Editorial | **Open Access**

Software: The Universal Solution?

Tudor Calinici*

University of Medicine and Pharmacy Cluj-Napoca, Medical Informatics and Biostatistics Discipline, Louis Pasteur Street, No 6, 400012, Cluj-Napoca, Romania

We are living in the era of the software. We all know about it, we all use it, it surround us is everywhere. What was once something reserved for just some, now it is common good. New words are entering in the vocabulary and old words are changing their meaning. The chat is no longer a talk between two friends in the pub. The news agencies are not the only source of information about facts from the other side of the world. The e-mail address is a thing that can't miss from each person's resume. For many, having a day without internet connection is like spending a day on a lost island…very uncomfortable and also very less probable. I read recently in an article that there are estimated three times more devices connected on the internet than peoples living on the planet Earth. On each device there are a number-big or not so big of software.

In day to day life we rely on software, almost on everything. Beginning with the simplest thinks, like shopping the aliments at the local store, where the software controls the cash register, and finishing to genome research and space exploring, the software is present and, silently and precise, is doing its job. Who would believe that this abstract thing, less than 100 years old and made only by 0 and 1 will be the base for so many things. With so many action based and decisions taken based on the software, I ask myself if we, the humans are really the masters of the planet or we are only the executors and the software is the most powerful animal on the planet, who actually rule and determine the world's future.

No one can deny the importance of the software in the actual society. It is no difference in medical and health related area. Every day new technologies are developed, and new applications are used in order to increase the quality of decisions, the quality of services and, of course, the quality of life.

The most important indicator of the quality of life is the health and it is no surprise that software is very present in medical or health related activities. You can find applications everywhere. Electronic health records, decision support systems, mobile applications, telemedicine, e-medicine, electronic prescription, robot technologies, augmented reality, internet of things are just some examples but the list is much longer. This led to the possibility of interconnecting different health related stakeholders – hospitals, pharmacies, health centers, research companies, social services. Now all of them are able to change information, to be part of common decisions, to be able to act when and how it is appropriate in order to increase the quality of life of the individuals and the well-being of society with a reasonable and covered cost.

I'd recently return from a medical related conference, where, from 93 exhibitors, 24–around 25% of total- were promoting IT products. I consider it a very good thing. Having more than one offer, the customers have possibility to choose. The concurrence makes the companies to try to produce the best they can. The prices are kept under control and most of the time reflects the value of the products.

Very often in the last few years I heard discussion between members of the boards of the different health related stakeholders like "Which software do you use for …?" Or "How you solved this issue? Well, we have this software…" Listening to this, you may conclude that for any problem there is software for solving it. Worse, I have the impression that some of the participants at the discussions which I earlier mentioned are really believes so. For any problem that they may have, for any issue that they may face, the solution is there, in magician's topper, ready to be taken out with a skillful move and just like this, the problem is gone, the issue is solved. Isn't that the perfect world?

Of course, this simple way of thinking is far away from the truth. Making an analogy, as are not two identical persons, there are no identical issues which could be solved by a software application. Any company has its own specific, its own infrastructure, and its own human resources. A successful implementation of software in one company, solving one issue does not guarantee the same success on a different company. More, the thing that must keep in mind is that the use of the software must increase the quality of life or of decisions for the clients and the management of the stakeholder, but for the users too. Specific software could seem to fit an issue but to do it in such way that it cannot be used (time/space/procedures restriction).

If you noticed, most of the IT companies are not selling software anymore. They are offering solutions, the software being part of. The issues or problems are solved having a relation of partnership between the producer and the customer. Like in each relationship, the honesty, the commitment, the compromises and the understanding are part and both partners must consider them. The solution must be conform both of the current situation of the client – infrastructure, human resources, specific issues – but for the future vision as well.

The software alone can't solve problems. The software is a tool. The problems could be solved by acting, using the tool. Like any tool, it can be used wisely, it can be adapt for different specific situations. Using a tool you may struggle and, after a while, you may see not only that the problem is still unsolved but it grow bigger. The usage of the right tool could help for solving a problem in a better way in contrast that other solution. But it is to remember that there is no unique solution for a problem and there are many ways to solve an issue.

Now the humans are surrounded by the software. I am sure that we'll have the wisdom, like our ancestors who dare to tame the wild animals, to tame and make the best benefit from the most powerful animal on the planet, the software.

Corresponding author: Tudor Calinici, University of Medicine and Pharmacy Cluj-Napoca, Medical Informatics and Biostatistics Discipline, Louis Pasteur Street, No 6, 400012, Cluj-Napoca, Romania; Tel: 0040750774502; E-mail: tcalinici@umfcluj.ro