Global genealogies of the biometric state (part 1)

Keith Breckenridge

The documentary state is old. Its key elements – the registration of property, of tax and military recruitment liabilities and the recording of personal and family names – have existed for thousands of years in the rice-growing societies of Asia.[1] In Europe these familiar features were formed a little more recently, mainly between the 11th and the 14th centuries. Over three hundred years, as Clanchy has particularly shown for England, writing, blessed by its association with an ascendant church, fitfully usurped the status and claims of oral and iconic forms of authority and power. In practice this meant that parchment documents (often forged by church officials) replaced spoken claims as guarantors of property and propriety; writing became the basis of law, and the main instrument of state extractions like taxation and recruitment; a new class of literate officials leaked from the church in to the Royal chanceries and then spread out to the parishes in the countryside.[2] Over the next half-millenium written record making and keeping became a massive and dense field of culture, acting to preserve and simplify property and to discipline the poor. This may have been, as Corrigan and Sayer suggest, pre-eminently the case in England, but historians have traced the administrative powers of writing in very similar processes throughout Europe, the Americas and parts of Asia.[3] It is no wonder then that the powers of documentary government rest (typically undisturbed by rude enquiry) at the heart of the most influential theories of state power produced between Max Weber and James Scott.[4]

In our own time a transformation very like the one that Clanchy described seems to be under way. Since the early 1970s, a globally networked, digital order – in which the most important information

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[1] James C Scott, *The art of not being governed: an anarchist history of upland Southeast Asia* (Yale Univ Pr, 2009); Alexander Woodside, *Lost Modernities: China, Vietnam, Korea, and the Hazards of World History* (Cambridge MA: Harvard University Press, 2006); On the Ancient Near East see Jack Goody, *The logic of writing and the organization of society* (Oxford: Oxford University Press, 1986).

[2] M. T Clanchy, *From memory to written record, England 1066-1307* (London: Edward Arnold, 1979); For similar process in Europe, see Valentin Groebner, *Who Are You?: Identification, Deception, and Surveillance in Early Modern Europe* (New York: Zone Books, 2007); On the persistence of spoken and communal forms of respectability in Spain and Spanish America, see T. Herzog, *Defining nations: Immigrants and citizens in early modern Spain and Spanish America* (New Haven: Yale University Press, 2003).

[3] Jane Caplan, "'This or that particular person': Protocols of identification in Nineteenth-Century Europe," in *Documenting Individual Identity: The development of state practices in the modern world*, ed. Jane Caplan and John Torpey (Princeton: Princeton University Press, 2001), 49-66; Philip Richard D. Corrigan and Derek Sayer, *The great arch : English state formation as cultural revolution* (Oxford: Blackwell, 1985); Philip S. Gorski, "The Protestant Ethic Revisited: Disciplinary Revolution and State Formation in Holland and Prussia," *The American Journal of Sociology* 99, no. 2 (1993): 265-316; Jill Lepore, *The Name of War: King Philip's War and the Origins of American Identity* (New York: Knopf: New York: Knopf, 1998); Walter D. Mignolo, *Darker Side of the Renaissance: Literacy, Territoriality and Colonization* (Ann Arbor: University of Michigan, 1995); Geoffrey Parker, *The Grand Strategy of Philip II* (New Haven: Yale University Press: New Haven: Yale University Press University Press, 1998); P. Sankar, "State Power and Record-keeping: The History of Individualized Surveillance in the United States, 1790-1935" (University of Pennsylvania,, 1992); Michael Warner, *The Letters of the Republic: Publication and the Public Sphere in Eighteenth Century America* (Cambridge MA: Harvard University Press, 1990).

[4] Max Weber, *Economy and Society*, ed. Guenther Roth and Claus Wittich, vol. 2 (Berkeley: University of California Press, 1978), 957 - 994; Michel Foucault, *Discipline and Punish: the Birth of the Prison* (London, Penguin: London, Penguin, 1977), especially 184 - 196; A. Giddens, *The nation-state and violence*, vol. Two, A Contemporary Critique of Historical Materialism (University of California Press, 1985), 174 - 196; Michael Mann, *The Sources of Social Power: The rise of classes and nation-states, 1760-1914*, vol. 2 (Cambridge: Cambridge University Press, 1993), 40 - 42, 282 - 285 stresses communication and education; The current interest in the politics of legibility is from James C Scott, *Seeing like a State: How certain schemes to improve the human condition have failed* (New Haven: Yale University Press, 1998), which is briefly explained on 78 - 9.

processing systems are outsourced to, or owned by, one of a small group of international corporations – has come to dominate most of the planet. There is no novelty in this claim; many important writers have pointed to elements of the process over the last two decades. Twenty years ago Sassen showed that a global city had emerged from the real-time trading in financial markets in London, New York and Tokyo. The citizens of this global city continue to live mostly detached from the levelling constraints of local states (even after they have been rescued from bankruptcy by taxpayer bailouts). In a similar vein, Castells followed the influence of transnational firms, multilateral institutions and tightly organized global economies in the fashioning of a 21st century network state. In the richest countries Lyon has traced a new kind of surveillance state emerging from the twin imperatives of controlling integrated welfare services and global national security.

Ironically these grand informational ambitions seem actually to have weakened the old surveillance and managerial powers of the documentary state. Agar, following the administrative and information handling capacity of the British state in detail over the 20th century, has shown that the contradictory imperatives to manage almost universal welfare benefits and reduce costs through the deployment of large-scale computer systems after the 1970s has produced a much weakened and hollowed-out state, one in which officials have only the vaguest idea how the work of information processing is actually done.[5] The network state lies in the hands of a cluster of overlapping information technology companies. Some, like IBM, have a history of supporting the information processing requirements of the documentary state that date back a century, but a shifting host of intrinsically global firms provide database and transactional services that are well beyond the capacities of even the most skilled officials.[6] This new state is geographically and institutionally very different from the documentary order that Clanchy described, and it is also very unlike the expert (and omnipotent) bureaucracy that Weber saw as the revolutionary agents of rationalization.

In this study my interest is in a special form of the network state – biometric administration – which seems to mark its apogee (at least until DNA processing is reduced in cost and complexity). In societies around the world new biometric systems are being used to build centralised population registers, voters' rolls, welfare benefit and credit transaction systems, identity documents, immigration and access controls. This new state (if it is a state at all) is organised around commercial biometric transactions, where the old one was built out of letters. These administrative biometrics are numerical representations of patterns on the human body. They may take the form of images -- usually of fingerprints, sometimes of irises or faces -- but they are always transformed through the extraction of patterns and minutiae points in to a very large number that will support a claim for uniqueness in the human population. Although the work is often done by

[5]Saskia Sassen, *The Global City: New York, London, Tokyo* (Princeton: Princeton University Press, 1991); Manuel Castells, *The Rise of the Network Society*, The Information Age: Economy, Society, and Culture (Oxford: Blackwell, 1996), 88-102; Manuel Castells, *The Power of Identity*, vol. 2, 2nd ed., The Information Age: Economy, Society, and Culture (Oxford: Wiley Blackwell, 2010), 303 - 366; D. Lyon, *The electronic eye: The rise of surveillance society* (Univ Of Minnesota Press, 1994), 83-118; Jon Agar, *The government machine : a revolutionary history of the computer*, History of computing (Cambridge, Mass.: MIT Press, 2003), 369-377.

[6]Paul N. Edwards, *The Closed World: Computers and the Politics of Discourse in Cold War America* (Cambridge, MA: MIT Press, 1996).

computer sensors, the method for extracting the distinguishing numbers for biometrics has changed remarkably little since Francis Galton, the Victorian polymath, first described it in 1891.[7]

Here then is the first argument I want to make in this study: biometric government marks a significant break with the long-term trajectory of the documentary state. Indeed, for much of its century-long history biometric administration has been self-consciously antithetical to documentary government. This is a departure from the theoretical work of some of the most important studies of fingerprinting, and it will require careful development in the chapters that follow.[8] It might be useful to sketch out the basic steps here. From the first plans for the introduction of fingerprinting that were drawn up by Galton biometric administration was motivated by a desire to capture the illiterate subjects of Britain's imperial possessions.[9] Remarkably this project is still the *raison d'etre* of the current round of large-scale biometric systems, both in the former colonies and at the gates of the Imperial capitals.

Another difference is material. While the roots of fingerprinting, as Cole has shown, lie in the 19th century effort to create a "link between an individual body and a paper record," biometrics are not documents and the databases that retain them are not archives in any meaningful sense of that word.[10] These modern biometric identifiers typically exist only intangibly, stored in a database or written in to the memory of an integrated-circuit chip on a smart-card. Now, to be clear, biometric tools have sometimes served to supplement the existing systems of documentary government. But they have also, and much more commonly, been used to curtail or obliterate an existing (and often inadequate) system of documentary government. An effort to escape the limits of the old paper state – of slow, susceptible or unreliable bureaucratic processing, of forgery, deception and translation in the preparation of documents – lies at the core of the effort to develop biometric identification technologies. This political imperative – to sweep away the slow and messy and unreliable paper-based systems of government – remains a key part of the appeal of these systems.

Which brings me to a second, and closely related, argument. I want to draw attention to the peculiar geography of this new biometric state. But it is probably worth pointing out that universal biometric registration can fairly be described as the *bete noir* of both scholarly and popular cultural fears of the overweening surveillance state, fears that have been eloquently captured in Andrew Niccol's 1997 popular dystopian film *Gattaca* and in Giorgio Agamben's bitter denunciation of biometrics as the apex of an intrinsically genocidal liberal order.[11] Biometric systems are under

[7]Francis Galton, "Identification by finger tips," *Nineteenth Century* 30 (August 1891): 307.

[8]Simon A. Cole, *Suspect Identities: A History of Fingerprinting and Criminal Identification* (Cambridge MA: Harvard University Press, 2001); Sankar, "State power and record-keeping"; Allan Sekula, "The Body and the Archive," *October* 39 (1986): 3-64; Clare Anderson, *Legible Bodies: Race, Criminality and Colonialism in South Asia* (Berg Publishers, 2004); But I agree with Higgs, that the roots of biometrics lie in a deeply entrenched status distinction in English history between identification by paper and the marking of the body, see Edward Higgs, "Fingerprints and Citizenship: The British State and the Identification of Pensioners in the Interwar Period," *History Workshop Journal* 69 (2010): 52-67.

[9]Francis Galton, "Identification Offices in India and Egypt," *Nineteenth Century* 48 (1900): 118-126; Francis Galton, *Finger prints* (London, New York: Macmillan and Co., 1892), 27, 149-50.

[10]Cole, *Suspect Identities*, 4, 14 - 82 on the emergence of fingerprint classification.

[11]Giorgio Agamben, *State of exception* (Chicago: University of Chicago Press, 2005); Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life* (Berkeley: University of California Press, 1998); Malcolm Bull, "States don't really mind their citizens dying (provided they don't all do it at once): they just don't like anyone else to kill them," *London Review of Books* 26, no. 24 (December 16, 2004): 3-6.

development in many regions and institutions around the world. The new passport documents in Europe, North America and Australia all make use of biometrics, but they have very limited surveillance capacities because they have been deliberated and carefully hobbled. In stark contrast, foreign migrants in these same countries have been subjected to much more powerful ten finger print and iris capturing systems that are centrally gathered, and shared amongst all of the signatories of the Treaty of Schengen.[12] There are some obvious imperial legacies in the identification, and policing, of these target populations. But it is still surprising and incongruous, in the light of the wider scholarship on the new surveillance state, that the most powerful biometric surveillance systems are being developed in the poorest countries, the former colonies of the European empires. [13]

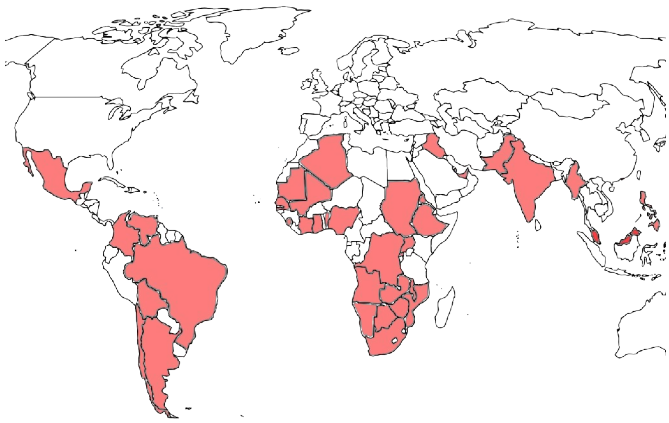

Illustration 1: Biometric Civil, Voting, Tax or Banking Registers

There are many reasons why the actually existing biometric state is being developed inside the corpses of the old European empires. The most immediate is that aid-agencies, typically the United Nations Development Programme or the European Union, are funding the development of biometric registration, commonly for voter registration.[14] These grants are comparatively small from the donors' perspective, they can have dramatic effects on the workings of the recipient state, and they are, almost always, paid directly to firms that are based in the donor country. Another reason is that privacy rights are very weakly developed in many of the states of the former empires, especially in Africa where the colonial state did not

[12] J. P. Aus, *Decision-making under Pressure: The Negotiation of the Biometric Passports Regulation in the Council* (ARENA Working Paper, 11, 2006); J. P. Aus, "Eurodac: A Solution Looking for a Problem?," *European Integration online Papers (EIoP)* 10, no. 6 (2006), \home\breckenr\pdfs\0068601344Aus2006.pdf.

[13] The northern emphasis in the scholarship of the surveillance state is implicit in David Lyon, *Surveillance after September 11*, Themes for the 21st century (Malden, Mass.: Polity Press in association with Blackwell Pub. Inc., 2003); and explicit in Colin J. Bennett and Charles D. Raab, *The governance of privacy : policy instruments in global perspective* (Aldershot: Ashgate, 2003); These biometric states closely resemble the territory Castells' described as falling outside of the global information economy. Castells, *The Rise of the Network Society*, 133-6, 359; see especially Manuel Castells, *End of Millenium*, vol. 3, Information Age: Economy, Society and Culture. (Oxford: Blackwell, 1998), 82-128 The South African technological inheritance for the continent is much less liberating than he may have anticipated.

[14] Staff reporter, "CNE recibe 2 millones de euros para registro permanente de padrón biométrico," *Los Tiempos* (Cochabamba, Bolivia, August 8, 2011), http://www.lostiempos.com/diario/actualidad/nacional/20100129/cne-recibe-2-millones-de-euros-para-registro-permanente-de-padron_55718_99335.html; Staff reporter, "Zambia: ECZ to use Biometric technology in Voter registration for Decision 2011," *Lusaka Times*, March 8, 2010, http://www.lusakatimes.com/?p=24614.

acknowledge the existence of a private – sphere. (Viewed in this light, what is striking about the campaign for biometric registration in Europe, North America and Australia are the entrenched legal, institutional and political resources of the privacy campaigners.)

But the real energy behind these new schemes of government comes from commercial firms, and banks in particular, that are looking to build the database tracking systems -- especially financial records and credit histories , the basic elements of Lyon's surveillance society – out of an informational and documentary void. In this effort biometric systems are designed to overcome the administrative inadequacies – especially the absence of property and vital registration systems – of colonial government. The most ambitious and important projects are specifically targeted at populations in Africa and India that the advocates describe as beyond the reach of the documentary state because they cannot read and write. This, as I have said, is a very old idea, and it brings me to my third major point of argument.

For a century the South African state has served as a laboratory for this form of biometric government, and the technologies that states across the world have been adopting over the last decade find their fullest development there. It is important to be precise here. The biometric systems of this new kind of government are complex and confounding, involving international networks of ideas, tools, firms and states – this is as true today as it was a century ago. Latour's insistence that the technology itself is an actor in these networks– setting constraints, possibilities and failures independently – also applies here.[15] Biometric administration has been global from its origins with key sites of development in India, Argentina, England, the United States of America and, more recently, in France. Both the Fascist and the Socialist states deployed systems of identification and control that closely resemble the South African system, but, especially in the German case, that history has placed powerful limits on the prospects of biometric registration. No similar reaction has taken place in South Africa, where the new welfare and policing systems of the post-Apartheid state have drawn directly upon the long history of biometric registration. For a century the South African state has been in energetic pursuit of a physiological mechanism of registration as an alternative to documentary identification. This project helped to shape the form of the state in Africa, setting precedents and providing technologies and personnel for the colonial and post-colonial states. But, more importantly, the search for the universal biometric register has been much longer, more intensive and more complete in South Africa than in any of the other key sites. The South African state did not cause the global move to biometric government, but it has served as an unparalleled incubator for these systems.

In order to draw out the significance of the South African history, in this essay I want to review the genealogies of registration in three regions that have been important sites for the elaboration of these technologies. Unlike the border control systems that have been implemented in North America and the European Union – which are either voluntary or targeted at

[15]Bruno Latour, *Reassembling the social: An introduction to actor-network-theory* (Oxford University Press, USA, 2005).

populations that have no political representation – many societies have universal and compulsory identification systems already in place. Aside from South Africa, Malaysia and Chile were amongst the most precocious to introduce these systems. All three countries share a history of coercive labour registration to meet the needs of British-owned mines and plantations. But there were also important differences. Most recruited labour in Malaya was organised through debt and kinship mechanisms that were very different from the large-scale industrial institutions I describe in South Africa. In Chile the development of an expansive welfare state bolstered universal identity registration in the 20th century much more powerfully than labour controls. Much more importantly both Chile and Malaysia adopted an aggressive anti-communism with muscular national security strategies, and welfarism, in the 1970s – they are outstanding exemples of what Stubbs and Rich have called the counter-insurgent state[16] – which, amongst other things, allowed the central government to use emergency rule to sweep away the privacy objections that have bewildered the advocates of centralized biometrics in the West. South Africa, notwithstanding an impossible project of white racial supremacy, shared these features. All three countries also adopted fiercely technological strategies of economic development during this time.[17]

But, as interesting and important as the Chilean and Malaysian stories are, they are both echoes of the longer, and more influential, histories of other states in their regions. In Latin America, it was Argentina that served as the primary laboratory of biometric administration. In South Asia before 1950 the forms of control and recruitment in the Straights Settlements (and in Burma and Hong Kong) were derived from experiments in India. These two countries, like South Africa, are both critical nodes in the current global network of biometric interventions and they will form two-thirds of my comparison here.[18] A third society, the United States of America, has both been key in fostering the global movement to biometric identification and exhibited an enthusiasm for domestic registration that resembles the South African history in its length and intensity. Of these three the current project of biometric government in India is potentially the most important, so I will begin there.

The legacy of the colonial census

Nandan Nilekani was an international celebrity businessman, the hero of Thomas Friedman's best-selling ode to globalization, and the poster-child of Bangalore's economic renaissance. All of that was true before June, 2009, when he announced that he would accept appointment as chairman of the newly created Unique Identity Authority of India and the task of issuing a biometric identity to billions of people on the subcontinent. Nilekani's UID project, which promises to issue 600 million unique identification

[16]Paul B Rich and Richard Stubbs, *The counter-insurgent state: guerrilla warfare and state building in the twentieth century* (London: Macmillan, 1997); R. Stubbs, *Hearts and minds in guerrilla warfare: the Malayan emergency, 1948-1960* (Marshall Cavendish Academic, 2004); R. Stubbs, "The Malayan emergency and the development of the Malaysian state," *The Counter-Insurgent State: Guerrilla Warfare and State Building in the Twentieth Century* (1997): 50–71.

[17]E. Medina, "Designing Freedom, Regulating a Nation: Socialist Cybernetics in Allende's Chile," *Journal of Latin American Studies* 38, no. 3 (2006): 571-606; Paul N. Edwards and Gabrielle Hecht, "History and the Technopolitics of Identity: The Case of Apartheid South Africa," *Journal of Southern African Studies* 36, no. 3 (September 2010): 619-639.

[18]See Anderson, *Legible Bodies.*

numbers before end of 2014, may be the largest state intervention in history. It is aimed at changing the administrative foundations of Indian society, foundations which date back, at least, to the 19th century form of colonial rule. And it will, certainly, determine the future of biometric government around the world. There is an elegant historical symmetry in this fact.

It is well known, now, that the key technology of biometrics – the recording and classification of fingerprints – was developed in Bengal. Galton was only able to demonstrate the life-long persistence of fingerprints because of the administrative experiments of the Hooghly magistrate William Herschel, grandson of the famous Cape astronomer.[19] And the modern system of classifying prints was developed in a similar way, through a mildly competitive collaboration between Galton and Edward Henry, Inspector General of the Bengal Police. This is a story that has been told well many times, and it does not bear repeating in any detail here.[20] My interest is in the events between Henry's departure for the Transvaal in 1900 and the current round of biometric registration schemes. Fingerprinting remained an important part of the working of the colonial and post-colonial police in India, but that seems to have had little influence on the form of the state in the 20th century, or the current biometric registration schemes, in large part because police forces were organised at the level of the province or state; they remain largely uncoordinated to this day.[21] The administrative, and ideological, foundations of the national government lay rather in the census, another colonial obsession.

The Nilekani's Unique ID project has been shaped by a set of political imperatives common to large-scale biometric registration schemes wherever they have been attempted. Its immediate origins lie in the national security panic generated by the horrific Mumbai shootings in the last days of November 2008. Improved internal security, and especially control over the movement of immigrants from Bangladesh, remains a quietly stated goal of the new system. The most loudly stated objective of UID is better welfare; the new, easily provable, identities will strengthen social and economic inclusion, delivering subsidies and a new set of cash transfers directly to the most needy "without leakages and pilferage."[22] Transforming the contours of the banking economy was another, and here welfare and finance coalesce warmly. The UID offered the possibility of capturing hundreds of millions of unbanked Indians, while, at the same time, fulfilling and tightening the "Know Your Customer" requirements that had

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[19]On Herschel's significance in South African intellectual history, see Saul Dubow, *A commonwealth of knowledge : science, sensibility, and white South Africa, 1820-2000* (Oxford ; New York: Oxford University Press, 2006), 40-51, http://www.loc.gov/catdir/toc/ecip0616/2006021303.html.

[20]There are four major scholarly accounts Anderson, *Legible Bodies*, 155-69; Chandak Sengoopta, *Imprint of the Raj: How Fingerprinting was Born in Colonial India* (London: Macmillan, 2003); Cole, *Suspect Identities*; Radhika Singha, "Settle, mobilize, verify: identification practices in colonial India," *Studies in History* 16, no. 2 (2000): 151-198 and dozens of more popular and professional publications on this subject. For the credible argument that the classification was the work of Henry's subordinates, see G S Sodhi and Jasjeet Kaur, "The forgotten Indian pioneers of fingerprint science," *Current Science* 88, no. 1 (January 2005): 185-191.

[21]J. C Curry, *Indian police*, 2009, 36-48, 281 - 3; "India makes progress towards national offender fingerprint database," *Planet Biometrics*, August 2, 2011, http://www.planetbiometrics.com/article-details/i/751/.

[22]TNN, "Nilekani to have Cabinet minister rank as Identification project head," *Times Of India*, June 26, 2009, http://articles.timesofindia.indiatimes.com/2009-06-26/india/28160155_1_nandan-nilekani-flagship-schemes-unique-identification-card; Subramaniam Sharma, "India Needs Smart Cards to Plug Leakage of Subsidies to Poor - Bloomberg," *Bloomberg*, July 2, 2009, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aF3G46_AmLSk.

been imposed on Indian banks by the United States after 2001.[23] When Nilekani proposed that the old policy of providing subsidized cooking gas and kerosene should be replaced by direct cash transfers (in the process eliminating paper ration cards), the Oil Minister pointed out that recipients would all "have to have a bank account where the cash subsidy can be transferred."[24] This potent mix – of national security, welfare regulation and banking expansion – is common.

Where the Indian project differs quite markedly from others is in the special role played by the census in building a national population register. In addition to the cunning use of welfare subsidies and banking identification tools to encourage individual Indians to submit for biometric registration, the Indian government intends to use the census that is currently under way to gather identifying biometrics from every resident. For the first time the returns will be used to identify individuals, and not groups or districts. During the main enumeration that took place in February 2011 enumerators recorded biographical information for individuals in every household, issuing each household with a slip. A National Population Register will be created out of these returns and then, at some as yet unannounced point in the future, the staff of the Registrar General plan to call the members of every household in the country to special camps to have their "photograph, 10 fingerprints and probably Iris information" captured. This process will help Nilekani generate the hundreds of millions of unique IDs he has promised but, as many commentators have already observed, it is likely to be a wasteful and exhausting project. What it does confirm, however, is how important the decennial census has been to the powers of the central government in India.[25]

In India, in the absence of a working system of civil registration, the census has long been used to define and locate poor populations, but it also serves as an instrument of official identification in a much more direct and intriguing way. Dudley-Jenkins has shown that the bitter struggles over caste redress that have strengthened in the wake of the 1990 Mandal Commission have moved the National Census on to the high ground of an unusual politics of identification. The Census both defined the categories that may qualify for reservation and determined the viability of the claims that individuals make to membership of the Scheduled Castes, Scheduled Tribes or Other Backward Classes, a status that can be demonstrated only through possession of a certificate issued by local officials.

The need for these caste certificates, and the ongoing requirement that claimants demonstrate their worthiness at every step of their careers, has had several distinguishing effects on the politics of identification in India. The first is a thriving trade in forged caste certificates, and a

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[23]D Murali, "Banking on unique identifier," *The Hindu*, July 13, 2009, sec. Businessline, http://www.thehindubusinessline.com/todays-paper/article1084396.ece?ref=archive.

[24]ET Bureau, "EGoM nod to cash subsidy for kerosene," *Economic Times*, August 9, 2011, http://articles.economictimes.indiatimes.com/2011-08-09/news/29867376_1_cash-subsidy-direct-transfer-egom-nod.

[25]Office of the Registrar General and Census Commissioner, "Census of India : Frequently Asked Questions," *Government of India, Ministry of Home Affairs*, 2011, http://censusindia.gov.in/2011-FAQ/FAQ-Public.html#D; "Citizen database work lacks coordination - Hindustan Times", n.d., http://www.hindustantimes.com/Citizen-database-work-lacks-coordination/Article1-726890.aspx; "India launches biometric census," *BBC*, April 1, 2010, sec. South Asia, http://news.bbc.co.uk/2/hi/8598159.stm; *India's Census to Record Fingerprints*, 2010, http://www.youtube.com/watch?v=HPAwCLiMlbo&feature=youtube_gdata_player.

widespread fear of stolen identities and unwarranted claims to redress. The second is the application to individuals of a system of classification designed for groups, with claimants being forced to prove their religious devotion or being denied the right to adopt the identity of one parent or a spouse. But, in many ways the most remarkable, is the intrusion of what might be called the technology of the colonial census in to these contemporary struggles over affirmative action. In drawing up the current list of Scheduled Castes, the Anthropological Survey commissioned by the central government after 1985 has produced a study titled -- like census publications of a century ago -- *The People of India.* This volume mimics – in its scale and anthropometric methods – the massive surveys that were done by colonial scientists a century ago, including Sir Herbert Risley's infamous claim that "if we take a series of castes … and arrange them in order of the average nasal index, so that the caste with the finest nose shall be at the top and that with the coarsest at the bottom of the list, it will be found that this order substantially corresponds with the accepted order of social precedence." As Dudley-Jenkins shows, while their motives are different, the most recent massive studies have a very similar interest in the physical varieties of the caste groups, including the production of a nasal index and careful collection of palm and fingerprints.[26]

In this light the claims by Appadurai, Cohn and Dirks that the colonial census was key in establishing the cultural and institutional basis of the Indian state's authority – during colonialism and after it – take on additional weight.[27] But it also distinguishes the form of government in India – obsessed as it has been with groups and communities – from the more common preoccupation with households and individuals as the units of bureaucratic knowledge. It is significant, I think, that in the current biometric census, where the state will for the firs time attempt to identify all individuals in the country, no data will be gathered about caste. This is because, unlike groups, the Home Ministry suggests that there "is no way of authenticating the caste of individuals other than what he or she claims."[28]

The Indian state's heavy reliance on the census for the production of knowledge about its population is highlighted by the weakness of the most basic forms of documentary administration. Birth and death registration, for example, have been notoriously incomplete since the early years of the 20th century, forcing the state to rely on special sample districts to gather individualized data about vital population events.[29] This inability to gather basic demographic information about its population in both the 19th and the 20th century, stands in marked contrast with the intense forms of parish and civil registration that were typical in Europe, Latin America, and Japan in

[26]L. Dudley-Jenkins, *Identity and identification in India: Defining the disadvantaged* (Routledge, 2003), 1-85, quote from 45.

[27]Bernard S Cohn and Nicholas B Dirks, "Beyond The Fringe: The Nation State, Colonialism, and The Technologies of Power*," *Journal of Historical Sociology* 1, no. 2 (1988): 224-229; A. Appadurai, "Number in the colonial imagination," *Orientalism and the postcolonial predicament* (1993): 314–39; Some of this preoccupation with an order of groups can convincingly be traced to the Mughal period R. B. Bhagat, "Census and the Construction of Communalism in India," *Economic and Political Weekly* 36, no. 46/47 (November 24, 2001): 4352-4356; Norbert Peabody, "Cents, Sense, Census: Human Inventories in Late Precolonial and Early Colonial India," *Comparative Studies in Society and History* 43, no. 4 (2001): 819-850.

[28]*India's Census to Record Fingerprints*.

[29]B. L. Agrawal, "Sample Registration in India," *Population Studies* 23, no. 3 (November 1, 1969): 379-394; Mamta Murthi, P. V. Srinivasan, and S. V. Subramanian, "Linking Indian Census with National Sample Survey," *Economic and Political Weekly* 36, no. 9 (March 3, 2001): 783-792.

that period.[30] But it also distinguishes India, especially after 1950, from the forms of identification and movement control that were common in Maoist China and the Soviet Union.[31] A similar situation applies to the individual identification of land-holders and tax-payers. In both cases the insistence on the raising of land tax involved subcontracting the problems of identification to local revenue right-holders, or moneylenders, without regard to the actual identity of the cultivator or any ability to pay. Like Africans under indirect rule, Indian cultivators in the colonial period lived under conditions of life-threatening uncertainty because of the inflexibility of the revenue demand, and the arbitrary, and unrestrained, powers of local elites and administrators.[32]

Drawing on the long history of physically marking – with tattoos and branding – the bodies of convicts and all members of the Criminal Tribes, by the start of the 20th century biometric forms of identification were common in India.[33] But these were typically single-print supplements to paper documents. Galton, Henry and Gandhi all commented on these practices. Thumb-prints were used to authenticate state pensioners, signatories to registered documents (usually bond contracts), to identify Hajj pilgrims and to support the draconian regulations over movement in the plague emergency. Henry had also started a program of fingerprinting examination candidates in one branch of the civil service in Bengal, where "there is believed to be much false personation" and he was confident that the system would expand to the others. But fingerprinting was also starting to serve the kind of surveillance function that was much more typical in South Africa. In the massive labour force of the Survey of India photo-zincographed thumb-prints were taken from all "undesirable workers" for distribution to all the districts. All of these single biometrics could only serve to prove or disprove the identity claimed on a written document. There was no centralised repository of these administrative fingerprints, and only criminals were subjected to ten print registration, leaving the power of identification in the hands of state's petitioners. This was a fact about the administrative use of fingerprints in India that Galton lamented, and which Henry and Gandhi applauded.[34]

In Gandhi's conflicts with the Transvaal state between 1903 and 1913 he repeatedly made the point that submitting to compulsory fingerprinting was a national disgrace, an indignity that besmirched the masculine honour

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[30]Gerard Noiriel, "The Identification of the Citizen: the birth of Republican civil status in France," in *Documenting Individual Identity: the development of state practices in the modern world.*, ed. Jane Caplan and John Torpey (Princeton: Princeton University Press, 2001), 28-48; Mara Loveman, "Blinded Like a State: The Revolt Against Civil Registration in Nineteenth-Century Brazil," *Comparative Studies in Society and History* 49, no. 1 (2007): 5-39; L.L. Cornell and Akira Hayami, "The Shumon Aratame Cho: Japan's Population Registers," *Journal of Family History* 11, no. 4 (December 1, 1986): 311 -328.

[31]Kam Wing Chan and Li Zhang, "The Hukou System and Rural-Urban Migration in China: Processes and Changes," *The China Quarterly*, no. 160 (December 1, 1999): 818-855; Tiejun Cheng and Mark Selden, "The Origins and Social Consequences of China's Hukou System," *The China Quarterly*, no. 139 (1994): 644-668; M. Garcelon, "Colonizing the subject: The genealogy and legacy of the Soviet internal passport," ed. Jane Caplan and John Torpey, *Documenting individual identity: The development of state practices in the modern world* (2001): 83–100.

[32]Amiya Kumar Bagchi, "Land tax, property rights and peasant insecurity in colonial India," *Journal of Peasant Studies* 20, no. 1 (1992): 1; It was for this reason that so much of the early history of fingerprinting had to do with the colonial enforcement of debt contracts, see Sengoopta, *Imprint of the Raj*, 46-9, 166-9; Sara Berry, "Hegemony on a Shoestring: Indirect Rule and Access to Agricultural Land," *Africa: Journal of the International African Institute* 62, no. 3 (1992): 327-355.

[33]Singha, "Settle, mobilize, verify: identification practices in colonial India"; Anderson, *Legible Bodies*; Sengoopta, *Imprint of the Raj.*

[34]Galton, "Identification Offices in India and Egypt"; E. R. Henry, *Classification and uses of finger prints* (G. Routledge and Sons, 1900), 4 - 9; MK Gandhi, "Letter to Colonial Secretary," *Indian Opinion*, October 7, 1907.

of Indian men and endangered the privacy and dignity of their families. He was very aware of the developing lines of a world-wide segregationist movement, and he repeatedly emphasized the global significance of the struggle in Johannesburg.[35] At least in the short term Gandhi lost this struggle in the colonies of white settlement, but the implications for the government of India seem to have been significant. Fingerprinting was much less important in India during the 20th century than it was in many other countries – and it pales in comparison with the massive effort in South Africa: by 1910 the police in the small provinces of Natal and the Orange Free State had fingerprint repositories that were larger than the biggest Indian states a generation later.[36] And this obsession only grew as the century continued. The decline in the colonial state's enthusiasm for fingerprinting may have been because of Gandhi's success in mustering the Raj officials in defence of Indian honour after the mass compulsory ten-print registration in the Transvaal. It probably reflects the state's wariness of antagonizing the Satyagrahis after 1920, but it may, also, reflect the group obsessions of Indian politics in the 20th century, which are both products and causes of the ethnographic and statistical efforts of the episodic census. That seems likely to change.

[35]MK Gandhi, "When Women are Manly, Will Men be Effeminate," *Indian Opinion*, February 23, 1907; MK Gandhi, "The Pietersburg Claptrap," *Indian Opinion*, August 13, 1904; MK Gandhi, "Speech at YMCA," *Indian Opinion*, May 18, 1908; M. Lake and H. Reynolds, *Drawing the Global Colour Line: White Men's Countries and the International Challenge of Racial Equality* (Cambridge University Press, 2008), 127 - 149.

[36]Curry, *Indian police*, 281 - 283.

Agamben, Giorgio. *Homo Sacer: Sovereign Power and Bare Life*. Berkeley: University of California Press, 1998.
———. *State of exception*. Chicago: University of Chicago Press, 2005.
Agar, Jon. *The government machine : a revolutionary history of the computer*. History of computing. Cambridge, Mass.: MIT Press, 2003.
Agrawal, B. L. "Sample Registration in India." *Population Studies* 23, no. 3 (November 1, 1969): 379-394.
Anderson, Clare. *Legible Bodies: Race, Criminality and Colonialism in South Asia*. Berg Publishers, 2004.
Appadurai, A. "Number in the colonial imagination." *Orientalism and the postcolonial predicament* (1993): 314–39.
Aus, J. P. *Decision-making under Pressure: The Negotiation of the Biometric Passports Regulation in the Council*. ARENA Working Paper, 11, 2006.
———. "Eurodac: A Solution Looking for a Problem?" *European Integration online Papers (EIoP)* 10, no. 6 (2006). \home\breckenr\pdfs\0068601344Aus2006.pdf.
Bagchi, Amiya Kumar. "Land tax, property rights and peasant insecurity in colonial India." *Journal of Peasant Studies* 20, no. 1 (1992): 1.
Bennett, Colin J., and Charles D. Raab. *The governance of privacy : policy instruments in global perspective*. Aldershot: Ashgate, 2003.
Berry, Sara. "Hegemony on a Shoestring: Indirect Rule and Access to Agricultural Land." *Africa: Journal of the International African Institute* 62, no. 3 (1992): 327-355.
Bhagat, R. B. "Census and the Construction of Communalism in India." *Economic and Political Weekly* 36, no. 46/47 (November 24, 2001): 4352-4356.
Bull, Malcolm. "States don't really mind their citizens dying (provided they don't all do it at once): they just don't like anyone else to kill them." *London Review of Books* 26, no. 24 (December 16, 2004): 3-6.
Caplan, Jane. "'This or that particular person': Protocols of identification in Nineteenth-Century Europe." In *Documenting Individual Identity: The development of state practices in the modern world*, edited by Jane Caplan and John Torpey, 49-66. Princeton: Princeton University Press, 2001.
Castells, Manuel. *End of Millenium*. Vol. 3. 3 vols. Information Age: Economy, Society and Culture. Oxford: Blackwell, 1998.
———. *The Power of Identity*. Vol. 2. 3 vols. 2nd ed. The Information Age: Economy, Society, and Culture. Oxford: Wiley Blackwell, 2010.
———. *The Rise of the Network Society*. The Information Age: Economy, Society, and Culture. Oxford: Blackwell, 1996.
Chan, Kam Wing, and Li Zhang. "The Hukou System and Rural-Urban Migration in China: Processes and Changes." *The China Quarterly*, no. 160 (December 1, 1999): 818-855.
Cheng, Tiejun, and Mark Selden. "The Origins and Social Consequences of China's Hukou System." *The China Quarterly*, no. 139 (1994): 644-668.
"Citizen database work lacks coordination - Hindustan Times", n.d. http://www.hindustantimes.com/Citizen-database-work-lacks-coordination/Article1-726890.aspx.
Clanchy, M. T. *From memory to written record, England 1066-1307*. London: Edward Arnold, 1979.

Cohn, Bernard S, and Nicholas B Dirks. “Beyond The Fringe: The Nation State, Colonialism, and The Technologies of Power*.” *Journal of Historical Sociology* 1, no. 2 (1988): 224-229.
Cole, Simon A. *Suspect Identities: A History of Fingerprinting and Criminal Identification*. Cambridge MA: Harvard University Press, 2001.
Cornell, L.L., and Akira Hayami. “The Shumon Aratame Cho: Japan’s Population Registers.” *Journal of Family History* 11, no. 4 (December 1, 1986): 311 -328.
Corrigan, Philip Richard D., and Derek Sayer. *The great arch : English state formation as cultural revolution*. Oxford: Blackwell, 1985.
Curry, J. C. *Indian police*, 2009.
Dubow, Saul. *A commonwealth of knowledge : science, sensibility, and white South Africa, 1820-2000*. Oxford ; New York: Oxford University Press, 2006. http://www.loc.gov/catdir/toc/ecip0616/2006021303.html.
Dudley-Jenkins, L. *Identity and identification in India: Defining the disadvantaged*. Routledge, 2003.
Edwards, Paul N., and Gabrielle Hecht. “History and the Technopolitics of Identity: The Case of Apartheid South Africa.” *Journal of Southern African Studies* 36, no. 3 (September 2010): 619-639.
Edwards, Paul N. *The Closed World: Computers and the Politics of Discourse in Cold War America*. Cambridge, MA: MIT Press, 1996.
ET Bureau. “EGoM nod to cash subsidy for kerosene.” *Economic Times*, August 9, 2011. http://articles.economictimes.indiatimes.com/2011-08-09/news/29867376_1_cash-subsidy-direct-transfer-egom-nod.
Foucault, Michel. *Discipline and Punish: the Birth of the Prison*. London, Penguin: London, Penguin, 1977.
Galton, Francis. *Finger prints*. London, New York: Macmillan and Co., 1892.
———. “Identification by finger tips.” *Nineteenth Century* 30 (August 1891): 303-11.
———. “Identification Offices in India and Egypt.” *Nineteenth Century* 48 (1900): 118-126.
Gandhi, MK. “Letter to Colonial Secretary.” *Indian Opinion*, October 7, 1907.
———. “Speech at YMCA.” *Indian Opinion*, May 18, 1908.
———. “The Pietersburg Claptrap.” *Indian Opinion*, August 13, 1904.
———. “When Women are Manly, Will Men be Effeminate.” *Indian Opinion*, February 23, 1907.
Garcelon, M. “Colonizing the subject: The genealogy and legacy of the Soviet internal passport.” Edited by Jane Caplan and John Torpey. *Documenting individual identity: The development of state practices in the modern world* (2001): 83–100.
Giddens, A. *The nation-state and violence*. Vol. Two. A Contemporary Critique of Historical Materialism. University of California Press, 1985.
Goody, Jack. *The logic of writing and the organization of society*. Oxford: Oxford University Press, 1986.
Gorski, Philip S. “The Protestant Ethic Revisited: Disciplinary Revolution and State Formation in Holland and Prussia.” *The American Journal of Sociology* 99, no. 2 (1993): 265-316.
Groebner, Valentin. *Who Are You?: Identification, Deception, and Surveillance in Early Modern Europe*. New York: Zone Books, 2007.

Henry, E. R. *Classification and uses of finger prints*. G. Routledge and Sons, 1900.
Herzog, T. *Defining nations: Immigrants and citizens in early modern Spain and Spanish America*. New Haven: Yale University Press, 2003.
Higgs, Edward. "Fingerprints and Citizenship: The British State and the Identification of Pensioners in the Interwar Period." *History Workshop Journal* 69 (2010): 52-67.
"India launches biometric census." *BBC*, April 1, 2010, sec. South Asia. http://news.bbc.co.uk/2/hi/8598159.stm.
"India makes progress towards national offender fingerprint database." *Planet Biometrics*, August 2, 2011. http://www.planetbiometrics.com/article-details/i/751/.
India's Census to Record Fingerprints, 2010. http://www.youtube.com/watch?v=HPAwCLiMlbo&feature=youtube_gdata_player.
Lake, M., and H. Reynolds. *Drawing the Global Colour Line: White Men's Countries and the International Challenge of Racial Equality*. Cambridge University Press, 2008.
Latour, Bruno. *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press, USA, 2005.
Lepore, Jill. *The Name of War: King Philip's War and the Origins of American Identity*. New York: Knopf: New York: Knopf, 1998.
Loveman, Mara. "Blinded Like a State: The Revolt Against Civil Registration in Nineteenth-Century Brazil." *Comparative Studies in Society and History* 49, no. 1 (2007): 5-39.
Lyon, David. *Surveillance after September 11*. Themes for the 21st century. Malden, Mass.: Polity Press in association with Blackwell Pub. Inc., 2003.
Lyon, D. *The electronic eye: The rise of surveillance society*. Univ Of Minnesota Press, 1994.
Mann, Michael. *The Sources of Social Power: The rise of classes and nation-states, 1760-1914*. Vol. 2. Cambridge: Cambridge University Press, 1993.
Medina, E. "Designing Freedom, Regulating a Nation: Socialist Cybernetics in Allende's Chile." *Journal of Latin American Studies* 38, no. 3 (2006): 571-606.
Mignolo, Walter D. *Darker Side of the Renaissance: Literacy, Territoriality and Colonization*. Ann Arbor: University of Michigan, 1995.
Murali, D. "Banking on unique identifier." *The Hindu*, July 13, 2009, sec. Businessline. http://www.thehindubusinessline.com/todays-paper/article1084396.ece?ref=archive.
Murthi, Mamta, P. V. Srinivasan, and S. V. Subramanian. "Linking Indian Census with National Sample Survey." *Economic and Political Weekly* 36, no. 9 (March 3, 2001): 783-792.
Noiriel, Gerard. "The Identification of the Citizen: the birth of Republican civil status in France." In *Documenting Individual Identity: the development of state practices in the modern world.*, edited by Jane Caplan and John Torpey, 28-48. Princeton: Princeton University Press, 2001.
Office of the Registrar General and Census Commissioner. "Census of India : Frequently Asked Questions." *Government of India, Ministry of Home*

Affairs, 2011. http://censusindia.gov.in/2011-FAQ/FAQ-Public.html#D.

Parker, Geoffrey. *The Grand Strategy of Philip II*. New Haven: Yale University Press: New Haven: Yale University Press University Press, 1998.

Peabody, Norbert. "Cents, Sense, Census: Human Inventories in Late Precolonial and Early Colonial India." *Comparative Studies in Society and History* 43, no. 4 (2001): 819-850.

Rich, Paul B, and Richard Stubbs. *The counter-insurgent state: guerrilla warfare and state building in the twentieth century*. London: Macmillan, 1997.

Sankar, P. "State Power and Record-keeping: The History of Individualized Surveillance in the United States, 1790-1935". University of Pennsylvania,, 1992.

Sassen, Saskia. *The Global City: New York, London, Tokyo*. Princeton: Princeton University Press, 1991.

Scott, James C. *Seeing like a State: How certain schemes to improve the human condition have failed*. New Haven: Yale University Press, 1998.

———. *The art of not being governed: an anarchist history of upland Southeast Asia*. Yale Univ Pr, 2009.

Sekula, Allan. "The Body and the Archive." *October* 39 (1986): 3-64.

Sengoopta, Chandak. *Imprint of the Raj: How Fingerprinting was Born in Colonial India*. London: Macmillan, 2003.

Sharma, Subramaniam. "India Needs Smart Cards to Plug Leakage of Subsidies to Poor - Bloomberg." *Bloomberg*, July 2, 2009. http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aF3G46_AmLSk.

Singha, Radhika. "Settle, mobilize, verify: identification practices in colonial India." *Studies in History* 16, no. 2 (2000): 151-198.

Sodhi, G S, and Jasjeet Kaur. "The forgotten Indian pioneers of fingerprint science." *Current Science* 88, no. 1 (January 2005): 185-191.

Staff reporter. "CNE recibe 2 millones de euros para registro permanente de padrón biométrico." *Los Tiempos*. Cochabamba, Bolivia, August 8, 2011. http://www.lostiempos.com/diario/actualidad/nacional/20100129/cne-recibe-2-millones-de-euros-para-registro-permanente-de-padron_55718_99335.html.

———. "Zambia: ECZ to use Biometric technology in Voter registration for Decision 2011." *Lusaka Times*, March 8, 2010. http://www.lusakatimes.com/?p=24614.

Stubbs, R. *Hearts and minds in guerrilla warfare: the Malayan emergency, 1948-1960*. Marshall Cavendish Academic, 2004.

———. "The Malayan emergency and the development of the Malaysian state." *The Counter-Insurgent State: Guerrilla Warfare and State Building in the Twentieth Century* (1997): 50–71.

TNN. "Nilekani to have Cabinet minister rank as Identification project head." *Times Of India*, June 26, 2009. http://articles.timesofindia.indiatimes.com/2009-06-26/india/28160155_1_nandan-nilekani-flagship-schemes-unique-identification-card.

Warner, Michael. *The Letters of the Republic: Publication and the Public Sphere in Eighteenth Century America*. Cambridge MA: Harvard University Press, 1990.

Weber, Max. *Economy and Society*. Edited by Guenther Roth and Claus Wittich. Vol. 2. 2 vols. Berkeley: University of California Press, 1978.

Woodside, Alexander. *Lost Modernities: China, Vietnam, Korea, and the Hazards of World History*. Cambridge MA: Harvard University Press, 2006.

J Edgar Hoover's America

Over the last decade Michael Chertoff, the current US Secretary of Homeland Security, has been the most powerful advocate of global biometric identification. In early May, 2007, he addressed an audience of students at the Johns Hopkins School for Advanced International Studies on the subject of "Addressing Transnational Threats in the 21st Century." It is worth noting that SAIS is one of the key sites for the training of professional diplomats and that the students can fairly be described as experts in international relations and government. Chertoff's speech, unlike many others on the subject of the war on terror, was a statement of what the Bush Administration believed is both wise and practical; it eloquently demonstrated that, six years after the attacks of 9/11, global biometric registration is the key to US domestic security policy.

Chertoff spoke eloquently of the confounding effects of globalization on the US government's efforts to identify and combat its current enemies; invoking the Cold War doctrine of defence-in-depth he argued that the most important policy goal was "extending the protection of the perimeter." Information, he argued, is the 21st century equivalent of the massive radar systems that guarded the borders of the continental US during the Cold War ,"which allows us to isolate the individual who is a threat from the great mass of people coming in who are innocent." In this struggle over the terrain of information the US will exploit its technological ascendancy through the deployment of biometric identification systems like US-Visit, matching fingerprints at the points of entry against existing criminal and terrorist databases. But the plans for biometric registration extend well beyond immigration control to a global system of fingerprint gathering. "We're moving to 10-print collection overseas and at our ports of entry, which will allow us one day in the very near future to check a visitor's or a potential visitor's fingerprints against latent fingerprints that we collect in battlefields and safehouses all around the world." Anticipating the obvious question of whether such a system could ever be made to work Chertoff explained that a vigilant INS agent at O'Hare Airport had recently refused entry to a suspect visitor, sending him "back to where he came from" after recording his fingerprints. "We did ultimately run across those fingerprints again," he explained to the students, "at least parts of the fingerprints, because a couple years later we found them on the steering wheel of a suicide truck bomb that had been detonated in Iraq."[37]

There are some odd things about this speech. Chertoff was massively overstating the speed and power of biometric databases. The rapid integrated searching of large databases that Chertoff is describing is not currently possible, nor is there any prospect of it working in the near future. As late as March 2006 the National Institute of Standards and Technology (NIST), under pressure from the US Congress, was battling to define a single standard that would allow the different commercial systems owned by the FBI and the Department of State to interact accurately and efficiently.[38]

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[37] Michael Chertoff, "Remarks by Secretary Michael Chertoff to the Johns Hopkins University Paul H. Nitze School of Advanced International Studies," *Department of Homeland Security*, May 3, 2007, http://www.dhs.gov/xnews/speeches/sp_1178288606838.shtm

[38] National Institute of Standards and Technology, "Minutiae Interoperability Exchange Test 2004," March 21, 2006, http://fingerprint.nist.gov/minex04/

Just months before Chertoff's speech NIST noted that even the most carefully compiled ten-print matching systems were incapable of fully automated matching, requiring the intervention of a human fingerprint expert. For single, or latent, fingerprint matching, almost all of the important work has to be done by human experts with obvious devastating effects on the possibility of using biometric identification to process millions of travelers against a collection of latent prints gathered from "battlefields and safehouses."[39] Chertoff, like every biometric enthusiast before him, was also deliberately blurring the boundary between the statistically certain identification by ten rolled fingerprints and latent similarity which has to be proven by a court-sanctioned expert, and for which no scientific case currently exists.

Nor is this simply a question of exaggeration; Chertoff is making claims for biometric registration that exist only in the domain of magic. Simon Cole has shown in his studies of fingerprinting in the US that the power of latent fingerprint identification in the courts "lies in the seemingly magical ability to cause these stereoscopic images to merge in the jury's eyes into one."[40] The same desire to close the gap between the fingerprint and the suspect clearly motivates Chertoff's account. He presents latent fingerprint matching as an infallible tool of global surveillance, blithely ignoring the similarity between his anonymous example and the abundantly documented real case against Brandon Mayfield. The magical qualities that Chertoff attributes to biometrics extend to other areas: like radar, they will act as a hemispheric shield; they will give the US government the power to reach out, beyond the continental perimeter, in to the safehouses of its enemies; and, most importantly, to seize them by their likeness. This, as Taussig observed some time ago, is the essence of sympathetic magic.[41]

The other remarkable feature of this address is the degree to which Chertoff presumes a close and cooperative alliance with Britain in this new global conflict, in deliberate contrast with "those in Europe who feel that this principle of sharing ought not to be extended across the ocean." Invoking the coordination between the two governments during the August 2006 panic over the possible use of liquids to attack commercial aircraft as a "model of how two countries working together in partnership and trust can share information, bring down and disrupt a plot" Chertoff made repeated references to British support for his Department's work in the War on Terror. His speech concluded by citing Peter Clark, the "head of counterterrorism for Scotland Yard", as an authority on the unprecedented danger posed by al Qaeda. Using Clark's authority he reminded his audience, that "this is a global threat of a kind not seen before." The current US Department of Homeland Security and its policy of global biometric surveillance as an antidote to the threat of terrorism rest on an intimate association with Britain. This alliance, in turn, bears the institutional structure and associations of the 19th century British Empire, which provided

[39] V N Dvornychenko and Michael D Garris,, *Summary of NIST Latent Fingerprint Testing Workshop*, November 2006

[40] Simon A. Cole, "Witnessing Identification: Latent Fingerprinting Evidence and Expert Knowledge," *Social Studies of Science* 28, no. 5/6, Special Issue on Contested Identities: Science, Law and Forensic Practice (1998): 690; For a discussion of the fallabillity of LFPEs see Cole, *Suspect Identities: A History of Fingerprinting and Criminal Identification*, 281-3.

[41] Michael Taussig, *Mimesis and Alterity: A Particular History of the Senses* (New York: Routledge, 1993), 47. Taussig acknowledges Pamela Sankar as the source of his insightful discussion of fingerprinting as mimesis.

the administrative precedent for the massive expansion of state intervention under the US National Security administration in the 1950s, and an ideology of Anglo-American world government.[42]

More recent developments in the technology of biometric surveillance emphasize these close connections between the old Empire and the new world order. Early in 2008, after years of disagreement with the European Union over the content and form of personal data-sharing, the FBI proposed plans for a 'Server in the Sky' to share biometric data between the current allies in the War on Terror, the so-called Anglophone members of the British Commonwealth: Australia, Britain, Canada, and New Zealand. This system would allow the IAFIS database owned and controlled by the FBI to interact with IDENT1, the biometric repository controlled by the British National Policing Improvement Agency. One of the reasons that this integration was possible was that both database infrastructures were being supplied by the same company. Northrop Grumman, one of the major suppliers in the field of modern biometrics, was contracted to supply the British police system and the new connections between the FBI and US immigration databases. Despite the fact that the Commonwealth countries named in the FBI's proposal publicly disavowed the FBI's data-sharing arrangements (and later in the same year the US signed a data-sharing agreement with Germany) the infrastructural connections between modern biometric surveillance and the British Empire run deep.[43]

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[42] Michael J. Hogan, *A Cross of Iron: Harry S Truman and the Origins of the National Security State* (Cambridge: Cambridge University Press, 1998); William W. Newmann, "Reorganizing for National Security and Homeland Security," *Public Administration Review* 62, no. s1 (2002): 126-137; Franklyn A. Johnson, "The British Committee of Imperial Defence: Prototype of U.S. Security Organization," *The Journal of Politics* 23, no. 2 (1961): 231-261

[43] "Britain's police balk at plug-in to FBI database," *Washington Times*, http://www.washingtontimes.com/news/2008/jan/16/britains-police32balk-at-plug-in32to-fbi-database/; Lewis Page, "UK.gov says no plans for FBI DNA database hookup," *The Register*, January 17, 2008, http://www.theregister.co.uk/2008/01/17/fbi_uk_dna_database_plans_followup/; Owen Bowcott, "FBI wants instant access to British identity data," *The Guardian*, January 15, 2008, http://www.guardian.co.uk/uk/2008/jan/15/world.ukcrime; Richard Koman, "'Server in the Sky': FBI international biometric db planned," News, *ZDNet*, January 14, 2008, http://government.zdnet.com/?p=3605; Mark Russell, "FBI Invites Australia to Join World Crime Database," *The Age*, January 20, 2008, sec. National, http://www.theage.com.au/news/national/fbi-invites-australia-to-join-world-crime-database/2008/01/19/1200620280804.html; Rebecca Palmer, "NZ police may join FBI network," *stuff.co.nz*, http://www.stuff.co.nz/4357650a11.html.