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For Discussion: A Comprehensive “Mobile @ UofT” Strategic Plan

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To: The University of Toronto Community

Over the past several months, a number of primary stakeholders participated in a consultative process around the idea of creating a comprehensive mobile strategy at UofT. Out of those conversations a proposal has been developed (below), and through the circulation of this document we are furthering the opportunity for interested members of the community to participate and broaden the discussion. Please feel free to send any thoughts or comments to: a.hyman@utoronto.ca

Rationale

The 2011 Horizon Report predicts that mobile technology will have a significant impact on universities within the next 12 months. Although “resistance to the use of mobiles in the classroom continues to impede their adoption in many schools,” the Report’s authors find that “a growing number of institutions are finding ways to take advantage of a technology that nearly all students, faculty, and staff carry.”

Our students expect to be able to use their mobile devices for university activities now, and in order to increase productivity in the university’s enterprise applications (both academic and administrative), we need to be capitalizing on infrastructure that our users bring to the institution.

However, at the moment, the University of Toronto does not have a coherent or comprehensive approach to mobile computing. This strategic plan aims to initiate a 3-year pilot with the goal of positioning the University of Toronto as a leader in mobile computing.

Although there is nascent enterprise activity across the university, institutionally there are no dedicated mobile web and application teams at the University of Toronto and whatever activity is currently being done is ad hoc. This includes both custom development capacities, as well as the administration of purchased applications or contracted mobile-friendly websites. Where there are some mobile initiatives going on, they tend to be localized projects within the divisions or the library, and not connected to any kind of institutional standards or branding (since no such standards exists).

Academically, any activity that is curricular in nature is embedded within specific courses of instruction, with only limited opportunity for interdisciplinary engagement. At the moment, the University does not benefit administratively from any work being developed within programs of study. Through a comprehensive mobile strategy, the University can leverage the innovative spirit of our students and faculty for the benefit of the university as a whole.

There are several risks associated with inaction:

- In the absence of a comprehensive approach, we risk losing control of both branding and data, as divergent groups make independent decisions without institutional standards and a lack of privacy and security provisions (including companies who are attempting exploit the University’s brand; see for example, <http://www.mobilefringe.com/products/university-of-toronto-iphone-app-iuoft/>),
- Money is being spent on outside contractors for development projects. As a whole, we are paying money for solutions that may be redundant, don’t build capacity and may not follow standards. In fact, there is some initial evidence that competing strategies are exacerbating the complexity and divergence of standards, making the task more difficult.
- Although ad hoc projects often lead to innovative solutions, they often do so without full consideration for ongoing support. In these instances, when the application or infrastructure fails, there may be no one available to fix it, or it costs a great deal of money to contract outside support. This is problematic in the mobile application world, where operating systems are constantly being modified, especially if the application has become mission-critical.

Action Items

1. Through the processes described below, this initiative will create agreed-upon pan-university standards that will inform the development of mobile solutions across the university. These standards will help us leverage best thinking, establish common experiences, and reduce user impediments in using mobile technologies and accessing university information through mobile technologies.
2. In close collaboration with the academic programs that currently teach mobile computing, create three physical mobile development labs, one on each campus:
 - a. Labs would be open as close to 24/7 as we can manage
 - b. Labs would house resources that would not otherwise be available to individual developers, and offer opportunities for collaboration in the use of those resources, serving as an incubator for interdisciplinary ideas.
 - c. Students/users who wish to access the labs would need to be vetted by lab managers; we would likely target students enrolled in appropriate courses, although others may apply for 'membership.'
 - d. The university's IPO would have a mentoring presence at the labs.
 - e. The UTSG lab would be managed by an I+TS staff member, while the UTSc and UTM labs would be managed by staff from IT and/or Library services at each of those campuses.
 - f. Additional staffing would be provided by a combination of work study students and duties assigned to TAs at the discretion of any faculty members making use of the labs

The labs would not be a primary teaching facility, but rather, modeled on traditional labs where students can work on projects, and interact with faculty, teaching assistants and professional staff in informal ways.

3. Create a user group to serve in an advisory capacity for the labs, made up of faculty members and students who are most actively engaged with the labs. Thus far, we have identified faculty members and programs of study from Computer Science, CCIT, iSchool, Medicine, UTSc, OISE and Engineering as potential beneficiaries of the labs. We expect the range of participation to grow, especially as more digital humanities projects come online here at the University.
4. The labs would serve as the hub of a mobile web and app development brokerage service, responding to demand from the university community and external sources. This brokerage would be managed under the auspices of I+TS, with full access to I+TS resources as appropriate (i.e., web services and appropriate data feeds, policy and governance, security and privacy, etc.).
 - a. Professional staff affiliated with the labs would do development projects themselves, as cycles allowed;
 - b. Other UofT professional developers or groups would be engaged to work on development projects, as cycles allowed and where appropriate;
 - c. Student 'members' of the labs would have the opportunity to participate in development projects, as cycles allowed and where appropriate;
 - d. Additional professional resources would be engaged as cycles demanded and where revenue covered the additional expense;
 - e. A working group made up of the various members of development groups at UofT would serve in an advisory capacity for the brokerage services. [NB – thus far, mobile development and deployment activity has been identified at UTM, OISE, UTL, UTSc, Student Life, and in the ICS group of I+TS].
5. The labs will serve as a hub for maintaining a clearing-house of mobile resources and standards, as well as links to UofT mobile projects, and publish those to the community.
 - a. In collaboration with I+TS Portfolio Communications, the labs will build and manage a web-based landing site for mobile activities at UofT (eg. a website with the URL <http://mobile.utoronto.ca>);
 - b. Manage and maintain UofT mobile discussion forums;
 - c. The lab professional staff will provide administrative support for a UofT Mobile Standards & Policies advisory group, made up of appropriate members of the community, with significant leadership coming from Strategic Communications.
6. The overall mobile strategy will be coordinated through a management group, headed by the I+TS Director of Academic & Collaborative Technologies in collaboration with the I+TS Director of Solutions Development, as well as others as appropriate. The management group will be responsible for high-level consultations and negotiations with vendors and relevant professional bodies and associations.

7. Consideration will be given to open source resources and open standards (for example, Kuali Mobile) as a priority, but not at the expense of performance or logistics.
8. Revenue generated through outside development contracts would go towards making the labs self-sustaining.
9. It is envisioned that IP issues for development projects engaged through the brokerage service would likely be addressed on a case-by-case basis with the assistance of the IPO. However, there will be a goal to do regular policy analyses of intellectual property issues within university as a result of increasing our mobile development capacity.

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