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## Conference Proceedings

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# ■ Lecture & Workshop ■

## On Open Access Publishing in Medical Informatics: Results of the International Trans-O-MIM Research Project

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### Abstract

In 2015 the Trans-O-MIM research project was launched with the intention to identify and explore solutions in transforming subscription-based journals into Open Access journals. Trans-O-MIM stands for strategies, models and evaluation metrics for the goal-oriented, stepwise, sustainable and fair transformation of established subscription-based scientific journals into Open-Access-based journals with *Methods of Information in Medicine* as example. Results are presented on the experiences made so far with the Open Access transformation of *Methods of Information in Medicine* by implementing a so-called Tandem Model and on major results on drivers and obstacles of Open Access publishing, obtained from the three empirical studies, in which the perspectives of medical informatics researchers of IMIA member societies have been explored.

### Keywords:

Open Access, Journal Transformation, Journal Conversion, Journal Flipping, Journal Transition, Medical Informatics

### Introduction

During the last two decades the Open Access paradigm has become an important approach for publishing new scientific knowledge [1-4]. This also applies to medical informatics [5]. However, there is still a large number of well-established journals with high scientific reputation, which are subscription-based.

In 2015 a research project was launched with the intention to identify and explore solutions in transforming subscription-based journals into Open Access journals, the so-called Trans-O-MIM research project. Being financially supported by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) the project was from its beginning on also endorsed, promoted and supported by IMIA, the International Medical Informatics Association as well as by EFMI as European and by GMDS as German medical informatics organizations [6].

### Objectives of the Trans-O-MIM approach

Trans-O-MIM stands for strategies, models and evaluation metrics for the goal-oriented, stepwise, sustainable and fair transformation of established subscription-based scientific journals into Open-Access-based journals with *Methods of Information in Medicine* as example. Details on the Trans-O-MIM project plan can be found in [7], details on the journal *Methods of Information in Medicine* (or, briefly, MIM) in [8].

For transforming subscription-based scientific journals into Open Access journals, in Trans-O-MIM a Tandem Model was proposed and implemented. In this Tandem Model a subscription-based publication organ adds to its existing subscription-based track an additional new Open Access track, strictly following the so-called gold Open Access way. The other, traditional track remains, as long as it continues to exist, subscription-based. With the Tandem Model an immediate change from subscription to Open Access with all its risks in maintaining reputation and financing is avoided. As it remains one publication organ, MEDLINE/PubMed referencing and Impact Factor listing remains as it has been. Further details on the Tandem Model and its properties are described in [7].

The intention of applying the Tandem Model should be that in the end the subscription-based track will disappear. However, in case of difficulties during transformation, an option to slow down transformation, to pause it or even to backtrack remains.

### Starting and Exploring the Transformation

The Tandem Model has been successfully applied to MIM from 2017 onwards [9-10].

Jointly with colleagues from Schattauer Publishers (later becoming part of Thieme Publishers at Stuttgart, Germany) an evaluation metric for this transformation process has been developed. The metric has been presented and discussed at workshops on major international medical informatics conferences and, afterwards, refined [11].

From the beginning on there was a consensus that offering transformation opportunities like the Tandem Model should be accompanied by further activities encouraging Open Access publishing. Because of this, as another component of the Trans-O-MIM project, incentives for Open Access publishing in medical informatics have been explored. At first by discussing this question in workshops and by surveying the members of the 2016 General Assembly of IMIA [12-13]. Then three prospective empirical studies on Open Access publishing in medical informatics have been designed, conducted, and analyzed. In two quantitative studies and one qualitative study members of the IMIA community worldwide were asked on individual as well as on institutional drivers and obstacles for this publication paradigm [14-15].

### Outcomes Presented in this Special Lecture

After annual reports on Trans-O-MIM at IMIA's General

Assembly meetings since 2015, which were accompanied by presentations and workshops at those major international medical informatics conferences, taking place in parallel to these IMIA meetings, this report during APAMI 2020 completes the series of reports.

At APAMI 2020 results are presented and discussed.

- on the experiences made so far with the Open Access transformation of MIM by implementing the Tandem Model [11], and
- on major results on drivers and obstacles of Open Access publishing, obtained from the three quantitative and qualitative studies, mentioned above, in which medical informatics researchers of IMIA member societies have been asked [12-15].

A workshop on Open Access publishing, immediately following this report at APAMI 2020, will provide opportunities to address and to debate this topic in depth.

It is intended to summarize the outcomes of the Trans-O-MIM research project, orally presented at APAMI 2020, in more detail in [16].

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