Chapter 4
The Political Life of Metrics

Abstract This chapter extends the analysis of the previous chapter to the role of metrics in political practice, using the U.S. standard graduation rate metric as a case. I argue that information is best understood as a process of communication in which observation is encoded into data through the translation regime and then decoded into metrics which are then institutionalized in political processes. In both processes, political factors are prominent, making metrics a political outcome at the least. I go further, however, showing that metrics play important distributive roles in politics, allocating material and moral goods as well as the conditions of political power. Metrics also exercise political control directly, working much like administrative procedures to select favored outcomes without direct legislative intervention and building the capacity of the state to exercise control over policy areas.

To recognize metrics as political is, in some senses, trivial. Metrics, and the data underlying them,[1] are quite often the locus of "office" politics as competing interests in an organization seek to shape them to their own advantage. Consider, for instance, academic departments within a university that are allowed to count majors themselves before making funding requests: one department uses declared majors knowing that a large number of early students will change to other majors after the introductory courses, while another counts all students who have taken several courses in the department so as to include those students who enjoy the subject but want a major with better job prospects.

In this sense, though, calling data political in this way is to call it pathological; this kind of data is contrary to the apolitical standard that data should provide.

[1] For the purpose of this chapter, I will use "data" to refer to a representation of a purportedly unified construct and "metric" to refer to combinations of data points that provide a standard for evaluation. Paradigmatically, the number of students in the IPEDS Graduation Rate Survey cohort is data. The GRS150 graduation rate is a metric composed of three data points (the number of students in the GRS cohort, the number of graduates from that cohort, and the number of students excluded from the cohort) and a mathematical transformation of those data. Metrics might also include growth rates in a single type of data over time, transformations of other metrics, or comparisons to other data or to a benchmark value. They would rarely, if ever, be single data points themselves, as such provide no basis for evaluation; likely, there is an implicit relationship to other data in metrics that are so defined.

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Hence there is also an alternative sense of the (a)politics of data that sees it as overcoming office politics, transcending political divides with an unequivocal, observable truth: "You can't argue with the data," proponents of apolitical data are apt to exclaim. Departments cannot game the numbers to their advantage when the data come predefined for them. The office politics of data cannot happen, in this view, unless there is poor data, and the solution is to create sound data, data that is reliable and objective, that provides a true view of the world as it really is. The manager who can rely on data can thus overcome politics with fact.

Of course, such a view can only hold if data can be, in fact, objective. If it cannot—as the previous chapters have shown—then politics cannot be overcome. The position that metrics are apolitical tools for management is thus unsupportable. This chapter presents an alternative view, showing instead that metrics are inherently political by a variety of definitions of politics, using a case study of the Graduation Rate Survey (GRS) cohort used in the United States' Integrated Postsecondary Education Data System (IPEDS) and its use in decision-making, primarily at Utah Valley University (UVU). I explore three political aspects of the GRS cohort definition that allow it to function as a normalizing translation regime: its development by the United States Congress and the Department of Education (USED) during the 1990s as a reporting element, its transformation into a key point in policy debates surrounding the "completion agenda," and its effects on current campus decision-making.

This critical political theory of information situates metrics such as the IPEDS graduation rate within a broader process of encoding and decoding data, with metrics as one mechanism for the decoding phase of data communication but one that strongly influences the encoding phase as well. Metrics, as the outcome of a process of communication and translation, are first and foremost a product of political institutions and processes. Metrics and the data that informs them then enter other political processes by being transformed into socio-political institutions, doing much more than simply measuring and informing. Such institutions operate both as structures embedded in social and political practice that shape individual behavior and as culturally-specific practices that shape ways of understanding the world and responding to it. This influences political outcomes as distributive processes and as establishing relationships among people and groups.

4.1 Encoding Data as a Political Process

In the United States, authority over higher education is divided between the federal and state governments. The states' role is primarily operating the public university[2] systems that educate the majority of American university students and secondarily

[2] In U.S. usage there is no precise, formal distinction between colleges and universities. Institutions that use "college" in their names are more typically either smaller "liberal arts" colleges that originated as institutions to train primary and secondary teachers or 2-year community colleges

regulating the private higher education sector. The Utah System of Higher Education (USHE) supports two research universities, four regional universities offering primarily bachelors's degrees (including Utah Valley University), a community college, and a 2-year rural residential college. While the universities have significant autonomy, USHE is primarily responsible for system-wide policy and, of particular importance to the politics of metrics, sets statewide data reporting standards and processes that are commonly used in campus decision-making as well.

The federal government plays some regulatory role, especially with regard to the private accreditation bodies that play the most direct role in regulation, but its major role is funding higher education through research grants and student financial aid programs (known commonly as "Title IV" programs after the section of the Higher Education Act of 1965 that created the major programs in use today). The universities eligible to participate in federal financial aid programs for higher education bear significantly increased regulatory burdens consequent to receiving federal money. This chiefly takes the form of reporting requirements, most notably reporting to IPEDS. IPEDS consists of a series of surveys collecting a wide range of aggregate[3] data on institutional characteristics, admissions, enrollment, completion, financial aid, human resources, and institutional finance.

One of the more controversial data elements has been graduation rates, which are based on the graduation of students included in the GRS cohort. While the collection of education data dates to 1867, graduation rates for post-secondary universities in the United States have only been collected since the 1997–1998 academic year (Fuller 2011, pp. 5–6). Between 1966 and 1987, the Higher Education General Information Survey (HEGIS), IPEDS' immediate predecessor, collected data on the number of degrees awarded; the HEGIS completions survey was replaced by the IPEDS Completions Component in the 1987–1988 academic year, collecting data for the number of degrees and other formal awards conferred annually. While additional information has been added to the Completions Component, especially as required under the Higher Education Act (HEA) of 1998 and the Higher Education Opportunity Act (HEOA) of 2008, the basis of the Completions Component remains reporting on the number of awards and the number of students who receive them (Fuller 2011, pp. C1–C3). Neither HEGIS nor the Completions Component by themselves collect graduation rates (i.e., the percentage of students graduating), nor could the Completions Component be combined with other IPEDS components to calculate such a rate prior to the creation of the GRS.

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oriented toward vocational training and programs that transfer to institutions offering bachelor's degrees. They are almost—but not quite—always purely undergraduate institutions. Universities are typically larger than liberal arts colleges (though community colleges can span the entire range of institutional size) and usually (but, again, not always) offer graduate programs of widely varying scope. The distinctions, however, are primarily nominal and not analytically useful due to the vast overlap in institutional characteristics. This chapter will thus conform to the more common international usage, using "university" to refer to all U.S. institutions offering post-secondary degrees.

[3] The Department of Education is barred from collecting student unit record data under sec. 113 of the Higher Education Opportunity Act of 2008. While efforts to change this are very nearly constant, none have yet come close to success.

Both HEGIS and the original IPEDS components operated in an era when the federal collected data primarily for research purposes. One of the Congressional purposes in the Department of Education Organization Act of 1979 was "to promote improvements in the quality and usefulness of education through federally supported research, evaluation, and sharing of information" (sec. 102), a purpose furthered with the creation of the Office of Educational Research and Improvement (sec. 209) that had responsibility for HEGIS and subsequently, until a statutory reorganization of the department in 2002, IPEDS. The orientation toward research-driven data collection changed significantly with the Student Right-to-Know Act of 1990, shifting emphasis from supporting research to providing "consumer" information. The Congressional findings in the act showed concern with student performance and the universities' required educational commitments, in particular finding that "knowledge of graduation rates would help prospective students and prospective student athletes make an informed judgment about the educational benefits available at a given institution of higher education" (sec. 102). The language of data submission also changes, from a language of collection by USED to one of disclosure by universities.

This change in emphasis gave rise to the collection specifically of graduation rates rather than just counts of degrees awarded. Section 103(a) of the Student Right-to-Know Act requires universities to make a "Disclosure of Completion or Graduation Rates" as an amendment to section 485(a)(i) of the HEA (codified in 20 U.S.C. 1092), which notably concerns "information dissemination activities for prospective and enrolled students" about academic programs and financial aid, a quite different language than that of disclosure. The calculation of graduation *rates* is significantly more complex than that of completions, however, as it includes both time and base population dimensions. At least two questions immediately arise: which students to include in the denominator of the rate, and when rates will be calculated relative to the student. Not all student groups are equally useful in making an informed judgment about educational benefits. Students not seeking degrees, for example, do not complete a program in any traditional sense, and prior credits earned make it difficult to treat first-time and transfer-in students as part of the same statistical population. The time constraint is equally complicated; part-time students are likely to take much more time than full-time students, while students who transfer into the institution will take less time than first-time students.

These questions bring one back to the key principle of a critical-constructive theory of information technology, Young's recognition that current practice "does not have to be this way, it could be otherwise" (1990, p. 6). It is worth considering that Congress and USED had several alternatives available, and chose these particular data definitions over those alternatives for reasons. Including all students is a viable standard if the aim is to assess the likelihood that an entering student will complete their degree; the transfer advantage is not particularly relevant in that case. Nor is it entirely necessary to report at a threshold time; graduation rates for a cohort could be updated annually for an (in principle) indefinite period. There are thus many possibilities for an operational graduation rate measure—but a need to have only one. A critical-constructive theory of information technology asks why this data standard should have prevailed rather than the others that are equally representative of reality.

If one accepts a realist account of data, this is exceptionally problematic. Data cannot present an objective representation of an underlying reality if there are many data states that can represent a given state of the world. This is entirely unproblematic, however, if data is understood as a form of communication (though, to be sure, it makes much social practice around data exceptionally problematic). Communication involves producing and consuming a message in discursive form—a form that precludes communication of a "raw" event—such that "the broadcasting structures must yield encoded messages in the form of a meaningful discourse. The institution-societal relations of production must pass under the discursive rules of language for its product to be 'realized" (Hall 2006, p. 165). As we saw in the previous chapter, in the case of data it is not simply the rules of language that encode meaning: the meaning of "19457033" is not purely found in rules of language (whether natural or programming) but in semantically and pragmatically meaningful field names (e.g., "STUDENT_ID" or "PHONE_NUMBER") that produce not just contextually different but fundamentally incommensurable meanings. Without a translation regime, "graduation rate" remains a concept to be argued over rather than a fixed data point.

This issue of encoding data through a translation regime may explain why creating an operational definition of the graduation rate took 18 years. Student Right-to-Know initially defined the base population in section 1092(a)(1)(L) as "certificate- or degree-seeking, full-time students entering such institutions" and, in section 1092(a)(3), measures completion as graduation from the program or transfer to another institution for which the program provides preparation "within 150% of the normal time for completion of or graduation from the program." It also defined, in section 1092(a)(4), three classes of students who could be excluded from the graduation rate cohort upon leaving without graduating: those who left to serve in the military, in a religious mission, or in the Peace Corps. USED published final regulations implementing the Student Right-to-Know requirements in 1999 (34 C.F.R. 668), which further specified the graduation rate cohort to include, at most universities, only those students who entered the institution during the fall term (with first-time students who entered in the summer and continued to fall considered to have entered in fall), and added two more categories of exclusions: students who are deceased or who are totally and permanently disabled. Neither the restriction to fall entry nor the additional exclusions are explicitly authorized beyond the general authorization in the Educational Sciences Reform Act of 2002 to collect data that is "useful for policymaking at the Federal, State, and local levels" (20 U.S.C. 9547) that is the current statutory basis for IPEDS. This was further codified by HEOA in 2008, which added a 200% of program time graduation rate in section 1015a(i)(1)(J), added a recalculation provision for schools with large numbers of exclusions in section 1092(a)(4)(B), and gave responsibility to NCES for collection through IPEDS in section 1015a(i)(4).

IPEDS implements these requirements by defining the GRS cohort, currently, as "all students who enter an institution as full-time, first-time degree or certificate-seeking undergraduate students during the fall term of a given year" (National Center for Education Statistics n.d.-a, "Fall Cohort"), and the graduation rate as the 150% program time rate under Student Right-to-Know. IPEDS collects

the initial cohort size during the year students enter the institution. It then collects the number of graduates and the number of authorized exclusions at 100%, 150%, and 200% of program time to calculate the graduation rates (colloquially, the "GRS100," "GRS150," and "GRS200" rates), calculating them as the number of completers divided by the adjusted (initial less exclusions) cohort (National Center for Education Statistics n.d.-a, "Graduation Rate") for the highest undergraduate degree offered by the institution as well as for all undergraduate degrees and certificates. The rate explicitly excludes students entering in fall terms as part-time or transfer-in students and all students entering in other terms. IPEDS has recently added, without specific statutory authorization, several Outcome Measures that include separate cohorts of part-time and transfer-in fall students, but this is explicitly not described as a completion or graduation rate (National Center for Education Statistics n.d.-b).

Even the IPEDS definition is insufficient to fully operationalize the GRS cohort at the level of individual universities; each institution's data systems are locally developed and implemented (though frequently using data architecture built on commercial products). Hence the translation regime includes elements from other sources as well. At most universities, students may add or drop classes or even enroll or withdraw from attendance altogether at many points in the semester. The IPEDS standard simply requires universities to report data as of their census date, the date on which the institution must report data to external authorities or on which the institution adopts data as official. UVU offers not only full semester but also half-semester classes that begin after the census date defined by USHE. As the census date is the 21st day of classes for the full semester, students who enroll for a second half-semester class before the census date can be included in the GRS cohort, but those who enroll after the census date cannot even though they take the same classes. In this way, state data standards and institutional practices are as determinative of the encoding as are federal regulations.

This definition, with emphasis on the GRS150 rate, serves as the standard definition of graduation rates in US higher education. But local data systems are also important in determining the encoding. UVU operates two distinct sets of data: a near real-time system and a set of data freezes that reflect the real-time data system as of the date of the freeze. The latter is used especially to provide data as of the census date or end-of-term data. Data changes in the former are not always corrected in the latter. A common case of such change occurs when the university receives a transcript indicating a student has transferred from another institution well after the student has been reported as a first-time student. Such errors are not simply oversights by students; it is possible to check students against the National Student Clearinghouse (NSCH) database that includes most but not all students who have attended a Title IV-eligible institution. It is UVU's data collection process, justified by a need for transcript information for transfer students and perceived weaknesses in NSCH data, that results in these data states. Some data processes, moreover, are built around primarily archival data that produces cohorts as they were reported at the time and not as they would be reported based on subsequently cleaned data. It is thus possible to be a first-time student in one data system and not

in another. And while it would be possible to, through technical means, arrive at a consistent data state, it is not possible to choose one without considering non-technical considerations such as whether to consider the cohort a group defined at the outset of a program (thus not subject to correction after its establishment) or a status associated with individual students (which would need to be updated as new information was obtained). These are questions of policy, not of technology.

The encoding of the translation regime is thus only partially technical, and this hybridity is built into the GRS definition at its core. The selection of which students are included or excluded in the cohort and how long they have to graduate are not driven by any technical standard. They reflect, rather, a particular social construct of universities and of their students: a normalizing translation of all students into traditional college students that renders all others invisible or nonexistent. In this paradigmatic type of student, an American university student goes away to a residential university the fall after graduating from high school, chooses a degree program upon enrollment, attends for 4 years of full-time study, and then receives their bachelor's degree. Only within this normalizing translation does the cohort definition make sense. Many students will begin enrollment in a winter or spring term, yet they are not thought of as "typical" and will not be included in an institution's graduation rate. The assumption that first-semester enrollment is representative of enrollment throughout a student's academic career is also dubious for anyone but traditional students from traditional families at traditional institutions. These assumptions are justified normatively, as representatives of an ideal type around which the U.S. system of higher education is designed, rather than as empirically adequate representations of actual students.

The 150% time restriction is especially illustrative of the GRS150's normalization of the traditional student. At a typical U.S. university, students taking the minimum credit hours required to be classified as a full-time student (typically 12) would nominally graduate from a bachelor's degree program in 5 years, 125% of program time. But given the incremental number of credit hours for which students typically enroll (in blocks of three or four credit courses in most cases), the maximum practical number of credit hours for a part-time student is nine rather than 11; such students would graduate in 14 semesters, or 175% of program time. And in 1991–1992, as these standards were being developed, the average student at public and private non-profit degree granting universities took only 16.95 credit hours per *year*, taking 15 semesters—188% of program time—to graduate from a typical bachelor's degree program. As the Student Right-to-Know requirements were being implemented, it was already clear that the majority of students were not included in the standard and if they were they would not meet it. The 150% time standard thus cannot be understood as representing the majority of students or as accounting for part-time attendance without also understanding those who selected and implemented it as at best spectacularly uninformed. Rather the 150% time standard should be seen as the time by which all "normal" students would have graduated—and thus as defining what constitutes normalcy itself. This norm is the key function of the translation regime toward which the technical definitions in law, regulation, and IPEDS rules are directed.

4.2 Decoded Metrics as Political Institutions

There are several hundred data points in the IPEDS data system. Often data is used in policy or academic research on higher education as envisioned by the original legal authority granted to USED. But very few of the IPEDS data points have taken on the significance of the GRS rates, and especially the GRS150. This, too, makes little sense from a realist perspective: the GRS rates are often poor operationalizations of the construct that they are purported to represent. But it again makes sense if one views data as a process of communication. Once encoded by the producer, communication must then be decoded by its audience:

> It is this set of decoded meanings which "have an effect", influence, entertain, instruct or persuade, with very complex perceptual, cognitive, emotional, ideological or behavioural consequences. In a "determinate" moment the structure employs a code and yields a "message": at another determinate moment the "message", via its decodings, issues into the structure of social practices. (Hall 2006, p. 165)

In this frame, the users of data, analogous to the audience of a television program, are active participants in communication rather than passive consumers of predefined information. Only once the data is decoded by its users does it have any effect on social practice. But just as in the case of encoding, decoding data is not solely governed by the rules of language. To the extent that users are aware of it, data can be decoded with reference to the data structures of the translation regime, but by no means does the translation regime determine the decoding. Data users also bring their own structures and meanings to the decoding processes in the form of the nexus of problems, models, and interventions into which the data is incorporated. These translate the data point or aggregations into a representation of some consideration relevant to the users' circumstances and intended courses of action.

These decoding frames, once well established and widespread, can then act as political institutions: "the symbol systems, cognitive scripts, and moral templates that provide the 'frames of meaning' guiding human action" (Hall and Taylor 1996, p. 947). Institutions operate cognitively rather than rationally, "providing the cognitive scripts, categories, and models that are indispensable for action" in that they allow understanding the world and interpreting the behavior of others; they "influence behaviour not simply by specifying what one should do but also by specifying what one can imagine oneself doing in a given context" (Hall and Taylor 1996, p. 947). As a result, action in institutionalized contexts is driven by a logic of appropriateness, "more on identifying the normatively appropriate behavior than on calculating the return expected from alternative choices" (March and Olsen 1989, p. 22).

This is not to say that institutions operate universally without challenge or change. There are many complexities to metrics as institutions. March and Olsen identify two key complexities:

1. Institutions "appear to be bureaucratic, rigid, insensitive, or stupid" and "imperfection is often manifest, especially after the fact," yet they persist because routinized rather than individually autonomous behavior is necessary for widespread coordination of social activity.

2. Institutions are neither internally nor externally inherently consistent or monolithic, allowing actors to choose which routines to follow, a choice still based on the logic of appropriateness amidst conflict and ambiguity and that follows a reasoning process akin to common law legal reasoning (March and Olsen 1989, pp. 24–26).

To these, one might add that as the circumstances in which an institution is relied on to determine an appropriate action becomes less frequent or less salient, institutions may well break down, losing their ability to compel action even where they did formally apply. Through these processes, political institutions may grow, evolve, interact, and eventually die, not because of rational calculus or functional suitability—institutions often persist long after their function is gone or there is no calculus of utility to sustain them—but as organic elements of social structure.

The GRS150 is an institutionalized metric. While USED established the GRS150 metric in the 1990s, policy organizations have played the foremost role in translating the GRS150 from statistic to institution in the early Twenty-first Century. Organizations such as the Lumina Foundation and the Bill and Melinda Gates Foundation, in cooperation with various associations of universities, have aggressively supported a "completion agenda" that called for universities to double student completion rates by 2020. The American Association of Community Colleges made a "Sample Completion Commitment Statement" available to its members in 2011, in which "[INSERT NAME OF YOUR INSTITUTION]" takes responsibility for completion:

> With the "completion agenda" as a national imperative, [INSERT NAME OF YOUR INSTITUTION] has an obligation to meet the challenge while holding firmly to traditional values of access, opportunity, and quality.
>
> …We believe the "open door" must not be a "revolving door," and that [INSERT NAME OF YOUR INSTITUTION] must take responsibility for student success.
>
> … We believe to change [*sic*] in institutional culture, from emphasis on access only to emphasis on access and success.
>
> … We commit to acting on facts to make positive changes in the interest of student success and college completion.
>
> We commit to promoting faculty and staff development focused on evidence based educational practice. (American Association of Community Colleges 2010)

In the national discourse on higher education, in academic research, and especially as this larger discourse is engaged in institutional program management, the development of the completion agenda acts as a cognitive script for policy entrepreneurs, government agencies, the media, and institutions. That script idealizes completion of a post-secondary credential as the path to economic success (McMillan Cottom 2017), identifies completion of a (job-qualifying) credential as the overriding goal of higher education both individually and systemically, and characterizes students who leave before completing their degrees as having been failed completely (i.e., those with some college but no degree are in no better position to qualify for a job than those with no higher education, and are likely saddled with substantial debt) by the institutions, which bear primary responsibility for student success.

The completion agenda is the dominant frame for decoding the GRS150. This has, in turn, made the GRS150 the *de facto* national standard metric of an institution's success in promoting completion. The GRS150 is the touchstone for much higher education policy, which in recent years has focused on degree completion. Graduation is, for example, one of the chief concerns of university leaders; a 2005 survey of university presidents found that only budget, institutional reputation, and a shared vision for the institution were more important measures of success, and it was far more important than the other major student outcome in contemporary higher education discourse, job placement (Selingo 2013). This reflects persistent criticism of U.S. higher education for failing its students, not enough of whom receive degrees once they enroll in academic programs: Contemporary American universities have been dubbed "failure factories" (Schneider 2008) as the university jeremiad genre has exploded.

Completion is thus a high priority, and the GRS150 is the key metric toward which UVU (like most institutions) has directed its efforts toward improving completion rates. Initial work focused on collecting more effective data on completion. This led to a 3-year dashboarding project to collect individual-level completion data for all students included in a GRS cohort since 1998, allowing the data to be cross-tabulated by a wide range of demographic, academic, and institutional characteristics (Institutional Research & Information 2012). The dashboard now serves as the primary metric for one of the standards the institution uses for evaluation by its accrediting body, the Northwest Commission on Colleges and Universities, and for evaluating its student success efforts. It is also the key parameter supporting the academic success initiatives that the university is using to improve student success.

But the GRS is problematic for these purposes. Evaluation of UVU's graduation and completion metrics shows consensus on three principles: that the GRS does a poor job of representing UVU, that UVU should provide more representative measures and interpretive tools to support them, and that locally developed measures will not be accepted as supporting accountability and must be complemented by measures that allow for national comparison (University Planning Advisory Committee 2017, p. 7). It is this last consideration that is determinative. This seems quite surprising in some important ways. UVU's students are not the typical students envisioned in the GRS definition. Fewer than half of UVU's fall-entry students come directly from high school, the majority of its students enter part-time, and many transfer from other universities. Many are returning adults. Many enter in the spring term rather than in fall. As a result, only 19.9% of UVU's fall 2016 student body are part of an active GRS cohort. By the time allowable exclusions are considered, a university of more than 35,000 students that awards more than 5000 degrees and certificates annually is evaluated on the success or failure of fewer than 1000 students.

UVU is in no way unique here. The weaknesses of the GRS component have long been recognized throughout U.S. higher education. The Council of Regional Accrediting Commissions (C-RAC, presumably because someone wisely decided "crack" might not project the most favorable image), faced with increased federal pressure to scrutinize institutions with low graduation rates, announced in 2016 that regional accreditors would heighten oversight of institutions with "graduation rates"

(which has been universally interpreted to mean the GRS150) below threshold values. But the council also recognized the weaknesses of the GRS, especially its exclusivity:

> Recognizing that one or two data points are insufficient to make a qualified judgment as to the educational quality of an institution, accreditors will also review additional information. This will include the number and percentage of students counted and transfer rates, in order to provide valuable and thorough context to the Federal data used for graduation rates, which sometimes reflect a very small fraction of students at an institution. (Council of Regional Accrediting Commissions 2016)

C-RAC's concern reflects a much longer history of criticism. As required by the Higher Education Opportunity Act of 2008, USED's Committee on Measures of Student Success developed a series of recommendations to support more accurate description of student success for 2-year institutions (Committee on Measures of Student Success 2011). NCES subsequently convened several technical review panels on the addition of a broader set of Outcome Measures (TRP #37, February 2012; TRP #40, October 2012; TRP #45, September 2014; TRP #50, August 2016) leading to the implementation of the Outcome Measures component to IPEDS in 2015–2016 alongside the existing GRS component.

It is surprising that UVU should rely on a metric that is widely accepted as flawed. But it is to be expected if we think of metrics as political institutions. Institutionalized metrics serve many of the fundamental purposes of political institutions:

> Routines make it possible to coordinate many simultaneous activities in a way that makes them mutually consistent. Routines help avoid conflicts; they provide codes of meaning that facilitate interpretation of ambiguous worlds; they constrain bargaining within comprehensible terms and enforce agreements; they help mitigate the unpredictability created by open structures and garbage can processes by regulating the access of participants, problems, and solutions to choice opportunities. Routines embody collective and individual identities, interests, values, and worldviews, thus constraining the allocation of attention, standards of evaluation, priorities, perceptions, and resources. (March and Olsen 1989, p. 24)

In spite of appearing "bureaucratic, rigid, insensitive, and stupid" (March and Olsen 1989, p. 24), the GRS150 serves as a common ground for understanding student success. The UVU dashboard provided a consistent methodology for measuring retention (also defined within the GRS framework) and graduation across the university by relying on a common metric that, critically, had external validation, supporting coordinated effort to improve completion. It is difficult to see how that would be possible without some kind of institutionalized metric. The difficulties of the federal Postsecondary Institution Ratings System initiative, which ultimately foundered on the difficulty of evaluating institutions' success, can be understood as an attempt to deinstitutionalize the GRS150: Institutions might agree that the GRS150 is poor, but without an institutionalized metric there was no legitimate alternative. Hence, as is often the case, actors accept the institution as the only viable course of action—the appropriate way to act under the circumstances. We can think of many alternative statistics that we might wish were institutions, but we cannot think of an alternative institution. Thus the GRS150 stands.

The use of the GRS150 in performance funding formulae is especially instructive in understanding the limits of an institution. As described below in more detail, 16 states use GRS-based metrics, predominantly the GRS150 and first-year retention rates based on the GRS cohort, in their funding formulae in spite of the well-established weaknesses in the GRS methodology described above. But those weaknesses push the boundaries of appropriateness when expanded from baseline measures of student success to allocative tools for budgeting. The logic of appropriateness that supports the GRS150 as a measure of, for example, mission fulfillment comes up against other logics of appropriateness that demand recognizing institutional diversity in higher education system management. In Utah, for instance, Utah State Board of Regents Policy R312 recognizes four different types of university roles, most of which are incompatible with a focus purely on first-time, first-year students. This institutional conflict was resolved by moving from GRS-based completion metrics in the initial performance funding formula to metrics based on completions per FTE in 2016–2017, reflecting performance funding practices in 31 states. That has not (yet) changed the GRS150's status as an institution in higher education governance, but it does establish limits to it.

The completion agenda institutionalizes a problem-model-intervention nexus in which the GRS150 is a normalizing representation of completion, completion is framed as a problem of institutional accountability, and the completion problem is solved by "acting on facts" and "evidence based educational practice" that changes institutional cultures. The interventions proposed are directed toward improving completion as measured by the "facts," i.e., GRS rates: programs that would assist primarily full-time, traditional students who have academic weaknesses. The GRS rates are thus best understood as representations not of the students but of problems defined in relation to conditions that may extend well beyond that which are of immediate concern, conceptual and empirical understandings, and the set of possible or intended interventions. At UVU, like many universities, completion is certainly a matter of student success, but it cannot be understood apart from the need to *demonstrate* that success and the expectation that it will be held accountable for it in some fashion.

This conception of the problem connects to models of student success that understand the university, rather than the student, as the chief determinant of that success though its academic and student support programming. Models focused on student attributes beyond the university's control are inconsistent with the accountability narrative. Such models do not go unacknowledged: they are frequently discussed in informal conversations, and UVU's President, Matthew Holland, notes frequently that solutions to completion that focus on recruiting better students—solutions offered frequently by vendors of learning analytics software—are the easiest way to improve completion rates but are inconsistent with the university's mission (Utah Valley University 2015), a conclusion widely supported by the campus community (University Planning Advisory Committee 2016). Thus UVU's student success and retention programs are directed toward changing both institutional practices and student characteristics. The University Planning Advisory Committee, a campus-wide planning body designed to communicate with senior leadership, has called for

improved advising and changing mathematics general education requirements (University Planning Advisory Committee 2014) to improve completion. The Student Success and Retention office's Completion Plan includes an Early Alert program that allows faculty to direct students toward academic support as well as a Stoplight program to identify students at risk of withdrawing from the institution (Student Success and Retention 2017). University College offers study skills courses and a course designed to improve students' resilience. Behind each of these programs is the belief that the university has the ability to influence student behavior commensurate with its accountability for it. The problem-model-intervention nexus exists as an institution, one in which UVU adopts models of the problem and potential interventions that are consistent with the completion agenda because they are the only institutions available to decode the data into a metric.

4.3 Metrics as Determinants of Political Outcomes

The encoding and decoding processes establish metrics as both political outcomes and political institutions. But once established, metrics also take on political functions, by which I mean that they do things to carry out the routine processes of politics: They distribute material and moral goods, and they structure relationships among political actors.

4.3.1 Metrics as Distribution Mechanisms

The dominant vision of politics among Twentieth Century U.S. political scientists (and, consequentially, the most common if not quite dominant view globally) sees it as a framework for distribution of material and moral goods in society. The classic formulations are distributive: Lasswell's (1950) "who gets what, when, and how" and Easton's (1953) "authoritative allocation of values" represent a fundamental continuity across the behavioral and post-behavioral eras in political science in the United States. From these perspectives, distribution is "the major, if not sole, function of the polity," and there is special focus on the distribution of political power (Mitchell 1961) in its many forms—whether formal authority, individual rights, or "soft" forms of power. All of these, along with more mundane goods and services distributed through taxation, appropriation, and operation of government programs (or the refusal to do so), can be understood from a perspective in which the political system allocates or controls their distribution across political actors in society.

The politics of metrics is by no means exceptional in this respect. Once data is encoded and then decoded as a metric, the metric can take on many distributive roles, authoritatively allocating many different values. The simplest form of this is when metrics allocate material goods. As of 2015, 38 states used or were implementing some form of performance-based funding to allocate resources to higher

education institutions. In 16 of these, GRS rates, nearly always including the GRS150, are used as part of performance funding formulae. Utah used the GRS100, GRS150, and GRS200 for completion and the GRS cohort for retention rates initially before later moving to a completions and enrollment metric. Florida also used all three GRS rates for completion and the GRS cohort for retention. Illinois, Kansas, and Michigan included the GRS150 in its formula for 4-year institutions. Indiana and Missouri used the GRS100 for completion. Montana used the GRS cohort for retention; North Carolina used it for a 12-credit hour progress rate and a success measure similar to the federal Outcome Measures. Many other states used retention and completion rates without publically specifying the GRS cohort or a GRS rate, but due to the need for national comparison it is all but certain that these states were using GRS-based metrics (National Conference of State Legislators 2015).

A change in the GRS150 definitions, then, has the potential to reallocate millions of dollars in higher education funding. One can usefully, if not perfectly, quantify this using the Utah performance funding formula and IPEDS data. In the 2016–2017 Utah performance funding cycle, UVU's target graduation rate was 39.4% (based on the 66th percentile of universities in the Carnegie Public 4-year and above, Baccalaureate Colleges—Diverse Fields classification that admitted 90% or more of applicants), and its graduation rate for the students formally part of the performance funding process (basically, the GRS150 for the cohort that entered in Fall 2008 and graduated by Summer 2014) was 27.8%. As a result, UVU forfeited $191,145 in performance funding for graduation efficiency (Buhler 2015). Based on data for the Outcome Measures, using the 8-year graduation rate for all students rather than the GRS150 would have increased UVU's combined graduation rate for all award levels from 32.0% to 35.7%.

Directly comparable data for the peer universities used in the performance funding formula is not available, because Outcome Measures are not yet publically available. So it is impossible to know what the effect of this change on the target graduation rate—and thus on funding awards—would be precisely. But with 10 of UVU's peer universities having nominally selective admissions processes and five not offering associate's degrees, it seems reasonable to conclude that UVU would gain significantly compared to its peers in the performance funding formula. It has a slightly higher percentage of transfer students among its new student population than the average of its peers (35.0% versus 32.0%, respectively, in Fall 2013, the data year used in awarding 2015–2016 performance funding) and a substantially higher percentage of part-time students (38.2% compared to 19.5%). If UVU closes 25% of the gap between it and its peers by a change in the metric to an all-student Outcome Measure (equivalent to a 2.9 percentage point improvement in the GRS150), it gains $48,500—about half the cost of a new faculty line.

A more straightforward switch from the GRS150 to the GRS200—a change of a single element in the definition of the graduation rate metric—would still favor UVU given its large numbers of part-time students (many of whom entered as full-time students and are thus included in the GRS cohorts). Sixth-year completers make up a noticeably higher proportion of UVU's GRS150 completers than among

the performance funding peers (22.2% against 18.6%), so one expects that the GRS200 for UVU's 2007 cohort will continue to improve relative to its peers, on average as the time threshold increases. GRS200 data for the Fall 2007 cohort was only reported in winter of 2016–2017, and is not yet available publically through IPEDS, so one cannot make a direct comparison to actual FY 2015–2016 funding. But using data for the 2006 cohort, which was available for 2015–2016 performance funding awards, rather than the 2008 cohort tells a dramatic story. Based on the GRS150 rates for the 2006 cohort, UVU would have only received 43.0% of its potential award, amounting to $283,524, a loss of $181,751 compared to the actual award based on the 2008 cohort. This reflects a very poor GRS150 rate of 16.9% for what was then Utah Valley State College. The GRS200 is another matter. While UVU's peers gained on average 2.8 percentage points moving from the GRS150 to the GRS200 for that cohort, UVU gained 11.1 points. Switching to the GRS200 nets UVU an additional $147,366 compared to the actual award. A hypothetical such gain for the 2008 cohort—3 points for peers and 11 points for UVU—would net an additional $138,105.

Multiplied by dozens of institutions in 16 states, the implications of defining timely graduation as 150% or 200% of program time constitute a significant reallocation of higher education funding across institutions. All of these speculations became moot, of course, when USHE changed its performance funding metric for graduation efficiency from graduation rates to degrees and certificates awarded per FTE. The new metric is favorable to UVU, which awarded 26.4 degrees or certificates per 100 FTE in 2016–2017, thanks to serving large numbers of transfer-in and part-time students who aren't counted in GRS-based graduation rates, and will thus likely result in UVU making good on a larger portion of its potential performance funding awards. One might even suspect that awards per FTE is well on its way to institutionalization itself based on its more favorable evaluation across higher education and frequent use in performance funding formulae. But in either case, decisions about metrics are decisions about policy. These speculations show that making decisions about metrics, whether big differences between metrics measuring significantly different constructs or small differences in the selection and design of metrics for an established construct, is a way of performing one of the most fundamental policy actions: allocating resources to government functions.

Metrics often allocate more than material goods. They often allocate moral goods as well, for example, rights or recognition. By institutionalizing operational definitions of the groups of concern in the problem-model-observation nexus, metrics allocate recognition, legitimacy, and participation rights. Those that are within the operational definition are recognized as having a legitimate place in the nexus and can make a claim to participate in the process or to receive a benefit. Those who are outside of that definition are not necessarily consciously excluded from participation but the metric guides those within the nexus to each other, and to fail—or sometimes refuse—to recognize those outside of the nexus as being important to the process. This is not a consequence of the constructs themselves. Often a conceptual definition would include a far broader range of participants than are included when the constructs are operationalized in metrics.

UVU offers a number of scholarships to support completion. The general principles behind the programs are to provide scholarships to students within 1 year of completing their degrees in order to ensure that students do not fail to graduate when they have completed most of their programs. The completion scholarships are, at the heart, a low-hanging fruit strategy: Improve completion rates by intervening where it can most readily make a difference in outcomes. By intervening in the final year, the completion scholarships act when there are fewer possibilities for extraneous factors that prevent the intervention from producing the expected outcome.

Not all students are eligible for these scholarships. There are three main completion scholarship programs at UVU: first-generation completion grants, summer completion grants, and Wolverine Completion grants. The first two reflect aspects of the problem and intervention; first-generation students have a lower than average graduation rate, and low summer utilization provides an opportunity for students to take more courses before the GRS150 deadline. This is, of course, a textbook case where the metric defines the problem (graduation in less than 150% of program time) and intervention (accumulate more credits before time expires). The general structure of the completion grants programs is built around a GRS-driven operationalization of completion found in the UVU Completion Plan (Student Success and Retention 2017) and its associated implementations such as the Student Success and Retention data dashboard (Institutional Research & Information 2012). The GRS150 also defines eligibility directly for the Wolverine Completion grants, which UVU describes as a "[f]inancial aid program created specifically for students in IPEDS [GRS] cohorts who have completed 90 credits or more toward a bachelor's degree" (Taylor 2016, p. 61).

Certainly, as scholarships, these are additional cases in which the GRS150 allocates material resources. But they also reflect ways in which the GRS150 allocates recognition and legitimacy. Those who are included in the GRS-based measures have a priority claim to participate in conversations about completion. Eligibility for the GRS cohort—and thus the capability of contributing to UVU's GRS150 rate—confers recognition that a student is or is not part of the completion problem. Students whose completion is consistent with the GRS framework—those for whom "on-time completion" is a meaningful goal as opposed to ongoing progress that will lead to a degree eventually—have standing to be represented in the completion dialogue. They are incorporated into solutions to completion, while students who face completion challenges that are not reflected in the GRS framework—students who entered UVU in the spring or as part-time students—stand as also-rans, students whose completion is a good thing but not among the university's priorities.

Metrics also shape political power through the control of information. Metrics are, in essence, institutionalized information. This makes them distributors of political power by institutionalizing and giving consequence to information asymmetries. Those with access to information institutionalized within a logic of appropriateness may have greater independence of action: Some have authority to produce information, and their information is considered appropriate and included in the problem-model-intervention nexus. Others' information is not: it is at best seen as

contextualizing, often dismissed as anecdotal, sometimes considered false simply because it conflicts with the "official" metric. As a result, those favored by the information asymmetries have a greater range of options available to them within the logic of appropriateness and have a greater role in the process. One cannot deny those who hold the key information a place in the process of intervention, and those with the information can withhold or provide it to their own advantage.

This was very much the case in the controversy over Mount St. Mary's University's plan to dismiss some students before the IPEDS reporting deadline in 2016, made infamous by then-President Simon Newman's comment about the students that "sometimes you have to drown the bunnies" (Svrluga 2016).[4] This was a project to manipulate the GRS-based retention rate by dismissing students who were unlikely to be retained to the following fall before the reporting date so they will not be included in the GRS cohort (and thus in the denominator of the GRS retention rate). Newman intended to use a survey administered at the orientation for entering students to identify those to be dismissed. Strong opposition from the faculty delayed analysis of the survey and implementation of the plan to dismiss students beyond the IPEDS reporting date, however. This ultimately empowered the university's institutional researchers to submit a cohort that had not been affected by the survey process in order to comply with the GRS' reporting date definition. That date, an element of the metric's definition, shifted decision-making power at Mount St. Mary's University from the president to the office controlling the information and reporting process: A major initiative was thwarted not because of authority relationships in the university's formal hierarchy but by the definition of the metric.

4.3.2 Metrics in the Politics of Control

While distribution is a central theme in contemporary politics, it is not the only way in which metrics influence political outcomes. Metrics are elements of political control, shaping processes in ways that are at best partially understood (and often deeply misunderstood) as simple allocative measures. Metrics often function as part of quasi-algorithmic procedures designed to control decision-making by a political actor. One of the fundamental insights that political science made into the policy process during the late Twentieth Century was that such procedures are very much instruments of political control (McCubbins et al. 1987). Famously enough to become a mononym, McNollgast[5] showed that Congress ensures that the bureaucracy executes the law within the scope of legislative intent less through the textbook means of punitive budgeting, advice and consent to appointments, and

[4] This case is discussed in more detail in Sect. 6.1.1.

[5] And thus to treat themselves as a non-gendered single author on its web site, e.g., "McNollgast is most well-known for its early articles that helped introduce positive political theory (PPT) into the study of administrative law" (Weingast 2013).

statutory revision than by designing administrative procedures that overcome bureaucrats' advantages in information asymmetry and allow favored groups to assert their interests directly to bureaucrats. This achieves the most common form of legislative intent, which is less to produce legislatively favored policy outcomes than to produce policy outcomes preferred by legislatively favored constituents.

While McNollgast focused largely on the administrative procedures used by bureaucrats to make implementing regulations (e.g., the procedural requirements of rulemaking under the Administrative Procedures Act of 1946) and information disclosure requirements such as the Freedom of Information Act, it is not at all difficult to understand required metrics as having the same effect. No metric is universally useful, and (in principle) no rational representative chooses a metric without considering how their favored constituencies will fare under such a metric. Metrics should be seen, then, as *prima facie* supporting the needs of specific constituencies. By designing metrics into legislation, as Congress did in the Student Right-to-Know Act, legislators constrain the behavior of agencies such that an agency will, on its own, secure the favored outcome.

The Congressional intent of the GRS150 is not hard to understand. The language of informed choice, consumer information, and on-time graduation combines with the specification of first-time, full-time students in the Student Right-to-Know Act to make clear that required reporting—and policy analysis by the Department of Education based on the data reported—is intended to favor traditional students. By setting the GRS150 as an essentially national standard, Congress can be seen as requiring that institutions pursue policies that favor (or at least meet the needs of) those traditional students regardless of their effects on other students, about whom neither USED nor Congress know much. The GRS150 remedies an information asymmetry by eliminating the additional information available to institutions (about students not in the GRS cohort) from consideration in the policy sphere. Graduation rates for part-time transfer students are (at least until the Outcome Measures gain currency) not standardized; an institution's report of them is anecdote rather than national data and thus not part of the graduation rate.

Universities must respond to the needs of the educated, middle-class voters favored by Congress because universities must report a graduation rate specific to their needs. No matter what an institution can show about completions per FTE or extended graduation rates (for example, the Consortium for Student Retention Data Exchange collects data out to 12 years), the traditional families of traditional students who expect a traditional university experience are in a position to ask, "But what about your graduation rate?," confident (or even without considering to the contrary) that "graduation rate for people like my child" is implicit in the question. Hence comes the widely held belief that UVU must respond to the GRS150 however unrepresentative it is (reinforcing its status as a social institution, one notes), and the prevalence of news stories about returning adult graduates—"man bites dog," one suspects—but scholarship programs for students in the GRS cohorts.

When viewing this from the relationship between legislatures and (potentially) favored constituencies, this remains a distributive form of politics: Favored groups are given opportunities to intervene in the political process that other groups lack.

The key here is that this distributive perspective fails to understand the relationship between the bureaucracy and the legislature. This is neither an allocation of power across agencies nor between the legislature and an agency, though certainly those dynamics can be present as well. This is a relationship between master and servant, in which the master claims that all actions of the servant take place with the master's authority and acts to constrain the servant not by limiting its power but by executing that power in specific ways. UVU is not given a range of powers by Congress, NCES, NWCCU, or USHE beyond which it cannot go. It retains the full authority to make policies prioritizing whatever students it wants to prioritize. But it is told by an agency with the power to effectively terminate the institution's operations (by denying it eligibility to offer federal financial aid) that it will be subject to "special attention" if the graduation rate for traditional students falls below 25%; whether the GRS150 is an appropriate measure for the institution or not, the university will be required to provide "information about the conditions that may have led to low graduation rates and how the institution is working to improve" (Council of Regional Accrediting Commissions 2016). This is a question about outcomes, not authority. It should not be understood from a purely distributive perspective.

The political power of metrics can go well beyond their immediate use. One important determinant of policy success is the capacity of the political system to make and implement policy:

> Decisions made by governments cannot always be carried through; there is no law guaranteeing that government authorities will attempt only those interventions that they really can execute. The administrative organization of government is crucial, especially when policies calling for increased government intervention are to be implemented. Governments that have, or can quickly assemble, their own knowledgeable administrative organizations are better able to carry through interventionist policies than are governments that must rely on extragovernmental experts and organizations. (Skocpol and Finegold 1982, pp. 260–261)

This state capacity enables governments to act effectively in areas where capacity already exists, but seriously handicaps governments where they need to build new capacity. Hence, Skocpol and Finegold demonstrate the success of agricultural policy and the failure of industrial policy in the United States during the New Deal. A long history of agricultural policy tied especially to the place of land grant colleges gave the federal government substantial capacity in agriculture that it lacked in industry, where the government was handicapped by lack of a skilled bureaucracy and had to draw on businesses themselves for expertise.

State capacity does not come solely from an organization chart, however. Much of the advantage the United States had in agricultural policy in the 1930s came from an established knowledge base developed through schools of agriculture (and especially agricultural economics, which arose as a separate discipline from general economics and was more strongly rooted in institutionalist research traditions). A political system's success relies not just on administrative organization but on administrative knowledge. An agency (or constellation of agencies) that can act coherently and effectively but does not know what to do and how to do it is no more likely to successfully make and implement policy than one that is being built from nothing. This is why making the world legible to policy, as discussed in the previous

chapter, is so central to the entire project of data-driven management: Metrics allow political systems to intervene knowledgably and to overcome resistance from civil society, thereby intervening more effectively and accomplishing its policy goals. Metrics create state capacity and thus shift power to the state.

By establishing the GRS150, USED was able to control the political landscape of completion. It is able to determine which institutions are performing "well" or "poorly" and to act accordingly, as it has done with the College Scorecard, for example. The department is first able to identify a concern with completion that it could not have seen (at least not in a purportedly objective way) without a graduation rate metric. That data allowed the department to establish completion as a policy problem—it allowed USED to set the political agenda—and to extend the terms of that problem beyond being one of consumer information and choice (as described in the Student Right-to-Know Act) into what would become the completion agenda, connecting with actors in civil society and in Congress that would support such an agenda in a classic "iron triangle" relationship. It could then bring pressure on groups such as C-RAC to enforce a graduation rate standard that C-RAC itself acknowledges is not a sound basis for evaluating institutional effectiveness.

USED quite simply could not do this without the GRS150; the concept "graduation rate" without the associated metric is too nebulous terrain for USED to act effectively. Its success when using the GRS150 is usefully contrasted with the effort to build the Postsecondary Institution Rating System (PIRS). Following the decision that the GRS150 would not be the exclusive metric for completion (U.S. Department of Education 2014), the completion metric became one of the most contested issues in the system, ultimately leading the Obama administration to drop the initiative entirely. PIRS moved outside of the state capacity that had been built with the GRS150, ceding ground to actors in civil society (especially the for-profit higher education sector) and fragmenting policymaking capacity by opening rifts between Congress and the executive branch.

4.4 Conclusion

This study of the GRS150 shows that information exists both as the object of politics and as a force in politics. The encoding processes by which raw information about the environment becomes data and the decoding processes by which data becomes a metric suited for use in a nexus of problem, model, and intervention mean that we cannot consider data simply an objective, apolitical solution to politics. Just as the choice to use data over other approaches—anecdote or interpretation or pragmatism or revelation—is a political act, the choices to encode observations in one data frame rather than another and to decode data through one statistical methodology rather than another is an act of politics as well. And those political acts have political consequences, distributing resources, allocating legitimacy, controlling decisions, and building capacity. This is not because

data is politicized by actors who seek advantage from it, but because data is inherently[6] political. There simply is no such thing as apolitical information.

And if data is political, if it is not objective, then it is no longer a purely technical question. Isaiah Berlin (1979) distinguishes between questions that can be resolved through observation and formal reasoning—technical questions—from those philosophical questions that cannot. But unlike the logical positivists who held the latter to be meaningless, Berlin shows that the absence of answers does nothing to delegitimize the questions. "Which students should be included in the graduation rate?" is not a trivial or meaningless question for its lack of a technical answer. While there may not be a demonstrably correct answer to the question, there are surely better and worse answers, and we can give reasons for choosing one answer over another and reasonably hold ourselves and others accountable for choosing an answer. We can rely on a preference for reliability over validity, for example, arguing that a consistent standard for graduation rates is fairer to institutions and students than arbitrary decisions, and we can criticize the use of the GRS150 for its concern for the already privileged over the least-well-off in society. Dismissing these questions as if they don't exist, as if they are "nonsense upon stilts" or, as is more common, as extraneous to the model, does not make them go away. Our information choices are answers to these questions whether we ask them or not.

But dismissing the political questions about data does obscure them, and prevents us from seeing the political and ethical consequences of choices we pretend not to make. Nothing is less ethical than to pretend there are no ethical questions to be answered. We must, therefore, open the consideration of what the data should be to a political perspective. That means that we must subject information to analysis as a matter of justice.

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[6] One is tempted to say "always-already," as is the current fashion. But that is not quite right. The central point of the continental formulation is to suggest a point after which it is impossible to conceive of the time before: Humans are always-already linguistic because the only way we can frame a time before language is to use language. We are thus already linguistic in the present (having acquired language at some point in the past and not needing to do so now), but that acquisition must appear to have always been the case because there is no possibility of understanding what was before. That is not how data is political. Data has not become politicized in such a way that we can never again understand its pre-political state. Data is political from the moment it comes into existence. Data is thus always-but-not-already political because it is impossible to create data *at any time* without engaging in politics.

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