

Ulf-Daniel Ehlers

Open Learning Cultures

A Guide to Quality, Evaluation, and
Assessment for Future Learning



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*To my sister Barbara who with
her life instilled an ever burning light in us all
and to Joshua who carries it forward*

Preface

This book is about two topics, the fast change of learning in the open-learning worlds of Web 2.0 which I refer to as open-learning cultures and quality development and assessment for those open-learning worlds and landscapes. When I started out to draft the first chapters, two things became apparent to me: First, I noticed that indeed we have arrived at fast changing learning cultures and that every month brought about new aspects to my topic which I strived to integrate and which expanded the scope. Many issues I feel are barely enough elaborated for their actual and emerging importance. Second that a great variety and diversity of learning cultures exist, which expresses in manifold learning designs and in the emergence of open-learning landscapes, and also the discourse about the topic has a great diversity of actors, in parts deviating terminology and fashions. Therefore, I decided to add to the original plan to publish a book on quality and assessment—two already broad themes—the chapters on learning in a Web 2.0 world, open-learning cultures, and learning with peers in networks.

Assessment and Quality are amongst the topics which are hotly debated and extremely important to educators today. While much of the reality of assessment is (still) tied to formal learning scenarios in higher education institutions, we can see that higher education institutions' teachers more and more are bound to recognize also informal learning processes and networks of their students, moving ahead to new and more open-learning cultures. Many are embracing this fact already as a naturally given reality, as many case studies in the book show. It is, however, not evident and often not easy to create assessment concepts for open-learning cultures which allow recognition of informal learning influences into institutionalized learning worlds. The open-learning cultures are drastically opening the learning process to influences beyond the classroom and the institutional context and merge private, informal learning, the benefits of open knowledge, and publicly available content with traditional formal and often institution-bound learning processes. Open-learning cultures are challenging the old and long practiced pathways of our practice as educators. They are often characterized through elements of open-learning architectures and transform learning into a more student driven and self-responsible learning, using technology to connect resources, students, and teachers

in a new way. I also like to think of them using the metaphor of learning ecologies due to the fact they have an evolving and emerging nature which is composed of many interdependent parts, beyond traditional classrooms borders stretching into the family, private life and activities, or professional contexts, and all together building the ecology in which learning is embedded. In these open-learning ecologies, assessment has the function of moving closer to the actual learning experience itself and is a tool for learners to determine their own progress, learning needs, and next steps. Evaluation criteria are negotiated with peers and facilitators or learning coaches and assessment and evaluation become integral parts of learning themselves. But how to deal with these so dynamic and individual processes of evaluation and assessment?

After a phase of divergence and polarization, we can see now that a new form of blended learning is evolving. Blended learning here means not only that technology is enhancing the learning environment but also that blended forms of quality development, of blending formal and informal learning, and of self- as well as peer assessment are evolving more and more. Open learning is displaying a new *mélange* of contexts and elements. This book is a contribution to understand better the challenges we are facing when creating assessments for new and more open-learning cultures, how open-learning landscapes, open-learning ecologies look like, and how, as educators in higher education institutions, we can still get to terms with quality development and assessment.

The motivation to publish this book has its origins in numerous discussions during the last few years that I had the opportunity to hold with colleagues from all over the world. They took place during many international research projects and conferences related to learning technologies, as well as in higher education institutions meetings and in policy seminars, and they were triggered by the fundamental changes visible through integration and adoption of technologies into all areas of teaching and learning. I would like to thank everybody who contributed to this often critically discussed topic which is—sometimes—splitting the community into two—the skeptics and believers. Between both communities there are large plains of consensus, some sharp hills of disagreement, and many valleys of fruitful learning opportunities. To all those colleagues whom I had the chance to work with in international research and development projects, from Europe, Africa, Latin America, and Asia, and which contributed in their own ways to this book, I wish to express my gratefulness for their open minds, their willingness to share, and contribute to a more global vision of learning.

To my wife Virginie I would like to say thank you for being a critical friend in many discussions and also for allowing me to take time for such an isolated activity of writing a book. And to my little son Joshua who is already and will be in the future an active inhabitant of these new open-leaning landscapes.

Stuttgart, Germany
July 2013

Ulf-Daniel Ehlers

What Can You Expect?

●	Introduction
●	Discovering the Power of Social Media: The Next Generation Learning Tools
●	Emerging Learning Landscapes: Transforming Education
●	Community Based Learning Ecologies: Peers and Networks
●	Quality for new Learning Landscapes
●	Assessment for New Learning Landscapes

Contents

1	Introduction: An Avalanche Is Coming	1
1.1	A Fast Track Introduction to the Connection Between Quality and Assessment	6
2	Discovering the Power of Social Media	9
2.1	Getting Started with Social Media	9
2.2	The Rise of Web 2.0 and Social Media in Higher Education	11
2.3	The Effects of the Next Generation Technology on Higher Education	23
2.3.1	Web 1.0 and Web 2.0	23
2.3.2	From e-learning 1.0 to e-learning 2.0	27
2.4	The Read and Write “Pro-sumer” Web	32
2.5	Harnessing the Power of Social Networks	34
2.5.1	The Strength of Weak Ties	35
2.5.2	The Wealth of Networks	35
2.5.3	The Wisdom of Crowds	36
2.5.4	Crowdsourcing	36
2.6	The Web as a Platform	37
2.7	Architecture of Participation	38
2.8	Looking Ahead: Web 3.0 and the Semantic Web	39
3	Emerging Open-Learning Cultures: Transforming Higher Education	43
3.1	Understanding Learning Culture as a Holistic Concept for Higher Education	44
3.2	Creating a Model of Learning Culture	46
3.2.1	Organizational Culture According to Edgar H. Schein . . .	46
3.2.2	Organizational Culture According to Geert Hofstede	48
3.2.3	Organizational Culture According to Johannes Rüegg-Stuerm	49
3.2.4	Organizational Culture According to Gareth Morgan	50
3.2.5	Harvesting Elements for a Learning Culture Model	51

3.3	From Knowledge Acquisition to Competence Development	52
3.3.1	How to Develop Competence?	58
3.3.2	Designing Learning for Competence Development	59
3.4	The Rise of Lifelong Learning	63
3.5	The New Blend: Connecting Formal and Informal Learning	65
3.6	Opening Learning Architectures: From Distribution to Collaboration	72
3.7	From Expert via User to Learner-Generated Content	77
3.8	Open Educational Resources and Open Educational Practices . . .	83
3.8.1	Open Educational Resources	84
3.8.2	Creative Commons	88
3.8.3	Open Educational Practices	89
3.9	Massive Open Online Courses	95
3.9.1	Myth 1: MOCs Follow Their Own Quality Logic	97
3.9.2	Myth 2: MOOCs Are the Solution for a Better Educated World for All for Free, Especially the Developing and Emerging Countries	98
3.9.3	Myth 3: MOOCs Use Innovative Learning Design	98
3.9.4	Myth 4: Large Data Will Improve Teaching (Taken from Tony Bates Blog 2013)	98
3.10	From Teachers to Facilitators, Learning-Stewards and Change Agents	99
4	Open and Community-Based Learning Ecologies:	
	Peers and Networks	103
4.1	Learning Networks Between Peers	104
4.2	Learning Networks: Moving from a Constructive to a Connected and Networked Learning Paradigm	107
4.3	Networks or Communities: Different Learning Ecologies	115
4.4	Communities of Practice	117
5	The Foundations for Quality of Open-Learning Cultures	123
5.1	Revisiting the Quality Debate in Education	126
5.2	Quality from an Educational Perspective: Participation and Coproduction as Conditions for Educational Quality Development	130
5.3	The Learner's Role in Quality Development: An Important and Often Misunderstood Principle	131
5.4	How to Involve Learners into Quality Development	137
5.5	A New Approach to High-Quality Learning for Autonomous Learners and Educators: Quality Literacy	139
5.5.1	Theoretical Background and Approach of a New Concept	140
5.5.2	The Four Dimensions of Quality Literacy	143

6 The Practice of Quality Development: Tools and Concepts for Quality of Open-Learning Cultures	147
6.1 Factors to Consider for Quality Development in Open-Learning Cultures	150
6.1.1 Factor 1: What Is the Object of Quality Development for Open-Learning Cultures?	151
6.1.2 Factor 2: Taking a Holistic Approach to Develop Quality of Learning Cultures	151
6.1.3 Factor 3: Methods and Instruments for Quality Assessment	152
6.1.4 Factor 4: The Stakeholders	153
6.1.5 Factor 5: Coevaluation and Codesign of Quality Development	153
6.2 From Theory to Practice: Shifting the Focus	154
6.2.1 Worksheet	154
6.3 Principles for Quality Development of Open-Learning Cultures	160
6.4 MyQuality: Building Your Own Quality Approach	163
7 Assessment for Open-Learning Cultures	167
7.1 Revisiting Assessment of Learning Outcomes	169
7.2 Moving Ahead to Assessment for Open-Learning Cultures	171
7.2.1 Self- and Peer Reflection	173
7.2.2 Peer Review	176
7.2.3 Peer Assist	178
7.2.4 Self-Assessment	181
7.2.5 Peer Assessment	187
7.2.6 Self-Evaluation	188
7.2.7 Social Recommendation	189
7.2.8 E-Portfolio Assessment	194
7.2.9 Rubrics as a Tool for Assessment: Also for Open-Learning Cultures	200
7.3 Final Remarks on Assessment in Open-Learning Cultures	203
7.3.1 Trust and Peer Reputation	203
7.3.2 Selecting a Peer That Fits!	209
7.3.3 Comparison of Assessment Methodologies: Strength and Weaknesses	209
Abbreviations	213
Definitions	215
References	217
Index	237

Index of Figures

Fig. 2.1	Social Web sphere	25
Fig. 2.2	Change in the landscape of e-Learning	29
Fig. 2.3	Purposes of blogs in courses (based on Leslie 2003)	29
Fig. 2.4	Produsage (based on Bruns 2007)	34
Fig. 2.5	Read-Only Web vs. Read-Write Web	39
Fig. 2.6	Architecture of participation	40
Fig. 2.7	Web 1.0 to Web 4.0 (Spivack 2007)	41
Fig. 3.1	Concept map on elements of learning cultures	44
Fig. 3.2	Edgar Schein's model of culture	47
Fig. 3.3	Hofstede's model of culture	49
Fig. 3.4	The stairs of knowledge (based on North 2005: 32)	56
Fig. 3.5	From knowledge to competence (based on Erpenbeck and Sauter 2007: 69)	57
Fig. 3.6	Classification of competence (based on Erpenbeck and Sauter 2007: 67)	57
Fig. 3.7	Learning environments as reflection laboratories	60
Fig. 3.8	Reflection cycle	61
Fig. 3.9	Competence development through technology-enhanced learning (based on Erpenbeck 2005)	62
Fig. 3.10	From distribution to collaboration (Ehlers 2008: 8)	75
Fig. 3.11	Content categories (Ehlers and Helmstedt 2010)	83
Fig. 3.12	Open educational practice matrix	94
Fig. 3.13	Matrix 2—diffusion of OEP	95
Fig. 4.1	Key characteristics/attitudes of a peer	105
Fig. 4.2	Definition/meaning of a “peer group/community.”	106
Fig. 4.3	Definition/meaning of peer production.	106
Fig. 4.4	Experiences extracted from peer production	107
Fig. 4.5	Products/artifacts are created by peers of peer production	108
Fig. 4.6	Aspects of connectivism	111

Fig. 4.7	Components of a social theory of learning: an initial inventory (based on Wenger 2005: 5)	119
Fig. 4.8	A model for networked learning: enabling people to connect, share and co-create	120
Fig. 5.1	Aspects influencing the notion of quality (Ehlers 2003)	127
Fig. 5.2	Quality culture (based on EUA 2006)	141
Fig. 5.3	Steps to professional competence (adapted from Wildt 2006) . . .	142
Fig. 5.4	Dimensions of quality literacy (QL)	144
Fig. 6.1	Perspectives on the quality discussion in context of technology-enhanced learning	150
Fig. 6.2	The Learning 2.0 Qualityscape	162
Fig. 7.1	Overview of forms of assessment (Korpien 1976)	171
Fig. 7.2	Feedback Loop (based on Trahash 2004)	188
Fig. 7.3	Two faces of e-portfolios (cf. Barrett 2009)	197

Index of Tables

Table 1.1	Quality assurance and assessment—broader vs. narrower view (Ehlers 2007a)	7
Table 2.1	From Web 1.0 to Web 2.0 (Ehlers 2008: 4)	26
Table 2.2	From e-learning 1.0 to e-learning 2.0 (Ehlers 2008: 15)	31
Table 3.1	Different approaches to organizational culture	51
Table 3.2	Traditional vs. new thinking (based on Cross 2007: 10)	67
Table 3.3	Formal vs. informal learning	68
Table 3.4	Characteristics of change in technology-enhanced learning models (Ehlers 2007a)	74
Table 3.5	From push to pull (Cross 2007: 38)	76
Table 3.6	Categories of content in courses (Lee and McLoughlin 2007)	81
Table 4.1	Extended instruction styles (based on Baumgartner and Payr 1997)	109
Table 4.2	Types of learning in a learning ecology (Siemens 2005: 40) ...	113
Table 4.3	Different conditions and subjects of quality in communities vs. networks	117
Table 5.1	Overview of different components of quality	146
Table 6.1	Different conditions and objects of quality assessment (Ehlers 2008: 15–18)	149
Table 6.2	Peer creation and peer validation	163
Table 7.1	List of assessment methods for open-learning cultures	173
Table 7.2	Reflection-based approach	175
Table 7.3	Peer-review implementation roadmap	179
Table 7.4	Peer review vs. peer assist (Dixon 2000)	181
Table 7.5	Potential course of actions—peer assist-based approach—Part I	182
Table 7.6	Potential course of actions—peer assist-based approach—Part II	184
Table 7.7	Self-assessment—liberating vs. oppressive factors (Boud 1994)	186

Table 7.8	Self-assessment—liberating vs. oppressive factors (Boud 1994)	189
Table 7.9	Self-assessment: exemplary course of actions for assessing and developing quality (Ehlers 2008)	190
Table 7.10	Assessment of learning vs. assessment for learning with e-portfolios (Barrett and Carney 2005)	196
Table 7.11	Categories of e-portfolio tools (Barrett 2007, 2008a, b)	198
Table 7.12	Comparison “e-Portfolio vs. online tests” (based on Hornung-Prähauser et al. 2007)	199
Table 7.13	Example for as holistic rubric (based on Mertler 2001)	201
Table 7.14	Example for an analytic rubric (based on Mertler 2001)	202
Table 7.15	Example for a rubric on using twitter for teaching and learning (based on Franker 2010)	204
Table 7.16	Example for a rubric assessing a blog project (based on Franker 2010)	206
Table 7.17	Summary of strength and weaknesses of reflection for E-Assessment 2.0	210

Chapter 1

Introduction: An Avalanche Is Coming

An avalanche is coming. It will hit higher education institutions and change completely the nature of their organization, profile, and mission. The avalanche has started already on the top of the mountain and finds its way downward. You don't see it but it is moving faster and faster with great force underneath the surface. If you are experienced with avalanches you know that it will hit but you don't know when, and if you are experienced with higher education you know why: Universities are giving away knowledge for free. More and more higher education institutions are opening up, in their business models, in their leaning designs, and in their access regulations. A huge pressure on the classical twentieth century university is building up because its unique selling point—to be producers and shepherds of knowledge—no longer holds differentiating power when knowledge is made available for everybody for free. When knowledge is available, one of the important future tasks of universities will be to give orientation about quality and to organize certification and assessment. The intention of this book is to lead the way to these horizons and discuss new emerging and more open forms and methods of quality development and assessment.

Open Learning has a long tradition. Since the days of Célestin Freinet and Maria Montessori, the idea of open learning has grown to become the reality of many of today's higher education institutions in new ways and a variety of shapes and forms. In constructivism and connectivism the concept has been reflected anew and profoundly and through technology has gained an unprecedented power. Technology has played the role of catalyzing learning scenarios into more self-determined, independent, and interest-guided learning. A sphere of new open-learning cultures is emerging which is both empowering higher learning and challenging institutions, teachers, and learners at the same time. In higher education institutions, open-learning cultures are no longer visions of a distant future, but everyday reality for more and more students. E-learning is moving out of its zone of experimentation and gaining room while comprising online tools such as blogs, wikis, or podcasts for learning and teaching. Learners can create their own contents and exchange information in networks like the video platform YouTube: Download a lecture off the seminar Web page as a podcast in the morning, take part in an online session of

an international studying group for the purpose of preparing for an exam in the afternoon, and log into the virtual world of Second Life to take part in a tutorial relating to the morning's lecture—the daily routine of studying looks like this or similar more and more often.

To support learning today, higher education institutions must be able to do more with less yet still plan to meet the challenges of open-learning cultures. Higher education institutions today are expected to be more than just the physical spaces where learners meet lecturers. Students expect them to be learning spaces or learning landscapes. Because of the profound nature of change in learning styles, organizations, methods, tools and technologies, forms of participation and interaction, and globalization we refer to the change as being a change of cultures. Open-learning cultures are at the same time constituting element and characteristic of transformed learning environments which we refer to as landscapes in higher education institutions. When the focus of attention shifts from content to learning activities and human interactions around content and peers, social learning and evolving communities of practice will enrich future learning. Campus need to create a participatory architecture for supporting these communities of learners, an architecture that can harness the power of both the existing physical place and the emerging virtual space. To conceptualize learning environment as landscapes brings metaphors to the world of learning which help to understand its ecologic nature. In this understanding, learning is not seen as something which is happening separated from the learner, just as an encapsulated part of his day-to-day activity but rather as something which is part of the ecology of their lives. It is bound to other areas of life and has natural connections, influences, and purposes. Just like in a view on a landscape's ecology it can be established that a certain balance of ecological factors has to be maintained. Learning is embedded into a permanently growing Web of experiences, activities, and practices and reflection is the main instrument of learners to transform experiences into knowledge, skills, and attitudes.

Many higher education institutions have today discovered this characteristic of learning and development. Higher education institutions' campuses all over the world are transformed into more open-learning spaces or learning landscapes and follow the metaphor of a learning ecology. Ecology is an environment that fosters and supports the creation of communities. The definition applied to gardening applies also to learning communities. Ecological gardening is about gardening with nature, not against it. Likewise a learning ecology is an environment that is consistent with—and not antagonistic to—how learners learn. John Seely Brown (1999) has written extensively on the concept of knowledge ecology. He defines ecology as an open system, dynamic and interdependent, diverse, partially self-organizing, adaptive, and fragile. His concept includes the following characteristics of a learning ecology:

- A collection of overlapping communities of interest
- Cross-pollinating with each other
- Constantly evolving
- Largely self-organizing

Learning ecologies can exceed these characteristics. However, in more and more formal education environments, the concept of self-organization takes the place of a more structured process of knowledge transmission. The instructor changes roles and takes on the role of a gardener. These developments are becoming even more important due to the constant changing environment in which higher education institutions are acting today—and for which they have to prepare their students. The repercussions of societal and industrial change, globalization, and the rise of information technology “...also referred to as the impacts and implications of the information age—have given rise to the perception that ‘*knowledge is the new economy*’” (Jackson 2002: 6), also illustrated by terms, such as information economy, knowledge-based economy, virtual economy, internet economy, or e-economy. New forms of organization that are based on networked communication media and network patterns have become a key characteristic of almost all economic sectors. In effect, the *half-life of information*, product lifecycles, and also employment relationships are shortening in time. All these aspects lead to a growing complexity which Botkin and Mahdi (1979) describe as “human gap.” To cope with it we can see a continuously rising importance of learning. Lifelong learning and informal learning (Cross 2007) accelerate the emergence of a learning society and organizations are on their way to become learning organizations (in the sense Peter Senge describes them in Senge 2006). Learners are required to learn faster, at a more efficient and constant rate, and about various, often unrelated topics, in order to meet the challenge of acquiring competencies in demand (Siemens 2004a; Downes 2005; Ehlers 2008). A learner’s capability of adapting to complex and dynamic contexts has become more important than its individual theoretical and practical store of knowledge (Cambra-Fierro and Cambra-Berdún 2006; Siemens 2004b; Westera 2001). Learners and educators are increasingly embracing learning as a part of a culture in their learning ecologies.

While teaching and learning is changing—is the definition of quality and the method used to develop or assess quality and learning also changing? In this book we will show how quality and assessment methods can be developed and applied to open-learning cultures. We believe that the described acceleration of learning is posing profound challenges to the way quality development has to be understood. The question how to define quality—and from which perspective—is anew urgent as well as open and cannot be answered in a general fashion but has to take into account the specific context and backgrounds in which quality is to be developed.

Technology-enhanced learning today has become a reality and is often diffusing into every form and kind of learning, be it presential (to enrich the classroom) or in a more distant mode. Social media are changing traditional learning designs and opportunities and are used more frequently today. Stephen Downes (2007) coined the term “e-learning 2.0” to describe the more frequent use of social media for learning and describes it with words such as “learner centered,” “immersive learning,” “connected learning,” “game-based learning,” “workflow (informal) learning,” “mobile learning.” On top of that, he sees a development from standardized learning environments to “personal learning environments” (Downes 2007). But

what is really meant by that? What constitutes the new, innovative element that is described with terms like open-learning cultures and (e-)learning 2.0? And above all: How will it impact quality assurance, design, management and development, or learning? And if so: Do we need new methods and concepts to improve and assure the quality for open-learning cultures? Those questions are at the beginning of many debates around the changes technology-enhanced learning evokes in formal learning contexts.

It is generally perceived that open-learning cultures and technology and social media for learning are a demanding shift from a teacher and expert-oriented, asynchronous, top-down, micromanaged, and time-staged paradigm and culture of educating learners to a new paradigm: more learner-oriented, synchronous, bottom-up, and self-organized, self-paced learning—predominantly based on skill and competence development. Even though most experts engaged in the discussion about a changing higher education system agree that higher education institutions are becoming more closely aligned with the new requirements, the educational system and its institutions and organization are frequently accused by professionals for being “slow to recognize both the impact of open-learning tools and the environmental changes in what it means to learn” (Siemens 2004a). The outline of open-learning cultures will be discussed in this book along the lines of those landmarks.

Radical change usually only occurs when (1) substantial amounts of significant anomalies against a current paradigm bring about a state of crisis for the respective scientific discipline, and (2) when this circumstance results in a loosening or breaking up of rules and stereotypes. Kuhn refers to this as *paradigm change* (1962: 10, 80, 89). This paradigm change in learning and education, amplified among other factors by the 2.0 culture and its economic and social consequences, is still in full swing (CWRU 2008). It is clear that, even though the endeavor to improve the quality of learning is regarded as a cornerstone for the future development of technology-enhanced learning and one of the crucial factors determining the success of the European transformation into an information society (Ehlers et al. 2005: 70), most currently existing approaches and concepts of developing and assuring the quality of learning within and for the new and emerging learning environments still have an explorative and experimental character reliant on best or good practices, examples, guidelines, and benchmarking (Rekkedal 2006). The process of adjusting to new measures, which Pond (2002: 1) describes as “learner-centered, local, deferential, tailored, open, collaborative, qualitative, flexible, learning-as-constant with time-as-variable, teacher-skilled, aggregated experience, international/global, dynamic, distributed-delivery model, outcomes, services” must indeed be expected to take place in small incremental steps rather than in a revolutionary way.

With the emergence of modern technologies and the Web 2.0 revolution, content creation, participative information sharing, and, most notably, collaboration among users has revolutionized Web-based communities and created cutting-edge concepts, coining and promoting the terms Technology-enhanced learning 2.0,

peer production, and informal learning. This shift in technology, accompanied by the paradigm change of learning, raises questions of whether the understanding, the proceedings, and the utilized systems and methods of traditional quality development approaches and concepts—based on examining the actual outcomes of learning by means of comparing the results of learning processes with predefined standards and using traditional forms of measurement—can be effectively and successfully put into practice (Ehlers 2008). Participants of the emerging learning scenarios must adjust to these challenges in order to ensure the quality and thereby the effectiveness, sustainability, and measurability of their learning.

This book deals with the described questions. In five chapters we will outline the changes and the consequences for quality development and assessment of learning which is changing, as we will show, from “assessment of” to “assessment for” learning.

Chapter 2 elaborates the background for the new influences which find expressions in a move towards more collaborative, distributed and networked, more informal and self-guided learning. We will deal with the rise of social media for learning, Web 1.0 and Web 2.0, and show how architecture of participation can change learning activities.

Chapter 3 will apply these new paradigms to learning and education and outline how open-learning landscapes look like. We will discuss the shift from knowledge transfer to competence development, the rise of lifelong learning, and deal with the importance of informal learning, User-Generated Content and Open Educational Resources. The visit to open-learning landscapes will close with an outlook on the diversification of learning contexts.

Chapter 4 is putting the most important elements of open-learning landscapes in the spotlight, peers, networks, communities, and collaboration. We will define peers and peer collaboration, show how learning paradigms evolve from constructivist over connectivist to generative learning paradigms and discuss learning communities and networks.

Chapter 5 will show how to consider quality in the open-learning landscapes. We will present the debate of quality in the light of open-learning cultures. The chapter will explain which dimensions are changing on the move from technology-enhanced learning 1.0 to technology-enhanced learning 2.0. Readers will be presented with a step by step guide through important questions in order to develop their own quality concept for open-learning landscapes.

The final chapter finally deals with the question of assessment for e-learning 2.0 scenarios. A number of methodologies will be presented. In addition suggestions and guidelines for their use in practice are suggested, templates provided, and cases used to exemplify the described methods.

1.1 A Fast Track Introduction to the Connection Between Quality and Assessment

On the surface everything seems easy: A *high quality* course will lead to good *assessment* of the *learning outcomes*. The connection is clear! If in a higher education institution all students are passing the exams with reasonably good grades, we feel that the quality of teaching is good. If too many students fail we perceive a problem. The diagnostics of learning outcomes through assessment seems to be clear. However, both topics—quality and assessment—are extremely diverse fields with a large body of research and theories associated to them. Still, assessment—in a larger context seen as the recognition of evidence of learning—is posing a strong challenge to educators who have to deal with it in their everyday teaching, as it is one decisive element in the larger quality discourse.

In educational practice, assessment is used to determine the learning outcomes of students—which in turn often are seen as the indicator for quality. If students demonstrate that their learning has resulted into demonstrated evidence that they have met all learning outcomes this is viewed as high-quality learning process. However, the direct attribution of learning outcomes to the formal learning scenario is becoming increasingly difficult with technology widening the learning sphere and adding informal learning elements to it. We therefore need a more integrated understanding of assessment as integral part of learning processes, which directly enables students to determine usefulness of learning experiences for overcoming their learning problem. The challenge there lies in the attempt to connect quality and assessment into a new way in one approach.

In the narrow sense, both quality assurance as well as assessment are concerned with defining the value, measuring, or evaluation, in one case as an objective measure of a certain quality of a whole course, a piece of material or a learning environment, in the latter case of the learning achievements and outcomes of a learner. Both are aiming at value judgments and thus demand a certain model or philosophy which forms the basis for this judgment, e.g., a learning theory or a conception of learning. On another level they have similarities because they both are usually involving an external view for assessment and analysis rather than an internal view (see Table 1.1)

However, to stop at this point would be to abandon most of the developments around these concepts which are more and more opening up, involving other perspectives, different methods, and more and more also the internal self-assessment view. Therefore we will have a look across the strict borders of assessment of learning into the field of (self-) assessment for learning. We will also open the field of quality assurance of learning materials and courses into the field of quality development for learning.

It has been widely noted that quality and assessment are key drivers of technology-enhanced learning today. Both are hotly debated topics which continuously change shape through the emergence of new and further developed learning technologies. While there is little dispute of the relevance of both concepts to