Onward!’07

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Objects have grown up, software is everywhere, and we are now facing a consequence of this success: the perception that we know what programming is all about and that building software systems is, therefore, just a simple matter of programming… with better or worse languages, tools, and processes. But we know better. Programming technology may have matured, programming languages, tools, and processes may have proliferated, but fundamental issues pertaining to computer Programming, Systems, Languages, and Applications are still as untamed, as new, and as exciting as they ever were. Just think:

What is the nature of the gap between the systems we want and the systems we program?
How can we cope with the uncertainty of the real world in the systems we build?
How can we find/maintain the overlapping conceptual models underneath programs?
How can we weave, unweave, and reweave the conceptual threads that compose programs?

What is Programming anyway?
The activity of manipulating a formal language?
A constraint-solving refinement process that produces complete/executable specifications from perpetual fuzzyness?

What can we learn about Programming in other fields?
What are the scientific underpinnings of this human activity?
What models should drive the design of formal languages and programming tools?
What sociological models explain the dynamics of teams of software developers?
What models explain change and adaptation?

What about programs in the biological world?
What can we learn from DNA programs?
How does biology cope with change and evolution?
Is that a good model for the purposeful systems we build?

And what is modularity for, really?
Why do we always end up dividing our systems into subsystems?
Why does Nature also do it? (Or does it? Is modularity in our minds only?)
How can we find out whether our decompositions are good?
How black should black boxes be?

If you’re as excited about these questions as we are, please spread the excitement, and remind everyone that what you’re doing is not “just” helping support the world’s software, but that you may very well be at the center of the most interesting questions ever!

And if you think you have something interesting and inspiring to say about any of this, we encourage you to submit your thoughts/tools/videos to Onward!’07.
Important dates
Submission deadline: March 19, 2007
Notifications: around May 19, 2007

Submission process

Electronic submission must be done through the <OOPSLA submission system>. Onward! accepts submissions in one of these three forms: (1) papers; (2) films; and (3) tools.

Paper submissions must follow the standard <ACM format>, be no more than 20 pages, and preferably in PDF file format. For selection criteria, see <below>.

Onward! films investigate ideas, concepts, insights, or almost anything related to programming. We know that PDF and Powerpoint are not always the right media, and this category invites “submissions in motion,” allowing a range of audio and visual treatments. They can take any form such as: documentary on learning a new language; interviews with practitioners; animation/depiction of your new technique; diary of a frustrated grad student; etc. Film submissions must include an early or partial version of the film, and a 200-word description about the film. Full films are only required by the time of the conference. Films can be up to 15 minutes long, and may be submitted in formats including DVI, MPEG, AVI, and Quicktime. Accepted films will be presented at a special session in the Onward! track. (Note that filmmakers must secure the rights for any third-party materials used.)

Onward! tools explore new ideas in the form of concrete prototypes. We are aware that not everyone likes to write papers, and that many of the most creative members of the programming community express themselves with code. Tool submissions must meet the interests of Onward! in presenting non-incremental new ideas. Submissions that don’t meet these interests will be directed to the demonstrations track. Tool submissions must include a link to a web site that serves the tool or to a distribution of the tool, and a 4-page description about the tool, using the standard <ACM format>. Accepted tools will be presented at a special session, and the 4-page descriptions will be included in the Conference companion.

Paper Selection Criteria and Publication

In every field of study that follows a systematic process of peer review there is space for two kinds of work: one is work that expands prior work in some interesting way, where the problem and objectives are clearly identified, the methods are properly explained, and the claims are sufficiently validated; the other is work that reformulates old problems in radically different ways, identifies new important problems that where not acknowledged as such, questions the field’s implicit assumptions, suggests new methods of conducting research, and generally has the potential to drive the field away from local maxima, onward! Acknowledging that research in Computer Science has been moving steadily towards the former kind of work (which is essential if one wants to stand on solid intellectual ground), this conference includes the Onward! track as a forum to give voice to the latter (which is also essential if one wants to keep the field fresh and exciting).

Onward! is looking for great, non-incremental ideas about programming and software-intensive systems. In order to get that work exposed, Onward! relaxes the validation criteria. An Onward! paper does not require a “Results,” or “Assessment” part (although if that is available, authors may certainly include it). Instead, Onward! relies quite heavily on the concepts of “quality” and “potential” that are brought in by the members of the program committee. The selection criteria is, therefore, an organic mix of the collective experience of the program committee. This committee is not a gatekeeper for properly done incremental research work, but a promoter of interesting and inspiring new work.
The committee has been carefully chosen to include past Onward! authors and seasoned members of the programming research community. Having your work selected for Onward! is a testament that your ideas have inspired this influential group of people and may, therefore, inspire many more.

Accepted papers will be allotted slots in the Onward! track for presentation at the conference. The papers accompanying the successful submissions will be published in either of the two conference publications. Onward! papers that fit within the general scope of Computer Science research will be published in the Conference Proceedings; other accepted Onward! papers will be published in the Conference Companion. Both will be included in the ACM digital library.

Advice to authors.

(1) **Titles and Abstracts.** The internal reviewing process is different from the process in other program committees. While all papers will be reviewed, the committee members have a lot more freedom to review the papers that they find more interesting. As such, it is particularly important that titles and abstracts concisely convey the novelty of the ideas presented in the paper.

(2) **Onward! vs. regular Research Track.** If your paper is about a solid piece of work that builds on, improves, or applies prior work creatively and in a highly competent manner, then consider submitting it to the regular <Research Track>. (The line between Onward! and the regular Research track is somewhat fuzzy. When appropriate, we will exchange some papers between the tracks.)

(3) **Onward! vs. Essays.** If your paper is mostly an analytical exploration of some idea(s), then consider submitting it to <Essays>. (The line between Onward! and Essays is very fuzzy. When appropriate, we will exchange some papers between the tracks.)

Program Committee

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