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The realities of the “post-PC” era hit the UX community with full force in 2012. In previous years we reflected on usability highlights and emerging trends in smartphone use, interest in tablets, and the vaguely familiar “cloud.” It was as if we were preparing for change in the digital landscape; this past year was different. We were inundated with must-answer-now questions about how to deliver the best user experience in a way that meets people’s needs where they are now, not where we think they are going to be.

Throughout the year we addressed these questions in places like coffee shops, cars, professional sporting events, and classrooms. We sought to understand the how the needs and desires of users have changed as their devices morphed and multiplied into new form factors and platforms. Here is a sample of what we learned throughout the year that’s most relevant for 2013.

Smartphones and tablets context of use

Creating an optimal user experience involves designing for the place and time in which the product is used. This is simple to say, but as evidenced by this last year—it is difficult to realize. Just a short time ago mobile designs were reminiscent of websites in the late ‘90s; they replicated existing experiences by delivering a one-to-less-than-one translation of the content. In other words, early mobile designs tended to focus on recreating existing websites in another (often reduced) form. This past year brought the will to expand the existing mobile presence and find new opportunities for engaging users away from PCs.

Users are looking to take advantage of now-familiar devices. We heard users critical of mobile optimized sites that limit access to information and functionality, particularly when they

are seeking support resources. For the users we interviewed, a paired down site is often a compromised experience because they are left wondering what's missing and whether they would have better luck going back to the full site.

Our usability study participants also wanted to use mobile devices to expand ways of getting things done rather than replicate what they are already doing on the desktop. People came to our studies familiar with cloud services and with experience using apps that have well-designed interfaces that integrate across devices. While this meant they demonstrated a more accurate understanding of the cloud and device distinction, it also meant their expectations had increased. It was not uncommon for participants to start reviewing sales numbers, watching videos, or reading a report in one location on a particular device and finish in another place using a different device.

We heard users draw context-specific distinctions that drive how they use devices. For instance, board game players might research and develop expertise on their PC but use a mobile app as part of a face-to-face gaming experience. The brick and mortar retailers we worked with were also finding that customers' use of a device in-store can be quite different from how they engage on a PC. One client struggled to optimize the taxonomy of their offerings for use on a mobile device. Users had a different set of expectations for use of the mobile app that did not match the taxonomy of their desktop site or the initial version of the mobile app. Their expectations for the mobile app even differed from what was printed on the in-store menu. This study identified a strong need to optimize the smartphone app experience and change its menu taxonomy.

Time and situation also played into how people perceive the value of e-commerce on a smartphone. While many of our study participants talk about purchasing physical products on their smartphones, very few have made large purchases (e.g., travel arrangements). Not surprisingly, we find that people will use their smartphones to make purchases in time-sensitive situations such as purchasing a pizza so that it arrives soon after they get home. However, time sensitivity can also work another way; some use their smartphone to make purchases from online retailers in the moment so that it is no longer a pending task. Purchases that require research and some perceived level of commitment are still not seen by most as well-suited for a smartphone experience.

Uses of big and little data

We heard from both clients and participants about their successes and challenges using new data tools to make better decisions and drive change. One client told us of a situation where teams involved in disaster relief needed to sort through petabytes of data to find specific information. To do their job it was imperative to quickly and easily find what they needed, but unfortunately the interface they were using was not designed for immediate data access for non-experts. Solving this particular issue has the potential to dramatically improve their ability to help people in need.

There is a lot of talk in the tech industry about Big Data and its potential to empower individuals and organizations. However data is complicated to gather, access, and interpret. This presents a challenge for UX professions: How do you get data to people so that it is easy to use for making many different types of decisions? Several participants in our studies talked about how their organizations struggle to integrate data from multiple sources into a single collection. This often results from legacy systems or incompatibility between systems, each of which serves a unique purpose in an overall workflow.

Users struggle to build their personal data collections. In a similar vein, individuals are increasingly seeking small amounts of personal data about their own behaviors to make changes to their routines and decisions that will lead to a more productive life. Individuals have told us that they find gathering data on their own lives challenging. For example, parents using

one digital tool said they often write idiosyncratic notes using pen and paper when tracking their children's habits. Data gathered in this form did not easily lend itself to rapid analysis and interpretation and thus made using the data collected in the tool to become a better parent more difficult.

Users rely on instant access to data for decision making in many different contexts.

Designing for the variety of situations that users engage with data, the sheer quantity of data, and the technical expertise of the user is challenging. The term "data" may imply that the user is a technical person; however we find that this is often not the case. Users who access Big Data are often not technical and if the data is not presented in a clear fashion they are unable to use it for making decisions. This can happen when the presentation of the data does not match the organization's workflow or the knowledge and training of the data consumer, when tools are inconsistently implemented across the same system, or when systems fail to provide a comprehensive view of the data.

Looking ahead to 2013

At Blink, we believe that *good design makes life better*. If this past year is any indication, we are going to see plenty of opportunities to help people make the most out of their lives by improving the technologies they depend on throughout the day. UX professionals and their organizations seeking opportunities for the next year can gain a lot from focusing on the must-answer-now questions that the current landscape of devices and services presents.