Vision for TOIT

1. TOIT'S SCOPE

TOIT's scope was originally planned to cover all areas of Internet technology. But as research has advanced in the last dozen or so years, the field has grown far beyond anyone's expectations. Not surprisingly, several areas included within TOIT's original scope have acquired journals of their own, including *ACM Transactions on the Web* and *ACM Transactions on Sensor Networks*. Other areas, including networking, security, and software engineering were already established disciplines, but they readily entertain Internet-related submissions.

A challenge particular to TOIT among the ACM transactions is that the community that TOIT serves ranges over multiple, more crisply defined, disciplines. In general, it is not appropriate for us to compete with publications in such established areas for authors and readers. Many of the topics they cover would not be central to TOIT and, where they are, we would not be assured of attracting the strongest work.

I do not rule out any areas that are relevant to Internet technology and approached from the standpoint of Internet technology. However, I am deemphasizing areas that could just as easily fit within another publication's scope. In other words, I am raising the bar for relevance to TOIT.

2. OPPORTUNITY

I see a natural opportunity for TOIT in pursuing emerging areas in TOIT's scope that haven't yet found a home in a leading publication, specifically one issued by ACM or IEEE. In general, I would like to emphasize areas that loosely fall above networking and below specific applications.

What the expansion of the Internet has done is shift the emphasis in computing on *openness*. Computing research and practice, which used to be focused on single loci of computation, was forced to confront interaction among autonomous and heterogeneous parties. In the second decade of TOIT, I see interaction becoming even more important to how it separates itself from other publications. I envision the study of interaction as climbing up the abstraction food chain.

In particular, I would like to attract submissions that present concepts, theories, techniques, tools, case studies, experiments, simulations, or any combination thereof pertaining to interaction. Interaction here would involve social entities such as people and organizations, either directly or in terms of the technologies and abstractions that support such interaction. Please note that I am not asking for submissions on management science or sociology or other disciplines but submissions whose main contribution and target audience are in computer science though they may, where appropriate,

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adopt insights from other disciplines. The following is a small list of sample topics that fit the bill and where I see interest burgeoning in research and practice.

- Distributed event-based systems is a resurgent area with a well-formed if small community that I imagine would welcome a venue to consolidate work that otherwise is scattered across networking, databases, business rules, and conventional distributed computing.
- Service-oriented computing in the broad sense, including human, enterprise, and interorganizational computing and going far beyond Web services in supporting new modes of interaction and delivery as well as a deeper understanding of business interactions from an economic and social perspective, is another area of interest. Service ecosystems would be an excellent example of this topic; another would be on service engagements.
- Social informatics emphasizes information models and middleware underlying social computing. This field will go beyond today's social media and network analysis and introduce new paradigms for engineering large-scale systems for business and scientific applications, including sociotechnical systems.
- Trust and privacy, approached from a computational account that respects human considerations, are good fits for TOIT. These topics are conventionally addressed from the perspectives of psychology, public policy, or technology (e.g., anonymity), omitting a wide swathe of new research.
- Context-aware computing is an exploding area being fueled by the rise of mobile and pervasive applications. Current treatments of context are narrow, focusing either on user interfaces or on devices. The challenges of programming with context are crucial yet largely ignored.

These topics are important not only because they represent expanding markets but also because they both match Internet technology and lack a home in existing publications. Further, the novelty of the specific themes within these topics we consider would help delineate TOIT from existing publications. To put this philosophy into practice, I have begun to recruit special theme sections of articles in these areas. Calls for Papers will be emerging on the TOIT website in due course.

3. QUALITY AND PRESTIGE

I would like to focus TOIT's scope to topics wherein TOIT can reasonably claim standing as one of the most prestigious peer-reviewed publications. Prestige is not an empty sentiment since it correlates well with or influences the behavior of all the relevant actors in the publishing enterprise. It can naturally lead to the following virtuous cycle: readers would be more likely to pay attention to such a publication; therefore, authors would be more likely to submit their best work; the reviewers would approach reviewing tasks with greater enthusiasm; and, the editors would impose higher standards, thereby justifying the trust placed by readers in the first place.

I hope you share this vision with me. I am counting on your enthusiastic support to make sure that TOIT continues to keep its promise of curating and promoting the best research in Internet technology, even as we move into less well-charted territory.

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