Assessment in microblogging enhanced courses

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Abstract: The activity, participation and interaction of students on different social media platforms during courses cannot be assessed or marked by using traditional assessment strategies. Also most university don't offer assessment procedures guidance related to identification, ownership, safety, privacy and recording-keeping of such Web 2.0 work produced for assessment. After a review of existing assessment strategies for courses using different social media, the authors will propose a set of microblogging metrics for assessing students activity and learning communities coagulation on microblogging platforms. The indicators were implemented on the microblogging platform Cirip.eu, facilitating student assessment in formal and informal courses, and observations on the moderation and courses quality. The set can be adapted for other microblogging platforms used in education.

Key-Words: Assessment, Social Media, Microblogging, Learning Community, Collaborative, University

1 Introduction
With the increased use of social media applications, a large number of universities worldwide are integrating them in the teaching-learning process, in research and in professional development.

During the last six years, the technology of microblogging has been adopted in a variety of contexts, its usefulness becoming more and more compelling for educational actors, from schools and universities, from training and workplace learning.

The activity, participation and interaction of students on different social media platforms (on microblogging platforms too) during courses cannot be assessed or marked by using traditional assessment strategies. Also most university don't offer assessment procedures guidance related to identification, ownership, safety, privacy and recording-keeping of such Web 2.0 work produced for assessment.

There were developed a few notable projects related to how to assess the students work on social media and on microblogging platforms during courses, but there is a need for an ongoing consultations of teachers and policy makers.

2 Projects for Social Media Assessment
Often used interchangeably with Web 2.0, social media have different forms such as blogs, microblogs, social networks, media sharing sites, social bookmarking, curation and social aggregation applications, wikis, virtual worlds, social games and other collaborative applications. The integration of social media in academia has marked a shift from eLearning to eLearning2.0, a term coined by Stephen Downes [1], that implies:

- informal / social learning are integrated in formal learning;
- during courses, the learning community includes not only students and facilitators, but also peers worldwide;
- students build their own ePortfolios and Personal Learning Environments;
- the Learning Management Systems (LMS) are enlarged by using Free and Open Source Software (FLOSS), Open Educational Resources (OER), collaborative content and interactions on Web2.0
Many reports and research studies emphasize the advantages for using social media in education: reflective, creative, collaborative and peer work is encouraged, positive impact on students' retention, digital skills are cultivated [2], [3], “development of competences for lifelong learning and employability” [4].

The evaluation and grading of students' activity, participation and interaction on different social media platforms during courses cannot use traditional assessment strategies. To build and to assure quality assessment strategies and practices, aligned with the courses curricula and learning objectives are complex, challenging and demanding tasks raising from factors such as:

- the content can be collaboratively created not only with peers enrolled in the same course, but also with external learners and contributors, and can be distributed on different platforms too;
- each student' work has to be identified, also safety, privacy and recording-keeping have to be assured [5];
- issues of copyright and ownership have to be taken into account;
- “if the instructions given to the learners are not clear and explicit in terms of what is expected, the management burden for the instructor can become overwhelming” [2];
- peer and collaborative assessment have to be integrated.

In the following, we will briefly review some notable projects related to assessing students in social media enhanced courses. Even the projects don't refer specifically to microblogging, one of the top social media technology of the moment, they can be useful also for teachers and educational actors interested in assessing students activities on microblogging platforms.

After analyzing 17 selected cases, where academics have set assessable activities, establishing an inter-relation between learning objectives, assessment tasks and marking criteria, Gray et al. [5] make recommendations for a quality assessment:

- integration with other elements and forms of assessment should be clear;
- is linked to specified learning objectives;
- produces evidence of desired learning outcomes;
- is supported by adequate instructions and marking rubrics;
- encourages academic honesty;
- provides explanatory and diagnostic feedback;
- enables peer review and moderation of marking;
- can be externally evaluated for curriculum accreditation and recognition of prior learning.

Another work of Gray et al. [6], also part of the “Assessment of student web 2.0 authoring” Edna Project 1, contains good practice guidelines, in the form of three checklists:

- an affordances checklist, to support an appropriate fit between what web 2.0 activities entail and what assessment is trying to achieve;
- a processes checklist, to support individual and organisational learning throughout the cycle of assessment activities;
- a policies checklist, to support practices that make assessment safe and fair for students and staff.

Assessment 2.0 [7] is another valuable research work on this topic, which defines e-assessment as “all technology-enabled assessment activities where the design and student activities (complete, present, submit) must be mediated by technologies.” The conceptual framework for e-assessment addresses four dimensions: authenticity, consistency, transparency, and practicability.

### 3 A Set Of Microblogging Metrics

Microblogging is one of the top social media technology of the moment, being adopted in a variety of contexts, its usefulness becoming more and more compelling for educational actors, from schools and universities, from training and workplace learning. As a consequence, four microblogging platforms (Twitter, Edmodo, Yammer, and Cirip.eu) featured the last three tops 100 tools in education, compiled by the Centre for Learning & Performance Technologies UK from the proposals of hundreds learning professionals worldwide 2.

In this section we will present a set of microblogging metrics, that were implemented on

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1 Edna Project

the microblogging platform Cirip.eu, especially designed for education [8]. The indicators can be used for the formative and summative assessment of students activity and learning communities coagulation on microblogging platforms:

- **popularity**: relation between the number of followers of a user and the number of messages sent
- **influence**: based on number of followers and distribution of own messages (referenced or resent)
- **coagulation index**: the covering / density of the network, the conversational coefficient, the reciprocity and the relevance
- **exposure index**: set of the discussed elements, taking into consideration the topics approached by a person on her / his microblog
- **geographical distribution**: analyses and exposes in a graphical form the signs of our online presence, thus practically drawing up a social map under continuous expansion, showing in detail the ways in which we interact and expose ourselves in a public space
- **temporal distribution**: messages distribution on time
- **online social presence**: type and quality of messages.

Some interesting remarks can be noted on the interdependences between [9]:

- the types/the complexity of objects integrated in messages
- the types of communication – public/private group, learning/hobby/business/socializing; as example, personal audio/video interventions appear mostly in private groups
- the coagulation degree of the community
- the facilitation of the group moderator
- web-bases access and mobile access.

Dedicated extensions and statistics were implemented on the Cirip.eu platform in order to support the assessment metrics. The Network section of a microblog offers information about the community developed around that user, being displayed:

- the followees;
- the groups followed;
- the users who follow the current one, coloring different those who are not followed.

For each user in the network appears the last message written and the number of direct messages exchanged with the central user.

The Network section of an user / group displays also a series of statistics, which facilitate the analyze on various research directions:

- the activity
- the relations formed
- the interests
- the means of participation
- the content of messages.

The statistics of a student participation or of a course group can be compared with statistics of similar courses. The study of other courses scenarios published as Learning Design objects in the Cirip specific group can give teachers some guidance for a better facilitation and structure of the course.

Analyzing the network, some interesting remarks concerning the conversational coefficient can be made:

- we can look for the cause of an unbalanced communication with some of the network users, if the number of sent messages differs largely from the received ones;
- if there’s a direct communication with a user who only follows, without being followed, it is probably useful that following becomes reciprocal;
- we can analyze the number of users outside the learning/practice community belonging to a participant’s network, the topics dealt by the latter (the field could be mentioned in the description of each microblog), direct communication and so on. A first conclusion refers to the expansion of the PLE/PLN, the existence of discussions, the validations beyond the learning community, these being only some of the advantages brought by microblogging;
- similarly, we can evaluate the number, topic, participation to other groups, than the one for a course or those for collaborating with colleagues; thus, there is the possibility of discussing, learning, approaching other interest topics, for study or research.

As an example, examining the Network section of the microblog developed by the user @gabriela, some observations can be drawn.

A good proportion between the number of followees (170) and followers (225), sub-unitary, but close to 1. A large number of followers indicates the utility of messages and interaction with @gabriela, while a large number of followees the interest to learn, to collaborate. Around half of the followees follow her too, which indicates the development of long-term collaboration relations.
The statistics of the section Messages lead to the conclusion that there is an active participation and interaction within the Cirip.eu community. The same situation is shown by the data in the section Followed Groups: collaboration across a large group area.

The large number of resources posted in messages (2730) indicates a considerable quantity of information shared with the other users and many information sources (35 RSS feeds).

More than 50 audio files, around 300 images of all types, 400 video files and more than 200 files (mostly pdf) and SlideShare, VoiceThread or prezi presentations show the fact that the user @gabriela uses the entire range of multimedia object types provided by the Cirip microblogging platform.

The interaction with the other participants was realized by using all technologies and applications for interaction with the platform, including mobile.

4 Conclusion
The integration of social media, in particular microblogging, in academic courses demands a new pedagogy of the teaching and learning process and a rethinking of student assessment. “It is not only about bringing into education a set of new tools and technologies; it is about a change in the learning ethos. And the way in which such learning is assessed needs to be consistent with this change in learning philosophy” [10].

The microblogging metrics defined for the Cirip.eu educational microblogging platform can be applied both for summative and formative assessment, and can be adapted for other microblogging applications used in education.

References:
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