Effects of Instruments (LO, ICTs) on the Academic Profession Management and the End of the University as Organized Anarchy

Sarah Croché
University Picardie Jules Verne, France
Jean-Émile Charlier
UCLouvain, Belgium

Abstract

In the work research published in USA in the 1970s, the universities were regarded as organisations qualified as "organised anarchies" or "loosely coupled systems" which were considered host to "unclear technologies". This paper confronts these concepts with the recent evolution of the piloting way of European higher education. The empirical material for this paper comes from the analysis of texts and reforms initiated in universities in Belgium, in UK and in France. The paper will show the effects of standardization instruments (learning outcomes approach and introduction of the ICT in the management of the academic work) on academic profession and how these instruments generate a deep interdependence between all the segment of the university.

Keywords: instruments (LO and ICT), organized anarchy, universities, academic profession
JEL classification: O15

Introduction

In the work published in the 1970s, the universities were regarded by American sociologists of organisation as organisations that operate in a particular way. They were approximated to "organised anarchies" (Cohen et al., 1972) or to "loosely coupled systems" (Weick, 1976; Orton & Weick, 1990) which were considered host to "unclear technologies" (Cohen & March, 1974). This article confronts these concepts with the evolution of the piloting way of contemporary universities in Europe. The analysis is also based on the theoretical work of the French philosopher Michel Foucault and especially on his concept of apparatus.

Methodology

The empirical material for this paper comes from the analysis of texts (published since 1998 by the European Commission, the OECD and the members of the piloting group of the Bologna Process) and recent reforms initiated in European universities (with the introduction of the learning outcomes approach and ICTs in the management of the academic work in Belgium, in United Kingdom and in France). The results of this paper are divided in two parts. The first concern some instruments developed sometimes by international organisations and their integration in an apparatus (in Foucault's sense) of standardization of higher education. The second analyses the effects of these instruments on the academic profession. The discussion studies how these instruments

(and notably the learning outcomes approach and ICTs) transform each segment of the university and generate a deep interdependence between all of them.

Results

New instruments in European higher education

In the last fifteen years, some "public policy instruments" (in the sense of Lascoumes and Le Galès) were installed in higher education in the following of the Bologna Process. We can note the European Credit Transfer System (ECTS), the quality assurance mechanisms, the learning outcomes approach of the programmes, and the increasing use of ICTs in the management of the academic work. These instruments are integrated in an "apparatus (in Foucault's sense) of higher education normalization" (see Croché, 2010). The power of the apparatus is due to the fact that prescriptive messages are sent to all the facets of the organization and of management of the higher education establishments.

Listing the entire range of instruments set up to standardize higher education in all facets of its functioning would serve little useful purpose. We are interested here only in those instruments related to the organization and the practice of higher education. One of the common characteristics of such instruments is that they were presented as trivial, a fact that contributed to hide their potential for change. The majority of them did indeed involve reforms which could be regarded as strictly cosmetic (Croché & Charlier, 2009; Charlier & Croché, 2016; Charlier & Croché, 2017).

The effect of the apparatus on the heart of the teaching profession

a. Learning outcomes approach

In comparison with the other standardization instruments, the learning outcomes undoubtedly have the highest potential for transformation of the teaching profession. This instrument aims to predict the future and reduce the uncertainty (Charlier & Croché, 2017).

The definition of learning outcomes is given in the ECTS Users' Guide 2004. They are defined as "statements of what a learner is expected to know, understand and/or be able to demonstrate after a completion of a process of learning" (European Commission, 2004, p. 44).

In 2015, the European Commission defined the learning outcomes as statements of what the individual knows, understands and is able to do on completion of a learning process" (European Commission, 2015, p. 72).

In 2015, 32 European countries members of the Bologna process steering and encouraging the use of learning outcomes in curriculum development, while 14 encourage learning outcomes through guidelines or recommendations. The importance of learning outcomes in programme development has grown (European Commission/EACEA/Eurydice, 2015, p. 71).

Souto Lopez (2015) presents a history on the introduction of learning outcomes to the piloting system of the European higher education area's establishments and notably in Belgium. He shows three expected effects of the learning outcomes: at the international level, they could support the recognition of qualifications; at the national level, they were useful within the framework of the quality assurance mechanisms; at the local level, they made it possible to identify the best adapted teaching practices and methods. It goes without saying that this identification of the "good practices" goes hand in hand with measures intended to both support such practices and to discourage fewer effective practices.

The document *Guide for Busy Academics. Using Learning Outcomes to Design a Course and Assess Learning* is an illustration of the method. It explains "the learning that teachers are seeking to promote" at the University of Bristol in United Kingdom (see University of Bristol, N/A). The curriculum and its "intended learning outcomes", the teaching methods used, the resources to support learning, and the assessment tasks and criteria for evaluating learning – need to be "aligned" to each other and facilitate the achievement of the intended learning outcomes. The document underlines the main steps in the alignment process: "

1) Defining the intended learning outcomes (which determine the teaching and curriculum objectives – the steps we take to achieve the learning outcomes.)
2) Choosing teaching/learning activities likely to lead to, help and encourage students to attain these intended learning outcomes.
3) Engaging students in these learning activities through the teaching process.
4) Assessing what students have learnt using methods that enable students to demonstrate the intended learning and, in the case of formative assessment, giving feedback to help students improve their learning.
5) Evaluating/judging how well students match learning intentions: a process that is guided through explicit and manageable criteria.
6) Awarding marks/grades in line with these judgements."

The potential for the influence of learning outcomes on professors' practices will be achieved only if standardised measurements are carried out on a scale sufficient to facilitate reliable comparisons. The project "Assessing Higher Education Learning Outcomes" (AHELO) of the OECD was launched at this end in 2010. A feasibility study, focused on the studies of economics and civil engineering, was completed in 2012 in 17 countries. The next objective is to carry out tests in other sectors in all the OECD countries after 2016 (OECD, 2014). The *modus operandi* here is very similar here to that used in the PISA investigation or to the open method of coordination. Data are made public and accessible by national decision makers. They allow for a swift comparison of the performance of various systems, which encourages the persons in charge of the least efficient systems to adopt measures to improve their output. If it is still too early to affirm that the AHELO project will achieve a dynamic of this kind, based on the observation of the effects produced by PISA, one may assume this will occur (Charlier & Croché, 2017).

b. ICTs and the control of the teaching time and academic profession

The use of ICTs (Information and communication technology) in educational systems and in higher education management and teaching were abundantly studied (e.a. Teichler & Höhle, 2013). For the international organisations, using ICTs can significantly contribute to a good quality of education and its effectiveness. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2011), ICT "can contribute to achieving universal education worldwide, through the delivery of education and training of teachers, improved professional skills, better conditions for lifelong learning, and the potential to reach people that are outside the formal education process". In the United Nations Millennium Development Goals, ICT is highlighted as the means to reach the underserved, to listen and learn from their experience.

But, ICT has also become an important tool in modern management of universities. Because, the information collected with ICT is a critical ingredient in facilitating management decision-making. ICT can contribute to making academic

management more effective and efficient. In the last ten years, in an increasing number of universities, we find the introduction of computer-based systems in the management of the academic work. For example, in French universities, new instruments named HELIWEB or CELCAT were introduced recently. HELIWEB is an application which invite the university teacher to declare the exact time he taught for each of his lecture. CELCAT is an online calendar which permit, by the reservation of classroom, to make the timetable of each university teacher. With these two instruments, it is possible for the universities managers to see if a teacher has officially given all the hours of teaching needed for each lecture. With these instruments, we passed from a free system, based on the confidence the universities managers developed on the university teacher, to a control-based system.

Discussion: The willingness to put an end to the organised anarchy by means of instruments

After this brief examination of new instruments of higher education, we will return to the theories for which the universities are seen as "organised anarchies" or "loosely coupled systems", in which one can find "unclear technologies". As we demonstrated in previous papers (Charlier & Croché, 2016; Charlier & Croché, 2017), the efforts both of the European Commission and the OECD seem to aim at correcting the characteristics of the university that these concepts underline. For authors as Friedberg and Musselin (1989), an organised anarchy is the product of rational strategies used by academics to avoid any quantitative evaluation of the research and teaching activities at the university. Thus, anarchy is only presumed and it does not concern all aspects of university work. The question of the coexistence of both supposed organisational anarchy and the rationality of scientific work can be answered by Thompson (1967). He shows that organisations search at the same time for rationality and indetermination: the technical core constitutes a closed system, where uncertainty is excluded, whereas the institutional level maintains openness, thus giving the appearance of anarchy. The concept of "loosely coupled system" aims to explain this double nature. Both rationality and indetermination are necessary for the effective performance of the organisation – here the university. The only possible manner in which to preserve rationality and indetermination at the same time is by locating them at different places and by preventing cross-contamination.

The research carried out mentioned that the organisation is not homogeneous and the actors involved seek to preserve the heterogeneity of the segments that constitute the university organisation. The decoupling dimension is also addressed by authors as Meyer and Rowan (1977, p. 58). They consider that educational establishments must try to reconcile incompatibilities between institutional and technical pressures. They do this by decoupling the formal structures from activities in order to maintain the "ceremonial conformity". For them, decoupling is "a logout deliberated between the organisational structures which reinforce legitimacy and the organisational practices which are regarded by the organisation as being most efficient".

In higher education establishments, the rationality core is designed around research and administration methods of scientific proof. The sources of uncertainty are diverse and each one is likely to cause or maintain the strategies of segmentation or decoupling. They relate to the political and societal expectations as regards the university, the labour market's reaction to graduates' skills, the effectiveness of the used teaching methods, the relevance of the research protocols, etc (Charlier & Croché, 2016).

The outcomes-based model in higher education highlights both the learning

outcomes and the incentives provided to researchers to focus their work on concrete applications; it seeks to generate each one of these uncertainties by an explicit procedure. The project assumes the distinction between teaching and research activities and also the clarification by control indicators of the effectiveness of both types of activities. With regard to teaching activities, piloting by learning outcomes and the use of ICTs for the academic work time seeks to provide to decision makers and operators the means for measuring teaching efficiency.

> "Measures of learning outcomes also hold important promises for higher education faculties and leaders in providing evidence-based diagnosis tools on the strengths and weaknesses of their courses and programmes to be used as part of their quality improvement efforts." (Tremblay et al., 2012, p. 56)

But it is not sure that the project's promises carried through the learning outcomes could be held. They aim to create a consistency between the objectives of teaching, the evaluations, and the teaching methods (Charlier & Croché, 2017). They are an instrument that seeks to make the teaching result more predictable and even more programmable (see Legendre, 2012; Brancaleone & O'Brien, 2011). It does this by proposing a specific managing system of uncertainty that defines the manner in which the learner will react to the stimuli which are presented to him. On the one hand, this instrument is underlined by the recognition of what is obvious. The obvious, in this case, is the fact that it is up to each student to develop his competences. On the other hand, it provides means for measuring the effectiveness of the various methods used to lead the student to the Intended Learning Outcomes (Biggs & Tang, 2007). The unpredictable character of the learner's reactions ceases, thus, to be a factor of uncertainty. It becomes simply one of the variables that the learning outcomes have the authority to manage.

The learning outcomes (LO) can also contribute to disarm the argument of the irreducibility of the teacher's work, put forward, in particular, by authors denouncing "academic capitalism". "Learning, and research require reflection, engagement, collaboration, trial-and-error, processing, practice; all of which take time" (Walker, 2009, p. 68). With the LO, higher education ceases to be one of those "professions with prudential practice", defined by Champy (2009) as professions where it is impossible to precisely envisage the result of the actions initiated. In this case, the choice of whom does not imply the application of an unquestionable scientific framework. The choice results then from the professional's conviction, and from his approval of the risk, which is a risk in respect of which he may be held to account.

Conclusion

The learning outcomes and ICTs, which concern the academic profession, have implications for university management in Europe and conduct to think the academic profession and the university management as a couple of issue. They were created in order to divest the universities of the characteristics that led some analysts to approximate such establishments to organised anarchies, with weak interdependence, using unclear technologies. Such instruments lead to extreme specialisation of tasks, which, thereby, triggers changes in collegial management. Management is entrusted to managers; the organisation of education is delegated to technicians of applied pedagogy; research is entrusted to specialised researchers, assisted by professionals in the drafting of file requests for funding. Teaching becomes the responsibility of professors specialised in pedagogic animation, surrounded by technicians and managers who guide them with ICTs instruments. In this way, each segment of the organisation utilises those technologies considered to be the most

efficient by the professionals of that particular segment. Each one is, thus, controlled in the most rational way.

References

1. Biggs, J., Tang, C. (2007), Teaching for Quality learning at University, McGraw-Hill and Open University Press, Maidenhead.
2. Brancaleone, D., O'Brien, S. (2011), "Educational Commodification and the (economic) sign value of Learning Outcomes", British Journal of Sociology of Education, Vol. 32, No. 4, pp. 501-519.
3. Champy, F. (2009), La sociologie des professions, PUF, Paris.
4. Cohen, M. D., March, J. G. (1974), Leadership and ambiguity: The American college president, McGraw-Hill, New Jersey.
5. Cohen, M. D., March, J. G., Olsen, J. P. (1972), "A Garbage Can Model of Organizational Choice", Administrative Science Quarterly, Vol. 17, No. 1, pp. 1-25.
6. Charlier, J-É., Croché, S. (2017), "Universities and standardization instruments: the willingness to put an end to the organized anarchy", in the Proceedings of the 3rd International Conference on Higher Education Advances, Valencia, Spain, Universitat Politècnica de València, pp. 364-372.
7. Charlier, J-É., Croché, S. (2016), "Higher education: from 'unclear technologies' to human resources management techniques", in Normand, R., Derouet, J-L. (Eds.), How to think European politics in Education? A Dialogue between Sociology and Political Sciences, Routledge, London, pp. 104-121.
8. Croché, S. (2010), Le pilotage du processus de Bologne, Academia-Bruylant, Louvain-la-Neuve.
9. Croché, S., Charlier, J.-É. (2009), "Le processus de Bologne et ses effets", Éducation et sociétés, Vol. 2.
10. European Commission (2004), ECTS Users' Guide. European Credit Transfer and Accumulation System and the Diploma Supplement, OPOCE, Brussels.
11. European Commission (2015), ECTS Users' Guide, OPOCE, Luxembourg.
12. European Commission/EACEA/Eurydice (2015), The European Higher Education Area in 2015: Bologna Process Implementation Report, Publications Office of the European Union, Luxembourg.
13. Friedberg, E., Musselin, C. (1989), En quête d'universités, L'harmattan, Paris.
14. Legendre, F. (2012), "Processus de Bologne dans l'enseignement supérieur hongrois : représentations et pratiques enseignantes", Carrefours de l'éducation, Vol. 2, No. 34, pp. 211-226.
15. Meyer, J. W., Rowan, B. (1977), "Institutionalized organizations: Formal structure as myth and ceremony", American Journal of Sociology, Vol. 83, No. 2, pp. 340-363.
16. OECD (2014), "Testing student and university performance globally: OECD's AHELO", available at: http://www.oecd.org/edu/skills-beyond-school/testingstudentanduniversityperformancegloballyoecdsahelo.html (20 February 2019).
17. Orton, J. D., Weick, K. E. (1990), "Loosely Coupled Systems: A Reconceptualization", Academy of Management Review, Vol. 15, No. 2, pp. 203-223.
18. Souto Lopez, M. (2015), "Resserrer le dispositif européen de l'enseignement supérieur par les acquis d'apprentissage", Thèse de doctorat en sociologie, Université catholique de Louvain-École normale supérieure de Lyon, Mons-Lyon.
19. Teichler, U., Höhle, E. A. (2013), The work situation of the academic profession in Europe: Findings of a survey in twelves countries, Springer, London.
20. Thompson, J. D. (1967), Organizations in action: Social sciences bases of administrative theory, McGraw-Hill, New-York.
21. Tremblay, K., Lalancette, D., Rosevaere, D. (2012), AHELO. Feasibility Study Report. Volume 1 Design and Implementation, OECD, Paris.
22. UNESCO (2011), "ITC in Education", available at:

http://www.unesco.org/new/en/unesco/themes/icts/mission/ (29 March 2019).

23. University of Bristol (N/A), Guide for Busy Academics. Using Learning Outcomes to Design a Course and Assess Learning, available at: www.bristol.ac.uk/esu/intendedlearningoutcomes/busyacademics.rtf (29 April 2019).
24. Walker, J. (2009), "Time as the fourth dimension in the Globalization of Higher Education", The Journal of Higher Education, Vol. 80, No. 5, pp. 483-509.
25. Weick, K. E. (1976), "Educational organizations as loosely coupled systems", Administrative Science Quarterly, Vol. 21, No. 1, pp. 1-19.

About the authors

Sarah Croché is Professor in educational sciences at the University Picardie Jules Verne in France. She published more than fourteen scientific papers in book or international journal. Her specialisation is the analysis of educational policies and especially in higher education. The author can be contacted at **sarah.croche@u-picardie.fr.**

Jean-Émile Charlier is Professor of sociology at the UCLouvain (UCL Mons) in Belgium, at the Faculty of economics, social, political and communication sciences. He is also co-tenured of the UNESCO Chair in educational sciences at the University Cheick Anta Diop of Dakar in Senegal. He published more than hundred scientific papers in international journals on educational policies and these last years on higher education. The author can be contacted at **jean-emile.charlier@uclouvain.be.**