Theories of Programming (Dagstuhl Seminar 22231)
Thomas D. LaToza, Amy Ko, David C. Shepherd, and Dag Sjöberg ............... 1

Efficient and Equitable Natural Language Processing in the Age of Deep Learning
(Dagstuhl Seminar 22232)
Jesse Dodge, Iryna Gurevych, Roy Schwartz, and Emma Strubell ............... 14

Human-Game AI Interaction (Dagstuhl Seminar 22251)
Dan Ashlock, Setareh Maghsudi, Diego Perez Liebana, Pieter Spronck, and Manuel Eberhardinger ......................................................... 28

Visualization Empowerment: How to Teach and Learn Data Visualization (Dagstuhl Seminar 22261)
Benjamin Bach, Sheelagh Carpendale, Uta Hinrichs, and Samuel Huron ........ 83

Human-Centered Artificial Intelligence (Dagstuhl Seminar 22262)
Wendy E. Mackay, John Shawe-Taylor, and Frank van Harmelen ............... 112
Aims and Scope

The periodical *Dagstuhl Reports* documents the program and the results of Dagstuhl Seminars and Dagstuhl Perspectives Workshops. In principal, for each Dagstuhl Seminar or Dagstuhl Perspectives Workshop a report is published that contains the following:

- an executive summary of the seminar program and the fundamental results,
- an overview of the talks given during the seminar (summarized as talk abstracts), and
- summaries from working groups (if applicable).

This basic framework can be extended by suitable contributions that are related to the program of the seminar, e.g. summaries from panel discussions or open problem sessions.

Editorial Board
- Elisabeth André
- Franz Baader
- Daniel Cremers
- Goetz Graefe
- Reiner Hähnle
- Barbara Hammer
- Lynda Hardman
- Oliver Kohlbacher
- Steve Kremer
- Rupak Majumdar
- Heiko Mantel
- Albrecht Schmidt
- Wolfgang Schröder-Preikschat
- Raimund Seidel (*Editor-in-Chief*)
- Heike Wehrheim
- Verena Wolf
- Martina Zitterbart

Editorial Office
Michael Wagner (*Managing Editor*)
Michael Didas (*Managing Editor*)
Jutka Gasiorowski (*Editorial Assistance*)
Dagmar Glaser (*Editorial Assistance*)
Thomas Schillo (*Technical Assistance*)

Contact
Schloss Dagstuhl – Leibniz-Zentrum für Informatik
Dagstuhl Reports, Editorial Office
Oktavie-Allee, 66687 Wadern, Germany
reports@dagstuhl.de

Digital Object Identifier: 10.4230/DagRep.12.6.i