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Museum Exhibit Identification Challenge (Open MIC) for Domain Adaptation and Few-Shot Learning

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This workshop aims at promoting discussions among researchers investigating learning from the scarce data. Typically, domain adaptation, transfer of knowledge, zero-, one- or few-shot learning are examples of inference from the scarce data. However, rapid progress has been made in domain adaptation and few-shot learning thanks to Convolutional Neural Networks. The well-established benchmarks such as the famous Office dataset have been nearly saturated with algorithms reaching ~90% accuracy. This workshop aims at going beyond conventional datasets and conventional approaches thus posing a new challenge that aiming to shake up the status quo.

We encourage discussions on recent advances, ongoing developments, and novel applications of domain adaptation, zero-, one- and few-shot learning. We are soliciting original contributions that address a wide range of theoretical and practical issues including, but not limited to:

- Supervised and unsupervised domain adaptation
- Various concepts on statistical principles of DA: from kernel methods to covariances to tensors to the information geometry driven approaches to covariate shift
- Zero-, one- and few-shot learning approaches
- Generative Adversarial Networks for knowledge transfer
- Homogeneous and heterogeneous DA
- Metric learning approaches in DA
- Co-training
- Online learning
- Dataset biases
- Deep Learning for learning from the scarce data
- Multimodal or hyper-spectral data etc.
- Knowledge Transfer in Museum and Arts data
- Applications of domain and few-shot learning for:
    - image/video recognition
    - object recognition
    - scene understanding
    - industrial and medical applications
- Other related topics not listed above

Moreover, as performance on older datasets has reached ~90% accuracy, we introduce an Open Museum Identification Challenge (Open MIC) dataset for Domain Adaptation and Few-shot Learning to stimulate research in domain adaptation, egocentric recognition and few-shot learning. The data contains photos of exhibits captured in 10 distinct exhibition spaces of several museums which showcase paintings, timepieces, sculptures, glassware, relics, science exhibits, natural history pieces, ceramics, pottery, tools and indigenous crafts (in total, 866 distinct exhibits to identify from). Each exhibition poses distinct challenges e.g., quality of lighting, motion blur, occlusions, clutter, viewpoint and scale variations, rotations, glares, transparency, non-planarity, clipping, etc. For the source domain, we captured the photos in a controlled fashion by Android phones (~7600 images). For the target domain,

we employed wearable cameras (~7600 images) to ensure in-the-wild capturing process and a significant domain shift. The baseline algorithm achieves ~40-60% top-1 accuracy on various problems.

We encourage high quality novel scientific ideas and paper submissions with the use of standard datasets, and especially with the use of the above described Open MIC dataset which can be downloaded at: http://users.cecs.anu.edu.au/~koniusz/openmic-dataset

We will also consider evaluation papers based on Open MIC and previously published papers (but the latter cannot be included in the ACCV proceedings). The priority will be given to high quality publications and papers that present interesting ideas and/or evaluations on the Open MIC dataset. Accepted papers will be allocated 5-7 minute spotlights and will appear in the Workshop proceedings of ACCV 2018.

Paper Formatting Guidelines:
The paper formatting should follow the ACCV 2018 guidelines described in http://accv2018.net/call-for-papers/#guidelines. The papers can be at most 14 pages long.

Workshop Details:
Webpage: http://users.cecs.anu.edu.au/~koniusz/openmic-accv18
Workshop Schedule: 2nd December 2018
ACCV'18 homepage: http://accv2018.net
Location: Perth, Australia
Submission Site: https://cmt3.research.microsoft.com/User/Register?ReturnUrl=%2FOpenMIC2018 (register) or https://cmt3.research.microsoft.com/User/Login?ReturnUrl=%2FOpenMIC2018 (login).

Important dates:
Submission Deadline : 15th of November, 2018
Decision to Authors : 20th of November, 2018
Camera Ready : TBD
TMCV Workshop : OpenMIC Workshop: 2nd of December, 2018

Organizing Committee:
Dr. Piotr Koniusz (Data61/CSIRO and the Australian National University)
Mr. Yusuf Tas (Data61/CSIRO, Australian National University)
Mr. Hongguang Zhang (Australian National University)
Mr. Samitha Herath (Data61/CSIRO, Australian National University)
Mr. Christian Simon (Australian National University)
Dr. Mehrtash Harandi (Monash University)
Dr. Rui Zhang (Hubei University of Arts and Science)

Invited Speakers:
Prof. Mohammed Bennamoun
Dr. Senjian An
Assoc. Prof. Lei Wang
Dr. Mathieu Salzmann
Dr. Gabriela Csurka

Best Regards,
Organizers