Chapter 2

Universities and the 'new society'

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Introduction

The current times have not been kind to globalisation. It was not always so. When Manuel Castells first came to the attention of all but a tiny handful of South Africans in 2000 on the occasion of his first visit to the country, South Africa was newly liberated, the future was unimaginably open, and globalisation seemed the right partner for national reconstruction and development. Castells was its avatar. While warning of the tensions and currents that globalisation could unleash, Castells was seen as bearing the optimistic message that globalisation could be a powerful positive force if it was managed correctly.[1] By 2016, that hope, at least in its simplistic form, had been mauled in dramatic fashion, though some would say its dark side could have been predicted if not averted had we paid more careful attention. What is unequivocally clear is that, as we put together this second book of Castells's contributions, a wave of anti-technological modernisation and anti-globalisation is sweeping through the traditional West, and

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1   The title of the book was *Challenges of Globalisation* (Muller et al. 2001). It is true that the Introduction warned explicitly against seeing Castells as primarily a globalisation theorist; but that was like expressing scepticism about Mandela at the time – not a thinkable proposition.

a virulent populism is everywhere on the rise. The times are not propitious for the global cosmopolitan project.

But it would certainly be a grave mistake to think that globalisation has little to say and contribute to higher education today; the universal dismay of the UK universities to the strictures that Brexit will bring is indicative of the widely shared nostrum that universities need access to world networks to thrive (Corbett & Gordon 2017). But how are we to think that nostrum in a developing country that has a fledgling higher education system and too many patchy institutions? What are the opportunities and threats to higher education in the shadow of 2016? How might Manuel Castells illuminate the path today?

Re-reading his key text from that time, published again here for its prescience and foresight, and with the wisdom of hindsight, one can see he was warning against certain trends that we in South Africa simply didn't pay sufficient attention to. Take 'massification', for example, something invested with a charge of moral rightness hard to resist at the time. After all, black students had for too long been denied the fruits of education in general and higher education in particular. Who would deny their moral right to higher education, a right enshrined in the Freedom Charter and the Constitution? Massification was the necessary vehicle to deliver this right, and we were encouraged in this belief by other luminaries visiting in the early 1990s, like Sir Peter Scott (Scott 1997). What we took away then from Castells's magisterial essay was that development required four explicit functions to be effectively performed by the university system. What we did not notice as clearly was that a further implicit function, the pressures for access 'regardless of the actual functional requirements of the economy' (Chapter 3: 41) – massification for massification's sake – though indubitably a legitimate social demand, had to be carefully managed if it was not to render the delivery of the explicit development functions ineffective, if it was not to 'suffocate' the development potential of the universities. Castells could not have been clearer: if access to universities is opened

and the university is unable to separate out this function from its legitimate functions, conditions for high-level research become tenuous, then impossible, and the best graduates will leave, or simply not return after getting their PhDs in the metropoles, an endemic situation in African universities further to the north of South Africa. The students who remain behind get frustrated, and lose respect for the science function – a bell ringing loudly on the campuses in South Africa in late 2016 as the students fought not only for free education, but took the fight to, and against, their professors. Neither the education function nor the science function can properly thrive in such an environment.

The implications of the Castellian schema are thus not undilutedly optimistic, though Castells has more often than not been taken for a techno-optimist. The reasons lie in the architecture of his theoretical apparatus. This apparatus contains structural conditions as well as agents, powers to produce and powers to dominate, contradictions that have to be managed, and this can be done with wisdom or with folly. As against the rather smug narrative of universities being, next to the Church, the most durable of institutions, he tells a different story that includes at least the following: first and foremost, do universities have faculty capacity to attract good students and to do globally recognisable research? Have they produced a recognisable track record and reputation? Can the faculty, and the university as an institution, plug into global networks? Above all, can the university balance the historically specific form of the contradictory functions and adapt to its historical place and role and thrive? It is by no means a foregone conclusion.

This seems a rather large message to extract from Castells, whose main contribution to the sociology of universities in development can fairly be said to lie in the three pieces printed here. There is only one index entry to 'universities' in the famous trilogy, for example. This should not be taken to mean that his work does not speak to universities, and powerfully so. To get beneath the skin of Castells will require a little digging.

On power, knowledge and capacity

The aim in this brief introduction is not to provide a comprehensive review of Castells's theoretical reach. Rather it is to focus on a few key concepts and show how, in connecting them up, they together might shine some light on how universities function in the present time, particularly in relation to development.

A strong case can be made that the central concept in social science is power, and Castells places this concept centrally in his work. Starting with Poulantzian Marxism (Castells 2009 is dedicated to him), by the time of the trilogy, Castells's theory of the state and of political power is more orthodoxly Weberian (see also Castells 2009: 44). That is to say, power is the imposition of the will of one upon another, and the state, sovereign since the Treaty of Westphalia throughout Europe, has a monopoly on the lawful exercise not only of power but also of violent power. At the height of the power of the nation state, say up to the Second World War, might determined what was right.

In the networked world, this power changes subtly but decisively. Under globalisation, states can be said to lose power, but not *influence*. They can shape outcomes, but they can no longer determine them in the same way. This is because, in addition to the traditional three layers of power of the nation state – the local, the regional and the national – a fourth supra-national layer emerges, which now conditions, and places limits on, the traditional power of the territorially bounded entity. Castells names the two new forms of power in this new network configuration *rule-setting* (or governance by standards) and *governance in networks*. A higher educational example might be helpful.

Take the case of transnational qualifications frameworks. The European Qualifications Framework as an exemplar of a supra-national standard-setting body has created a set of parameters to which all qualifications in the Eurozone must conform in order to be registered. Castells would say that of the two kinds of new agent wielding power in the global networks, here the *programmers* hold sway – the group of early-joining representatives, principally in

this case those from the Irish qualifications authority – since they were able to set the criteria for the standards which control the rules for inclusion and exclusion to the qualifications framework. This has meant that for the late-joining countries, the wiggle room to negotiate their terms of inclusion is considerably reduced, although there too other considerations prevail: for late-joining Norway, a relatively influential country although not legally part of the EU, wiggling gained some concessions; for even later-joining Estonia, with lower standing in Europe, the terms of entry were simply accepted as if set by edict (see Elken 2016). The UK, by contrast, with their impending Brexit, are betting that they have sufficient alternative networks to join to mitigate the costs of exit. Time will tell whether they will opt to switch from the European Qualifications Authority to which they presently belong. Everything turns on the alternatives available. Castells calls the power to be able to join comparable alternative networks switching power, which, alongside programming power, circumscribes the range of new powers operating in the network society.

Although Castells doesn't refine this new set of powers much further, political science at large has tried to capture them, and the somewhat diminished form of power Castells calls influence, in what Nye has called the new paradigm of 'soft power' (Nye 1990, 2011). 'Soft' power is exercised via persuasion, and entails the ability to shape preferences through appeal and attraction, where credibility becomes a key resource. By Nye's own admission, this notion of power is descriptive rather than normative, or even really rigorously conceptual. This has not stopped it being seized upon by the would-be standard setters, or would-be programmers, to construct global rankings from this rather soft notion – the 'Soft Power World Rankings' (for which Nye writes a Foreword) and the 'Monocle Soft Power Survey'. For a more rigorous conceptual account, a brief look at Steven Lukes (2005) is instructive.

Lukes is well known for his thesis about the three faces of power. These 'faces' are conventionally seen as on a continuum from empirical enactments of the exercise of power ('A exercises

power over B') identified with the empirical study of power by political scientists like Dahl; through more indirect exercises of power where power can be seen as for the common good, identified with sociologists like Parsons; to a radical form, where power shapes preferences in such a way as to circumvent the affected agent's freedom and rational self-determination. In revising his thesis in 2005, Lukes comes increasingly to lean on the distinction made by Spinoza, between *potentia*, which is roughly glossed as 'power to', or the ability and capacity to do something; and *potestas*, roughly 'power over', which is the traditional notion of power as domination of one agent over another. *Potestas* is always deformative, it withdraws or deprives, it places another in your power, constraining their choices, securing their compliance; *potentia* is productive or creative, it extends horizons, it imagines new futures. As Giddens (1979: 348) says with customary clarity, 'Power in this broad sense is equivalent to the *transformative capacity* of human action.' It involves the capacity to achieve something of value. In this sense, as we will see, highly specialised knowledge as produced by universities confers a very specialised capacity to its holders, which is where universities and development come in, but more on this later.

Lukes draws several lessons from this seminal distinction. First, power as capacity weans power from its exercise: one may possess power, but that is separate from exercising it. One may decide not to exercise it, or to exercise it badly – or, in more Castellian vein, in a non-networked field or site, which means its force is blunted or diminished. Secondly, following Spinoza, *potentia* is the more encompassing notion; all power is a capacity, *potestas* just a special case of it. In fact, Lukes would advocate that we shift entirely to what he calls a dispositional account of power, an account in terms of capacities, an account he allies to Sen and Nussbaum's capabilities approach. Castells will have none of it. Although he cites the distinction between 'power over' and 'power to', which he attributes to Parsons (Castells 2009: 13), he goes on to say that 'the power to do something […] is *always* the power to do something against someone' (Castells 2009: 13). That is,

for Castells 'power to' is also always 'power over'. On this point, Castells is himself highly consistent, as we commented in the conclusion to the earlier volume.

Fortunately, we do not have to arbitrate between Lukes and Castells; in any case, we agree with Castells. It is enough to say that, as we enter the networked spaces of informationalism, the dispositional dimension of power comes more insistently into view. We can see this in the way that Castells defines the powers of programmers and switchers in terms of their abilities and capacities. We also commented on this when we commented on Castells's oft-misinterpreted notion of knowledge in our earlier volume (Muller et al. 2001). This bears a brief re-statement.

Commentators persist with the cavil that Castells didn't take knowledge seriously. Maton (2014: 2), to cite just one recent example, complains that Castells 'relegates' knowledge to a footnote, and concludes that, like other mainstream sociologists, he treats it as a 'black box'. What is quite true is that he does not treat knowledge as a factitious object or structure, as Maton and others do, for instance; for him, as we have already seen, it is a productive capacity. As we pointed out earlier, Castells regards the data and information as 'bits' out there, while knowledge as a capacity is the ability to assemble the data into information with which to assess, make informed guesses and expert hypotheses, and integrate the most robust of these into theories that relate in determinable ways to the existing theoretical corpus.

The bottom line then is that, while Castells (and others in the political economy tradition) treats knowledge as a *capacity* of knowledgeable agents, educators tend to treat knowledge as the *existing knowledge corpus* as well as the new knowledge which can be demonstrably added to it. For the economists, knowledge is an expert capacity 'in here'; for educators, knowledge is an expert commodity that can be treated as 'out there'. There are good reasons for both approaches to knowledge.

The educators need to focus on two issues that economists take for granted. The first is they need to conceptualise the 'what' of learning in terms of a specifiable curriculum. The question

they must be able to answer is: what is the knowledge that must be selected into the curriculum and sequenced and paced in a determinable fashion? Attempts to design a curriculum in terms only of capacities (educators call them 'competences'), in terms of what learners should be able to *do*, are currently favoured by outcomes-based approaches to curriculum (like the European Qualifications Framework mentioned earlier), but their greatest drawback is they signal rather poorly what teachers and learners are expected to cover over a specific period. Specifying the end point of learning doesn't tell one how to get there. Educators cannot avoid a certain degree of treating knowledge as 'out there'. The second issue educators focus on is: what is the individual scholar's, or institution's, contribution to new knowledge? Here the outputs 'out there' are treated as proxies for their (the scholar's) productiveness. To answer both of these questions requires treating knowledge as 'out there' in some sense or other.

Economists by contrast have a different question to answer, one related more directly to labour power and labour productivity. Knowledge is treated here as a productive asset. In this sense, labour units are treated as *already capacitated*, so the need to specify the curriculum, or to count output units, falls away. It is not so much that the 'out there' doesn't count, as some sociologists of education have concluded; it is that what is 'in here' counts far more for the future value-adding activity of the concern. To see why that is, a brief detour into what Castells means by 'development' is in order.

Towards the 'new society' (Castells 1998: 360)

The place where Castells is clearest about this capacity is in his distinction between two forms of labour power and their relative value. 'The most fundamental divide in the network society, albeit not the only one, is between self-programmable labour and generic labour' (Castells 2009: 30). Castells continues, and it is worth quoting him at length:

> Self-programmable labour has the autonomous capacity to focus
> on the goal assigned to it in the process of production, find the
> relevant information, recombine it into knowledge, using the
> available knowledge stock […] the more what is required from
> labour is the capacity to search and recombine information
> […] in terms of value-making (in finance, in manufacturing,
> in research, in sports, in entertainment, in military action, or in
> political capital), it is the self-programmable worker who counts
> for any organisation in control of resources. (Castells 2009: 30)

The second form of labour, generic labour, may well possess
skills of a fairly specialised sort, but they are not what Castells
would call 'informational' skills, they do not lend themselves to
being autonomously renewed in the workplace – once trained,
always trained so to speak. So when innovation and production
requirements change – and they will increasingly do so at an ever-
greater pace in the network economy – the self-programmable
worker can self-renew, while the generic worker must either be
replaced by another more skilled worker, or by automation. In the
remorseless logic of the network world, they do not have the key
capacity to self-renew and are therefore replaceable.

The name 'network world' though masks the dynamic that drives
it. Castells draws a distinction between the mode of *production*
and the mode of *development*. The two main modes of production
have been capitalism on the one hand and statism/collectivism
on the other. The network society has tilted the balance towards
capitalism, but not without hybrid modes emerging; the Chinese
and Russian societies are just two that come readily to mind, not
to mention the East Asian ones, about which more below. In a
sense, the old tension between these still sits at the heart of modes
of production.

It is in the mode of development that the greatest change is to
be discerned, from industrialism to a post-industrial mode that
some have called the 'fourth industrial revolution' and Castells
calls 'informationalism'. It is this mode of development that has

been the topic of discussion in this introduction, and which heralds Castells's 'new society', bringing with it decisive changes in the social relations of production, experience and power.

This view of development might seem quite conventional, but what Castells is trying to do is show how the concept of informationalism as a mode of development marks a break with both dependency theories of development and neoclassical economics in the field of development theory, usually called 'neo-liberalism' for short. The four Asian Tigers taken together, for example, confound both theories (Castells 2009: 250). Dependency theory predicted that economic development under capitalism in formerly dependent countries was not possible; and neoclassicism predicted that success would depend upon the market winning out over the state in directing the economy. The Tigers have been successful under capitalism, but they all had states that had intervened systematically in their strategic guidance of national firms and multinational corporations. They have also repressed or limited democracy in one or other way, concentrating on the improvement of living standards rather than citizen participation (Stalder 2006: 119). This too goes against the neoclassical grain.

Two other factors were crucial to their spectacular lift off. These were low labour costs and a large, well-educated and skilled labour force. For all of them thus, the '*availability of educated labour, able to reskill itself during the process of industrial upgrading, with high productivity and a level of wages that was low by international standards*' (Stalder 2006: 274, italics in original) was the key. This gave the labour force the flexibility to adapt to the informational paradigm – to science, hi-tech and R&D. Castells is at pains to stress the role of the state in producing 'high-quality labour' (Stalder 2006: 276). All of this stands in stark contrast to most if not all other postcolonies, where poor quality education and high wages, driven up by second and third industrial revolution unions, created the opposite set of conditions, with their consequent costs.

We may speculate then that where the proportion of self-programmable to generic labour is tilted positively in favour of

the self-programmables, conditions are propitious enough that a country can dig itself out of the dependency trap. Where the balance is tilted the other way, the path to independence is much more arduous. The differential between the two forms of labour will only increase under informationalism. The factor making the difference is education, especially and increasingly higher education: 'The critical quality in differentiating the two kinds of labour is education, and the capacity of accessing higher levels of education' (Stalder 2006: 361). This underlines the critical role of universities in effecting the 'new society', the post-dependency thriving economy and society.

The empirical chapters in this volume that follow the three benchmark papers by Castells examine this Castellian legacy. Theoretically, they do this mainly by invoking the 'four functions' schema Castells introduces in his first paper. It is in their empirical realisation of Castells, though, that a larger conceptual debt becomes apparent. Their main empirical target is knowledge production, and their main indicator is the publication output of universities, their research productivity, including doctoral graduates. Of course, in a purely empirical tradition, the amount of research produced is correlated with the amount of innovation in the national innovation system. But the authors are operating here at least implicitly in a Castellian vein. The capacity to do research signifies the specialised capacity to manipulate symbolic systems, the result of which, in many key cases, has material payoffs and consequences. This is the symbolic capacity that is the basic condition for self-programmability. It is not only transmitted through induction into research, but this is the university's pre-eminent way of transmitting it, at least at a high level. The PhD is the proxy indicator that signifies the summit of self-programmability.

A research-productive institution is an environment where symbolic manipulation is a constant backdrop to other academic labours, and smart graduates need such an environment to flourish, and thereby to contribute to it with their own research outputs, patents, software programmes and other symbolic

value-producing products. The amount of research output an institution produces is thus not only an index of its contribution to the present innovation economy, but through its magnetic inductive pull on good graduates, produces the producers of the future health of the innovation system as well.

It is frequently said that universities have to educate for the middle sectors of society as well, and Castells has incorporated the training of the civil service and bureaucracy into his fourth function of universities. There was a time in the postcolony when this, along with the ideological function and the training of dominant elites was all that universities did, at least in Africa. In too many cases, that is all they still do. But to train a skilled civil servant, it is no longer sufficient to teach the skills of concentration and procedural accuracy, along with the social virtues of attention to detail, loyalty to the state and sobriety. Most of these fairly repetitive skills are now swallowed up by software programmes. So, it is thought, what those in the service professions now most need are social skills like interpersonal and communication skills.

From the view developed here, the skills civil servants will also increasingly need are the skills of symbolic manipulation – drawing up and managing procurement and performance plans, strategic planning, performance management and the like. While much of these too are available as software, adapting them to the particular needs of the institution requires higher-level skills than before. To coin a phrase, these skills have the potential to create a *knowledge or informational dividend*; they are able to generate new value. The procedural and communication skills do not have this potential.

The twin themes of this book – universities and their role in development – are now in focus. Universities are, self-evidently, the privileged social institution for the inculcation of high-level expertise (what Castells calls in these essays the 'education' function) and the development of self-programmable, innovative or inventive capacity (what he calls here the 'scientific' function). It is the latter, though intimately dependent on the former, which counts most under informationalism. As we will also see in the chapters below, the dependence goes both ways: if an

institution focuses on the education function to the neglect of the scientific or research function, the expertise level purveyed by the institution runs a real risk of slowly dropping down the scale from informational towards generic. On the other hand, if another institution develops a grand policy to be a research-led institution but neglects to employ the highly skilled scholars to do the research, the policy will remain empty. A theme of Castells's is that each needs the other in order to thrive.

In order to see this connection more clearly, a second link back to our first volume (Muller et al. 2001) may be helpful. In that discussion, we highlighted the fact that the ubiquitous term, 'learning to learn', was an institutional capacity rather than an individual capacity. Distinguishing with Eder (1999) between 'rule learning' and 'substantive learning', we argued that in order for an institution to be productively or creatively adaptable to challenges of the network society, it had to have the capacity to 'learn to learn', that is, to adapt to challenges and mediate contradictions. In the first paper, Castells is concerned to outline two sets of contradictions that adaptable institutions are able to mediate: that between the divergent demands of the extrinsic four functions of universities; and that between the four extrinsic functions and the intrinsic social function of expanded access. *These contradictions must be mediated in order for the two key functions, the education and science functions, to flourish, for success in the network world.* This is the core challenge for the would-be developmental university, particularly in the developing world.

There is a connection between the idea of self-programmability, a capacity at the individual level, and 'learning to learn' or what Castells calls here 'adaptability', the commensurate capacity at the institutional level. These capacities must run in tandem. It does not help if an institution has excellent high-level self-programmable staff, but, in a burst of moral conscience, throws open its doors so that these high-capacity staff are swamped and the science function of research consequently smothered. Nor does it serve if an institution espouses the fine ideals of becoming a research-led institution but does not invest in the kind of staff

that can deliver the desired research. These mismatches are well illustrated in the data presented in the chapters that follow, mismatches considerably illuminated by Castells's perspicacious theory in the bracing chapters that precede them. These highlight the growing pains of developmentalism, as universities in Africa struggle to discover what it is to be a developmental university in a developing country. As the theory predicts, and as the empirical chapters that follow show, not all of them will make it.

It remains to connect this account back to the two faces of power, the productive face and the face of domination. As we commented earlier, Castells is insistent that productive power is not the 'good' power, and domination the 'bad' power. The two always come together. As we saw with the example of the European Qualifications Framework, two faces of 'power over' can be observed here. They are exclusion and inclusion. Those with power can so define the standards, or rules for inclusion, that some can be kept out, others let in. But as we also saw with that example, that the way the programmers can wield power is not only exclusionary; they also do so by determining the rules of inclusion and the terms of participating once in. Once the criteria have been set – be they data protocols, intellectual property regulations, or criteria for university rankings, there is always less than optimal wiggle room; how much depends on the relative power of the actor entering the network. Once in, and once the regulations are binding, the only counter-power is to switch, a strategy dramatised by Brexit. Only rarely can the rules be effectively challenged from within.

Again though, care must be taken to see both sides. University rankings confer distinct network advantages over those not ranked or lowly ranked. Castells's theory urges us to see both sides of the coin, not just one, an injunction not always easy to heed, as numbers of the South African responses to Castells in the earlier volume can attest. At Davos in January 2017, this message was underlined from an unlikely source, the secretary general of the Chinese Communist party. In his keynote, Xi Jinping stressed that globalisation is a 'double-edged sword', continuing to say,

'It is true that economic globalisation has created new problems. But this is no justification to write off economic globalisation.' He went on to make a telling analogy: 'Pursuing protectionism is like locking oneself in a dark room. While wind and rain may be kept outside, that dark room will also block light and air' (Xi 2017; see also Gui 2017). Indeed. This betokens a flexibility many did not suspect the mandarins of the Chinese command economy possessed; but, as the third essay of Castells's below will show, he spotted it earlier than most. It is for this, amongst many other shafts of perspicacity, that we continue to return to these neglected pieces, and is why they are published here.