



Editorial

Diagnosticpathology.eu ; Experiences 2016 – Perspectives 2017

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Abstract

The peer reviewed open access journal diagnosticpathology.eu is embedded in a financially completely independent medical communication network of nodes which serve for different duties.

The nodes include the services of the unique Virtual International Pathology Institute (VIPI, <http://www.diagnomx.eu/vipi>), an automated image measuring system (EAMUS), an anatomy training course, and a collection of sixty rare and common lung diseases.

An atlas of 'Natural and Synthetic Mineral Fibers affecting Man' (including fine granulate) has been added in 2016 as well as all articles of the former 'Electronic Journal of Pathology and Histology', which was the first solely electronically published peer reviewed medical journal to our knowledge.

The announced collection of more than 120 rare cases including virtual slides and the original publications is in preparation, as well the atlas of 'all known lung diseases', a data base that covers approximately 860 different lung diseases, including available clinical, endoscopic, radiological, pathological, genetic and occupational data. These projects have left the start phase and will probably be ready in 2017.

The journal has published more than 120 original articles and the proceedings of the 13th European Congress on Digital Pathology, held in Berlin, Germany, May 25 – 28, 2016. Its specific publication tools 'publish beside the microscope' and to submit data for 'interactive publication' have been used in 10 (2) cases. Both tools are unique, and cannot be found elsewhere. The preparation of virtual slides (submission of glass slides) is mandatory for publication of suitable articles.

The journal's name diagnostic pathology seems to be attractive for some publishing companies that try to copy some issues of the real journal on diagnostic pathology (www.diagnosticpathology.eu).

Keywords: www.diagnosticpathology.eu, [open source journal](#), [communication network](#), [virtual slide](#), [automated measurement](#), [environmental hazards](#), [Editorial](#)



The editor's initiative and activation of more than 100 internationally well known scientists, pathologists, and researchers started the implementation of our medical communication network including the journal www.diagnosticpathology.eu without any financial support or subsidy, neither private nor governmental nor the backbone of a big publishing company. Innovative ideas how to distribute science, research and medical information were and are still mandatory to successfully run our journal.

www.diagnosticpathology.eu is much more than a conventional open access journal. It includes the first Virtual International Pathology Institute (VIPI, <http://www.diagnomx.eu/vipi>), new publication and communication tools, for example to publish a case 'beside the microscope' within less than one hour, (How do I diagnose...?), to interact with and add own data to already published articles (Interactive publication).

We have been able to successfully include an extensive data collection of medical hazards induced by mineral fibers and fine granulate. This atlas offers a fast and complete search for all known mines, minerals and synthetic fibers and their potential effects of humans, for example cancer, genetic and immunologic or cardiovascular disorders. Certainly, it allows the search for recently published data just by one click.

We have now included a free access to all articles of our processor at the pre – internet ages, the first solely electronically published journal 'Electronic journal of pathology and histology'. The articles published in this journal are still frequently cited, and cannot be read elsewhere.

An innovative search within the journal and a simple procedure to cite selected articles in another journal has been implemented too.

Not all fruits mature at the same time. We are still working on our virtual slide project of all known pulmonary diseases, and on our interactive projects. These will permit automated image measurements performed by the reader, and an automated notification of the authors, which data have been investigated.

Obviously, our journal takes fully advantage of globalization which means an open and nearly uncontrolled international information transfer. The question arises: Are there limitations of this process, and, if yes, do they already arise at the horizon?

At first glance, open access publication offers a great business model with attractive profit by low risk and maintenance costs. The authors or respectively the research grants pay. Usually, the amount to publish research data is already included in the research projects. The conventional, paper printed publications rely on the readers who request 'reading fees' either from research institutions or from individual persons.

Globalization forces the authors to work for both: to write their articles and to take care for the mandatory publication fee. The money itself mainly comes from non profit grants, or, in other words, from the tax payers.



Thus, the business model of open access publication is based upon public money. However, no international or national institution controls the costs and profit of the companies which run open access journals.

Therefore, it is of no surprise that the common market forces have invaded this market too. Numerous formerly independent smaller publishers disappeared and have been swallowed.

Nowadays, four big players only dominate the publications. As a consequence, there is a high risk that profit considerations will modulate research and science, either directly in forcing editors to publish articles of minor or scientifically unfounded quality, or indirectly by preferring authors and those research fields that deliver numerous articles within a short period of time.

Electronically stored and open accessible data are easy to copy, modify, and fake. This has become a real problem. It can be compared with doping in sports: non ethical tricks and methods develop fast, and use highly sophisticated tools.

The conventional citation index (CI) might be considered as one promoter to diminish the quality of open access publication, as it is based upon the citation frequency of an article, which mainly depends upon the journal and its publisher.

However, the main source of this development, are universities and their administration. These institutions provide the CI with dangerous power, if they demand researchers and authors to publish only in journals that possess a CI of a certain level. They completely neglect that any open access journal is read by numerous colleagues working all over the world. These colleagues will certainly be able to recognize which articles are of serious value and which are not. Thus, to provide the CI with such significance neglects the background of journal readers.

The nearly unlimited distribution and access to knowledge display with additional hazards. They mark the limitation of globalization.

We are convinced that knowledge cannot be distributed in uncontrolled or unlimited amount and frequency. In doing this we have to be aware that useful knowledge has to be understood. The more items of knowledge are available the harder they are to understand.

Being a pathologist or scientist we all do know that we only can successfully communicate if we limit the transferred information. Our communication partners have to be able to understand and react in a proper manner.

It is a general mistake to neglect understanding and to replace understanding by knowledge. To give an example: The distribution of a simple microscopic image of a rare tumor by twitter without telling its history and clinical attributes induces the false impression that a microscopic image is the only significant feature that contributes to a reliable diagnosis. These authors probably do not understand the impact of a microscopic diagnosis, for example, to diagnose the lung metastasis of a breast carcinoma. They are tempted to perform numerous expensive laboratory tests even when a simple look at the patient's history does already allow a definite statement.



What is the impact of these considerations on our open access peer reviewed journal?

1. We should be aware that the opinion of reviewers might not be the 'absolute truth'. Therefore, being the editor we try to evaluate the motivation of the authors to submit their article to our journal, if the reviews do not seem to be appropriate.
2. Every reader is invited to use our specific publication form 'interactive publication' if she / he wants to expand, correct or add her / his own data or opinion to an already published article. These data are subject to an additional review. Thus, the reader will become an author too if the comments etc. fulfil the quality conditions of our journal, in other words, if the reviewer agrees.
3. We are convinced that the best predictor of the quality of an article is the number of its citations in future. The number of citations does not really depend upon the fact whether it has been published in a high ranking or less known journal.
4. Highly innovative ideas and facts are often published in less ranked journals because several factors exist which influence the judge of the involved reviewers. Human factors of competition play a role as well as difficulties in understanding new data especially if they distribute results that differ from general accepted or suitable ideas.
5. Finally, the impact of classic 'second order scientific journals' such as 'pubmed', 'medline', and others diminishes contemporary with changes in medical communication. 'Goggle' and similar 'data collecting and distribution machines' are more innovative and flexible. Their 'big data mining' algorithms in combination with 'deep learning' methods easily handle the former unique application of classic publication issues with promising aspects. These include, for example, automated generation of scientific ideas, their translation into real projects, forecasting of results, and network realization for distribution, and – this is most important – automated generation of article grading and impact.

Never-the-less, there is still hope for the 'classic' reference journals: the bigger Google gets the more static it will behave, similar to the development of cars or dinosaurs: big sizes induce inflexibility and tardy behaviour. Complex solely business oriented structures imply disorientation and intern resistance.

Globalization will continue to change the behaviour of scientists, associated business partners, funding and research conditions. Man is able to build automated navigation of cars.

We ourselves have implemented automated microscopic measurement systems with included classifiers and feedback systems already in 2009. IT experts discuss the ethics of robots. Why not to develop automated research systems which clearly are adjusted to the needs of man? Why not to equip them with the mandatory ethical, political and military power? Remain these considerations futuristic or a pie in the sky when man is preparing an excursion to the mars in the next few years?



I realize that such considerations sound strange when numerous editors of scientific journals crush their brains 'how to avoid fakes in scientific articles'.

Christmas time is close. It refreshes man's hope. It clearly demonstrates the power of a young child despite its birth under miserable conditions. It strongly calls for a peaceful, merciful, future oriented and educated world.

Having the idea of Christmas in mind, we especially thank Dr. Rita Carvalho, MD, Dr. Amina Djenouni, MD, and Dr. Reda Fayek, PhD for all their efforts and assistance to further develop our journal.

Searching for innovative ideas and projects we welcome all interested colleagues to contact, support and collaborate with us via our technical director Stephan Borkenfeld (s.borkenfeld@web.de).

We wish all our readers, reviewers, and interested colleagues a Merry, Peaceful Christmas, and a Happy, Healthy, Prosperous and Enjoyable New Year.

Klaus Kayser

Editor in Chief