-Yu Chen</i>
VS03	TakeTwo: Using Google Glass for Augmented Memory <i>Scott W. Greenwald, Christian D. Vazquez, Pattie Maes</i>
VS04	MagCubes: Magnetically Driven Tangible Widgets for Children <i>Sungjae Hwang, Kwangyun Wohn</i>
VS05	Touch+: Expanding Touch Input Vocabulary using a Smartphone and a Smartwatch <i>Sungjae Hwang, Junghyeon Gim</i>
VS06	Contextual Drag: Context-based Dynamic Friction for Dragging Interaction <i>Sungjae Hwang, Junghyeon Gim, Junwoo Yoo, Andrea Bianchi</i>
VS07	The Smart Steering Wheel Cover: Motivating Safe and Efficient Driving <i>Eleonora Ibragimova, Nick Mueller, Arnold Vermeeren, Peter Vink</i>
VS08	G-raff: An Elevating Tangible Block for Spatial Tabletop Interaction <i>Chang Min Kim, Tek-Jin Nam</i>
VS09	Remnance of Form: Interactive Narratives with Augmented Shadows <i>Sang-won Leigh, Asta Roseway, Ann Paradiso</i>
VS10	Proprioceptive Interaction <i>Pedro Lopes, Alexandra Ion, Willi M Daniel Hoffmann, Patrik Jonell, Patrick Baudisch</i>
VS11	A Dose of Reality: Overcoming Usability Challenges in VR Head-Mounted Displays <i>Mark McGill, Daniel Boland, Roderick Murray-Smith, Stephen A Brewster</i>
VS12	"Hello World": A Digital Quandary And The Apotheosis Of The Human <i>Kyle Overton</i>
VS13	Bendi: Shape-Changing Mobile Device for a Tactile-Visual Phone Conversation <i>Young-Woo Park, Joohee Park, Tek-Jin Nam</i>
VS14	TRANSFORM as Adaptive and Dynamic Furniture <i>Luke Vink, Viirj Kan, Ken Nakagaki, Daniel Leithinger, Sean Follmer, Philipp Schoessler, Amit Zoran, Hiroshi Ishii</i>
VS15	Cutting Edge Vision: Metal Embedded Optics for Smart Knives <i>Amit Zoran, Nan-Wei Gong, Roy Shilkrot, Shuo Yan, Pattie Maes</i>

## ■ COURSES

Courses allow CHI attendees to extend their knowledge beyond their current community and their current areas of expertise. Courses are taught in one to three 80-minute units.

Pre-registration is required. The Course Notes you receive at registration serve as your entry ticket. You may register for courses that have not yet been filled at the Registration Desk in the lobby area on the ground level.

### Monday Courses, 20 April

	Room
C01 Designing Websites for Adults 55+: Toward Universal Design <i>Jeff A. Johnson</i>	317A
C02 Design and Adaptation for Cross-Device, Context-dependent User Interfaces <i>Fabio Paternò</i>	317BC
C04 Body, Whys & Videotape: Somatic Approaches to Experience in HCI <i>Thecla Schiphorst, Lian Loke</i>	318BC
C05 Design for Searching & Finding <i>Daniel M Russell, Jaime Teevan, Meredith Ringel Morris, Marti Hearst, Ed H. Chi</i>	317A
C06 Introduction to Human-Computer Interaction <i>Jonathan Lazar, Simone D. J. Barbosa</i>	317BC
C07 Actionable Inexpensive Games User Research <i>Lennart E. Nacke, Steve Engels, Pejman Mirza-Babaei</i>	E7
C08 Interaction Design for Online Video and Television <i>David Geerts, Pablo Cesar</i>	318BC

### Tuesday Courses, 21 April

	Room
C09 Designing and Assessing Interactive Systems Using Task Models <i>Philippe Palanque, Célia Martinie</i>	317A
C10 Learn to Sketch (Even if You Can't Draw): Hands-on Sketching Course <i>Stephanie Foehrenbach</i>	317BC
C11 Research Methods for Child Computer Interaction <i>Janet C. Read, Shuli Gilutz</i>	E7
C12 Practical UX Research Methodologies <i>Sarah E. Garcia</i>	318BC
C13 Methods for Human-Computer Interaction Research <i>Sandy J. J. Gould, Duncan P. Brumby, Anna L. Cox, Geraldine Fitzpatrick, Jettie Hoonhout, David Lamas, Effie Law</i>	317A
C14 Mobile Human-Computer Interaction <i>Niels Henze, Enrico Rukzio</i>	317BC
C15 HCI Lessons: From Earth to Outer Space... and Back <i>Guy André Boy, Jeffrey M Bradshaw, Soyeon Yi</i>	E7
C16 Sketching User Experiences: The Hands-on Course <i>Nicolai Marquardt, Saul Greenberg</i>	318BC

### Wednesday Courses, 22 April

	Room
C17 Introduction to Creating Musical Interfaces <i>Michael J. Lyons, Sidney S. Fels</i>	317A
C18 Speech-based Interaction: Myths, Challenges, and Opportunities <i>Cosmin Munteanu, Gerald Penn</i>	E7
C19 Designing Surveys for HCI Research <i>Hendrik Müller, Aaron Sedley</i>	318BC
C20 The Glass Class: Designing Wearable Interfaces <i>Mark Billinghurst, Dr. Thad Starner</i>	308ABC
C21 Using Experience Sampling Methodology to Collect Deep Data About Your Users <i>Kathy K. Baxter, Anna Avrech, Bob Evans</i>	317A
C22 Rapid Design Labs A Tool to Turbocharge Design-Led Innovation <i>Jim E. Nieters, Carola Fellenz Thompson</i>	E7
C23 Conceptual Models: Core to Good Design <i>Jeff A. Johnson</i>	318BC

### Thursday Courses, 23 April

	Room
C24 Vision-Driven: Beyond Tangible Bits, Towards Radical Atoms <i>Hiroshi Ishii, Daniel Leithinger, Sean Follmer, Lining Yao, Jifei Ou</i>	317BC
C25 Interaction Design for Reading Devices and Apps <i>Jennifer Pearson, Simon Robinson</i>	E7
C26 Introduction to Positive Computing Technology That Fosters Wellbeing <i>Rafael A. Calvo, Dorian Peters</i>	318BC
C27 Designing with the Mind in Mind: The Psychological Basis for UI Design Guidelines <i>Jeff A. Johnson</i>	317BC
C28 How You Could Benefit from Using ISO Standards <i>Nigel Bevan</i>	E7

## ■ DOCTORAL CONSORTIUM

Selected doctoral students present and explore their research topics with senior researchers and other students in a two-day interdisciplinary workshop. Doctoral Consortium posters are displayed in Exhibit Hall E and brief descriptions appear in the CHI 2015 Extended Abstracts.

### Saturday – Sunday

Doctoral Consortium (Room 308AB)

### Tuesday

10:50 – 11:30 Meet the poster authors (Hall C2/C3)

### Tuesday – Thursday

Posters on display during opening hours (Hall C2/C3)

### Doctoral Consortium Faculty

Gregory Abowd, *Georgia Tech*  
 Mark Blythe, *Northumbria University*  
 Susan Fussell (Co-Chair), *Cornell University*  
 Darren Gergle, *Northwestern University*  
 Jim Hollan, *University of California, San Diego*  
 S.J. Kim (Co-Chair), *University of Nevada, Las Vegas*  
 Alice Oh, *KAIST*  
 Jaime Teevan (Co-Chair), *Microsoft Research*

### Participants

- DC01 Transmigrant Saudi Arabian Youth and Social Media: Privacy, Intimacy and Freedom of Expression  
*Norah Abokhodair*
- DC02 Apps with Habits: Adaptive Interfaces for News Apps  
*Marios Constantinides*
- DC03 Technology at Mealtime: Beyond the Ordinary  
*Hasan Shahid Ferdous*
- DC04 Aligning the Social Interaction Spaces of Intergenerational Family Members  
*Francisco J. Gutierrez*
- DC05 Social Equity and Ecological Sustainability in HCI: An Ecofeminist Perspective  
*Gopinaath Kannabiran*
- DC06 Engage People in Pro-Environmental Behaviors through Online Prosocial Interaction and Pro-Health Intervention  
*Pei-Yi Kuo*
- DC07 Practical Sensory Substitution In Real and Virtual Worlds: Development, Accessibility And Neuroscience  
*Shachar Maidenbaum*
- DC08 Designing Self-care Technologies for Everyday Life: A Practice Approach  
*Francisco Nunes*
- DC09 Scalable Webcam Eye Tracking by Learning from User Interactions  
*Alexandra Papoutsaki*
- DC10 Casual Interaction: Scaling Interaction for Multiple Levels of Engagement  
*Henning Pohl*
- DC11 Addressing Obsolescence of Consumer Electronics through Sustainable Interaction Design  
*Christian Remy*
- DC12 Support Environment for Co-designing Micro Tasks in Suburban Communities  
*Tomoyo Sasao*
- DC13 Whole Body Interaction with Public Displays  
*Robert Walter*
- DC14 Enhancing User Experience to Design Enjoyable Exhibition Events  
*Nan Wang*
- DC15 Designing with Emerging Publics: The Case of Physician-Assisted Suicide  
*Daisy Yoo*
- DC16 Retention in MOOCs: Understanding Users Motivations, Perceptions and Activity Trajectories  
*Saijing Zheng*

## ■ STUDENT RESEARCH COMPETITION

The Student Research Competition (SRC) is a forum for undergraduate and graduate students to showcase their research, exchange ideas, and improve their communication skills while competing for prizes. Sponsored by Microsoft Research, the SRC is a branch of the ACM SRC. Winners are announced at the Closing Plenary.

### Tuesday

15:50 – 16:30 Posters highlighted during the afternoon break (Hall C2/C3)

### Wednesday

11:30 – 12:50 Posters presentations open to all conference attendees (Room 317BC)

### Jury

Thad Starner, *Georgia Institute of Technology, USA*  
 John Tang, *Microsoft Research, USA*  
 Xiangshi Ren, *Kochi University of Technology, Japan*  
 Regan Mandryk, *University of Saskatchewan, Canada*  
 Tilde Bekker, *Eindhoven University of Technology, The Netherlands*

### Finalists

- SRC01 GAZE: Using Mobile Devices to Promote Discovery and Data Collection  
*Zachary Allen*
- SRC02 Blowatch: Blowable and Hands-free Interaction for Smartwatches  
*Wei-Hung Chen*
- SRC03 Cyrafour: How Two Human Avatars Communicate With Each Other  
*Enrique Encinas*
- SRC04 Realism in Interactive Tutors  
*Nicholas Hynes*
- SRC05 Libero: On-the-go Crowdsourcing for Package Delivery  
*Yongsung Kim*
- SRC06 Can Specialised Electronic Musical Instruments Aid Stroke Rehabilitation?  
*Pedro Kirk*
- SRC07 QuizCram: A Question-Driven Video Studying Interface  
*Geza Kovacs*
- SRC08 Challenges for Wearable Camera: Understanding of the Meaning behind Photo-taking  
*Ahreum Lee*
- SRC09 Pull-To-Refresh and Learn: Leveraging Mobile Email Load Time for Education  
*Anji Ren*
- SRC10 Assessing the Supportiveness of Gift Emoticons in Care Scenarios  
*Kirsten A. Smith*

## ■ STUDENT DESIGN COMPETITION

This is the 13th year of the CHI Student Design Competition. The Student Design Competition continues to grow each year with increased international representation. The competition always draws a large audience at CHI and has also become a major recruiting opportunity for identifying talented students. The CHI 2015's theme is "crossings" which focuses on crossing the boundaries for meaningful new creations and possibilities. In this year's Student Design Competition, we adapt this theme of "crossings" and open up the opportunities for students in the areas of HCI and Design from all over the world to show their visions and competence on enabling people from different cultures to be connected and to be heard and appreciated. In the last few years, smart devices have become more or less standardized in their physical and graphical forms. While new groups of users are constantly emerging, quite a few people still stay away from the benefits of technology. The theme of this year's Student Design Competition is "Appropriating Technologies for New Cultures". We have 10 finalist student teams who have succeeded to proceed the competition at CHI 2015 out of 69 submissions from 11 different countries.

### Monday

10:00 – 11:30 Judging (Closed Jury session) (Room 327ABC)

### Tuesday

15:50 – 16:30 Meet the poster authors (Hall C2/C3)

### Wednesday

14:30 – 15:50 Open Finalist presentations (Room 317BC)

### Tuesday-Thursday

Posters on display during opening hours (Hall C2/C3)

### Jury

Zhiyong Fu, *Tsinghua University, China*  
 Elisa Giaccardi, *TU Delft, Netherlands*  
 Jung-Joo Lee, *National University of Singapore, Singapore*  
 Will Odom, *Simon Fraser University, Canada*

### Finalists

- SDC02 Am I Native Enough? Exploring American Indian Identity Through Language Learning  
*Jumana Almahmoud, Mallory Anderson, Abhishek Dewan, Sofia Gutierrez, Ram Kumarasubramanian*
- SDC03 Lantern: Empowering Refugees Through Community-Generated Guidance Using Near Field Communication  
*Jennifer Baranoff, R. Israel Gonzales, Jay Liu, Heidi Yang, Jimin Zheng*
- SDC05 FamCom: a Communication Service Enhancing Conversation Quality Between Elders Residing in Care Hospital and Their Family Member  
*Mingu Kang, Taewan Kim, Youngjae Kim, Junghwan Ahn*
- SDC06 BlindNavi: A Navigation App for the Visually Impaired Smartphone User  
*Yi-Ying Lin, Hsuan-Eng Chen, Chien-Hsing Chen, I-Fang Wang*
- SDC07 inSight: Kick-Starting Communications for Elderlies Ageing In Place  
*Zhide Loh, Edmund Zhang, Lim ZhiYing*
- SDC08 Sleepstellar: A Safety Kit and Digital Storyteller for Sleepwalkers  
*Jashanjit Kaur, Nehal Molasaria, Niyati Gupta, Shengjie Zhang, Wei Wang*
- SDC09 Bikon: Warm-Hearted Movements  
*Yunmo Park, Hoejoon Lee, Gu Lee, Myeongguk Cho, Soyoung Kim*
- SDC10 CityMockUp Co-Creating the Urban Space  
*Jonas Frich Pedersen, Marie Louise Juul Sgaard*
- SDC11 Enabling Context for Traditional Chinese Paintings with "Rice Paper"  
*Harihara Subramonyam, Yuncheng Shen, Samantha Lauren Jones*
- SDC12 GoodGuide: Reconnecting The Homeless and Others  
*Chien-Chun Wu, Shih-Min Hong, Yu-Han Huang*

## ■ STUDENT GAME COMPETITION

The Games and Entertainment Special Community created this competition to showcase student work in areas of game design and development that connect strongly to the CHI community of research and practice. Students submitted games as well as extended abstracts clarifying innovative aspects of their work. The jury selected three finalist games in each category—Games for a Purpose, Innovative Interface and Innovative Game Design. Winners are announced at the Closing Plenary.

CHI attendees can play the games on Monday morning in Hall E Foyer. The SGC winners are announced at the Closing Plenary.

**Games for a Purpose:** Games submitted to this category are designed not just to entertain, but also to accomplish some end goal. Examples include games for health, learning games, journalistic games.

**Innovative Interface:** Games submitted to this category push the boundaries of current interface practice. Examples include the use of gesture, multi-touch, or haptics; voice input; use of sensors such as breathing or heart rate; and augmented reality games for mobile platforms.

**Innovative Game Design:** Games submitted to this category push the boundaries of current game mechanics and/or design. Examples include games that add novel mechanics that have not been used before, add new visual or audio themes/dynamics, explore new mixes of mechanics, story and character elements, automated techniques for adaptive designs, or explore new forms of interaction that are thought provoking.

### Wednesday

16:30 – 17:50 Presentations and awards (Room 317BC)

### Jury

Casper Hartevelde, *Northeastern University*  
 Seth Cooper, *Northeastern University*  
 Peter Lee, *Nolgong*  
 Sebastian Deterding, *Northeastern University*

### Finalists

- SGC01 Keyewai: Looking at Cooperation in a Holographic Projection Screen  
*Paulo Bala, Lucilia Nóbrega, Guilherme Neves, Laís Lopes, Joana Morna, Cristina Freitas, João Camacho*
- SGC02 Fighting Gulliver: An Experiment with Cross-Platform Players Fighting a Body-Controlled Giant  
*Kuan-Ting Chou, Min-Chieh Hsiu, Chiuang Wang*
- SGC03 Crystallize: Simulating Language Immersion through Gameplay  
*Gabriel Culbertson*
- SGC04 TranSection: Hand-Based Interaction for Playing a Game within a Virtual Reality Game  
*Po-Wei Lee, Han-Yu Wang, Ying-Chao Tung, Jhe-Wei Lin, Andries Valstar*
- SGC05 Atomic: An Inclusive Game to Learn Concepts of Atoms and Elements  
*Sylvan Lobo*
- SGC06 Get Creative With Learning: Word Out! A Full Body Interactive Game  
*Felicia Clare Paul, Christabel Goh, Kelly Yap*
- SGC07 Jelly Polo: True Sport-Like Competition Using Small-Scale Exertion  
*Mike Sheinin, Carl Gutwin*
- SGC08 Towering Defense - An Augmented Reality Multi-Device Game  
*Paul Tolstoi, Andreas Dippon*
- SGC09 Purrfect Crime: Exploring Animal Computer Interaction through a Digital Game for Humans and Cats  
*Rui Trindade, Micaela Sousa, Cristina Hart, Roberto Rodrigues, Ndia Vieira, Joo Frana*

## WORKS IN PROGRESS

Authors are scheduled to stand by their posters during “meet the author” sessions indicated below. Please visit both rotations to see all of the exciting work being done and discuss new ideas with Poster authors. Authors present their posters during the morning and afternoon breaks.

The following poster collections are on display:

### First Rotation: Tuesday all day

Accessibility	10101 – 10106
AI and HCI	10201 – 10204
Augmented Reality	10301 – 10309
Children and Teens	10401 – 10404
Cognition in HCI	10501 – 10505
Communities	10601 – 10611
Displays	10701 – 10709
Gaming	10801 – 10809
Gesture and Multimodal Interactions	10901 – 10925
Healthcare and Wellbeing	11001 – 11013
Learning	11101 – 11106
Lifestyle	11201 – 11207
Mobile Interactions	11301 – 11312

### Second Rotation: Wednesday all day

Novel Interfaces and Interaction Techniques	20101 – 20126
Productivity and Awareness	20201 – 20206
Search and InfoViz	20301 – 20314
Social Computing	20401 – 20413
Trust, Privacy, and Emotions	20501 – 20515
Ubicomp, Robots, and Wearables	20601 – 20621
Users and UI Design	20701 – 20724

## FIRST ROTATION – TUESDAY 21 APRIL

### ACCESSIBILITY 10101 – 10106

- wip10101 Understanding Interactive Interface Design Requirements for the Visually Impaired  
*Joongsin Park, Beomtaek Jeong, Seungjai Jeon, Sehyung Han, Jundong Cho, JeongGil Ko*
- wip10102 DOWELL: Dwell-time Based Smartphone Control Solution for People with Upper Limb Disabilities  
*Hyunjin Ahn, Jaeseok Yoon, Gulji Chung, Kibum Kim, Jiyeon Ma, Hyunbin Choi, Donguk Jung, Joongseek Lee*
- wip10103 Touchology: Towards Interactive Plant Design for Children with Autism and Older Adults in Senior Housing  
*Jinsil Hwaryoung Seo, Annie Sungkajun, Jinkyoo Suh*
- wip10104 The Elders Preference for Skeuomorphism as App Icon Style  
*Minji Cho, Soyoung Kwon, Nooree Na, KunPyo Lee, Hyeon-Jeong Suk*
- wip10105 First Insights with a Vibrotactile Interface for Children with Multiple Disabilities  
*Cristina Manresa-Yee, Ann Morrison, Joan Jordi Muntaner*
- wip10106 TopoTiles: Storytelling in Care Homes with Topographic Tangibles  
*Peter Bennett, Heidi Hinder, Seana Kozar, Christopher Bowdler, Elaine Massung, Tim Cole, Helen Manchester, Kirsten Cater*

### AI AND HCI 10201 – 10204

- wip10201 Deploying AI Methods to Support Collaborative Writing: a Preliminary Investigation  
*Sebastian Gehrmann, Lauren Urke, Ofra Amir, Barbara J. Grosz*
- wip10202 Be Informed and Be Involved: Effects of Uncertainty and Correlation on User's Confidence in Decision Making  
*Jianlong Zhou, Constant Bridon, Fang Chen, Ahmad Khawaji, Yang Wang*
- wip10203 Effects of Agent Appearance on Customer Buying Motivations on Online Shopping Sites  
*Kazunori Terada, Jing Liang, Seiji Yamada*

- wip10204 Ethics and Social Responsibility: Case Study of a Journal Cover Design Under Fire  
*Arisa Ema, Hirotaka Osawa, Hiromitsu Hattori, Naonari Akiya*

### AUGMENTED REALITY 10301 – 10309

- wip10301 AfterMath: Visualizing Consequences of Actions through Augmented Reality  
*Sang-won Leigh, Pattie Maes*
- wip10302 Largibles: Large Tangible Interaction in Mobile Augmented Reality  
*Asier Marzo*
- wip10303 Parallel Web Browsing in Tangible Augmented Reality Environments  
*Mohammed AlSada, Tatsuo Nakajima*
- wip10304 User Defined Gestures for Augmented Virtual Mirrors: A Guessability Study  
*Gun Lee, Jonathan Wong, Hye Sun Park, Jin Sung Choi, Chang Joon Park, Mark Billingham*
- wip10305 OutsideMe: Augmenting Dancer's External Self-Image by Using A Mixed Reality System  
*Shuo Yan, Gangyi Ding, Zheng Guan, Ningxiao Sun, Hongsong Li, Longfei Zhang*
- wip10306 Development of an Inexpensive Augmented Reality (AR) Headset  
*Daniela De Angeli, Eamonn J. O'Neill*
- wip10307 Augmenting Affect from Speech with Generative Music  
*Gerhard Johann Hagerer, Michael Lux, Stefan Ehrlich, Gordon Cheng*
- wip10308 On the Spot Information in Augmented Reality for Teams in the Security Domain  
*Stephan Lukosch, Heide Lukosch, Dragos Dancu, Marina Cidota*
- wip10309 Augmenting Indirect Multi-Touch Interaction with 3D Hand Contours and Skeletons  
*Ilya Efanov, Joel Lanir*

### CHILDREN AND TEENS 10401 – 10404

- wip10401 GNomon: Enabling Dynamic One-Switch Games for Children with Severe Motor Disabilities  
*Sebastian Aced Lopez, Fulvio Corio, Luigi De Russis*
- wip10402 TanProStory: A Tangible Programming System for Children's Storytelling  
*Yunfeng Qi, Danli Wang, Lan Zhang, Yining Shi*
- wip10403 Kids in Fairytales: Experiential and Interactive Storytelling in Children's Libraries  
*Seokbin Kang, Youngwoon Lee, Suwoong Lee*
- wip10404 Supporting the Disney Method with an Interactive Feedback System  
*Sarah Tausch, Fabian Nußberger, Heinrich Hussmann*

### COGNITION IN HCI 10501 – 10505

- wip10501 CogniMouse: On Detecting Users' Task Completion Difficulty through Computer Mouse Interaction  
*Marios Belk, David Portugal, Eleni Christodoulou, George Samaras*
- wip10502 Interactive Mouse Stream as Real-Time Indicator of User's Cognitive Load  
*Syed Arshad, Yang Wang, Fang Chen*
- wip10503 Working Memory and the Detection of Different Error Types – Novel Predictions for Error Detection  
*Sze-yuen Yau, Simon Y.W. Li*
- wip10504 So, Who Exactly Is The HCI Professional?  
*Ann Austin, Jose Abdelnour Nocera*
- wip10505 Utilizing the Effects of Priming to Facilitate Text Comprehension  
*Katrin Angerbauer, Tilman Dingler, Dagmar Kern, Albrecht Schmidt*

## COMMUNITIES

10601 – 10611

- wip10601 **The Gauntlet: The Design of a Community Challenge Platform**  
*Daniel Hawkins, Clarissa Ishak, MaoYang Li, Jason Procyk, Carman Neustaedter, Serena Hillman*
- wip10602 **BeWell: A Sentiment Aggregator for Proactive Community Management**  
*Andreas Lindner, Margeret Hall, Claudia Niemeyer, Simon Caton*
- wip10603 **Testing in the Field: Voice Based Interaction for Citizen Reporting in Uganda**  
*Asreen Rostami, Valeriy Savinov, Louise Barkhuus*
- wip10604 **Bringing the Farmer Perspective to Agricultural Robots**  
*Fiona Redhead, Stephen Snow, Dhaval Vyas, Owen Bawden, Ray Russell, Tristan Perez, Margot Breerton*
- wip10605 **Passing On: Reader-Sourcing Gender Diversity in Wikipedia**  
*J. Nathan Matias, Sophie Diehl, Ethan Zuckerman*
- wip10606 **What Makes a Place More Familiar?: Implications of Geospatial Information Format and Content**  
*Myeong Lee, Luis S. Santos, Wei Zhao, Preeti Lakhole, Brian S. Butler*
- wip10607 **Perceived Risk and Self-Efficacy Regarding Internet Security in a Marginalized Community**  
*Eunjin Jung, Evelyn Y. Ho, Hyewon Chung, Mark Sinclair*
- wip10608 **Towards a Gender HCI Curriculum**  
*Samantha Breslin, Birmlesh Wadhwa*
- wip10609 **BudgetMap: Issue-Driven Navigation for a Government Budget**  
*Nam Wook Kim, Chang Won Lee, Jonghyuk Jung, Eun-Young Ko, Juha Kim, Jihee Kim*
- wip10610 **Every Little Helps: Understanding Donor Behavior in a Crowdfunding Platform for Non-profits**  
*Aejin Song, Hong-in Lee, Minsam Ko, Uichin Lee*
- wip10611 **Understanding the Needs of Pakistani Farmers and the Prospects of an ICT Intervention**  
*Omar Mubin, Joshua Tubb, Mauricio Novoa, Mustafa Naseem, Samia Razaq*

## DISPLAYS

10701 – 10709

- wip10701 **HoVerTable: Dual-sided Vertical Mid-air Images on Horizontal Tabletop Display**  
*Hanyuool Kim, Hiroki Yamamoto, Naoya Koizumi, Satoshi Maekawa, Takeshi Naemura*
- wip10702 **Shape Display Shader Language (SDSL): A New Programming Model for Shape Changing Displays**  
*Christian Weichel, John Hardy, Jason Alexander*
- wip10703 **StackTop: Hybrid Physical-Digital Stacking on Interactive Tabletops**  
*Jan Riemann, Mohammadreza Khalilbeigi, Niloofer Dezfuli, Max Mühlhäuser*
- wip10704 **The Tickler: A Compliant Wearable Tactile Display for Stroking and Tickling**  
*Espen Knoop, Jonathan Rossiter*
- wip10705 **Biogotchi! An Exploration of Plant-Based Information Displays**  
*Jacqueline T. Chien, François V. Guimbretière, Tauhidur Rahman, Geri Gay, Mark Matthews*
- wip10706 **Atypical Visual Display for Monitoring Multiple CCTV Feeds**  
*Serge Pelletier, Joel Suss, Francois Vachon, Sebastien Tremblay*
- wip10707 **Finding Satisfactory Transparency: An Empirical Study on Public Transparent Displays in a Shop Context**  
*Heesun Kim, Bo Kyung Huh, Seung Hyen Im, Hae Youn Joung, Gyu Hyun Kwon, Ji-Hyung Park*
- wip10708 **Enabling Human Micro-Presence through Small-Screen Head-up Display Devices**  
*Scott Greenwald, Mina Khan, Pattie Maes*
- wip10709 **A Concept for 3D Interaction on a Curved Touch Display**  
*Henri Palleis, Mirjam Mickisch, Heinrich Hussmann*

## GAMING

10801 – 10809

- wip10801 **Therapeutic Gaming in Context: Observing Game Use for Brain Injury Rehabilitation**  
*Jinghui Cheng, Cynthia Putnam*

- wip10802 **Toward Telemetry-driven Analytics for Understanding Players and their Avatars in Videogames**  
*Chong-U Lim, D. Fox Harrell*
- wip10803 **How to Measure the Game Experience? Analysis of the Factor Structure of Two Questionnaires**  
*Florian Brühlmann, Gian-Marco Schmid*
- wip10804 **Having Fun Over a Distance: Supporting Multiplayer Online Ball Passing Using Multiple Sets of Kinect**  
*Tiffany Y. Tang, Pinata Winoto, Relic Yongfu Wang*
- wip10805 **'It Was Sad But Still Good: Gratifications of Emotionally Moving Game Experiences**  
*Julia Ayumi Bopp, Elisa D. Mekler, Klaus Opwis*
- wip10806 **Designing Games with Procedural Content Generation – An Authorial Approach**  
*Rui Craveirinha, Licinio Roque*
- wip10807 **KidCraft: Co-Design within a Game Environment**  
*Greg Walsh, Craig Donahue, Emily E. Rhodes*
- wip10808 **Mind Reader: Designing for More Intimate Social Play in Video Games**  
*Ryan Courtney, Lori L. Scarlatos*
- wip10809 **Leaderboard Position Psychology: Counterfactual Thinking**  
*Emily Sun, Brooke Jones, Stefano Traca, Maarten W. Bos*

## GESTURE AND MULTIMODAL INTERACTIONS 10901 – 10925

- wip10901 **Cutting Edge Vision: Metal Embedded Optics for Smart Knives**  
*Amit Zoran, Nan-Wei Gong, Roy Shilkrot, Shuo Yan, Pattie Maes*
- wip10902 **Marionette: a Multi-Finger Tilt Feedback Device for Curvatures and Haptic Images Perception**  
*Diana Krusteva, Deepak Sahoo, Asier Marzo, Sriram Subramanian, David Coyle*
- wip10903 **Multi-finger AR Typing Interface for Mobile Devices Using High-Speed Hand Motion Recognition**  
*Masakazu Higuchi, Takashi Komuro*
- wip10904 **Single-Pixel Eye Tracking via Patterned Contact Lenses: Design and Evaluation in HCI Domain**  
*Ioannis Rigas, Oleg Komogortsev*
- wip10905 **StreetSauce: Taste Interaction and Empathy with Homeless People**  
*Marketa Dolejsova, Tereza Liszková*
- wip10906 **Shop-i: Gaze based Interaction in the Physical World for In-Store Social Shopping Experience**  
*Mirae Kim, Min Kyung Lee, Laura A. Dabbish*
- wip10907 **Pretty Pelvis: A Virtual Pet Application That Breaks Sedentary Time by Promoting Gestural Interaction**  
*Deedee A. Min, Yaejin Kim, Sung A. Jang, Keun Young Kim, Su-Eun Jung, Ji-Hyun Lee*
- wip10908 **User Eye Fatigue Detection via Eye Movement Behavior**  
*Evgeniy Abdulin, Oleg Komogortsev*
- wip10909 **Glance Awareness and Gaze Interaction in Smartwatches**  
*Deepak Akkil, Jari Kangas, Jussi Rantala, Poika Isokoski, Oleg Spakov, Roope Raisamo*
- wip10910 **Use of Sound to Provide Occluded Visual Information in Touch Gestural Interface**  
*BoYu Gao, HyungSeok Kim, Hasup Lee, Jooyoung Lee, Jee-In Kim*
- wip10911 **BESIDE: Body Experience and Sense of Immersion in Digital paleontological Environment**  
*Ryuichi Yoshida, Ryohei Egusa, Machi Saito, Miki Namatame, Masanori Sugimoto, Fusako Kusunoki, Etsuji Yamaguchi, Shigenori Inagaki, Yoshiaki Takeda, Hiroshi Mizoguchi*
- wip10912 **InTouch Tactile Tales: Haptic Feedback and Long-Distance Storytelling**  
*Elaine Massung, Victoria Bates, Sarah Dickins, James Torbett, James Holmes, Kirsten Cater*
- wip10913 **Transture: Continuing a Touch Gesture on a Small Screen into the Air**  
*Jaehyun Han, Sunggeun Ahn, Geehyuk Lee*

- wip10914 Express Driver's Emotion with Emoticons in Driving Contexts  
*Haechan Kim, KunPyo Lee*
- wip10915 Multimodal Frustration Detection on Smartphones  
*Esther Vasiete, Tom Yeh*
- wip10916 ViLimbs: Improving Phantom Limb Treatment Through Multisensory Feedback  
*Esteban Correa-Agudelo, Andres M Hernandez, Carlos Ferrin, Juan D Gomez*
- wip10917 An Open Catalog of Hand Gestures from Sci-Fi Movies  
*Lucas S Figueiredo, Mariana G.M. Pinheiro, Edvar X.C. Vilar Neto, Veronica Teichrieb*
- wip10918 Towards Extraction of Subjective Reading Incomprehension: Analysis of Eye Gaze Features  
*Ayano Okoso, Joachim Folz, Takumi Toyama, Marcus Liwicki, Kai Kunze, Koichi Kise*
- wip10919 Using Cr-Y Components to Detect Tongue Protrusion Gestures  
*Chris S. Crawford, Carmen Badea, Stephen W. Bailey, Juan E. Gilbert*
- wip10920 Towards Accurate Automatic Segmentation of IMU-Tracked Motion Gestures  
*Sven Kratz, Maribeth Back*
- wip10921 ShowMe: A Remote Collaboration System that Supports Immersive Gestural Communication  
*Judith Amores, Xavier Benavides, Pattie Maes*
- wip10922 A Crowdsourced Alternative to Eye-tracking for Visualization Understanding  
*Nam Wook Kim, Zoya Bylinskii, Michelle A. Borkin, Aude Oliva, Krzysztof Z. Gajos, Hanspeter Pfister*
- wip10923 Illusion of Surface Changes induced by Tactile and Visual Touch Feedback  
*Katrin Wolf, Timm Bäder*
- wip10924 3D Virtual Hand Selection with EMS and Vibration Feedback  
*Max Pfeiffer, Wolfgang Stuerzlinger*
- wip10925 Same-side Hand Interactions with Arm-placed Devices Using EMG  
*Frederic Kerber, Pascal Lessel, Antonio Krüger*

**HEALTHCARE AND WELLBEING****11001 – 11013**

- wip11001 Detecting and Characterizing Mental Health Related Self-Disclosure in Social Media  
*Sairam Balani, Munmun De Choudhury*
- wip11002 Designing a Music-controlled Running Application: A Sports Science and Psychological Perspective  
*Christine Bauer, Anna Kratschmar*
- wip11003 NLG-Based Moderator Response Generator to Support Mental Health  
*Mohammed Sazzad Hussain, Juchen Li, Rafael A. Calvo, Laura Ospina-Pinillos, Louise Ellis, Tracey Davenport, Ian Hickie*
- wip11004 EdiPulse: Supporting Physical Activity with Chocolate Printed Messages  
*Rohit Ashok Khot, Ryan Pennings, Florian 'Floyd' Mueller*
- wip11005 Using Accelerometer Data to Estimate Surface Incline and Its Walking App Potential  
*Ilyas Uyanik, Ashik Khatri, Dinesh Majeti, Muhsin Ugur, Dvijesh J. Shastri, Ioannis T. Pavlidis*
- wip11006 Forget Me Not: Connecting Palliative Patients and Their Loved Ones  
*Torben Wallbaum, Janko Timmermann, Wilko Heuten, Susanne Boll*
- wip11007 Exploring Motivations of Young Adults to Participate in Physical Activities  
*Tara Capel, Johanna Frederike Schnittert, Stephen Snow, Dhaval Vyas*
- wip11008 HIHeal: A Personalized Health App for Flu Tracking and Prevention  
*Na Li, Changkun Zhao, Eun Kyoung Choe, Frank Ritter*

- wip11009 Exploring Physical Activities in an Employer-Sponsored Health Program  
*Dhaval Vyas, Zachary Fitz-walter, Erica Mealy, Alessandro Soro, Jinglan Zhang, Margot Brereton*
- wip11010 Personal Counseling on Smart Phones For Smoking Cessation  
*Jeni Paay, Jesper Kjeldskov, Mikael B. Skov, Nirojan Srikandarajah, Umachanger Brinthaparan*
- wip11011 Design Self-Diagnosis Applications for Non-Patients  
*Jason Chen Zhao, Ngai-Man Cheung, Ricardo Sosa, Dawn Chin-Ing Koh*
- wip11012 Action Health Self-Efficacy Assessment Tool Development for Online Cancer Support Groups  
*Elisabeth Joyce*
- wip11013 Designing a Motivational Agent for Behavior Change in Physical Activity  
*Toshikazu Kanaoka, Bilge Mutlu*

**LEARNING****11101 – 11106**

- wip11101 Automatically Adjusting the Speed of E-Learning Videos  
*Sunghyun Song, Jeong-ki Hong, Ian Oakley, Jun Dong Cho, Andrea Bianchi*
- wip11102 Explanation Activities with a Pedagogical Agent in an Online Task  
*Yugo Hayashi*
- wip11103 FeedLearn: Using Facebook Feeds for Microlearning  
*Geza Kovacs*
- wip11104 Playful Sounds From The Classroom: What Can Designers of Digital Music Games Learn From Formal Educators?  
*Pleter Duysburgh, Karin Slegers, Karen Mouws, Marije Nouwen*
- wip11105 CourseMIRROR: Enhancing Large Classroom Instructor-Student Interactions via Mobile Interfaces and Natural Language Processing  
*Xiangmin Fan, Wencan Luo, Muhsin Menekse, Diane Litman, Jingtao Wang*
- wip11106 Designing Interactive Query Interfaces to Teach Database Systems in the Classroom  
*Lilong Jiang, Arnab Nandi*

**LIFESTYLE****11201 – 11207**

- wip11201 Supporting Energy Management as a Cooperative Amateur Activity  
*Hanna Hasselqvist, Cristian Bogdan, Mario Romero, Omar Shafqat*
- wip11202 HabitStar: An Interactive Ambient Lighting to Help Users Improve Habits  
*Jinsu Eun, Yeonjoo Lee, Joonhwan Lee, Joohyeon Lee, Woon Seong Lee, Zune Lee*
- wip11203 'Close the Loop' An iBeacon App to Foster Recycling Through Just-in-Time Feedback  
*Diego Casado-Mansilla, Derek Foster, Shaun Lawson, Pablo Garaizar, Diego López-de-Ipiña*
- wip11204 Promote Energy Conservation in Automatic Environment Control: A Comfort-Energy Trade-off Perspective  
*Pei-Luen Patrick Rau, Yun Gong, YiBo Dai, Chieh Cheng*
- wip11205 Travel Q: Questifying Micro Activities Using Travel Photos to Enhance Travel Experience  
*Yoojung Kim, Changhoon Oh, Taeyoung Lee, Donghun Lee, Joongseek Lee, Bongwon Suh*
- wip11206 Towards an Interactive Dance Visualization for Inspiring Coordination Between Dancers  
*Carla F. Griggio, Mario Romero, Germán Leiva*
- wip11207 'Electric City': Uncovering Social Dimensions and Values of Sharing Renewable Energy through Gaming  
*Abhigyan Singh, Hylke W. van Dijk, Bard O. Wartena, Natalia Romero Herrera, David Keyson*

**MOBILE INTERACTIONS****11301 – 11312**

- wip11301 Motorcycle Ride Care Using Android Phone  
*Bo-Han Chen, Sai-Keung Wong, Wei Che Chang*

- wip11302 The Heroes' Problems: Exploring the Potentials of Google Glass for Biohazard Handling Professionals  
*Jack Shen-Kuen Chang, Michael Henry, Russ Burtner, Oriana Love, Courtney Corley*
- wip11303 CrowdFound: A Mobile Crowdsourcing System to Find Lost Items On-the-Go  
*Emily Harburg, Yongsung Kim, Elizabeth Gerber, Haoqi Zhang*
- wip11304 Dwelling and Fleeting Encounters: Exploring Why People Use WeChat - A Mobile Instant Messenger  
*Yang Wang, Yao Li, Jian Tang*
- wip11305 Personal Photo Preservation for the Smartphone Generation  
*Maria K. Wolters, Elaine Niven, Mari Runardotter, Francesco Gallo, Heiko Maus, Robert H. Logie*
- wip11306 Projectagami: A Foldable Mobile Device with Shape Interactive Applications  
*Dominique Tan, Maciej Kumorek, Andres A. Garcia, Adam Mooney, Derek Bekoe*
- wip11307 Lock n' LoL: Mitigating Smartphone Disturbance in Co-located Social Interactions  
*Minsam Ko, Chayanin Wong, Sunmin Son, Euigon Jung, Uichin Lee, Seungwoo Choi, Sungho Jo, Min H. Kim*
- wip11308 Mobile System Design for Scratch Recognition  
*Jongjin Lee, Dae-ki Cho, Seokwoo Song, Seungho Kim, Eunji Im, John Kim*
- wip11309 Face Me! Head-Tracker Interface Evaluation on Mobile Devices  
*Maria Francesca Roig-Maimó, Javier Varona Gómez, Cristina Manresa-Yee*
- wip11310 TUIs in the Large: Using Paper Tangibles with Mobile Devices  
*Katrin Wolf, Stefan Schneegass, Niels Henze, Dominik Weber, Valentin Schwind, Pascal Knierim, Sven Mayer, Tilman Dingler, Yomna Abdelrahman, Thomas Kubizza, Markus Funk, Anja Mebus, Albrecht Schmidt*
- wip11311 Initiating Moderation in Problematic Smartphone Usage Patterns  
*Hancheol Park, Gahgene Gweon*
- wip11312 SocialKeyboard: Proofreading Everyday Writings in Mobile Phones  
*Jin-woo Lee, Joohyun Kim, Uichin Lee, Jae-Gil Lee*

## ■ SECOND ROTATION – WEDNESDAY 22 APRIL

### NOVEL INTERFACES AND INTERACTION TECHNIQUES

20101 – 20126

- wip20101 Palette: Enhancing E-Commerce Product Description by Leveraging Spectrophotometry to Represent Garment Color and Airiness  
*Shogo Yamashita, Adiyana Mujiyana*
- wip20102 Transporters: Vision & Touch Transitive Widgets for Capacitive Screens  
*Florian Heller, Simon Voelker, Chat Wacharamanotham, Jan Borchers*
- wip20103 Linked-Stick: Conveying a Physical Experience using a Shape-Shifting Stick  
*Ken Nakagaki, Chikara Inamura, Pasquale Totaro, Thariq Shihpar, Chantine Akikyama, Yin Shuang, Hiroshi Ishii*
- wip20104 Enhanced Depth Discrimination Using Dynamic Stereoscopic 3D Parameters  
*Arun Kulshreshtha, Joseph J. LaViola Jr.*
- wip20105 A Tabletop Projector-camera System for Remote and Nearby Pointing Operation  
*Shun Sekiguchi, Takashi Komuro*
- wip20106 AtmoSPHERE: Representing Space and Movement Using Sand Traces in an Interactive Zen Garden  
*Ruofei Du, Kent R. Wills, Max Potaszniak, Jon E. Froehlich*
- wip20107 Tilting the Tablet: The Effect of Tablet Tilt on Hand Occlusion  
*Emily B. Moore*
- wip20108 Flex-Beam: A Versatile Video Projection Interface for Digital Performance  
*Dae gun Jang, Yi-Kyung Kim, Seunghun Kim*
- wip20109 Effects of Sound Type on Recreating the Trajectory of a Moving Source  
*Graham Wilson, Stephen Brewster, Hector Caltenca, Charlotte Magnusson, Sara Finocchietti, Gabriel Baud-Bovy, Monica Gori*
- wip20110 HoverLink: Joint Interactions using Hover Sensing Capability  
*Takuro Kuribara, Buntarou Shizuki, Jiro Tanaka*
- wip20111 Sounds Like it Works: Music-based Navigation to Improve the Cleanroom Experience  
*Ilhan Aslan, Barbara Weixelbaumer, Bernhard Maurer, Daniela Wurhofer, Alexander Meschtscherjakov, Manfred Tscheligi*
- wip20112 Toward Designing a New Virtual Keyboard When All Finger Movements Are Known  
*Daewoong Choi, Hyeonjoong Cho, Joono Cheong*
- wip20113 Automatically Freezing Live Video for Annotation during Remote Collaboration  
*Seungwon Kim, Gun Lee, Sangtae Ha, Nobuchika Sakata, Mark Billinghurst*
- wip20114 Jorro Beat: Shower Tactile Stimulation Device in the Bathroom  
*Keisuke Hoshino, Masahiro Koge, Taku Hachisu, Ryo Kodama, Hiroyuki Kajimoto*
- wip20115 Beyond Command & Control: Sketching Embodied Interaction  
*Cumhur Erkut, Anu Rajala-Erkut*
- wip20116 The Cage: A 6-DoF Remote Control with Force Feedback for Advanced UAV Interaction  
*Charlie Anderson, Benji Barash, Charlie McNeill, Denis Ogun, Michael Wray, Jarrod Knibbe, Christopher H. Morris, Sue Ann Seah*
- wip20117 TellTale: Adding a Polygraph to Everyday Life  
*Thomas Charlesworth, Helena Ford, Luke Milton, Thomas Mortensson, James Pedlingham, Jarrod Knibbe, Sue Ann Seah*
- wip20118 SIGCHI: Magic Mirror - Embodied Interactions for the Quantified Self  
*Hariharan Subramonyam*
- wip20119 PicLight: User-Centered Lighting Control Interface for Residential Space  
*Jeongmin Lee, Kyungah Choi, Hyeon-Jeong Suk*
- wip20120 Embodied Technology: Unraveling Bodily Action with Normative Types  
*Laurens Boer, Robb Mitchell, Agnese Caglio, Andrés Lucero*
- wip20121 Evaluating Stereoscopic 3D for Automotive User Interfaces in a Real-World Driving Study  
*Nora Broy, Stefan Schneegass, Mengbing Guo, Florian Alt, Albrecht Schmidt*
- wip20122 Hover Cursor: Improving Touchscreen Acquisition Of Small Targets With Hover-enabled Pre-selection  
*Anna Ostberg, Nada Matic*
- wip20123 Delegation Impossible? - Towards Novel Interfaces for Camera Motion  
*Axel Hoels, Julie Wagner, Andreas Butz*
- wip20124 Director: A Remote Guidance Mechanism  
*Liam Betsworth, Matt Jones*
- wip20125 The Appropriation Paradox: Benefits and Burdens of Appropriating Collaboration Technologies  
*Sangseok You, Lionel P. Robert, Soo Young Rieh*
- wip20126 Beyond Binary Gestures: Exploring Documents using Touch Interfaces  
*Ziqi Huang, Juan Felipe Beltran, Azza Abouzied, Arnab Nandi*

### PRODUCTIVITY AND AWARENESS

20201 – 20206

- wip20201 The Do Not Disturb Challenge - A Day Without Notifications  
*Martin Pielot, Luz Rello*
- wip20202 Beyond "Geofencing": Specifying Location in Location-Based Reminder Applications  
*Yao Wang, Manuel A. Perez-Quinones*
- wip20203 Tipper: Contextual Tooltips that Provide Seniors with Clear, Reliable Help for Web Tasks  
*Saba Kawas, Yibo Dai, George Karalis, Chris Olsen*

- wip20204 Automatic Delivery Timing Control of Incoming Email based on User Interruptibility  
*Yasumasa Kobayashi, Takahiro Tanaka, Kazuaki Aoki, Kinya Fujita*
- wip20205 Task Lockouts Induce Crowdworkers to Switch to Other Activities  
*Sandy J.J. Gould, Anna L. Cox, Duncan P. Brumby*
- wip20206 Tag & Link: Supporting Regional and Relational Tagging in Images with Direct Annotation  
*Hsing-Lin Tsai, Cheng-Hsien Han, En-Hsin Wu, Chi-Lan Yang, Hao-Chuan Wang*

## SEARCH AND INFOVIZ

20301 – 20314

- wip20301 TaskAmbient: A Study in Personal Task Management Visualization  
*Sheriff Jolaoso, Manuel A. Perez-Quinones*
- wip20302 Usable Transparency with the DataTrack -- A Tool for Visualizing Data Disclosures  
*Julio Angulo, Simone Fischer-Hübner, Tobias Pulls, Erik Wästlund*
- wip20303 Towards a Novel Issue Tracking System for "Industry 4.0 Environments"  
*Pascal Lessel, Marc Müller, Antonio Krüger*
- wip20304 Bicentric Diagrams: Design of a Graph-Based Relational Set Visualization Technique  
*Hyunwoo Park, Rahul C. Basole*
- wip20305 Towards Text Search for Information Visualization Retrieval  
*Romain Vuillemot, Mali Akmanalp*
- wip20306 Exploring the Effect of Word-Scale Visualizations on Reading Behavior  
*Pascal Goffin, Wesley J. Willett, Anastasia Bezerianos, Petra Isenberg*
- wip20307 Ariadne's Thread - Interactive Navigation in a World of Networked Information  
*Rob Koopman, Shenghui Wang, Andrea Schamhorst, Gwenn Englebienne*
- wip20308 Design Implications of Casual Health Visualization on Tangible Displays  
*Sandy Claes, Jorgos Coenen, Karin Slegers, Andrew Vande Moere*
- wip20309 Using Space: Effect of Display Size on Users' Search Performance  
*Lars Lischke, Sven Mayer, Katrin Wolf, Niels Henze, Albrecht Schmidt, Svenja Leifert, Harald Reiterer*
- wip20310 Detecting and Visualizing Filter Bubbles in Google and Bing  
*Tawanna R. Dillahunt, Christopher A. Brooks, Samarth Gulati*
- wip20311 Understanding Requirements of Place in Local Search  
*Karen Church, Henriette Cramer*
- wip20313 Visual characteristics' inherent impact on people's strategic orientation  
*Therese Dries-Tönnies, Axel Platz, Michael Burmester, Magdalena Laib, Nathalie Blanc*
- wip20314 Quarry: Picking From Examples to Explore Big Data  
*Rhema Linder, Eunye Koh*

## SOCIAL COMPUTING

20401 – 20413

- wip20401 Generating Narratives from Personal Digital Data: Triptychs  
*Matthew P. Aylett, Elaine Farrow, Larissa Pschetz, Thomas Dickinson*
- wip20402 PicThru: a Mobile Application to Foster Creative Thinking with Pictures and Social Mechanics.  
*Oscar Ardaiz, Oleh Kudinov, Asier Marzo*
- wip20403 Ranking Designs and Users in Online Social Networks  
*Biplab Deka, Haizi Yu, Devin Ho, Zifeng Huang, Jerry O. Talton, Ranjitha Kumar*
- wip20404 The Price of the Priceless: Understanding Estimated Costs of Work in Friendsourcing  
*Joey Chiao-Yin Hsiao, Mei-Hua Pan, Hao-Chuan Wang, Jane Yung-Jen Hsu*
- wip20405 Exploring Embedded Haptics for Social Networking and Interactions  
*Ali Israr, Siyan Zhao, Oliver Schneider*
- wip20406 Using Socio-ecological Model to Inform the Design of Persuasive Applications  
*Hazwani Mohd Mohadis, Nazlena Mohamad Ali*

- wip20407 Understanding Perceived Social Support through Communication Time, Frequency, and Media Multiplexity  
*Donghee Yvette Wohn, Wei Peng*
- wip20408 From the Deposit to the Exhibit Floor: An Exploration on Giving Museum Objects Personality and Social Life  
*Mark T. Marshall, Nick Dulake, Daniela Petrelli, Hub Kockelkorn*
- wip20409 Collaborative Video Challenges: a Playful Concept of Proximity-Based Social Interaction  
*Susanna Paasovaara, Ekaterina Olshannikova, Thomas Olsson*
- wip20410 "I Like This Shirt": Exploring the Translation of Social Mechanisms in the Virtual World into Physical Experiences  
*Ladan Najafzadeh, Seokbin Kang, Jon E. Froehlich*
- wip20411 Frustrations with Pursuing Casual Encounters through Online Dating  
*Douglas Zytka, Sukeshini A. Grandhi, Quentin Jones*
- wip20412 Exploring Tag-based Like Networks  
*Kyungsik Han, Jin Yea Jang, Dongwon Lee*
- wip20413 A Taxonomy for Classifying Questions Asked in Social Question and Answering  
*Zhe Liu, Bernard J. Jansen*

## TRUST, PRIVACY, AND EMOTIONS

20501 – 20515

- wip20501 SmileTracker: Automatically and Unobtrusively Recording Smiles and their Context  
*Natasha Jaques, Weixuan 'Vincent' Chen, Rosalind Picard*
- wip20502 Laughin'Cam: Active Camera System To Induce Natural Smiles  
*Ryohei Fushimi, Shogo Fukushima, Takeshi Naemura*
- wip20503 Factors Related to Privacy Concerns and Protection Behaviors Regarding Behavioral Advertising  
*Donghee Yvette Wohn, Jacob Solomon, Dan Sarkar, Kami E. Vaniea*
- wip20504 Somebody Is Peeking! A Proximity and Privacy Aware Tablet Interface  
*Huiyuan Zhou, Vinicius Ferreira, Thamara Alves, Kirstie Hawkey, Derek Reilly*
- wip20505 A Study Relating Computational Textile Textural Expression to Emotion  
*Felecia Davis*
- wip20506 Lexical Representation of Emotions for High Functioning Autism (HFA) via Emotional Story Intervention using Smart Media  
*Min Kyeong Jeong, YoungTae Kim, Dongsun Yim, SeokJeong Yeon, Seokwoo Song, John Kim*
- wip20507 Using Galvanic Skin Response (GSR) to Measure Trust and Cognitive Load in the Text-Chat Environment  
*Ahmad Khawaji, Jianlong Zhou, Fang Chen, Nadine Marcus*
- wip20508 Emotion Evoked by Texture and Application to Emotional Communication  
*Yurika Ebe, Hiroyuki Umemuro*
- wip20509 Creating the Mood: Design for a Cognitive Meeting Room  
*Maryam Ashoori, Rachel K. E. Bellamy, Justin D. Weisz*
- wip20510 CoSense: Creating Shared Emotional Experiences  
*Sudhanshu S. D. P. Ayyagari, Kunal Gupta, Matt tait, Mark Billinghurst*
- wip20511 Self-Defining Memory Cues: Creative Expression and Emotional Meaning  
*Corina Sas, Scott Challioner, Christopher Clarke, Ross Wilson, Alina Coman, Sarah Clinch, Mike Harding, Nigel Davies*
- wip20512 Seamless And Always-on Security in a Bring-Your-Own-Application World  
*Paulo Hecht, Sidney Fels, Junia Anacleto*
- wip20513 Emotional Interaction and Notification of Flexible Handheld Devices  
*Jung Min Lee, So Yon Jeong, Da Young Ju*
- wip20514 Understanding User's Behavior for Developing Webtoon Rating System Based on Laugh Reaction Sensing through Smartphone  
*SungHyuk Yoon, Soyoung Kwon, KunPyo Lee*
- wip20515 Growth, Change & Decay: Plants & Interaction Possibilities  
*Cameron Steer, Simon Robinson, Matt Jones*

## UBICOMP, ROBOTS, AND WEARABLES

20601 – 20621

- wip20601 **ApplianceReader: A Wearable, Crowdsourced, Vision-based System to Make Appliances Accessible**  
*Anhong Guo, Xiang 'Anthony' Chen, Jeffrey P. Bigham*
- wip20602 **Ethnographic Design Research With Wearable Cameras**  
*Katja C. Thoring, Roland M Mueller, Petra Badke-Schaub*
- wip20603 **Listen to Your Footsteps: Wearable Device for Measuring Walking Quality**  
*Sungjae Hwang, Junghyeon Gim*
- wip20604 **EM Package: Augmenting Robotic Intimate Space Interaction Using EM Field Fluctuation Sensing**  
*Ryo Kodama, Hiroyuki Kajimoto*
- wip20605 **Understanding the Elders' Interaction with Smart Home in Korea**  
*Hyang Sook Kim, Hyo Chang Kim, Yong Gu Ji*
- wip20606 **Wearable Health Information: Effects of Comparative Feedback and Presentation Mode**  
*Hoyoun Cho, Hongsuk Yoon, Ki Joon Kim, Dong-Hee Shin*
- wip20607 **SuperVision: Spatial Control of Connected Objects in a Smart Home**  
*Sarthak Ghosh, Gilles Bailly, Robin Despouys, Eric Lecolinet, Rémi Sharrock*
- wip20608 **Interactive Radio: A New Platform for Calm Computing**  
*Matthew P. Aylett, Yolanda Vazquez-Alvarez, Lynne Baillie*
- wip20609 **WatchMe: A Novel Input Method Combining a Smartwatch and Bimanual Interaction**  
*Wouter Van Vlaenderen, Jens Brulmans, Jo Vermeulen, Johannes Schöning*
- wip20610 **Subgroup Formation in Teams Working with Robots**  
*Lionel P. Robert, Sangseok Yu*
- wip20611 **Exploring the Use of Google Glass in Wet Laboratories**  
*Grace Hu, Lily Chen, Johanna Okerlund, Orit Shaer*
- wip20612 **HomeRules: A Tangible End-User Programming Interface for Smart Homes**  
*Luigi De Russis, Fulvio Corno*
- wip20613 **Vi-Bros: Tactile Feedback for Indoor Navigation with a Smartphone and a Smartwatch**  
*Hyunchul Lim, Yoonkyong Cho, Wonjong Rhee, Bongwon Suh*
- wip20614 **SynKu: Exploring the Production of Sensory Objects**  
*Ankur Agrawal, Werni Hidayat, Aravind Ravi, Mark Stamnes, Meishen Yin, Daniela Rosner*
- wip20615 **CueSense: a Wearable Proximity-Aware Display Enhancing Encounters**  
*Pradthana Jarusriboonchai, Thomas Olsson, Vikas Prabhu, Kaisa Väänänen-Vainio-Mattila*
- wip20616 **Smartwatches: the Good, the Bad and the Ugly?**  
*Marta E. Cecchinato, Anna L. Cox, Jon Bird*
- wip20617 **Minimal Requirements Of Realism In Social Robots – Designing For Patients With Acquired Brain Injury**  
*Robert A. Paauwe, David V. Keyson, Johan F. Hoom, Elly A. Konijn*
- wip20618 **Exploring the Design of a Wearable Device to Turn Everyday Objects into Playful Experiences**  
*Judith Amores, Xavier Benavides, Roger Boldu, Pattie Maes*
- wip20619 **"It's Kind of Like an Extra Screen for My Phone": Understanding Everyday Uses of Consumer Smart Watches**  
*Steven Schirra, Frank R. Bentley*
- wip20620 **Design of a Smart TV Logging System Using Beacons and Smartphones**  
*Jehwan Seo, Daesik Kim, Bongwon Suh, Joongseok Lee*
- wip20621 **Connichiwa – A Framework for Cross-Device Web Applications**  
*Mario Schreiner, Roman Rädle, Hans-Christian Jetter, Harald Reiterer*
- wip20702 **Is Interpretation of Artificial Subtle Expressions Language-Independent?: Comparison among Japanese, German, Portuguese, and Mandarin Chinese**  
*Takanori Komatsu, Rui Prada, Kazuki Kobayashi, Seiji Yamada, Kotaro Funakoshi, Mikio Nakano*
- wip20703 **A Noticeboard in "Both Worlds Unsurprising Interfaces Supporting Easy Bi-Cultural Content Publication**  
*Alessandro Sora, Anita Lee Hong, Grace Shaw, Paul Roe, Margot Brereton*
- wip20704 **DinerRouge – Bringing Wealth and Income Inequality to the Table through a Provocative UX**  
*Adrian Holzer, Samuel Bendahan, Bruno Kocher, Boris Fritscher, Denis Gillet*
- wip20705 **Taking into Account User Appropriation and Development to Design Energy Consumption Feedback**  
*Myriam Frejus, Dominique Martini*
- wip20706 **Using Digital Watch Practices to Inform Smartwatch Design**  
*Kent Lyons*
- wip20707 **Real Time Detection and Intervention of Poorly Phrased Questions**  
*Igor A. Podgorny, Chris Gielow, Matthew Cannon, Todd Goodyear*
- wip20708 **A User Interface for Encoding Space Usage Rules Expressed in Natural Language**  
*Pavel Andreevich Samsonov, Johannes Schöning, Brent Hecht*
- wip20709 **SNAP: Sensor Aid Prototyping Tool for Designers**  
*Tony Kim, Sungjae Hwang, Junghyeon Gim*
- wip20710 **Video-Recording Your Life: User Perception and Experiences**  
*Daniel Buschek, Michael Spitzer, Florian Alt*
- wip20711 **Augmented Miniature Prototyping Toolkit for UX in Interactive Space**  
*Han-Jong Kim, Tek-Jin Nam*
- wip20712 **iHIP: Towards a User Centric Individual Human Interaction Proof Framework**  
*Christos Fidas, Heinrich Hussmann, Marios Belk, George Samaras*
- wip20713 **Personality Traits Predict Music Taxonomy Preferences**  
*Bruce Ferwerda, Emily Yang, Markus Schedl, Marko Tkalcic*
- wip20714 **Evaluating the Effects of Interface Feedback in MT-embedded Interactive Translation**  
*Hsing-Lin Tsai, Hao-Chuan Wang*
- wip20715 **Interaction Design Processes to Facilitate Changing Business Models in the Newspaper Industry: A Case Study of vk.se**  
*Thomas Mejtoft, Sara Mejtoft, Anna Palmér, Viktor Östin, Anna Viklund, Sofia Papworth, Mikaela Berg, Robert Johansson*
- wip20716 **Craft Consciousness: The Powerlessness of Traditional Embroidery**  
*Yu-Shin Wang, Yuan-Yao Hsu, Wei-Lin Chen, Han Chen, Rung-Huei Liang*
- wip20717 **Text Mining Emergent Human Behaviors for Interactive Systems**  
*Ethan Fast, Pranav Rajpurkar, Michael S. Bernstein*
- wip20718 **Fixing the Alignment: An exploration of Budgeting Practices in the Home**  
*Stephen Snow, Dhaval Vyas*
- wip20719 **Designing for User and Brand Experience via Company-wide Experience Goals**  
*Virpi Roto, Yichen Lu, Harri Nieminen, Erdem Tutal*
- wip20720 **Facets In HCI: Towards Understanding Eudaimonic UX – Preliminary Findings**  
*Livia J. Müller, Elisa D. Mekler, Klaus Opwis*
- wip20721 **Evaluation for Evaluation: Usability Work during Tendering Process**  
*Kimmo Tarkkanen, Ville Harkke*
- wip20722 **GiantSteps: Semi-Structured Conversations with Musicians**  
*Kristina Andersen, Florian Grote*
- wip20723 **Understanding Users' Creation of Behavior Change Plans with Theory-Based Support**  
*Jisoo Lee, Erin Walker, Winslow Burlison, Eric B. Hekler*
- wip20724 **Circuit Eraser: A Tool for Iterative Design with Conductive Ink**  
*Koya Narumi, Xinyang Shi, Steve Hodges, Yoshihiro Kawahara, Shinya Shimizu, Tohru Asami*

## USERS AND UI DESIGN

20701 – 20724

- wip20701 **Exploring the Potential for Cross Disciplinary Working with Archives and Records Management**  
*Jenny Bunn*

■ INTERACTIVITY

Interactivity offers hands-on demonstrations that let you see, hear and touch interactive visions of the future. They take the form of prototypes, demonstrations, artworks, design experiences and inspirational technologies. Interactivity offers an alternative to CHI's traditional text format to disseminate advances in the field. Interactivity promotes and provokes discussion about the role of technology by actively engaging attendees one-on-one.

Interactivity demonstrations are available from the Monday evening Conference Reception through the Thursday morning break. Presenters will be stationed at their exhibits throughout the Monday evening session and during coffee breaks on Tuesday, Wednesday and Thursday morning.

**Monday**

18:00 – 19:30 Grand opening

**Tuesday – Wednesday**

10:50 – 11:30 Presenters available during the morning break

15:50 – 16:30 Presenters available during the afternoon break

**Thursday**

10:50 – 11:30 Presenters available during the morning break

11:30 Interactivity closes

- i102 Wrist Compression Feedback by Pneumatic Actuation  
*Henning Pohl, Dennis Becke, Eugen Wagner, Maximilian Schrapel, Michael Rohs*
- i105 Harmonious Haptics: Enhanced Tactile Feedback Using a Mobile and a Wearable Device  
*Sungjae Hwang, John Song, Junghyeon Gim*
- i108 Low-Fidelity Fabrication: Speeding up Design Iteration of 3D Objects  
*Stefanie Mueller, Dustin Beyer, Tobias Mohr, Serafima Gurevich, Alexander Teibrich, Lisa Pfisterer, Kerstin Guenther, Johannes Frohnhofen, Hsiang-Ting Chen, Patrick Baudisch, Sangha Im, François V Guimbretière*
- i109 PaperPulse: An Integrated Approach to Fabricating Interactive Paper  
*Raf Ramakers, Kashyap Todi, Kris Luyten*
- i110 Level-Ups: Motorized Stilts that Simulate Stair Steps in Virtual Reality  
*Dominik Schmidt, Robert Kovacs, Vikram Mehta, Udayan Umaphathi, Sven Köhler, Lung-Pan Cheng, Patrick Baudisch*
- i115 Designing Engaging Data in Communities  
*Tim Regan, David Sweeney, John Helmes, Vasillis Vlachokyriakos, Siân Lindley, Alex Taylor*
- i116 The EmotiveModeler: An Emotive Form Design CAD Tool  
*Philippa Mothersill, V. Michael Bove Jr.*
- i117 Remnant of Form: Interactive Narratives through Unexpected Behaviors of a Shadow  
*Sang-won Leigh, Asta Roseway, Ann Paradiso, Pattie Maes*
- i123 Wearable Devices for Enhancing Communications and Activities between the Blind and Ordinary People through a Waltz  
*Yoonji Song, Jiye Kim*
- i124 EdiPulse: Turning Physical Activity Into Chocolates  
*Rohit Ashok Khot, Ryan Pennings, Florian 'Floyd' Mueller*
- i128 ListenTree: Audio-Haptic Display In The Natural Environment  
*Edwina Portocarrero, Gershon Dublon, Joseph Paradiso, V. Michael Bove Jr.*
- i131 Know Yourself: Self-portrait with Emotion Expressed in the EEG Data  
*Hyo-jin Kim, Su-yeon Kim*
- i132 Researcher: A Reading Application Helping the Flow of Research in Tablet and Mobile Phone  
*Minjeong Kang, Juhyun Eune*
- i138 BandSense: Pressure-sensitive Multi-touch Interaction on a Wristband  
*Youngseok Ahn, Sungjae Hwang, Hyungook Yoon, Jung-hee Ryu*

- i139 Wearable Solution for Industrial Maintenance  
*Sam Zheng, Patrik Matos, Cedric Foucault, Siddharth Dasari, Meng Yuan, Stuart Goose*
- i143 Development of Realistic Digital Expression of Human Avatars through Pupillary Responses based on Heart Rate  
*Myoung Ju Won, Sangin Park, SungTeac Hwang, Mincheol Whang*
- i144 Waving Authentication: Your Smartphone Authenticate You on Motion Gesture  
*Feng Hong, Meiyu Wei, Shujuan You, Yuan Feng, Zhongwen Guo*
- i145 Data Transmission Method for Mobile Phone Using Groove Scan Code  
*Junbong Song, Hyunwoo Bang*
- i147 NOISA: A Novel Intelligent System Facilitating Smart Interaction  
*Koray Tahiroğlu, Thomas Svedström, Valtteri Wikström*
- i148 Multi-Player Gaming on Spherical Displays  
*Julie R. Williamson, John Williamson, Daniel Sundén, Jay Bradley*
- i149 Sustainable Transport System: A Wheel Based Interactive Information Installation  
*Geon Dong Kim, Juhyun Eune*
- i150 Smart Eyewear for Interaction and Activity Recognition  
*Shoya Ishimaru, Kai Kunze, Katsuma Tanaka, Yuji Uema, Koichi Kise, Masahiko Inami*
- i151 Datawear: Self-reflection on the Go or How to Ethically Use Wearable Cameras for Research  
*Anya Skatova, Victoria E. Shipp, Lee Spacagna, Benjamin Bedwell, Ahmad Beltagui, Tom Rodden*
- i152 TESSA - Toolkit for Experimentation with Multimodal Sensory Substitution and Augmentation  
*Carlos Sainz Martinez, Faustina Hwang*
- i154 WoBo: Multisensorial Travels Through Oculus Rift  
*Stefano Fibbi, Fabio Sorrentino, Lucio Davide Spano, Riccardo Scateni*
- i155 Canvas Dance: An Interactive Dance Visualization for Large-Group Interaction  
*Carla F. Griggio, Mario Romero*
- i158 Nebula: An Interactive Garment Designed for Functional Aesthetics  
*Ludvig Elblaus, Vasiliki Tsaknaki, Vincent Lewandowski, Roberto Bresin*
- i159 Digiti Sonus v2: New Interface for Fingerprint Data Sonification using Hand Motion  
*Yoon Chung Han, Byeong-jun Han*
- i164 The Art.CHI Gallery: An Embodied Iterative Curation Experience  
*Nic Lupfer, Bill Hamilton, Andrew Webb, Rhema Linder, Ernest Edmonds, Android Kerne*
- i165 Filteredyping: A Dwell-Free Eye Typing Technique  
*Diogo Pedrosa, Maria da Graça Pimentel, Khai N. Truong*
- i166 VoroGraph: Visualization Tools for Epidemic Analysis  
*Cody Dunne, Michael Muller, Nicola Perra, Mauro Martino*
- i167 살림 ("Salm", "To Live"): Gaze Reactive Typography Inspired by Ahn Sang-Soo  
*Monchu Chen, Bongkeum Jeong, Yoram I. Chisik*
- i170 "KIST Smart Wall" and its Media Art Application: The Scenery Series  
*Joong Ho Lee, Hyun Jhin Lee, Sanghwa Hong, Chungyo Ha, Ji-Hyung Park*
- i171 Comfort Zone  
*Todd Holoubek*
- i172 Psychophysics Machines  
*Adam Donovan*
- i173 Big Screen: mood.cloud  
*Younghui Kim, Geri Gay, Lindsay Reynolds, Hyuns Hong*
- i174 RGB Color Bits  
*Sanghwa Hong*
- i175 Visual Liquidizer or Virtual Merge  
*Tatsuo Unemi, Daniel Bisig*

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**Samsung** 1, 2 & 3  
Design and software are the critical types of soft power that will lead future businesses. In light of this, Samsung Electronics operates talent-fostering programs called the Samsung Design Membership and the Samsung Software Membership. These programs help aspiring students pursue their creative interests through academic-industrial cooperation and many other research activities. Come and visit us.

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**Golfzon** 17  
We're presenting golf in a way never seen before. Golfzon's product combine the best of golf and IT to offer new levels of fun and unforgettable experiences. Our golf simulators utilize numerous innovative technologies such as sensors, networks, and 3D vision to provide an immersive and enjoyable experience to improving your golf game. Our goal is to establish a new golf culture to share with customers and build global relationships not only in the golf industry but also in even other industries. We are recruiting, so please visit our booth and recruiting board.

**Google** 21 & 22  
Google's mission is to organize the world's information, making it universally accessible and useful. Every day, we bring our spirit of innovation and entrepreneurship to work. Come by our booth, meet our engineers and researchers, demo some new products and learn about some of the great opportunities we have at Google.

**SK Planet** 23  
Based on its open platform, SK Planet creates values in diverse business areas. Shop kick is a mobile shopping companion that delights customers with rewards and promotions to drive foot traffic for retailers, and build in-store engagement for brands. Syrup's Mall Guide is a mobile guide that informs and delivers benefits through BLE to support customers to have an enjoyable shopping experience.

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**■ CONTRIBUTING SPONSOR EXHIBITORS**

**Facebook** 16  
We want to understand the world. Why? Because we believe that's the only way to move toward a world that's more open and connected, which is our mission. From studying the impact of technology on society, to building systems that can connect billions of people, Research at Facebook is focused on solving some of the hardest global and engineering challenges of our time. Stop by to learn more.

**FuturePlay** 6  
FuturePlay is a company-building company, strongly focused in creating tech-centric startups. By combining incubator, accelerator and investor, we have created a sanctuary for you to find necessary elements to launch and grow your tech into a successful business. Join our Inventor Program to receive hands-on support along with work space, salary, biz consultation, and even seed-funding.

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**■ ADDITIONAL EXHIBITORS**

**Apropose** 9  
Spun out of the Stanford computer science department in 2013, Apropose brings data to the design process. Our analytics platform helps designers search, aggregate, and operationalize design data from the millions of sites on the Web. Apropose empowers designers to make better design decisions, more quickly, with greater confidence.

**CHI Information Desk** 18  
The CHI Info Booth in the exhibit hall is staffed by Student Volunteers. The Info Booth can help with directions, room location, and schedule questions. It is also the place you may bring your resume with a completed CHI 2015 cover sheet if you respond to a job position posted on a recruiting board.

See the map on page 65 for the location of each booth

**Elsevier** 7  
Elsevier will be presenting key titles across Human-Computer Interaction. Please stop by and visit the booth, meet the publishers and editors in person, and take the opportunity to ask any questions you may have about submitting research to our journals. In addition, learn more about our author services, open access options and content innovation. Visit: [www.elsevier.com/computerscience](http://www.elsevier.com/computerscience).

**EyeTracking, Inc.** 26  
EyeTracking, Inc. is the leading provider of eye tracking services, software and expertise. For over a decade we have been at the forefront of innovation in virtually every area of visual behavior and cognitive workload research. Visit our booth to learn about our software: EyeWorks for eye tracking, Quad Server for physiological sensor integration, Workload RT for cognitive workload measurement.

**IUEditor** 10  
IUEditor is a world top class web editor, which realized the concept of visual language in life. It can embody HTML, CSS, Javascript without any coding. Moreover, It supports Python, Wordpress of Backend, and is able to synchronize with cloud server like Heroku. Plus, you can convert to website for mobile, tablet by just one click. All of these will be supported by gorgeous GUI.

**John Wiley & Sons** 24  
Wiley is a global provider of knowledge and knowledge-enabled services that improve outcomes in areas of research, professional practice, and education, with online tools, journals, books, databases, reference works and laboratory protocols. With strengths in every major academic, scientific and professional field, we partners with over 800 prestigious societies representing two million members.

**Letsee** 31  
Letsee's web-based augmented reality (AR) technology lets users augment existing web contents with objects and places around us. Our unique AR content structure enables users to augment contents instantly with real-time interaction with other users. With our platform, anyone can contribute their own contents creating a healthy ecosystem filled with user-created digital assets.

**Morgan & Claypool Publishers** 20  
Morgan & Claypool publishes the Synthesis digital library, including the HCI series edited by Jack Carroll and the Assistive Technology Series edited by Ron Baecker.

**NEOFECT** 14  
NEOFECT has dreamed of being a leading company in rehabilitation market. We hope that our products can help a lot of patients recover their lost abilities and improve the quality of life.

**Neo smartpen N2** 32  
The Neo smartpen N2 is a small and stylish digital pen that also has an ordinary ballpoint pen tip. With the N2 smartpen, users can write on paper that contains microscopic patterns. Whatever has been written is digitized and sent to a digital device, where it then can be easily organized and shared.

**Nexon Computer Museum** 4 & 5  
Located in Jeju, Nexon Computer Museum is the first permanent museum in East Asia dedicated to the history of computer and video games. Currently the museum archives 6,300 computers, applications, game consoles and other historically important digital inventions to preserve the history of computers that drastically changed human life. The museum also offers interactive experiences to visitors.

## ■ ADDITIONAL EXHIBITORS (CONTINUED)

### now publishers 33

now publishers publishes high quality reference, research and review journals in business and technology. The Foundations and Trends journals publish state-of-the-art review articles written by leading researchers in the field. Visit our booth to meet the publisher, James Finlay. Our new editor-in-chief, Desney Tan, will also be available.

### Oxford University Press 15

Oxford University Press is pleased to publish *Interacting with Computers* on behalf of BCS, The Chartered Institute for IT and Interaction, a specialist group from BCS. Visit the Oxford University Press stand for free journal copies and discounted books! For more information visit [www.iwc.oxfordjournals.org](http://www.iwc.oxfordjournals.org) and look at our related books at <http://www.oup.com>.

### Samsung SDS, CX Team 11

Samsung SDS believes smart technology can make the world happier. We are growing to be a global ICT company with a competitive edge offering diverse ICT services including manufacturing IT, office IT, medical IT and so on. We innovate our customers' experiences to provide them new business opportunities. Come see how our CX experts create smarter future and start the innovation here.

### SAP 34 & 35

SAP helps companies of all sizes run better. With over 282,000 customers in 190 countries, over 74% of the world's transactions touch SAP systems. Come see how our UX professionals are changing the way our customers do business. Looking to join our SAP family? Bring your resume and talk to our team about positions available in Korea and through SAP.

### Smart Eye 19

SMART EYE provides ROBUST 3D Binocular Eye Tracking systems for research in applications such as multiple screens, long range or measurements on tablets or single screens. The systems provide a person's 3D information on gaze direction, head position and angles, eyelid opening, pupil size and many more - in real time! Welcome to our booth to find out more about our solutions!

### Seoul Tourism Organization (STO) 27 & 28

Stop by the STO booth to learn more about the fascinating city of Seoul. At the booth, you may also send a postcard home and dress up in traditional Korean clothing for a picture.

### Springer 12 & 13

Springer is the publisher of the Human-Computer Interaction Series and many cutting-edge HCI journals. Visit our booth to explore our wide range of publications & Open Access portfolio, including the just published book by CHI co-Chair, Jinwoo Kim - *Design for Experience*. Get 20% discount, and don't miss the chance to discuss any writing plans you may have with Beverley Ford & Helen Desmond.

### Tobii Pro 25

Tobii Pro, being a world leader in eye tracking products and services, helps business and science professionals gain valuable insights into human behavior. Our innovative and high-quality eye tracking solutions capture human behavior in a natural way, ultimately affording users access to valuable, objective data about real responses to stimuli.

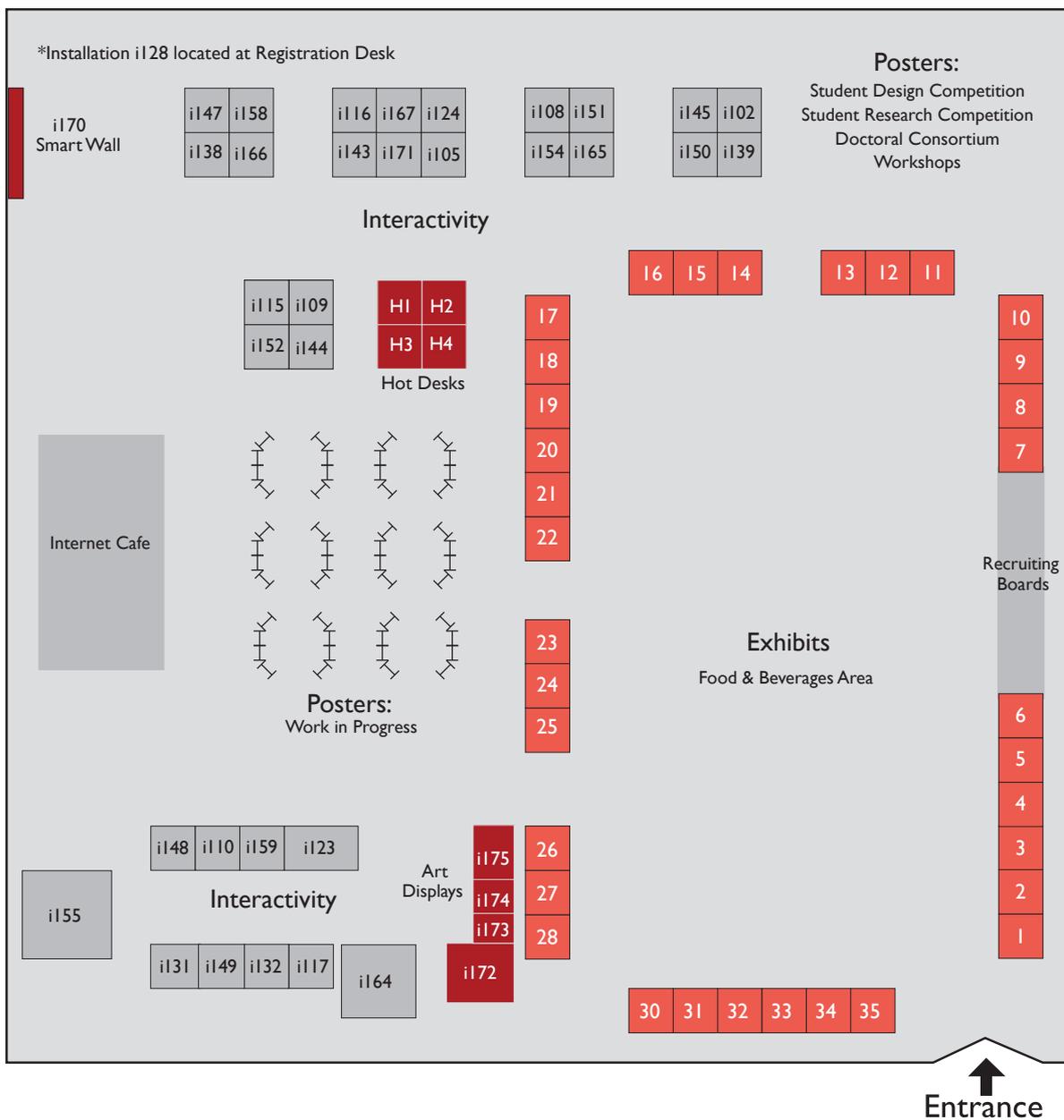
### Vtouch 8

Vtouch provides the most natural way of interacting with devices and things such as TV, light, thermostat, photo album, etc. The Vtouch interface works from a distance by tracking users' eyes and fingers with camera, which enables the users to directly click what they see without any delay or preparation, as tapping a smartphone app.

## ■ INTERACTIVITY BY BOOTH NUMBER

- i102 Wrist Compression Feedback by Pneumatic Actuation
- i105 Harmonious Haptics: Enhanced Tactile Feedback...
- i108 Low-Fidelity Fabrication: Speeding up Design Iteration of...
- i109 PaperPulse: An Integrated Approach to Fabricating...
- i110 Level-Ups: Motorized Stilts that Simulate Stair Steps in...
- i115 Designing Engaging Data in Communities
- i116 The EmotiveModeler: An Emotive Form Design CAD Tool
- i117 Remnance of Form: Interactive Narratives through...
- i123 Wearable Devices for Enhancing Communications...
- i124 EdiPulse: Turning Physical Activity Into Chocolates
- i128 ListenTree: Audio-Haptic Display In The Natural Environment  
(Located by registration)
- i131 Know Yourself: Self-portrait with Emotion Expressed...
- i132 Researcher: A Reading Application Helping the Flow of...
- i138 BandSense: Pressure-sensitive Multi-touch Interaction...
- i139 Wearable Solution for Industrial Maintenance
- i143 Development of Realistic Digital Expression of Human Avatars...
- i144 Waving Authentication: Your Smartphone Authenticate You...
- i145 Data Transmission Method for Mobile Phone Using Groove...
- i147 NOISA: A Novel Intelligent System Facilitating Smart Interaction
- i148 Multi-Player Gaming on Spherical Displays
- i149 Sustainable Transport System: A Wheel Based Interactive...
- i150 Smart Eyewear for Interaction and Activity Recognition
- i151 Datawear: Self-reflection on the Go or How to Ethically...
- i152 TESSA - Toolkit for Experimentation with Multimodal Sensory...
- i154 WoBo: Multisensorial Travels Through Oculus Rift
- i155 Canvas Dance: An Interactive Dance Visualization for...
- i158 Nebula: An Interactive Garment Designed for...
- i159 DigiTonus v2: New Interface for Fingerprint Data...
- i164 The Art.CHI Gallery: An Embodied Iterative Curation...
- i165 Filteryedping: A Dwell-Free Eye Typing Technique
- i166 VoroGraph: Visualization Tools for Epidemic Analysis
- i167 삶 ("Salm", "To Live"): Gaze Reactive Typography Inspired...
- i170 "KIST Smart Wall" and its Media Art Application...
- i171 Comfort Zone
- i172 Psychophysics Machines
- i173 Big Screen: mood.cloud
- i174 RGB Color Bits
- i175 Visual Liquidizer or Virtual Merge

# Level 3F (3rd Floor) Halls C2/C3



■ EXHIBITORS BY BOOTH NUMBER

Samsung	Booth 1, 2 & 3	CHI Information Desk	Booth 18
Nexon Computer Museum	Booth 4 & 5	Smart Eye	Booth 19
FuturePlay	Booth 6	Morgan & Claypool Publishers	Booth 20
Elsevier	Booth 7	Google	Booth 21 & 22
Vtouch	Booth 8	SK Planet	Booth 23
Apropose	Booth 9	John Wiley & Sons	Booth 24
IUEditor	Booth 10	Tobii Pro	Booth 25
Samsung SDS, CX Team	Booth 11	EyeTracking, Inc.	Booth 26
Springer	Booth 12 & 13	Seoul Tourism Organization (STO)	Booth 27 & 28
NEOFECT	Booth 14	Letsee	Booth 31
Oxford University Press	Booth 15	Neo smartpen N2	Booth 32
Facebook	Booth 16	now publishers	Booth 33
Golfzon	Booth 17	SAP	Booth 34 & 35



# CHI 2015

**SAMSUNG**

Design and software are the critical types of softpower that will lead future businesses.  
In light of this, Samsung Electronics operates talent-fostering Programs called the Samsung Design Membership and the Samsung Software Membership. These programs help aspiring students pursue their creative interests through academic-industrial cooperation and many other research activities. Come and visit us.

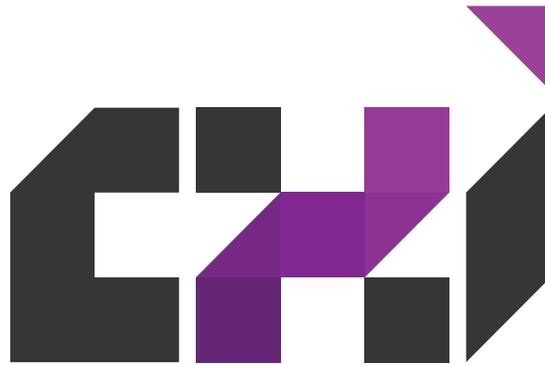


# Level 3F (3rd Floor) Halls C, D, E



# Level 4F (4rd Floor) Rooms 401, 402, 403





2016 #chi4good

San Jose, CA, USA  
May 7-12

### Key Dates

**25 September 2015**

Papers, Notes

**9 October 2015**

Case Studies, Workshops, Courses,  
Interactivity, Doctoral Consortium

**11-13 December 2015**

Program Committee meeting

**14 December 2015**

Acceptance Notifications,  
Registration Opens

**13 January 2016**

Works-in-Progress, Panels,  
Student Design Competition,  
Student Game Competition,  
Student Research Competition,  
Video Showcase, SIG Meetings,  
Interactivity Research Demos,  
alt.chi

### #chi4good

### Day of Service

**8 May 2016**

Join us to bring HCI teaching,  
design ideas, hacking and more  
to local non-profit arts and  
education organizations.

### Diversity Lunch

**10 May 2016**

The Women's Breakfast is now the  
Diversity Lunch. All are invited to  
discuss challenges, opportunities  
and support for underrepresented  
minorities in the CHI community.

[sigchi.tumblr.com](http://sigchi.tumblr.com)

Keep up with our changes!



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Computing Machinery



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special interest group computer human interaction

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