The Editor's Spotlight: TOCHI Issue 23:6

So I hear there has been an election recently.

And not unlike the #Brexit vote that recently sundered the United Kingdom, I have to say that for most of us in the States it has been something of a shocker, no matter one's political affiliation. I had my say about Trump in *Interzone* #265—a magazine published in the UK, ironically enough—so I have no desire to pour any further gasoline onto that particular bonfire in these pages. Hopefully, concerns that have been voiced about what his administration may mean for unbiased scientific research ultimately prove to be unfounded.

We shall see.

The world marches on.

As I parked and walked into my office building after picking up my battered old Volvo from the auto shop, the hiss of tires overdamp asphalt and the drone of aircraft across the battleship-gray cloud deck echoed an eerie sense of normality down from the sky. One can only hope that it signals business as usual, rather than a portent.

May we live in interesting times, indeed.

Scientific progress marches on as well. It is hard to believe that another full year of TOCHI, Volume 23, is now in the books.

We have seen over 200 new submissions this year, as of mid-November—already more than all of 2015—and a tally that does not include the many, many revisions submitted as well.

Issue 6 brings five new contributions to the annals of the journal, making 33 articles published in total this year.

Each of these, of course, is now eligible for the 2016 TOCHI Best Paper Award, and we will soon start sorting through all the strong manuscripts to single out one for the award.

And of course, do not forget to nominate your favorite TOCHI article. Just send us a note at tochi@acm.org, optionally with a brief statement about what stood out about the work to you. And do not be shy about recommending an article. Any reader (whether student, practitioner, or academic) may nominate an article, for any reason.

IN THE SPOTLIGHT: HCI IN CHALLENGING INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) CONTEXTS

The December 2016 Issue of TOCHI features two articles that investigate possibilities for interaction in contexts wherein modern information and communication technologies (ICT) are severely compromised, whether through inherent resource constraints of rural developing regions, or the sudden disruption of ICT services in the aftermath of a disaster.

As such, the theme forged by these two intriguing contributions yields an obvious focus for my editorial comments this month.

The first article I want to direct your attention to investigates information access for socio-economically disadvantaged and low- or semi-literate populations in rural areas, where data connections are often sparse—or exorbitantly priced if available at all. Yet even in the poorest areas, modern technology is rapidly becoming affordable

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enough that most people will soon own or have access to inexpensive phones with voice connectivity, touch screens, and integrated cameras.

The authors' show how these capabilities can be cleverly integrated to provide a multi-modal form of interaction that is quite sophisticated despite the "low-tech" approach. The user simply takes a photo of an object (such as a newspaper, food packaging, or an illustrated shrine) that is tagged with those funny-looking square zebra-squiggles otherwise known as QR codes. The codes identify the object through a remote server, using only touch-tone modulation of the phone's voice channel (and hence no need for an expensive or non-existent data link). The user can then zoom into and touch *part of* the image on their phone's screen to hear, for example, the caption for a photo under a newspaper headline read aloud; the provenance of the ingredients on the food package explained; or the story of ancestors depicted on the shrine. The article shows how this technology can help people hear translations of materials printed in a foreign language, or to empower semi- or non-literate users to understand government documents and forms.

And the clever way that the system combines image capture, touch, and voice feedback provides an excellent example of how we are nowhere even close to fully taking advantage of the sensors and modalities available on even low-end phones, in a way that empowers oft-marginalized users.

Jennifer Pearson, Simon Robinson, and Matt Jones. 2016. Exploring low-cost, internet-free information access for resource-constrained communities. *ACM Trans. Comput.-Hum. Interact.* 23, 6 (December 2016), Article 36, 34 pages.

DOI=<http://dx.doi.org/10.1145/2990498>

The second article along this theme explores opportunities for ad-hoc, peer-to-peer communication under challenging conditions after a disaster. In a natural disaster such as an earthquake or a man-made disaster such as a tunnel fire, ICT services and the technology infrastructure tend to fail us at exactly the moment when people need them most.

This research studies a smart phone application for sending SOS signals via the use of Wi-Fi network names (SSIDs) to communicate short messages—such as "Need Help!" or "Im Okay"—to people nearby. This approach leverages ad-hoc local communication, without need of central infrastructures, thus giving "victims" the tools to help one another and become active agents in resolving their own problems after a disaster.

In particular, the authors illustrate how emergency scenarios differ based on the availability of networking (*available* vs. *not available*) and the sensitivity of communication (*sensitive* vs. *not sensitive*). In an adversarial situation—such as for persons living in a war zone or forced to hide during an active terrorist attack—the technology that would connect affected persons to first responders might also alert attackers to their presence.

Although there are no easy answers, the authors explore a number of implications and also consider inversions of the peer-to-peer dynamics—such as by having first responders do the ad-hoc signaling (HelpIsNearby!) that affected persons may then selectively receive, rather than giving away their presence and approximate location (via wireless signal strength). Although this might allow attackers to track rescuers or law enforcement agents, at least such professionals are trained and equipped to some measure to deal with adversarial encounters.

Alexander Boden, Amro Al-Akkad, Michael Liegl, Monica Buscher, Martin Stein, Dave Randall, and Volker Wulf. 2016. Managing visibility and validity of distress calls with an ad-hoc SOS system. *ACM Trans. Comput.-Hum. Interact.* 23, 6 (December 2016), Article 38, 28 pages.

DOI=<http://dx.doi.org/10.1145/2987382>

QUICK OVERVIEW OF VOLUME 23, ISSUE NUMBER 6

Issue 6 needs to go out the door, and I am at a loss for time (if not for words), so very briefly let me direct you to other deep work in issue 6 that explores:

- The social use of technology during family mealtime
(<http://dx.doi.org/10.1145/2994146>);
- The role of activity domain and valence in modeling user experience—both the good and the bad—in leisure and work experiences
(<http://dx.doi.org/10.1145/2994147>);
- And an in-depth look at uses of mobile eye trackers to unpack perceptual benefits of tangible user interfaces.
(<http://dx.doi.org/10.1145/3012009>).

All are solid efforts that break ground in interesting new directions, so I heartily recommend that you check them out if any of these topics appeal to you.

As for a few parting words, one small bit of news is that our Special Issue on End-User Development for the Internet of Things is proceeding apace and is now scheduled to be published in Issue 2 of Volume 24 (April 2017). We have the first acceptances in the queue now, but we have decided to give authors (and our editors) a bit more time to finalize their contributions.

Let me also wish all of TOCHI's readers the best of luck on their CHI 2017 conference reviews, which are about to land in my inbox (hopefully with resounding drumbeats of victory, although I am steeling myself for the usual thuds as well).

And of course, if you have great work that just did not “work” as a conference paper, your revision would be most welcome in TOCHI's submission queue. If it is not a fit for what we normally look for, we will return it to you quickly. Otherwise, it will move into a thorough peer-review process with our editorial board and the best domain experts we can find.

And finally, this is the last call for submissions to our Special Issue on Re-imagining Participatory Design (see <https://tochi.acm.org/re-imagining-participatory-design/>). As detailed there, we recommend informal submission of your abstract to the special issue editors by January 5, 2017 and the full manuscript must be submitted by January 23, 2017. During this period (as at all times), TOCHI will be open for regular submission as well.

Until I write to you in February, then, I wish you all a happy holiday season, good health, and success in all of your scientific endeavors in the new year.

Ken Hinckley
Editor-in-Chief

*Redmond, Washington
November 18, 2016*