EMC Common Microcredential Framework

Introduction

The European MOOC Consortium is collaborating on a Common Microcredential Framework (CMF) to be used by these platforms on a voluntary basis, but which may under the right circumstances could be converted into a formal qualification or standard for use by a wider set of universities adhering to the framework, achieved in partnership with national and supranational agencies.

Members of the Consortium are: FutureLearn (UK), FUN (France), MiríadaX (Spain and Ibero-America), EduOpen (Italy), OpenupEd/ the European Association of Distance Teaching Universities (EADTU)[1]. These partners represent most of the MOOC development work in Europe in terms of learners and number of MOOCs, by offering together almost a 3.000 MOOCs. Together, they represent a large network of 400 higher education institutions (HEIs) working in a variety of European languages, including English, French, Spanish, Portuguese and Italian. The Consortium is open to new platforms, that might be established in European countries.

The university networks behind these platforms support the CMF and its use will be restricted to the platforms and be monitored by the platforms. The intention is that other agencies may adopt this framework and create something formally supported across Europe and available to other universities, for example with an Erasmus+ Charter fulfilling the conditions of a board licensing the rights for using it. The CMF applies to MOOC programs and short learning programs online as well as to other short higher education programs for continuous education/continuous professional development.

As ongoing practice in online MOOCs and online short programs is rapidly growing in Europe and world-wide. 2018 is already the year of the MOOC-based degrees (Class Central, January 2019). However, there is a major variation within credentials and between them, learners, universities and employers want this common standard to support lifelong learning. No consistency in qualifications leads to confusion and even mistrust.

This market is moving fast, and the US and Australia are out in front. If European platforms and universities are fragmenting and don't move, then Europe will fall a way behind. Hence, this is an urgent issue as in all continents new Microcredentials are awarded without a sufficient common ground.

The members of the European MOOC Consortium and their partner universities plan to launch a new Common Microcredential Framework indicating the workload of the course (4-6 ECTS / 100 to 150 hours) as well as the level, fitting into the European Qualification Framework (levels 6 and 7, with option for Level 5, in combination with ECTS) or the equivalent levels in the University's national qualification framework. The CMF can also include third cycle microcredentials (level 8).

The CMF envisaged will function primarily in a European context, but the platforms have university partners worldwide so it will reach into Ibero-America and other countries.

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[1] See: https://eadtu.eu/home/policy-areas/open-education-and-moocs/services/416-the-european-mooc-consortium

1. Relevance

- *Lifelong learners and employers want shorter programs*

The CMF will stimulate the development of courses that will better meet the needs of modern learners anywhere in the world. Learners are looking to acquire interdisciplinary knowledge, skills and competences at a higher education level in smaller units, delivered in ways that fit around their lifestyles and tailored to meet their personal interests or needs. At the same time, learners and employers seek to have such learning recognised towards formal qualifications in a seamless way. This Standard seeks to establish a framework for these goals to be achieved.

- *Universities embrace Microcredentials*

A study about Microcredentials in US universities reveals:

- Alternative credentials are offered by 94% of institutions profiled.
- One in five institutions offers digital badges.
- Digital badges are most commonly offered in business-related domains
- Sixty-four percent of respondents either strongly or somewhat agreed that their unit sees alternative credentialing as an important strategy for its future [2].

- *No consistency between new Microcredentials*

An extensive study of current Microcredentials awarded by MOOC platforms shows a major variation within credentials and between them (Pickard, 2018; see annex 2): "This variability and lack of standardization poses a problem for both learners and employers, as it makes it difficult to compare the various Microcredentials. While all employers understand that a master's degree signifies a higher level of preparation than a bachelor's degree, it is impossible to say whether a Udacity Nanodegree prepares a person more or better than an edX Professional Certificate or a Coursera Specialization"[3] (Pickard, 2018).

Learners, universities and employers have an interest in a common standard to support lifelong learning.

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[2] J. Fong, P. Janzow, K. Peck, Demographic Shifts in Educational Demand and the Rise of Alternative Credentials, June 2016. See : https://upcea.edu/wp-content/uploads/2017/05/Demographic-Shifts-in-Educational-Demand-and-the-Rise-of-Alternative-Credentials.pdf

[3] Pickard L., Analysis of 450 MOOC-Based Microcredentials Reveals Many Options But Little Consistency, MOOC Report, Class Central, July 2018. See: https://www.class-central.com/report/moocs-microcredentials-analysis-2018/

2. The new Common Microcredential Framework

- *European MOOC platforms launch a Common Microcredential framework*

European MOOC platforms launch a Microcredential framework fitting into the European Qualification Framework for Lifelong Learning (see annex 3), which combines learning outcomes in higher education and in professional training. The CMF indicates the size of a MOOC program in terms of workload (the Standard entails 4-6 ECTS / 100 to 150 hours of study time) and level (level 6-8 in the EFQ, bachelor, master and third cycle level). The EFQ recently has integrated qualification levels in education and in professional/vocational training as it "shifts the focus from input (lengths of a learning experience, type of institution) to what a person holding a particular qualification actually knows and is able to do. Shifting the focus to learning outcomes supports a better match between the needs of the labour market (for knowledge, skills and competences) and education and training provisions. It facilitates the validation of non-formal and informal learning. It also facilitates the transfer and use of qualifications across different countries and education and training systems"[4].

The CMF will as well fit to Europass. It will include a certificate supplement in order to complete the Europass portfolio with a clear reference to the appropriate EQF level and the size of the course[5].

The CMF is fully compatible with the qualifications under the Bologna Process. It will be part of an ecosystem for easier credit recognition of Microcredentials between universities across multiple jurisdictions.

- *Objectives of the CMF, what to expect?*

The CMF has a defined set of aims:

- Create a new higher education and training level qualification to address the needs of employers and learners looking for small units of study that meet their goals and/or develop higher education-level skills.
- Enable courses under the CMF to be recognised towards formal qualifications (EQF).
- Enable courses adhering to the CMF to be stackable between higher education institutions to support personalisation of learning.

- *The basics of the CMF and references*

Courses adhering to the CMF will have the following specifications:

- Have a total study time of no less than 100 hours and no more than 150 hours (4-6 ECTS), including the completion of the summative assessment.
- Be levelled at Level 6 - 8 in the European Qualification Framework or the equivalent levels in the university's national qualification framework (bachelor, master and third cycle level). Eventually, with options for levels 4/5 (in combination with ECTS).

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[4] See: https://ec.europa.eu/ploteus/sites/eac-eqf/files/leaflet_en.pdf

[5] Europass introduced a portfolio of documents to be used by individuals to describe their qualifications and competences. See: https://europass.cedefop.europa.eu/

- Provides a rigorous summative assessment that enables the award of academic credit, either directly following successful completion of the course or via recognition of prior learning upon enrolment as a student on the university's course of study.
- Operates a reliable method of ID verification at the point of assessment that complies with the university's policies and/or is widely adopted across the Platforms.
- Provides a transcript (certificate supplement) that sets out the course content, learning outcomes, total study hours, EQF level and number of credit points (ECTS) earned.

Additional Recommendations

- Courses should be designed so that the number of hours of study per week are suited to learners who will need to fit study around full-time work and/or familial responsibilities.

- Course content aimed at employees should combine a mix of theory and practice to ensure they have direct relevance to the workplace.

- A credible industry backer for a Microcredential might give additional endorsement of its work relevance. This may not be needed in all instances, especially if the university's brand/reputation or course subject itself would not benefit from a non-university endorsement.

- *Employers and employees benefit from the new qualification*

The CMF is very relevant for employers and people at work, hence it will also *stimulate the further development of continuous education/continuous professional development*:

- It will create the basis of a new "qualification" to evidence mastery of a sizeable topic that helps learners enter a new career or advance their career.

- (Young) adults at work are demanding shorter and more workplace relevant learning projects

- It will address the needs of employers and employees, including essential learning outcomes, critical thinking and ready application to work.

- It will ensure that employers and learners can understand and trust it: they must recognise the depth and level of learning and trust the assessment.

- The new qualification will keep up with the pace of technological change

3. Testing the Framework

The CMF has been subject to discussion within the EMC Consortium, which agreed on the definition and the framework.

Each of the consortium partners has discussed this internally with select member universities, ministries and national agencies, which endorse the principle of the CMF and the specifications therein.

The CMF is also discussed with some external stakeholders as the industry, employment services and representatives of the field of higher education.

These discussions/contacts are ongoing and the framework will be implemented and tested on a voluntary basis by the respective MOOC platforms and the universities concerned.

4. Use of the CMF

- *Governance*

The Standard will be administered by the European Association of Distance Teaching Universities (EADTU) on behalf of the Platforms (currently FutureLearn, FUN, MiríadaX, EduOpen, EADTU). It remains a voluntary Standard where platforms can choose and deviate from the CMF .

The Platforms will be able to redefine aspects of the Standard only by unanimous agreement.

Enforcement of the CMF shall be the responsibility of the individual Platforms and Platforms will continue a dialogue on the operation of the CMF through the European MOOC Consortium.

5. Quality assurance, accreditation, recognition

The quality of MOOCs and short online programs should be as good a as for mainstream courses in a university. Therefore, the ENQA Guidelines (ESG) should be the reference framework. Hence, every Microcredential must be able to award credit, either directly or via recognition of prior learning. In that regard, the quality is assured by forcing them to pass the normal university quality assurance processes.

Universities are responsible for the internal quality assurance mechanisms. They do so following strict Internal quality criteria and procedures, creating a guarantee for quality. Next, MOOC platforms require quality features for MOOCs offered by the universities.

In general, external quality assurance and accreditation mechanisms for MOOCs or short programs are not adopted by accreditation organisations. Ex ante accreditation would drastically slow down the responsiveness of such programs to needs in the economy and society. Therefore, in countries where such accreditation is required, ex post accreditation would be preferable.

With regard to the academic recognition of MOOCs, the New Paradigms in Recognition project (PARADIGMS) has recently formulated recommendations to support ENIC-NARIC centres that want to assess "eclectic" learning by ENIC-NARIC networks, admissions officers at higher education institutions. It developed minimum quality indicators that MOOCs and in-company training programmes should meet for the purpose of recognition (Nuffic, 2018)[6]. They integrated these indicators in a traffic light model which would be helpful for assessing MOOCs for recognition.

In order to facilitate recognition by universities and employers, MOOC providers should try to ensure clear and transparent information on certificate supplements.

6. Stakeholders' perspectives

- *Learners* have trust in the new qualification standard and the quality of MOOCs and online learning programs. More learners get engaged for continuous education and CPD/CVT. As the CMF is clear, learners easily add the new Microcredential in their portfolio of credits, awards, certificates, diplomas, degrees (Europass). Learners engage in a personal LLL plan.

- By this new CMF, *universities* are enabled to structure their continuous education programs and MOOC offerings. They will gradually extend their offerings in these areas of provision. Universities will develop large scale continuous education, CPD and MOOCs, meeting the needs of the economy and society. Because of the stackability of the CMF, MOOCs and online programs can be easily integrated in degree programs.

- The CMF will enable *enterprises* to value online courses and MOOCs in HRD and to integrate them in open or CVT/CPD provisions: MOOCs as stand-alone courses for innovation; MOOC-programs as flexible pathways to broader educational/training programs; MOOCs as part of in company training. Enterprises create a training environment connected to higher education institutions, involving MOOCs and online courses.

- The new CMF will facilitate the dialogue with *regions and cities* and create a bond of trust with MOOC platforms and universities while creating regional policy plans for online courses and continuous education, CPD/CVT. Regions and cities integrate courses in long-term regional development plans, involving MOOC platforms and universities

- The CMF is an instrument for *governmental policies* to stimulate education and training for employment, innovation and entrepreneurship. In the medium-term, governments adopt the Standard in frameworks for online continuous education/CPD and MOOCs in higher education systems, changing regulations, standards, resources.

- By promoting the CMF, *European policy* makers can better promote MOOCs and continuous education, CPD/CVT in national higher education systems as a large-scale provision for employment and personal and cultural development. In the medium-term, the objective of 15% participation in LLL is reached in all EU member states

7. The European perspective

Main European platforms align and engage with the Microcredential Framework as proposed. Together with partner universities, they form a consortium of frontrunners in this area, serving already millions of learners. This is important as US and Australian providers are moving fast having established already new Microcredentials. The CMF as presented is a credible solution.

The EMC platforms cover already a large number of European countries. (UK, Ireland, Norway, the Netherlands, Spain, Italy, France, Switzerland, Belgium, Sweden, Portugal. EMC is open to include new emerging platforms within Europe like, Germany, Poland and others.

The CMF will not only function as a European framework as Ibero-America plus other global partners of the platforms are also involved.

The CMF could be linked to EQF and Europass. It will stimulate developments in continuous education in the European Higher Education Area and meet urgent needs.

The CMF is an instrument to boost the participation of learners in education and training for employment and skills development at scale, based on the global success of the MOOCs movement and on the strategies of the platforms to reach-out to the labour market, facing the urgent skills gaps.

The CMF also delivers a clear Microcredential framework for universities and university networks in their endeavour to structure continuous education and training in line with recent policies of the European Commission.

8. Implementation plan

In a first stage, MOOC platforms and their universities will use the Common Microcredential Framework (CMF) to develop Microcredential courses in development on a voluntary basis. The Common Microcredential Framework will be communicated at the EADTU-EU Summit on the 30th of April 2019. (see annex 1). This can be extended to European University networks and EIT KICs.

During 2019, EMC will be happy to work with other European agencies and the European Commission to test appetite for the CMF to become the basis of something formal across Europe, including use by the alliances under the European University initiative, according to rules of governance as agreed upon.

Along this trajectory, EMC will seek consultation and support from the European Commission.

1. **Definitions**

"**Common Microcredential Framework**" (or CMF)	The specifications governing the Microcredential agreed by the Platforms.
"**Course**"	A plan of study which includes a Summative Assessment created and evaluated by a nationally Recognised University under its national quality assurance framework.
"**European Qualification Framework**"	The European Qualifications Framework (EQF) is a common European reference framework whose purpose is to make qualifications more readable and understandable across different countries and systems.
"**Formal Qualifications**"	Qualifications defined within a national qualification framework and regulated by the relevant Quality Assurance authority.
"**Microcredential**"	Small units of study that meet the desired outcomes set out in section 4.
"**Platforms**"	The platforms within the European MOOC Consortium that have agreed to adhere to the CMF for their Microcredential Courses, as set out in section 6.
"**Quality Assurance Authority**"	Applicable national education quality assurance authority (e.g., the Quality Assurance Agency in England or the High Council for Evaluation of Research and Higher Education / Haut Conseil de l'Évaluation de la Recherche et de l'Enseignement Supérieur(*HCERES*) in France).
"**Recognised University**"	A higher education institution with degree awarding powers, which is regulated by the relevant Quality Assurance Authority.
"**Recognition of Prior Learning**"	The policy operated by a Recognised University for the identification, assessment and formal acknowledgement of past learning and achievement, which is taken into account when admitting a student to a formal qualification.

"Summative Assessment"	An activity that evaluates what a learner has achieved after a period of study, relative to the learning aims and in accordance with a national qualification framework.
"Workload"	A measure expressed in hours of all learning activities that may feasibly be required for the achievement of the learning outcomes (e.g. videos/lectures, seminars, practical work, private study, information retrieval, research, examinations).

2. Background

2.1 This document sets out the Common Microcredential Framework (CMF) for use on Courses by Recognised Universities.

2.2 This CMF is intended for use by Recognised Universities on the Platforms.

2.3 The CMF has been developed by the European MOOC Consortium.

3. Purpose

The purpose of the CMF is to encourage the development of Courses that will better meet the needs of modern learners anywhere in the world. Learners are looking to acquire interdisciplinary knowledge, skills and competences at a higher education level in smaller units, delivered in ways that fit around their lifestyles and tailored to meet their interests or needs. At the same time, learners and employers seek to have such learning recognised towards Formal Qualifications in a seamless way. This CMF establishes a framework for these goals to be achieved across Europe and the rest of the world.

4. Desired Outcomes

The CMF aims to:

(a) Lay foundations for a new qualification to address the needs of employers and learners looking for small units of study that meet their career goals and/or to develop higher education-level skills.

(b) Enable Courses produced to the CMF to be recognised towards Formal Qualifications, as they will be designed in accordance with recognised national qualification frameworks.

(c) Enable Courses produced to the CMF to be stackable between different higher education institutions in Europe and beyond to support personalisation of learning.

5. The Common Microcredential Framework (CMF)

The CMF draws upon the European Qualification Framework (and other national qualifications frameworks of Recognised Universities) to ensure Courses are built to high quality standards that support the award of academic credit. To conform to the CMF, Courses will need to adhere to the following specifications:

● Have a total Workload (or study time) of no less than 100 hours and no more than 150 hours (4-6 ECTS), including revision for, and completion of, the Summative Assessment.

● Be levelled at level 6 (bachelor), level 7 (Master), and level 8 (third cycle) with options for levels 4/5 (in combination with ECTS) in the European Qualification Framework or the equivalent levels in the University's national qualification framework.

- Provides a Summative Assessment that enables the award of academic credit, either directly following successful completion of the Course or via Recognition of Prior Learning upon enrolment as a student on the Recognised University's course of study.
- Operates a reliable method of ID verification at the point of assessment that complies with the Recognised University's policies and/or is widely adopted across Platforms authorised to use the CMF.
- Provides a transcript that sets out the learning outcomes for a Course, total study hours required, EQF level and number of credit points earned.

6. Additional Recommendations for Courses under the CMF

6.1 Courses should be designed so that the number of hours of study per week are suited to learners who will need to fit their study around existing commitments in their lives.

6.2 Courses aimed at employees and building workplace skills should combine a mix of theory and practice to ensure their learning has direct relevance to the workplace.

7. Promoting and Maintaining the Common Microcredential Framework

7.1 The CMF will be promoted across Europe by the European Association of Distance Teaching Universities (EADTU) alongside the Platforms.

7.2 Platforms will seek to adhere to the CMF in pursuit of the desired outcomes in section 4, but it remains a voluntary CMF and there is no legal obligation on Platforms to adhere to it.

7.3 The Platforms will be able to redefine aspects of the CMF only by unanimous agreement.

7.4 Implementation of the CMF shall be the responsibility of the individual Platforms and the Platforms will continue a dialogue on the operation of the CMF through the European MOOC Consortium.

Annex 2: Analysis of 450 MOOC-Based Microcredentials Reveals Many Options but Little Consistency

Written by **Laurie Pickard** , July 2018, Class Central

Microcredential Type	Average Price	Average # Months to Complete (Minimum)[2]	Average Minimum Effort Per Week	Number Included in the Analysis[3]
Coursera Specialization	$245.51	5	3 hours	243
edX XSeries	$267.62	5	5 hours	30
FutureLearn Program	$540.33	4	4 hours	28
edX Professional Certificate	$542.51	5	3 hours	56
Kadenze Program	$700.00	3	9 hours	17
Udacity Nanodegree	$887.03	4	10 hours	27
edX MicroMasters	$962.98	9	6 hours	46
Coursera MasterTrack	$2,596.67	5	6 hours	3
Coursera Professional Certificate	$3,121.99	6	9 hours	3
FutureLearn Graduate Certificate	$8,626.98	7	Not given	7
FutureLearn Graduate Diploma	$17,504.40	12		

https://www.class-central.com/report/moocs-microcredentials-analysis-2018

Annex 3: Descriptors defining levels in the European Qualifications Framework (EFQ)

	Knowledge The learning outcomes relevant to the level are:	Skills The learning outcomes relevant to the level are:	Responsibility and autonomy The learning outcomes relevant to the level are:
Level 1	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
Level 2	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy
Level 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems
Level 4	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others

	Knowledge The learning outcomes relevant to the level are:	Skills The learning outcomes relevant to the level are:	Responsibility and autonomy The learning outcomes relevant to the level are:
Level 6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups
Level 7	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

Defining levels in the European Qualifications Framework (EQF) adopted from the European Commission [18].

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18 Issued by European Commission, Descriptors defining levels in the European Qualifications Framework (EQF), retrievable via:

https://ec.europa.eu/ploteus/en/content/descriptors-page