Academic Media Ranking and the Configuration of Values in Higher Education:
A Sociotechnical History of a Coproduction in France
Between the Media, State and Higher Education (1976–1989)

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Introduction

The media, notably print journalists, are today important producers of academic rankings. The international academic rankings that have been proliferating since the 2000s illustrate this phenomenon. Media rankings produced by newspapers and magazines (*Times Higher Education* [U.K.], *U.S. News & World Report* [U.S.], *inter alia*) coexist with other public and private producers. Prior to the 2000s, many countries witnessed the emergence and development of academic media ranking (AMR) at the national level. Despite the lack of in-depth historical research, it appears that a) national academic rankings date back to 1870 and for over a century were produced primarily by academic and administrative actors or institutions (Salmi & Saroyan 2007) and b) some media organisations have progressively become important producers of domestic academic rankings since the 1970s (Hazelkorn 2011), in different countries (Roessler 2013; Bouchard 2012; Bélanger & Davidson 1997).

Two prevailing perspectives in the social sciences have addressed the phenomenon of academic rankings: The first one, a methodological and critical perspective, scrutinises and criticises the methodologies of rankings (Federkeil, van Vught & Westerheijden 2012). Highlighting the "biases" and the "good" and "bad" practices, these methodological evaluations are often influential by contributing to the production, transformation and proliferation of rankings (Veroone 2015; Hazelkorn 2011). Impact studies of rankings are the second dominant perspective (van Vught & Westerheijden 2012). Paying attention to the consequential or performative aspects of rankings (Espeland 2016; Marginson 2014; Pusser & Marginson 2013), they examine how rankings (re)define identities, behaviours and relationships in HE, how they circulate and to what degree through different means of communication in different social spaces (Barats 2015; Bouchard et al. 2015) and how they are used by individuals and institutions.

This paper offers a different but complementary constructivist perspective. Focusing on capitalist media organisations and the production process of AMR in its emergence period in France, 1976 to 1989, this paper aims to understand how the AMR production process extends the logic of the marketplace to the academy. It intends to contribute to the theoretical and empirical understanding of "academic capitalism" (Slaughter & Rhoades 2004; Slaughter & Leslie 1997) — and consequently to higher education studies — by drawing upon media and communication studies, market and valuation studies and a non-Anglo-Saxon case. First, in accordance with media and communication studies and a media-centred approach, this paper seizes upon the web of interdependencies (Weber 1992 [1910]; Kuhn & Neveu 2002) underlying the production of AMRs. It shows that AMRs have arisen in France at the junction of the media, state and higher education institutions (HEIs) and as a result of their co-evolution. Second, this paper shows the multidimensional character of the market that was instituted. AMRs are shaped simultaneously as: a) an information product that should boost the sales of the press; b) an active intermediary between HEIs (evaluated entities and providers of data) and autonomous actors, the students (the clients), making choices based on available information; c) a valuation process and product that qualifies, calculates and assigns values to academic entities that are publicly compared and put into competition; and d) an academic advertising space. Third, interdependencies and co-evolution of the media, state and HEIs constitute, over time, ordered and dynamic organized networks or configurations (Elias 1991). By studying France's historical process of AMR production, which in and of itself is considered a sociotechnical device of valuation (Helgesson & Munesia 2013), this paper proposes the concept of "configuration of values". It identifies and describes three configurations of values: a) the configuration of value of opinion, b) the configuration of value of productivity and c) the configuration of value of activity.

a) The Theory of Academic Capitalism and Media Rankings:
Towards the Understanding of a Marketisation Process in Higher Education

In the theory of academic capitalism (TAC) developed by Sheila Slaughter, Larry Leslie and Gary Rhoades (1997, 2004), AMRs occupy an ambiguous place: They remain treated as a concrete phenomenon without being integrated into the TAC's conceptual apparatus and studied accordingly.

The TAC aims to study the concrete social phenomenon and process of extension and penetration of market behaviour in the field of HE. Mainly based on North American and Anglo-Saxon countries' experiences, the theory assumes the existence of a "quiet revolution" since the 1970s. At a macro level, it states that an "academic capitalist knowledge/learning regime" has been gaining more and more importance, challenging the classical "public good knowledge/learning regime". Between these two opposite ideal types, I assume at a micro level the existence of various "agencements" (Callon 2013) that shape the extent and nature, in a given space and time, of the "capitalist" dimension of HE (the generation of revenue and profits), its "marketisation" (the market exchanges in HE) and its "public" nature (the social organisation of autonomy and academic freedom). By paying attention to a non-Anglo-Saxon country, I do not evaluate at a macro level the spread of academic capitalism in different national and organisational contexts (Slaughter & Cantwell 2012; Dérouet & Normand 2011) but rather intend to understand at a micro level the silent conquest of the market in the field of HE.

Although the TAC has conducted such analysis for different heterogeneous activities (research, educational material and activities, etc.), it does not specifically address the phenomenon of AMR. The TAC broadly considers that AMRs emanate from "outside organisations" — the press — which judge the performance of HEIs for their consumers (students/parents), leading universities to compete for positions in the AMRs by adapting themselves to their criteria (Slaughter & Rhoades 2004, p. 23). While the press is presupposed to be a perfect autonomous producer, the field of HE is seen as purely reactive. Media and communication studies have developed a more nuanced vision analysing the web of interdependencies in which media organisations operate (Weber 1992 [1910]; Kuhn & Neveu 2002). A focus on the production of AMRs allows us to pinpoint the dynamic interdependencies that supported their production in France in the 1980s. This paper also pays attention to the "intermediating networks", defined by the TAC as public and private organisations and actors that contribute to the production of AMRs and, by doing so, redefine the boundaries between public and private (Slaughter 2014; Slaughter & Rhoades 2004). I study how public and private organisations, including the media, HEI representatives, public-authority services and others, were engaged in this media co-production.

The TAC associates AMRs to new "circuits of knowledge" promoted by the intermediating networks. I show here that the original and diverse knowledge and values related to AMRs imply more extensively different "configurations of values", rather than, on the one side, uniquely different categories of actors and representations and, on the other, different methodologies and criteria. The concept refers here to the various specific and identifiable sociotechnical types of ordered and dynamic organized networks that shape the values of HE entities. I follow here Norbert Elias (1991), for whom one of the important tasks of the social sciences consists of tracking and analysing the invisible social configurations of interdependencies in various social-life situations. I also follow Actor-Network Theory (ANT) researchers, who integrate the technical dimension into the study of the shaping of values (valuation studies) (Pontille & Torny 2013; Helgesson & Munesia 2013; Cochoy, Trompette & Arujo 2016). Without presupposing a clear-cut divide between the social, discursive and technical or methodological aspects of rankings, the concept of configuration of values grasps the social relationships underlying the production of rankings, the methodological choices they allow and, finally, the ways of valuing or evaluating HEIs. An example of this concept's operationality is given in section "d".

This paper is based on two case studies of French monthly magazines, *Le Monde de l'éducation* (1974–2008) and *L'Étudiant* (1972–) — "The World of Education" and "The Student", respectively — documented by two complementary methodologies: ten semi-structured interviews and content analysis of the magazines. The emergence period it concentrates on, 1976 to 1989, is considered both an "enigma" in the social studies of academic rankings (Mignot-Gérard & Sarfati 2015) and a "privileged moment" for the comprehension of the present world (Mattelart 1979 [2015]). Now an established method used by media production studies (Bruun 2016; Brennen 2012), semi-structured qualitative interviews with journalists and editors involved in the production of rankings contribute to the comprehension of the emergence of AMRs in France and of their concrete production process, including its evolution. Furthermore, it allows us to identify, analyse and objectivate the interdependencies of this media co-production. Content analysis, based on a systematic inventory of rankings published by the aforementioned magazines, serves to give a quantitative overview of the production of AMRs over time. Particular attention given to the different types of rankings, sources and methodologies helps to identify the configurations of values.

b) The Emergence of Dramatised and Useful Information to Sell

How has AMR become a new and omnipresent information product? The regular release of academic rankings in France emerged at the junction of the field of the media and field of HE in the 1970s. Belonging to one of the oldest forms of the specialised press, the "youth press" (Charon 2002), both magazines were created in that decade (1972, *L'Étudiant*; 1974, *Le Monde de l'éducation*) as monthly magazines concerned primarily with

educational issues. They embody more or less the canonical characteristics of magazines: a slow rhythm of publication freed from external events; audience and content targeting; a focus on the real or supposed expectations of the readership; the importance of visual images in editorial and advertising spaces; etc. (Charon 1999 [2008])

Each magazine originated from a different group of actors in regards to their relationship to the field of the media and field of HE. Without any professional media background, a group of young individuals created the magazine *L'Étudiant* outside of any pre-existing newspaper enterprise. The magazine was an entrepreneurial project of a young man who had recently graduated from business school. Its founder sees information as a resource for "choice" and "decision-making" (Interview 5, founder, *L'Étudiant*). Recipients and sources of conventional journalistic information, the students seemed to him poorly informed in terms of the choices they faced. *Le Monde de l'éducation* was created by journalists from daily newspaper *Le Monde*. In the 1960s, they joined the educational service that the newspaper had created in the previous decade. These employee-innovators, journalists loyal to their prestigious newspaper, were trained at universities in the humanities and law and were the witnesses and actors of a "new professionalism" in education journalism (Forestier 2015; Padioleau 1976). Covering the reforms in research and HE for the newspaper, some of them worked within the political-academic networks that in the 1950s and 1960s advocated for the renewal of the French HE system (Cremieux-Brilhac 1995). The student revolt of May 1968 triggered within these journalists a series of reflections and actions, including the idea of a monthly magazine devoted to HE.

The emergence of the magazines is yet to contextualise in relation to the field of HE. The social movements and student revolt of May 1968 have sensitised some journalists to the importance and complexity of educational issues (Forestier 2015). The post-World War II baby boom, urbanisation, industrialisation, women's access to the labour market, the great social value of the diploma, the job crisis of the 1970s emphasising the notion of the diploma as a ticket for entry into the labour market and the public policies promoting the "democratisation" of secondary and post-secondary education have all led to massive HE enrolment growth reflecting a diversification in the students' backgrounds (Vasconcellos 2006). With new programs, degrees, academic institutions and disciplines, the provision of education and training was broadened and diversified. This phenomenon has important repercussions for France's non-selective institutions and programs (the universities) but less of an impact on the selective ones (the *classes préparatoires*, *écoles* and *grandes écoles* that offer limited access to select candidates) (Vasconcellos 2006).

In this context, information on education was developed by the magazines not only in the cultural perspective of the public debate and treatment of education as a social problem but also from a practical point of view as a useful resource for their audiences by offering "news you can use" (Espeland 2015). Furthermore, the publication of information on education on a monthly basis suffers from a lack of events in education, while this periodicity allows the magazines to create original content (Charon 1999 [2008]). AMRs were a means for the magazines to "create a journalistic fact" (Interview 1, chief editor, *Le Monde de l'éducation*), as one journalist put it, to produce information and news with rankings.

Since the 1970s, AMRs have become persistent devices in the French HE landscape (see Chart 1). Between 1976 and 2010, AMRs expanded. The number of yearly releases dedicated to academic rankings tended generally to increase in the magazines: Until the mid-1980s, each title had tended to publish one ranking per year, and then two or three from 1987, three or four from 1998 and six or seven between 2007 and 2010. The growth in publication frequency is characterised by a wider coverage of institutions and programs, as well as its diversification and concentration on specific institutions and programs. After ranking some postgraduate programs and the *classes préparatoires aux grandes écoles*, or *prépas* (preparatory courses for the elite schools) at the end of the 1970s and start of the 1980s, the magazines issued other rankings, including for the *diplômes universitaires de technologie* (undergraduate technical diplomas) from the *instituts universitaires de technologie* (university institutes of technology), for the *brevets de technicien supérieur* (advanced technician certificates) from the *sections de technicien supérieur* (advanced technician sections), for the business schools and for others. Most of these institutions and programs are considered "selective" in the French HE system: Their competitive spirit and functioning — students are in competition to access these institutions and limited-place programs, while the institutions and programs are in competition to attract the best students — also render them *a priori* more "rankable" and quantifiable for the magazines. (I will develop this point later.) What's more, AMR production by the magazines is not an irreversible phenomenon: *Le Monde de l'éducation* ceased the production of academic rankings in 1998 for economic reasons (declining sales and advertising revenue levels; unfavourable competitive situation) and editorial reasons (new editorial team adopting a cultural treatment of education).

Chart 1

Number of issues per year dedicated to academic rankings between 1976 and 2010
at *Le Monde de l'éducation* and *L'Étudiant*
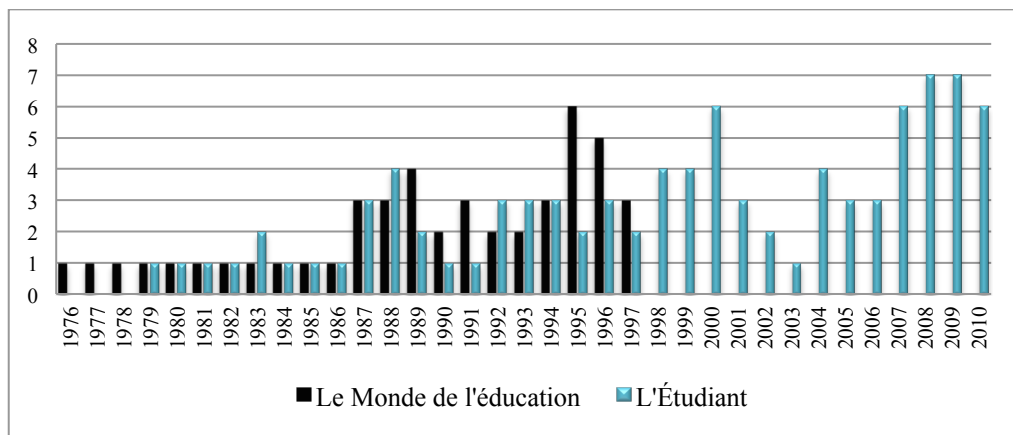
Providing content to the magazines and their audiences, AMRs also respond to the journalistic and commercial goal of attracting the readers' and consumers' attention — even though by delivering information the journalists are sceptical about. The simplicity of the charts gives AMRs a dramatic dimension valued by media rankers for attracting readers. Ultimately, AMR production has less to do with the journalistic belief in truth or objectivity of numbers than with a consensual professional submission to the "*technique spectaculaire*" (Debord 1967) — "dramatic technique" — of coupling the production of the rankings with its criticism. Simplicity serves as both the justification and criticism of the production of AMRs:

> For sure, the rankings are the dramatic element. They're what allow us to journalistically latch on to the information. Investigating or analysing the different research centres would have gone completely unnoticed. It's true that the rankings have a shock aspect to them, just as they have a completely arbitrary aspect to them, if you will, but they make the winners and losers stand out. This is something that has become more and more widespread in all areas of the press; everyone ranks everyone else. The idea of introducing something that by definition is unrankable into a ranking system — that shocks and draws attention. (Interview 2, chief editor, *Le Monde de l'éducation*)

> The rankings are also why we evolved. That flat rankings are what I would describe as a simplified view of the world, or of the subject. They're a simplified view, and as a simplified view — let's call it "one-dimensional" — they're quite popular. For example, there are entire websites devoted to, say, the 10 best books, the 10 best things to do, mini top 10 lists — as if you could order the whole world; as if the whole world could be summarised by a set of hierarchical lists. Obviously, the answer is no. They're a view. That's why, even though I produce a lot of rankings, I'm not fooled by their limits. They're a view of something. But it turns out that the view, since it's quite simple to grasp, is shared by many. (Interview 4, chief editor, *L'Étudiant*)

Considered powerful, eye-catching devices, rankings are moreover valued by their producers for reinforcing their visibility in the magazines. AMRs make the magazines' headlines and are often featured as exclusive news or scoops. Readily visible in the summary, rankings are sometimes treated by the magazines' editorials. The simplicity of the tabular form, ordering HE entities like sports competitors; the publication and dissemination of their comparative performances; the regular periodicity of the AMRs; the consequences of the rankings, both real and potential, for the evaluated entities; the resulting controversies — these can all generate a wide range of reactions and "emotional attachments" (Espeland 2016) from multiple actors to rankings. AMRs are thus concretely shaped as journalistic products and commercial information services designed to sell the magazines to their young, renewed audiences.

b)   An Active Intermediation Between Higher Education Institutions and Students

How have media organisations become information intermediaries between HE's suppliers and demanders? AMRs are not only news to sell and use, they are also an active intermediation between HEIs and students. As the

economics of singularities formulates, rankings are impersonal "judgement devices" that contribute to the coordination of actors' behaviour in a market by delivering original information about suppliers to demanders (Karpik 2010). The magazines use rankings to create new information about HE that attempts to solve a practical problem affecting both students and institutions in the 1980s: the difficulty for an increasing number of students and parents in obtaining information directly from increasingly solicited institutions. Although this situation resulting from the expansion of HE represents a market opportunity, it does not fully explain the advent of AMR. Magazines operate as "centres of calculation" (Latour 1989) by collecting data from information sources, centralising, manipulating and analysing the data and, ultimately, commercialising and disseminating original content. This process relies, firstly, on relationships with information sources. It implies, secondly, a certain representation of the student and of scholastic orientation.

AMR production depends on information sources, more specifically on academic institutions and public authorities. HEIs are in fact not only passive or reactive evaluated entities but also coproducers of the external instrument that is evaluating them. Academics either accept to answer the magazines' reputational surveys or they don't. Services within HEIs or public authorities either deliver their data to the magazines or they don't. Over time, the field of HE has adapted to this production process and in so doing has enabled and facilitated it.

In response to societal changes and claims regarding the "right to information" (Bardou-Boisnier & Pailliart 2012) or the "democratisation of information", the July 17, 1978 law in France on access to administrative documents has established a legal framework binding public institutions to the provision of certain information, including statistics, upon request by the public (individuals, enterprises and so on). Because some institutions refused to provide the requested data, one of the magazines sued them. The *Commission d'accès aux documents administratifs* (commission on access to administrative documents), an independent administrative authority, gave an advisory opinion in favour of the journalists by acknowledging the transmittable nature of non-personal data on student enrolment. This open, public data policy, with the moral issues underlying it, has stimulated in a way the development of an HE information market, of which AMRs are a product. Facing the end of the old prevailing rule of secrecy, the French public institutions had to take on the role of providers of free or even paid statistics to the information market and integrate this market into their activities.

In fact, the relationship between magazines and HEIs, data providers, evaluated entities and potential advertisers or clients is not only conflictual but also cooperative. Rankers cooperate with some interlocutors who may influence and facilitate the production and acceptability of the AMRs. Starting in the 1980s, the French ministry of education's *Direction de l'évaluation et de la prospective* (DEP), the directorate responsible for evaluation and forecasting, became involved with the promotion of a "culture of evaluation" and "result" (Pons 2011). Between 1987 and 1990, it developed thirty indicators, inviting different actors to seize upon them (Pons 2011). In response to the publication of high school rankings starting in the early 1980s (Aghulon 2006), the DEP's director invited in journalists from *Le Monde de l'éducation* and proposed that they produce three indicators: "expected rates", "real rates" and "added value". Thanks to the DEP, the magazine has improved its rankings by having access to more accepted, ministry-produced indicators, simplifying the work of the journalists:

> And so-and-so, inviting us to the DEP one time and saying to us, "Here, I put my teams to work. I propose the three rates you see before you. Do they work for you? That's why we came up with them. If we do that, will you publish them?" We agreed. Voila! And that's how the DEP has issued its *Bac* [baccalaureate] results ever since. […] So they published it, and I suddenly found myself very much at ease. Because, obviously, they have it centralised at the DEP. I had their file; I just had to edit it. After sorting it out in 15 days, if you will. (Interview 3, freelance journalist, *Le Monde de l'éducation*)

The magazines' editorial teams collaborate with representatives of evaluated institutions on launching or preparing their rankings. A "scientific committee" was created for ranking universities at *L'Étudiant*, with "roundtables" scheduled with people from the universities to discuss the criteria and methodologies (Interview 4, chief editor, *L'Étudiant*). Individual contacts were put into action for the validation and adjustment of the criteria and methodologies related to the *classes préparatoires* rankings. A journalist at *Le Monde de l'éducation* perceives its evaluation practice as a "system" based on a "negotiation" with strategic actors for each ranking (Interview 3, freelance journalist, *Le Monde de l'éducation*). As he explains for the *classes préparatoires*:

> What's interesting is that, in the end, with the *Conférence des Grandes Écoles* [conference of elite schools], I had excellent contacts. That made things easier. […] At one time, the head of the *Conférence* was in charge of a school I knew well […] and he organised a meeting for Monde.fr with a certain number of directors of large institutions. […] The agenda was simple: What should we value as criteria in the ranking of the *prépas*? This

> being the same approach that followed well after the business schools, the same participative approach, etc. We built the evaluation tool together. That also gave me more support from the *Conférence*. I no longer had any difficulty getting data. After years of struggling, it became… From a technical point of view, it was much easier. From a conceptual point of view, it was more elaborate. (Interview 3, freelance journalist, *Le Monde de l'éducation*)

In the early years of AMR, writing the rankings was also a means of applying pressure on institutions and public authorities to answer the magazines' requests. Information sources are a recurring theme in the magazines. They lament the culture of secrecy in some institutions, which deny information to requesters by not providing their statistics, as well as the lack of a quantified evaluation culture in other institutions. The relationship between the magazines' instigation and the information sources is also observable in the "*petites formes*" (Candel, Jeanne-Perrier & Souchier 2012). These "little boxes" are editorial innovations that actualise the journalistic intention to instigate by way of visually identifiable elements (e.g., frames, headings) and textual elements (e.g., "thank you", "congratulations", "gold star", "they told us everything" versus "secretive moles", "no means no", "failing grade", "we're disappointed"), used regularly in each issue until the relationship between the magazine and the source becomes consistent with the expectations of the AMR producers. A ranker evokes this public denunciation of the lack of response as "little revenge".

AMR also reflects changes in the provision and conception of educational and vocational guidance to pupils and students. This function saw an explosion in France between 1970 and 1980. The dominant, paternalistic regime of psychological and educational measurements and tests offered as a public service, in which the responsibility for the student's scholastic-orientation decision rested with the experts and professionals, gave way to a "scattered" function inside and outside of the field of education, in both the public and private sectors. In this liberal system, the responsibility in terms of scholastic orientation and decision-making is in the hands of the student and the family, supported by information (Danvers 2009; Danvers 1988).

While scholastic orientation is evolving from a paternalistic concept to a liberal one, the magazines intend to produce and sell, using rankings, useful information to the new decision-makers — the students and their parents. AMR producers conceive and publicly justify rankings as a source of information and a decision-making tool to give the students educational and vocational guidance. One of the magazines, *L'Étudiant*, following in the tradition of the consumer press, has adopted the motto "*L'information pour choisir*" ("information for choice"). Rankings often appear in sections entitled "guidance" or "guide". In other words, the student — the reader and buyer of AMR — is coupled in the magazines, implicitly or explicitly, with the image of the student as actor in their own scholastic orientation by having them as a user-consumer making information-based choices.

d) Valuing Higher Education Entities:
From Criteria and Methodologies to the Configuration(s) of Value(s)

How have AMRs shaped the values of HE? Trust in impersonal, quantified judgement devices sometimes occurs with distrust in personal judgement devices (Porter 1995). By promoting AMRs, rankers criticise and renew the "reputation" of HEIs as major information devices. To them, "reputation" means primarily the valuation of an entity arising from personal judgements circulating in local networks (Lilti 2014). Pejoratively associating reputation to "rumour" or to confidential knowledge about HEIs, the magazines justify their rankings as a "tool of proof" (Desrosières 2008), enabling them to demonstrate the reputations of the most prestigious institutions. Rankings are supposed to certify (or not) the pre-existing values attributed to certain institutions, particularly selective ones: "[…] we wanted to clarify a hierarchy that's been on everyone's lips for over twenty years without actually having been tested", wrote *L'Étudiant* in its ranking of the *classes préparatoires* in 1982. The rankers also justify their instrument as a means of supplying reputation to new and lesser-known institutions and programs by offering a wider representation of the field of HE corresponding to the diversity of the students' profiles. Finally, by producing and publishing rankings, their producers share the ambition of transcending the locality of reputation. In its first university rankings, for example, *Le Monde de l'éducation* contested the "myth" of the homogeneity of HE, arguing that it consists of keeping the information about the hierarchies of institutions in the hands of a privileged minority: "But we think that from the time that such a scale of value exists, it must be *known*. The students should be informed of it in order to take it into account in their own scholastic orientation. To pretend that all programs are worth the same, when any informed person knows that this is simply not the case, is to mislead the students" (*Le Monde de l'éducation*, 1977). The representation of the field of HE as a uniform public service delivered across the national territory with equal value to all citizens is logically incompatible with the ranking device, which assumes the existence of a hierarchy of programs and institutions with unequal values, this being the self-fulfilling prophecy that founded AMR. This contradiction may impact the coverage of AMRs — non-selective institutions or programs are more reluctant, ideologically and

practically speaking, about being ranked than selective ones; meanwhile, AMR producers foster the ranking of the selective institutions or programs — and give rise to scholars' opposition to the principle of ranking universities.

The desire to make public a hierarchy of values in HE merges with the will, power and possibility of instituting it (Desrosières 2008). Both the starting point and the result of a selective and normative sociotechnical process, ranking is a valuation device that defines and produces the values according, in part, to its own characteristics. Among multiple practices and forms of ordering (Gardey 2008), ranking appears as the process and the result of calculating procedures based on the establishment of an ordinal value associated (or not) with one or many cardinal values. From these selected items with numerical values based on common criteria a hierarchical list is produced. This particular technique of commensuration requires a specific mode of "qualculation" (Cochoy 2002), that is to say, both qualification and calculation of the values, as well as the setting of a hierarchical order by rendering commensurable what remains, without mediation, incommensurable. This particular process of qualculation is both social and technical. Over time, it has become organized within specific and identifiable configurations of values. I developed and defined this concept in section "a"; here, I demonstrate its operationality. I show how AMRs take place within different configurations that holds together producers, data providers, criteria, methodologies, technologies, evaluated entities, users and others in the production of HEI values.

Three main configurations of values characterise the AMR production in the two magazines in the 1970s and 1980s (see Table 1). In the "configuration of value of opinion", the value of the HEI is based on the collection and aggregation of individual opinions regarding programs or institutions. The media collect and aggregate the preferences of individuals to establish the values of HEI entities. Sometimes used when statistics, much valued by the magazines, are lacking, the reputational survey allows producers to easily value and rank entities that are poorly "statisticised". For example, *Le Monde de l'éducation* was able to carry on with this methodology for its ranking of university doctoral programs each year between 1976 and 1987, based solely on the criterion of personal preference and using the number of citations as an indicator. In aggregating the opinions, the configuration of value of opinion is also selective by including opinions that count and excluding individual ones that do not. Two main categories of actors are generally integrated into this configuration: representatives of the academic world (the knowers) and representatives of the enterprises (the consumers).

The "configuration of value of productivity" mainly concerns the selective programs and institutions. In this configuration, media rankers rely on existing official sources of statistics in HEI or public-authority services. AMRs of the *classes préparatoires*, medical and pharmacy programs, *sections de technicien supérieur* and *diplômes universitaires de technologie*, for example, are valued according to productivity indicators developed by the magazines using public and institutional data. Since 1985, *L'Étudiant* has established its ranking of *classes préparatoires* by calculating their "integration potential", the ratio between the number of students integrated into a school and the number of students registered in a *classe préparatoire*. For other types of selective programs or institutions, other indicators such as "success rate", "rate of return" and "integration rate" are defined and measured.

The "configuration of value of activity" refers to large, original statistical surveys carried out by the magazines in collaboration with representatives of the HEIs concerned. Independently of or complementary to a reputational survey, the magazines produce these rankings on the fringe of the official statistical routine, defining and using criteria and indicators that mainly concern the activities of the HEIs. Criteria and methodologies are co-defined with representatives of the academic institutions. In 1983 and 1984, *L'Étudiant* achieved a ranking of universities based on four criteria of activity: "professionalisation", "innovation and dynamism", "job-seeking" and "international openness". In sum, AMRs do not only differ technically but also — and inseparably — socially and practically by associating the different types of actors and organisations that shape the values of particular HE entities.

Table 1
AMR and the configurations of values in HE
Le Monde de l'éducation and *L'Étudiant* (1976–1989)

Examples of main entities concerned	Methodologies	Examples of criteria or indicators	Configurations of values
Postgraduate programs; business schools	Reputational survey	Number of citations expressing individual preferences	Value of opinion (measures of subjective

			preferences)
Selective programs			
Classes préparatoires	Public statistics	"Potential of integration": (number of students integrated into a school)/(number of students registered in a *classe préparatoire*)	Value of productivity (measures of productivity)
Sections de technicien supérieur		"Success rate": success rate on the final exam	
		"Rate of return": percentage of pupils who graduated two years after their admission	
Pharmacy		"Success rate": (number of places)/(number of exam candidates at the end of the first year)	
Diplômes universitaires de technologie		"Rate of return": (number of graduates)/(number of students registered two years prior)	
		"Success rate" of the students registered in the second year	
		"Integration rate": (number of new registered in the first year)/(total number of candidates)	
Universities; business schools			
Universities	Questionnaire survey	"Professionalisation": (number of professional diplomas of 2nd and 3rd cycle)/(total number of diplomas of 2nd and 3rd cycle in the university)	Value of activity (measures of activity and productivity)
		"Innovation and dynamism": (number of new diplomas created over five years)/(total number of diplomas conferred by the university)	
		"Productivity": (number of graduates)/(number of students registered by program)	
		"Job-seeking": number of persons responsible for the job-seeking service for every 100 students	
		"International openness": number of conventions or agreements regarding teaching and research	

As the final result of the calculation process, and the object of further attention, the table-list is the canonical intellectual and visual technology that confers material existence to the co-production processes. Associated by its proponents with "transparency" by comparing and divulging the performance and values of HE entities, the semiotic form of the table-list actually organises the visible *and* the invisible. As Wendy Espeland and Michael Sauder analysed (Espeland 2015; Espeland & Sauder 2007), the table-list freezes the "dynamic relationship between simplification and development" (Espeland 2015) by delivering original information while simultaneously implying the exclusion of a large set of data. Simplified and quantified information increases its accessibility and authority. And, finally, dissociated from its production process, the table-list offers decontextualised information that permits its wide circulation and reuse.

The table-list is a technology of "homodifferentiation". It unifies by establishing a common relationship between entities that share the same scale or column of results. In doing so, entities are valued in a hierarchical relationship in which heterogeneity is reduced. At the same time, rankings (over)differentiate entities by assigning a unique position or ordinal value. Whatever the cardinal value assigned and the interval between the entities, each difference counts and gives a place to a specific position: An entity acquires a singular value in a series (Espeland & Sauder 2007). This double property links together the creation of values (defining, assigning), their comparison (grouping entities, establishing common scales) and the competitive relationship between entities (hierarchising).

e) *Academic Media Rankings:*
Advertising Higher Education

How are AMRs associated with the development of an advertising market in HE? Using AMR, the producers aim to expand their magazines' sales, a prerequisite for the generation of advertising revenue. This "double sale" separates but also connects — often accompanied by tension — editorial and advertising spaces within the workplace and on the printed page (Cabrolié 2013). Academic rankings come with pages of ads sold by the magazines' internal and external sales teams. Advertisers offer their products and services (books, cigarette papers, discount cards, bank loans, etc.) to the magazines' target audiences, doing so alongside the AMRs. As a relatively new phenomenon, AMR gives institutions or academic programs the possibility of becoming advertisers and clients of the magazines.

Highly dependent on advertising revenue from the beginning, *L'Étudiant*'s founder describes the simultaneous creation of the magazine and the advertising aimed at the students:

> Most of the people who put ads in *L'Étudiant* early on had never done so anywhere else. I basically created the media and the advertisers at the same time. So when I visited my first advertisers, whether they were schools, or higher education institutions, or [financial institutions such as] Société Générale or BNP, they had never had ads in this field before. So I had people who bought advertising without knowing what they were going to say. And I wrote their text with them. I helped them to write their text. […] I had no choice but to do that. If I hadn't, I'd have been begging for money! (Interview 5, founder, *L'Étudiant*)

While advertising is a must at *L'Étudiant*, *Le Monde de l'éducation*, relying on the prestige and renown of the newspaper, faces meagre — and disdained — advertising revenue:

> We were the product of an era. It was when *Le Monde* was a newspaper of record. At that time, all of *Le Monde*'s initiatives were successful. We could launch newspapers like that! […] I remember when we wanted to put an insert in *Le Monde* for *Le Monde de l'éducation*, they said to us, "Are you out of your mind? Your readers can't do like everyone else and put a cheque in an envelope!" It was prehistory. *Le Monde de l'éducation* lived off of the sales to its readers and subscribers. There was very little advertising. (Interview 1, chief editor, *Le Monde de l'éducation*)

Does advertising interfere with AMR production? The types of HEIs ranked may depend on their ability to generate advertising. Considered as weak advertisers, universities, for example, were ranked only in 1983 and 1984 at *L'Étudiant*. But the relationship between ranking and advertising is importantly one of complementarity: If the advertising space partly overlaps the ranking space, many advertisers end up being academic entities that are not represented in the table-lists. Finally, the production of the rankings, as such, is guided by the principle of a clear-cut separation between it and the advertising. This principle is generally shared by the actors involved and is considered a condition for the credibility of the rankings. It can, however, be put to the test in practical situations in which advertisers threaten to cancel their advertising budget as a pretext for their weak position in a ranking. Between the commercial relationship with advertisers and the credibility of the rankings as a journalistic practice, a justification process takes place: The rankers are invited to justify and explain the criteria and methodologies to their superiors at the magazines, who then interact with the advertisers and evaluate any complaints.

Conclusion

In this paper I made the assumption that the understanding of the relationship between the emergence of AMR and the development of the academic capitalism regime starting in the 1970s consists partly of opening the black box of their production beyond the methodological issues involved. I focused here on the emergence of AMR in France in the years 1970 to 1980 and put forth a sociotechnical history of its production.

Three main conclusions can be derived from this media-centred approach: First, AMRs are not pure media products and production, arising as they do at the junction of the media, state and HEI fields. In fact, AMR production relies on the media's powerful ability to involve heterogeneous actors and to interact with them. The co-production process involved in AMR has been facilitated in France by legislative rules and evolution in the field of the media, not to mention the field of HE. Highly dependent on information sources, notably the services offered by public authorities and academic institutions, these sources also gradually adapted themselves to the production of AMRs. Second, the analysis of AMR production grasped the multidimensional character of the market it instituted. AMRs are shaped as: a) dramatised and useful information that should boost the sales of the press; b) an active intermediary between HEIs, training providers and their public, the students, considered as

autonomous actors making choices based on available information; c) a valuation process and product that qualifies, calculates and assigns values to academic entities that are publicly put into comparison and competition; and d) an academic advertising space. Third, I proposed the concept of configuration of values to capture the ordered and organized sociotechnical dynamics underlying AMR production. I identified three configurations of values in the magazines I studied: a) the configuration of value of opinion, b) the configuration of value of productivity and c) the configuration of value of activity. Each configuration of value holds together specific evaluated HE entities, particular ways and techniques of evaluating them and certain categories of actors and organisations involved in the production of rankings. Further investigation in different national, organisational and historical contexts may reveal other configurations of values.

How does the process described here in its phase of emergence relate today to academic capitalism? It seems today that some HEIs are more or less inclined to adopt rent-seeking behaviour through rankings. One could say that, nowadays, AMRs are not only used to boost the revenue of the press, to inform the consumers, to coordinate the market of HE, to evaluate entities but also to boost the reputational capital of HEIs that today manage their positions in the rankings. What are the actors, the processes and the managerial, scientific and pedagogical activities in the academic field that have contributed to closing the AMR loop? To what extent? And how? To address these questions, researchers in the social sciences have until now mostly paid attention to global rankings (Elken, Hovdhaugen & Stensaker 2016; Hazelkorn 2011) that include only 3% of HEIs (Rauhvargers 2011). However, considering the predominant national context of HE and the circular relationship linking academic institutions to rankings — institutions seem primarily concerned with rankings that represent them (Bouchard 2013) — national or domestic rankings may be more discreetly influential in many cases. No longer solely providers of data and evaluated entities but strategic users of rankings in an era of image and competition, Parisian universities' websites, for example, principally refer to domestic rankings (Bouchard 2013). The communication directors of France's business schools partly align their actions to domestic AMRs by judging them as having more of an impact than global rankings (Rollot 2016). Two programmatic-related conclusions can thus be formulated: First, it may be time for researchers in the social sciences to seriously consider this domestic, media-based production. Second, considering the interdependencies between the field of HE and other social fields, including the media, these investigations may contribute to higher education studies.

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