TABLE OF CONTENTS

OPEN SOURCE HAS A PRICE

This issue of the Journal differs from the "normal" issues in that it partly deals with technicalities concerning the use of open source software. In delicate matters, such as the RYBKA case, it is wise to structure the problems, to classify them, and to prioritize them. Following this procedure, we distinguish three classes of rules that have to be obeyed, viz. (1) the rules of the ICGA, (2) the rules of the Free Software licenses, and (3) the rules of the law. The current issue contains three contributions on item 1 (see pp. 67-68, 69-70, 120-127). For the ICGA, it is the completion of a period of thorough investigation and extensive deliberation on the sanctions that should follow proven plagiarism.

Yet, this Editorial is meant to put the case into the wider perspective of point 2 and even point 3. In my function of part-time professor at the Leiden University, Faculty of Law (one day a week) I cooperated five years quite closely with the talented Ph.D. student Krzysztof Siewicz. On April 20, 2010 he defended the thesis *Towards an Improved Regulatory Framework of Free Software* with the subtitle *Protecting user freedoms in a world of software communities and eGovernments*. By this thesis, among others, he is now a recognized expert in the field of Free Software (also known as Open Source Software). The text below is a new coproduction of both of us. It deals with the RYBKA case where the points (1) and (2) are combined and an abstracted case where all three points are addressed.

The RYBKA case
We accept the findings for the ICGA as published on the pages 120-127, which implies that RYBKA is based on (or simply includes parts of) FRUIT to the extent constituting encroachment onto copyrights to FRUIT. Here we recognize the efforts and diligence of the panel and in particular the Secretariat resulting in the report (see pp. 120-127). From these assumptions Siewicz' analysis is as follows.

"FRUIT is a Free Software program. FRUIT's license is the GNU General Public License, abbreviated GPL. That license allows using FRUIT's source code in other software. However, the use is subject to certain conditions, and one of them is to provide recipients of copies of the software with information about copyrights to the original (here: about copyrights to FRUIT).

"If FRUIT were distributed "as is" (on its own or included as a whole in RYBKA), there is an explicit condition in the GPL to preserve copyright notices.

"If FRUIT were distributed in a modified form, the GPL contains somewhat vague reference to the explicit condition mentioned above. But there are explicit conditions to mark all changes and deliver source code. Also, apart from conditions mentioned in the GPL, we have to remember that regulations of moral rights (here: authorship) are included in the copyright statutes. Usually, concealing authorship or falsely attributing authorship is considered plagiarism, and subject to civil or criminal sanctions.

"In my opinion the above alone suffices to arrive at a conclusion that - under the assumption mentioned - the use of FRUIT in RYBKA as described above constituted GPL infringement (and most probably copyright infringement as well)."

An abstract case
The severity of the case contributed a reason for us to think further on future possibilities, the relation between the points (1), (2), and (3), as well as the ICGA standards for the future. On these points Siewicz' analysis is as follows.

"GPL and copyright compliance do not automatically trigger compliance with ICGA Tournament Rule 2. It seems that the Rule goes further than GPL, because it allows declaring programs invalid when they are close derivatives, even if all authors are mentioned and source code is available. The GPL allows using any derivatives.

"Moreover, there is a very interesting issue that could be investigated more deeply, namely, identifying copyright infringement in cases other than simple copying. This is a difficult topic. It is even more difficult in programming, where there are many techniques available other than simple copying. Programs include different levels of abstraction, and it is not clear which similarities (at which level) trigger copyright infringement, and which do not.

"For example, in the Tournament Rule 2 as quoted in ICGA announcement "playing nearly all moves the same" is given as an example of a close derivative. I am not sure whether it would always be a derivative in copyright law meaning. Similar behaviour of programs might result from similarities of algorithms (and algorithms might constitute ideas underlying the programs), and not from similarities of source codes (copyright-protected expressions of ideas). Ideas are not protected by copyright.

"Thus, it might be possible that a program is an original implementation of the same algorithm, and as a result programs behave much in the same way. If the algorithm is only a non-copyrightable idea, the program's author does not breach copyright, but she would still have to provide information required by Rule 2 and risk exclusion from the tournament. There seems no clearly cut division line between the two sides, although in practice such hard cases as RYBKA might not happen often (or RYBKA might have turned out an easy case if source code was available). It appears that Mark Watkins tackles the same question in "Quantifying evaluation features", which I found in the case documents.

"Nevertheless, ICGA does not have to stick to the balance struck in copyright law. Namely, it may require attribution and refuse to accept programs even if non-copyrightable ideas are used, thus setting a higher standard for "originality" than the one in copyright law. ICGA rules can go further than copyright because these two have different purposes."

The last statement brings in the final topic. The purpose of computer-chess community at large is: paying attention to (1) academia, (2) competition, and (3) commerce. For the ICGA the first two items belong explicitly to their purpose.

According to the title of this Editorial: Open Source has a Price, your Editor would like to remark that the price is usually very modest, namely give credit to your sources. For this reason the current Editorial is authored by two persons,

Jaap van den Herik and
Krzysztof Siewicz

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