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MedidaPrix Award – An Agent for Changing Higher Education eLearning Practice

Abstract

With the possibilities of virtual or blended learning environments, remarkable opportunities for new forms of learning have emerged. Responding effectively to this transformation process we need both to capture, honor and disseminate high quality eLearning materials, and to initiate a new sharing mentality.

The MedidaPrix (“Mediendidaktischer Hochschulpreis”) is an initiative that intends to function as a change agent exactly for this complex transformation process. Beginning in the year 2000, the Society for Media in Science (GMW) announces annually a highly endowed contest with an award sum of Euro 100’000. Participation is limited to Germany, Austria and Switzerland. The award sum is funded by ministries of the countries mentioned and is earmarked for continuing project development.

Based on the pattern movement the authors discuss in this paper the different strategic measures set by the MedidaPrix Award to change the lock-up culture of learning materials currently found in higher education organizations and to promote high quality material as Open Educational Resources (OER).

Introduction

“And the Oscar goes to...” are popularly well known words spoken annually during the Academy Awards ceremony in Los Angeles to recognize excellence of professionals in the sector of films. Within the higher education sector in German speaking countries the MedidaPrix (“Mediendidaktischer Hochschulpreis”) is an award which shows – compared to the Academy Award – the same popularity

even when its perception is limited to the eLearning community in Germany, Austria and Switzerland.

Generally awards are given to somebody to recognize excellence in his work. In this context the MedidaPrix is a certificate of excellence as well, however, with the rapidly changing needs of learners within higher education – the traditional face-to-face learning is increasingly being replaced by new forms using virtual or blended learning environments – the contest has become a trail marker for eLearning. The academic staff and departments of universities who won this prestigious award were and still are improving extraordinarily the embedding of digital media in academic teaching. In a sense the MedidaPrix Award was designed to capture, to honor and to disseminate best practice as a kind of metapattern¹ for developing new patterns which are composed of new initiatives and projects focused on sustainable development of eLearning in academic institutions. Beginning in the year 2000, the last nine years the contest intended to function as a change agent (Baumgartner 2007b; Baumgartner & Zauchner 2008; Baumgartner & Bauer 2009), both to push on eLearning initiatives and to provide evidence of attainment of specified eLearning quality standards.

We know that mentioning quality standards, the first difficulty to come to mind is that it is problematic to talk about quality. At this point, we should ask ourselves, what exactly means *quality*? We think that quality is an emergent property that cannot be attributed to a single feature of any eLearning project. Always one is forced to contemplate the whole entity. So analyzing such an emergent phenomenon like the quality of the MedidaPrix Award and its role as an agent for changing higher education eLearning practice requires a special framework. We think that the pattern approach is an appropriate method to do this. With our remarks we want to highlight the MedidaPrix Award's potential as a kind of pattern for designing Open Educational Resources.

The MedidaPrix Award and the Pattern Approach

In the following, we will discuss the MedidaPrix Award within the framework of the current pattern movement, focusing on the quality-(e)learning-relationship.

Pattern Basics

The architect and philosopher Christopher Alexander constructed a pattern language, a language for building and planning houses and cities, which was distilled

¹ The term metapattern was coined by the British anthropologist Gregory Bateson and a concept described by the American environmental scientist Tyler Volk in *Metapatterns: Across Space, Time, and Mind*. Metapatterns are patterns of patterns.

from his and his colleagues' building and planning efforts. This pattern approach emerged in the late 1970s and, later on, researchers in the field of software engineering adopted it, initiating at the same time a kind of pattern hype. Today, there exists a well-established world-wide pattern community which transfers the pattern approach to a lot of other disciplines. Well, what's the particular of this language and where there is a connection to pedagogy, especially in the field of higher education eLearning practice?

We think that it's possible to adopt Alexander's pattern approach in a pedagogical sense for describing the function of the MedidaPrix Award within the quality-(e)learning-relationship. The first important question in this context is: What is a pattern?

Alexander explains his notion of a pattern in the following way: "Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use it the same way twice" (Alexander et al. 1977, p. X).

Reading this description it becomes clear that any pattern serves to solve problems in different contexts. The solution is both abstract enough to be applied for any problem and concrete enough to be applied especially for specific problems. In his book "The Timeless Way of Building" Alexander argues that patterns are a kind of independent entities within our minds, so that it's not necessary "to recognize them as separate atomic units, nor to know them by name, nor to be able to speak about them" (Alexander 1979, p.246). Using our mother tongue we don't need to describe its rules of grammar. However, when one wants to exchange patterns, "it becomes necessary to make patterns explicit, precisely and scientifically, so that they can be shared in a new way – explicitly, instead of implicitly – and discussed in public" (ibid.). How can we do this?

According to Alexander "each pattern is a relationship between a certain context, a certain system of forces which occurs repeatedly in that context, and a certain spatial configuration which allows these forces to resolve themselves" (ibid., p. 247). Thus, the three key elements of a pattern (cf. Figure 1) are "context", "problem" and "solution". At the same time Alexander's description shows that a pattern is both, not only the solution of a problem, but instruction how and when to apply it as well.

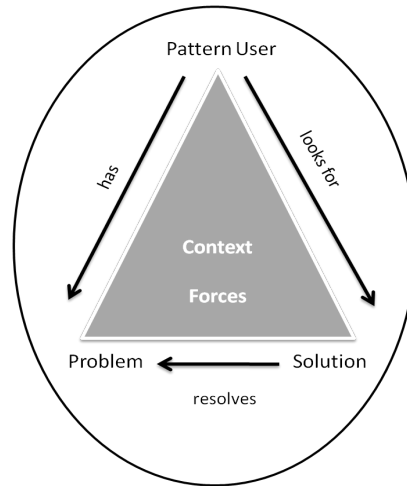


Figure 1: Key elements in Alexander's pattern description

Nevertheless, this perception of patterns is not directly applicable to educational problems. It may be relatively simple to find a didactic correlation for this socio-areal-edificial context. On the one hand each behavioral pattern is part of a superior social situation, on the other hand it becomes effective in that context. This applies also for didactic behavior in educational contexts (cf. Baumgartner 2006). From the pedagogical point of view, the following scenario may be seen as an appropriate example for an educational pattern.

Using the so called ball bearing method ("Kugellager-Methode") in course means that the learning group forms an inner and an outer circle, with two course participants vis-à-vis (confronting one another) and exchanging information, views etc. After a pre-determined period of time, the circles rotate in opposite directions so that different communication partners are facing one another (cf. Figure 2).

In different respects, this example is illustrative:

1. It illustrates the need to describe the social, areal and temporal configuration of the teaching scenario and educational interaction pattern respectively, including a detailed description of essential requirements like clock, signaling device to indicate rotation.
2. The pattern itself is content-neutral. The method can be used for all kinds of topics and subjects.
3. Especially for low cognitive processes like memorization and comprehension this method is very useful.

4. There are specific situations in which the application of the method can be recommended. For instance, realizing a lot of presentations in a very short time. (Cf. Baumgartner 2007a)

In our opinion the ball bearing method described here becomes a simple example of a pattern in terms of Alexander:



Figure 2: Ball bearing method realized by students at Danube University Krems

Context: Introductory phase of new topic, particular know-how

Problem: Initializing a general getting-to-know process, promotion and initiation of communication

Solution: Encouragement to theme-centered discussion according to rules, exchanging opinions and vantage points on subjects by applying the ball bearing method

However, developing such educational patterns we have to consider that there is still a severe knowledge barrier to overcome. The majority of university teachers and lecturers are educated with traditional pedagogical models. At first hand, differences and/or common features of face-to-face and eLearning scenarios are unknown. What they need is a kind of patterns which help them to elaborate and develop their knowledge under eLearning circumstances. Starting from this point of view the question which is to answer is: Given an educational scenario and pattern respectively, for instance the ball bearing method: How can one use this technique in an online situation? What is the same? What is different? What kind of tool to use? Etc. (Cf. Baumgartner & Bergner 2003).

Adopting the pattern concept for pedagogical purposes the Pedagogical Pattern Project (cf. <http://www.pedagogicalpatterns.org/>) primarily emphasize on the quality of patterns:

Patterns are designed to capture best practice in a specific domain. Pedagogical patterns try to capture expert knowledge of the practice of teaching and learning. The intent is to capture the essence of the practice in a compact form that can be easily communicated to those who need the knowledge. Presenting this information in a coherent and accessible form can mean the difference between every new instructor needing to relearn what is

known by senior faculty and easy transference of knowledge of teaching within the community.

We think that this point of view is too narrow. Reducing a pattern to a simple kind of statical template for designing or capturing good and best practices respectively ignores Alexander's concept of pattern. In his conception patterns are generic rules for the gradual unfolding of centers: "[...] every new pattern defined under the theory of pattern languages is a rule for creating a certain type of (new) living center, needed and appropriate in a given range of contexts" (Alexander, 2002b p. 345). Comparing this description with that of the Pedagogical Pattern Project it is quite obvious that these are two completely different points of view.

Characterizing the MedidaPrix as a type of pedagogical pattern means that it was launched to capture best practice in eLearning. The award captures, honors and disseminates expert knowledge of embedding digital media in academic teaching. Involving the pertinent eLearning community and elaborating a highly complex award procedure which includes double blind review, expert and jury workshops and public hearings (cf. Figure 3) the evolution in practice has been fostered.

Bearing in mind the cited goal of pedagogical patterns and the complex evaluation procedure the MedidaPrix Award may be able to change the lock-up culture of learning materials currently found in higher education organizations and to promote high quality material as Open Educational Resources (OER). With its evaluation procedure the award not only creates a model for quality assurance but acts as a facilitator for quality.

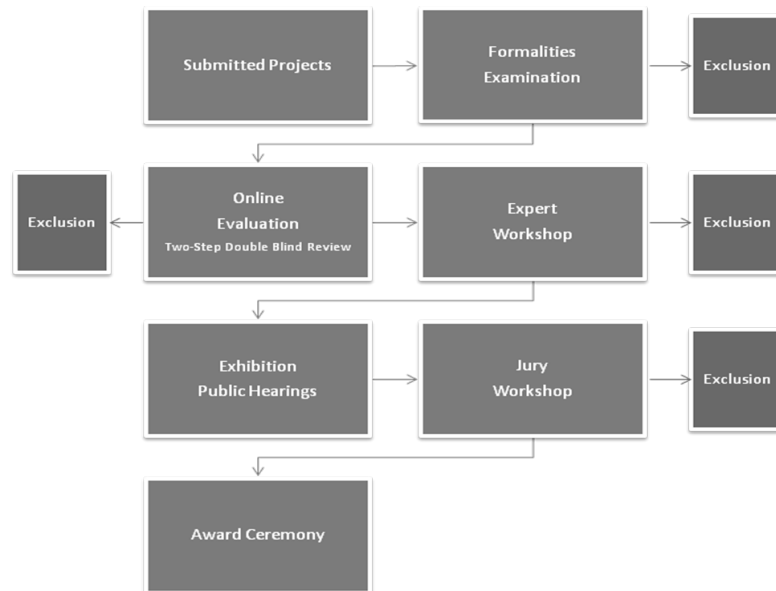


Figure 3: Award Procedure

Each project has to pass 4 types of examinations: formalities examination, double blind review, expert workshop and public hearing, respectively. The goal of these different phases is a reduction of the total number of submissions to 10 finalist projects which are invited to an exhibition and public hearings. In these hearings the members of the expert jury have the opportunity to clarify open questions in a face-to-face presentation.

Based on the method of “qualitative weight and sum” (QWS, cf. Scriven 1980, 1991; Baumgartner & Payr 1996; Baumgartner & Frank 2001) eLearning experts evaluate the submitted projects in a double blind review using a set of 27 single criteria (cf. Table 1). In the year 2008, these evaluation criteria of former submissions were revised and adapted particularly with regard to awarding OER projects.

1. Goal Criteria		
	1.1 Mission	<ul style="list-style-type: none"> • Goal conceptions • Target Groups • Target Dimension
	1.2 Vision	<ul style="list-style-type: none"> • Anticipated Effects • Added Value • Planned Future Development
	1.3 Strategy	<ul style="list-style-type: none"> • Project Management • Participation of the Target Groups • Degree of Structuring
2. Structural Criteria		
	2.1 Integration	<ul style="list-style-type: none"> • Organizational Integration • Didactic Integration • Technical Integration
	2.2 Transferability	<ul style="list-style-type: none"> • Organizational Transferability • Didactical Transferability • Technical Transferability
	2.3 IPR and Copyright	<ul style="list-style-type: none"> • Licensing Model • Motivational Inducements • Information
3. Process Criteria		
	3.1 Business Model	<ul style="list-style-type: none"> • Financing Model • Incentives • Financial Security of Business Operation
	3.2 Quality Management	<ul style="list-style-type: none"> • QM as Control Instrument

		<ul style="list-style-type: none"> • Didactical Standards • Evaluation Process
	3.3 Sustainability	<ul style="list-style-type: none"> • Critical Mass • Continuity • Further Development

Table 1: Evaluation Criteria for the MedidaPrix (Baumgartner & Zauchner 2008)

It is a set of 3*3*3 criteria to be evaluated. Applicants are explicitly advised to describe their initiative or submitted project according to key issues with respect to criteria which detail

1. the intended goals (goal criteria)
2. structural (structural criteria) and
3. process-oriented aspects (process criteria) of the initiative or project.

These main criteria are sub-divided in two lower levels. Generally, the goal is that the criteria and their operationalization can work as a kind of model, being debated in the community and thereby contributing to the development of high quality eLearning materials.

Comparing two main methods commonly used for weighting of criteria – numerical vs. qualitative weight and sum (NWS vs. QWS) – demonstrates a crucial difference: QWS is not based on the assumption of an interval or ratio scale like the NWS method. For preventing the possible confusion with numeric operations used for linear scales Scriven recommends to use symbols for the weights:

- E = essential
- * = very valuable
- # = valuable
- + = marginally valuable
- 0 = zero

The weighting of a criterion determines the range of values that can be used to measure a submitted project's quality. Weighting a criterion with #, e.g. means that the project can only be judged with #, + or 0, but not with *. Such a weighting of criteria implicates different types of configurations and patterns respectively. Regarding the MedidaPrix's set of 3*3*3 single evaluation criteria the award becomes a metapattern.

Pattern Quality

Alexander started the philosophical discussion about patterns and their quality (cf. Alexander 1979). Still, not the patterns themselves are the most interesting

part of Alexander's concept², but their concentrated composition, including cross-references to other patterns, either similar or alternative, or used under different conditions. Less the network of relations, like the so called pattern language, than the arising intuitive and emergent mental picture is the aspect that convinced us. Alexander describes this phenomenon as *quality without a name* (QWAN):

The fact is that the difference between a good building and a bad building, between a good town and a bad town, is an objective matter. It is the difference between health and sickness, wholeness and dividedness, self-maintenance and self-destruction. In a world which is healthy, whole, and alive, and self-maintaining, people themselves can be alive and self-creating. In a world which is unwhole and self-destroying, people cannot be alive: they will inevitably themselves be self-destroying, and miserable.

But it is easy to understand why people believe so firmly that there is no single, solid basis for the difference between good building and bad. It happens because the single central quality which makes the difference cannot be named. (Alexander 1979, p.25)

With this concept of quality he tries to express a oneness which, due to the limited nature of our language, cannot be expressed: "This oneness, or lack of it, is the fundamental quality for anything. Whether it is in a poem, or a man, or in a building full of people, or in a forest, or a city, everything that matters stems from it. It embodies everything. Yet still this quality cannot be named" (Alexander 1979, p.28).

QWAN is a property of the whole system on a metalevel, an intuitive practice or "Way of Teaching", which is based on tacit knowledge (cf. Ponayi 1985), and which cannot be tapped and communicated in words.

In this context quality is something incommunicable, something intangible. It is an emergent property of a complex system, but with the addition that it cannot be a singular property of any component of that system. We have to regard it always as a feature of the whole system. Explaining this phenomenon of emergence we may revert to the domain of science, such as the liquidity of water.

In a certain mixing ratio the elements hydrogen (H) and oxygen (O) are forming water: One molecule of water has two hydrogen atoms bonded to a single oxygen atom (H₂O). Given that oxygen has a higher electronegativity than hydrogen, water is a polar molecule. The oxygen has a negative charge while the hydrogens have a positive charge. The interactions between the different dipoles of each molecule cause repulsion (same charges) and attraction (different charges). Therefore the molecules are forming certain patterns. These tridimensional constitutions are called clusters. The special H-bond pattern is responsible for the water's high amount of surface tension and its liquid state at standard temperature and

² However, we feel it necessary to mention the fact that patterns are primarily concerned with Alexander's early writings in the 1970s which discuss the recognition of patterns and the developing of a pattern language. In his four-volume work *The Nature of Order* published in 2002 – 2004 he demonstrates that patterns themselves are not enough for understanding his concept of the built environment. He identifies 15 structural features which appear again and again in things which have life. In our opinion, these structural properties may be transferred to didactical scenarios.

pressure. Neither the hydrogen element nor the oxygen element has the property “liquid” (cf. <http://www.wasser.de/>). Thus, we cannot remove a single H₂O molecule and describe its property with the term “liquid”.

So what may we deduce from this example? The measurability of quality is difficult because of its emergent nature. The higher level (in our case the MedidaPrix Award as tool to capture high quality eLearning projects) guides or structures the lower level (submitted eLearning projects) but has to take into account the laws of all the elements of the lower level (different types and strategies of eLearning projects). In our mind this can be achieved by applying an appropriate set of evaluation criteria. So the award as higher level directs and regulates the submitted projects as lower levels using its evaluation criteria. In this context the MedidaPrix Award with its special evaluation criteria becomes a kind of standardizing pattern or metapattern, and, on the other hand, the eLearning projects, accommodating themselves to the metapattern for being honored with the award, are further patterns (cf. Figure 4).

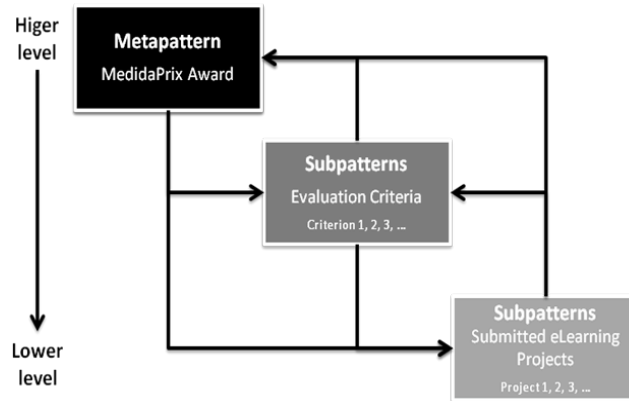


Figure 4: MedidaPrix Award and Pattern Quality

In simple terms, one might think that the relation between emergence and pattern means that the elements forming the lower level are developing a pattern on the higher level. The new configuration at the higher level is responsible for the emergence of new features and functions respectively. According to Alexander this presents the typical mechanistic picture of the world:

It is commonplace that a system as a whole has properties which are caused by cooperation of elements. It is also commonplace that the behavior of the system as a whole may therefore be new or unexpected. [...] In the mechanistic view of things, the cooperation of different elements can produce new measures in the whole. However, the individual measures of the individual elements are always defined locally, not globally, and remain unchanged as the elements enter into combinations. (Alexander 2000a, p. 459).

In the eyes of Alexander emergence is a top-down phenomenon, thought from the “wholeness”, and not as configuration of single elements from the lower level.

Transferring this idea to the discussion about quality we might argue that quality is a property belonging to the higher level. Generally, the quality of something depends on the criteria being applied to it. So the MedidaPrix Award as metapattern with its set of criteria as subpatterns provides rules for creating a certain type of high quality eLearning projects which are subpatterns themselves.

Qualities of a Change Agent

An effective change agent is often called upon to do what others have failed at, could not be done, or proved to be fatal. An effective change agent must also be able to share knowledge and ideas to transmit a sense of urgency and enthusiasm to others. An effective change agent has to demonstrate what are the really important issues to solve. From 2000 to 2008 the MedidaPrix Award was an initiative that intended to function as such an effective change agent.

The last nine years 1252 projects participated in the contest for the MedidaPrix Award (cf. Figure 5) subdivided into three assessment categories:

- digital media within higher education (“bottom-up” eLearning initiatives),
- development of higher education by digital media (“top-down” eLearning strategies),
- and, since the year 2008, initiatives that focus on the promotion of Open Educational Resources (OER).

In terms of the mentioned assessment categories the project comprises three different phases:

1. The first call for bids (2000 – 2003) focused on the various scattered “bottom-up” initiatives requiring a sustainable integration of departments and university administration.
2. The second call for bids (2004 – 2007) was directed at university administration focusing on the development of “top-down” eLearning strategies. Therefore a new assessment category was introduced (cf. Brake, Topper, & Wedekind, 2004).
3. The latest call for bids in 2008 promoted the international trend of OER initiatives. The goal of this award redesign was to sensitize the eLearning community in German speaking countries to the idea of the OER movement.

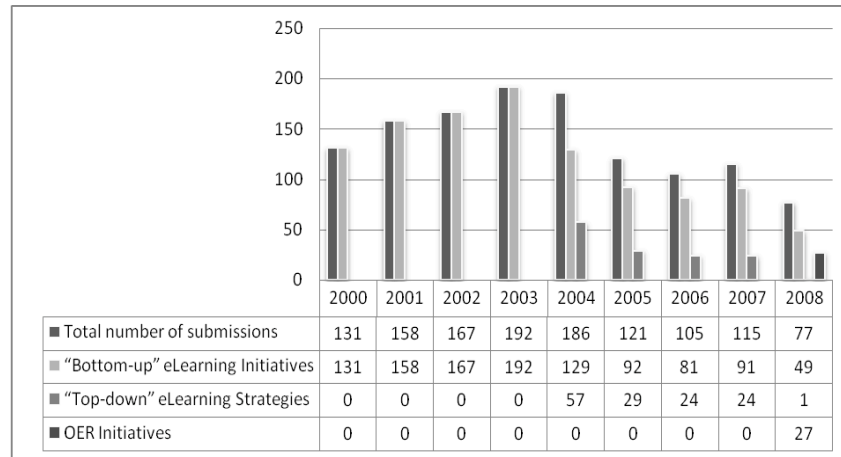


Figure 5: Submitted projects between 2000 and 2008

The increasing number of submissions between 2000 and 2003 can be explained with the growing recognition of the award within the eLearning community. The reason for this enormous participation cannot be attributed only to the award sum of Euro 100'000, but rather to the increasing interest in the elaborate evaluation procedure as aforementioned (cf. Wedekind 2004; Baumgartner & Preussler 2004).

Observing the decline of submissions as from 2004 it's far more difficult to find an answer. What happened? Why they didn't remain constant?

To our mind the MedidaPrix Award cannot be seen separated from the national funding programs in Germany, Austria and Switzerland. One needs to consider the award's reciprocal effect: It affected the strategic focus of the funding programs performing its function as trigger and at the same time promoter for quality development. The MedidaPrix Award's quality is based on its complex evaluation procedure. By means of its evaluation criteria the award is able to generate quality.

The coincidence of submission decline and the expiration of the first wave of national funding programs for eLearning seemed to suggest that the contest is closely linked to these programs. Our supposition gets reconfirmed regarding the stop of the second wave of funding programs in the year 2007: In 2008 the number of submitted projects dropped 33 percent over the previous year.

Redesigning the award and focusing on an intensified promotion of OER initiatives require identifying some reasons why this might be considered important.

Well, we believe the reasons are twofold:

- Firstly – as can be seen from Figure 4 –, the MedidaPrix Award is experiencing a crisis, caused by the decline of submissions. But crisis represents a productive state of being as well if one manages to eliminate its overtones of disaster. More than a simple award like any other one the

MedidaPrix Award tends to be a change agent, not primarily focusing on technology or design, but instead being – metaphorically speaking – trail marker like a red dot on trees or stones along the Open Educational Resources trail. A kind of guide book, offering information and good practice about production models, business models, models for quality assurance, or handling of copyright issues (cf. Baumgartner & Zauchner 2008).

- Secondly, the MedidaPrix Award could contribute to disseminate the OER idea in German speaking countries and, at the same time, to develop a culture of content sharing among lecturers at universities. Living a complex transformation process in the field of learning, caused by the shift to the digital, we have to unlock our high quality learning materials, our “crown jewels”, for educational institutions so that they can be accessed for free.

Change Agent for a New Transformation Process

Like we argued, it's a simplified view of the MedidaPrix Award as a kind of metapattern, not a sufficient description. Any award depends on the context and the status of the awarder. The MedidaPrix Award is a very prestigious award within the eLearning community in Germany, Austria and Switzerland. The award is regarded as quality seal for innovation incorporating pedagogical change in the field of higher education. In time of discontinuation of national funding programs, to keep its function as change agent within a sustainable development of eLearning in higher education the MedidaPrix Award is forced to shift its emphasis: Focusing on an intensified promotion of OER initiatives the award will continue its role. If the goal of the MedidaPrix Award as metapattern is to facilitate broad dissemination, accumulation and scrutiny of OER initiatives and projects then its ultimate quality test is when this knowledge – embedded in the evaluation criteria of the Medida-Prix Award – feeds back into practice. In this context it is important to point out that the emphasis on OER implies not only focus on open resources or contents, but also requires a broader view in considering the educational contexts. The key essentials in making use of OER are adaptability and reuse, but generally they are neglected (cf. Zauchner & Baumgartner 2007). “eLearning will come pervasive only when faculty change how they teach – not before” (OLCOS 2007, p. 55), a statement, which may be transferred to OER projects. Expecting changes in teaching methods and improvement of education focusing only on eLearning cannot fully meet the quality goal. The most important thing is to concentrate on adaptability and reuse in a didactical way. The focus is not so much on the *What* but on the *How* of using eLearning materials.

The emerging new forms of learning are requiring a new culture of sharing and contribution. Normally (university) teachers in German speaking countries think that they have to develop their own learning materials according to the own theoretical approach. They may be seen as a kind of lone fighters who don't want to share not for anything. So from our point of view we have to build awareness for the OER movement and its ideas and goals by supporting any initiatives³ which may change this mental attitude. We have to create a global culture of learning, built upon an educational system of content sharing. Within this context the MedidaPrix Award enables to change the lock-up culture of learning materials and to achieve a deeper understanding of the collective advantage of developing and exchanging high quality material as Open Educational Resources. That is the reason why we think that the award will recapture its former role of change agent.

Conclusion

Since 2008, all the projects submitted for the MedidaPrix Award are evaluated by 27 single criteria relating to OER. Concerning this matter the award can be regarded as a model or even metapattern which provides, captures, honors and disseminates high quality learning materials. Its main goals are to motivate to share content regarding especially didactical contexts and at the same time to build a community which realizes the importance of communications and collaboration.

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³ The non-profit organization Creative Commons (CC) is, for instance, has released several copyright licenses known as Creative Commons licenses. These licenses let authors, scientists, artists, and educators easily mark their creative work with the freedoms they want it to carry. CC can be used to change the copyright terms from "All Rights Reserved" to "Some Rights Reserved."

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