

Accepted Manuscript

Title: Meta-Lamarckian Learning in Multi-Objective Optimization for Mobile Social Network Search

Author: Andreas Konstantinidis Savvas Pericleous
Christoforos Charalambous



PII: S1568-4946(18)30085-1
DOI: <https://doi.org/doi:10.1016/j.asoc.2018.02.026>
Reference: ASOC 4718

To appear in: *Applied Soft Computing*

Received date: 2-3-2016
Revised date: 28-11-2017
Accepted date: 16-2-2018

Please cite this article as: Andreas Konstantinidis, Savvas Pericleous, Christoforos Charalambous, Meta-Lamarckian Learning in Multi-Objective Optimization for Mobile Social Network Search, *Applied Soft Computing Journal* (2018), <https://doi.org/10.1016/j.asoc.2018.02.026>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Research Highlights

- A realistic Multi-Objective Mobile Social Network Search (MO-MSNS) optimization problem is investigated.
- A decompositional MOEA hybridized with a Meta-Lamarckian approach, coined MOEA/D-ML, which learns from the problem's properties and objective functions, is proposed.
- MOEA/D-ML is evaluated on mobility and social behaviour patterns derived from the real data of GeoLife and DBLP datasets and a trace-driven experimental methodology.
- The generalizability of MOEA/D-ML is also evaluated on the well-known multi-objective combinatorial optimization problem Permutation Flowshop Scheduling Problem.
- The proposed MOEA/D-ML approach successfully learns the behaviour of individual local search heuristics during the evolution and adaptively follows the pattern of the best performing heuristics at different areas of the objective space of different benchmark test instances and for different problems.

Accepted Manuscript

Download English Version:

<https://daneshyari.com/en/article/6903747>

Download Persian Version:

<https://daneshyari.com/article/6903747>

[Daneshyari.com](https://daneshyari.com)