Workshop on *Programming Language Evolution* (PLE14)

Colocated with ECOOP 2014 (Uppsala, Sweden)

http://www.cl.cam.ac.uk/research/cprg/ple14

Programming languages tend to *evolve* in response to user needs, hardware advances, and research developments. Language evolution artefacts may include new compilers and interpreters or new language standards. Evolving programming languages is however challenging at various levels. Firstly, the impact on developers can be negative. For example, if two language versions are incompatible (*e.g.*, Python 2 and 3) developers must choose to either co-evolve their codebase (which may be costly) or reject the new language version (which may have support implications). Secondly, evaluating a proposed language change is difficult; language designers often lack the infrastructure to assess the change. This may lead to older features remaining in future language versions to maintain backward compatibility, increasing the language's complexity (*e.g.*, FORTRAN 77 to Fortran 90). Thirdly, new language features may interact badly with existing features, leading to unforeseen bugs and ambiguities (*e.g.*, the addition of Java generics).

This workshop brings together researchers and developers interested in programming language evolution, to share new ideas and insights, to discuss challenges and solutions, and to advance programming language design.

Topics include (but are not limited to):

- Programming language and software co-evolution
- Empirical studies and evidence-driven evolution
- Language-version integration and interoperation
- Historical retrospectives and experience reports
- Tools and IDE support for source-code mining and refactoring/rejuvenation
- Gradual feature introductions (*e.g.*, optional type systems)

If you have any questions relating to the suitability of a submission please contact the program chairs.

Submission:	Monday 16th June 2014
Notification:	Monday 23rd June 2014
Final papers due:	Tuesday 1st July 2014
Talk abstracts due:	Monday 23rd June 2014
Talk notification:	Friday 27th June 2014
Workshop:	Monday 28th July 2014

Submissions

We are accepting both full papers and talk abstracts for short 15 minute talks (which may be more informal in style). Both kinds of contribution should be submitted via the EasyChair submission page. Talk abstracts should be no more than 300 words. Paper submissions must be no more than 6 pages, formatted in ACM SIGPLAN style (double column, 9pt format), written in English. Accepted papers will appear in the ACM Digital Library. For further details on submmissions please see the workshop website. The workshop schedule will comprise presentations given for accepted papers.

Organisation

Program chairs:
- Raoul-Gabriel Urma (raoul.urma@cl.cam.ac.uk)
- Dominic Orchard (dominic.orchard@cl.cam.ac.uk)

General chair:
- Alan Mycroft (am@cl.cam.ac.uk)

Program committee:
- Robert Bowdidge (Google)
- Sophia Drossopoulou (Imperial College London, UK)
- Kim Mens (Université catholique de Louvain (UCL), Belgium)
- Alan Mycroft (University of Cambridge, UK)
- Dominic Orchard (University of Cambridge, UK)
- Jeff Overbey (Auburn University, AL, US)
- Chris Parnin (Georgia Institute of Technology, AT, US)
- Max Schaefer (Semmle Ltd., Oxford, UK)
- Peter Sommerlad (IFS Institute for Software, FHO/HSR)
- Alexander J. Summers (ETH Zurich)
- Raoul-Gabriel Urma (University of Cambridge, UK)
- Louis Wasserman (Google)