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Intravascular Imaging and Computer Assisted Stenting, and Large-Scale Annotation of Biomedical Data and Expert Label Synthesis

6th Joint International Workshops, CVII-STENT 2017
and Second International Workshop, LABELS 2017
Held in Conjunction with MICCAI 2017
Québec City, QC, Canada, September 10–14, 2017
Proceedings

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ISSN 0302-9743

ISSN 1611-3349 (electronic)

Lecture Notes in Computer Science

ISBN 978-3-319-67533-6

ISBN 978-3-319-67534-3 (eBook)

DOI 10.1007/978-3-319-67534-3

Library of Congress Control Number: 2017953390

LNCS Sublibrary: SL6 – Image Processing, Computer Vision, Pattern Recognition, and Graphics

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Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer International Publishing AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

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Preface CVII-STENT 2017

MICCAI 2017 is again hosting the Joint MICCAI-Workshops on Computing and Visualization for Intravascular Imaging and Computer Assisted Stenting (MICCAI CVII-STENT), focusing on the technological and scientific research surrounding endovascular procedures. This series of workshops has become an important annual platform for the interchange of knowledge and ideas for medical experts and technological researchers in the field.

This year, we have much to celebrate with the launch earlier this year of the CVII-STENT book, published by Elsevier. Many of the authors have been involved with the workshop since its infancy and continue to be part of this research community.

We look forward to this year's invited talks and presentations on the state of the art in imaging, treatment, and computer-assisted interventions in the field of endovascular interventions. We also extend our thanks to the reviewers, who have helped ensure the high quality of the papers presented at CVII-STENT.

September 2017

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Preface LABELS 2017

The second international workshop on Large-scale Annotation of Biomedical data and Expert Label Synthesis (LABELS) was held in Quebec City on September 14th, 2017, in conjunction with the 20th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI).

Supervised learning techniques have been of increasing interest to the MICCAI community. However, the effectiveness of such approaches often depends on their access to sufficiently large quantities of labeled data. Despite the increasing amount of clinical data, the availability of ready-to-use annotations is still limited. To address these issues, LABELS gathers contributions and approaches focused on either adapting supervised learning methods to learn from external types of labels (e.g., multiple instance learning, transfer learning) and/or acquiring more, or more informative, annotations, and thus reducing annotation costs (e.g., active learning, crowdsourcing).

Following the success of LABELS 2016, a decision was made to organize the second workshop in 2017. The workshop included three invited talks by Danna Gurari (University of Texas at Austin), Emanuele Trucco (University of Dundee), and Tanveer Syeda-Mahmood (IBM), as well as several contributed papers and abstracts. After peer review, a total of 11 papers and 4 abstracts were selected. The papers appear in this volume, and the abstracts are available for viewing on our website, <http://www.labels2017.org>. The variety of approaches for dealing with few labels, from transfer learning to crowdsourcing, are well-represented within the workshop. Unlike many workshops, the contributions also feature “insightfully unsuccessful” results, which illustrate the difficulty of collecting annotations in the real world.

We would like to thank all the speakers and authors for joining our workshop, the Program Committee for their excellent work with the peer reviews, our sponsor - understand. AI - for their support, and our advisory committee and the workshop chairs for their help with the organization of the second LABELS workshop.

September 2017

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