

Who Owns Informationization?

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The danger is not of an electronic nightmare, but of human error. It is not computers but policy that threatens freedom.... Computers... are technologies of freedom, as much as was the printing press.(Pool 1998, p.339)

Because of China's special national conditions (guoqing), agencies' (bumen) rigidity and interests are relatively strong; we can't leave it up to some popular (minjian) enterprises to push it along, like in the United States. The state has to have a unified plan and unified organization, and each agency and locality must from now on put its own informatization plan within the state's overall (zongti) construction plan....(Lu Qun, 1997; reporting on a speech delivered by Vice-Premier Zou Jiahua)

[T]he most tragic episodes of state-initiated social engineering originate in a pernicious combination of four elements.... The first element is the administrative ordering of nature and society....

The second element is what I call a high-modernist ideology....

Only when these first two elements are joined to a third does the combination become potentially lethal. The third element is an authoritarian state that is willing and able to use the full weight of its coercive power to bring these high-modernist designs into being....

A fourth element is closely linked to the third: a prostrate civil society that lacks the capacity to resist these plans.(Scott 1998, pp. 4-5)

In many different ways, the proliferating development and use of new technologies for "information" and "communication" (often referred to as ICTs for shorthand) have been said to pose an insuperable challenge to state meddling, and a potent challenge to state control. This "technologies of freedom" perspective generally posits several reasons for the undermining of politics (and possibly polity) by technology:

- a. these are technologies characterized by the rapid pace of innovation, a process that by its very nature defies planning
- b. these are technologies that both transcend and undermine geographic borders, the foundation of modern state structures
- c. these are technologies that alter the state/individual balance of powers resting upon control of or access to information and communication, placing more autonomy in the

hands of individuals

ICTs, seen from this perspective, represent a natural, inexorable (and perhaps not coincidentally, globalized and globalizing) juggernaut shattering traditional means of state management and control.

Yet China's highest leaders have, increasingly over the past two decades, encouraged, urged, and embraced not only the development of ICT industries but the application and use of ICTs in all spheres of government, industry, education, culture, and even... agriculture.

"Informationization," the term increasingly employed to describe this overall process, has in recent years become a linchpin of central and many local development strategies, and a talismanic device that is supposed to modernize the party-state system, upgrade ailing parts of the economy, turn the Chinese into true denizens of the 21st century, and plug China into the wider world. And all without undermining the dominant position of the Communist Party and the Chinese state -- indeed, while increasing its effectiveness and its reach.

Many investigations of the informationization process and its outcomes in China have concentrated, in effect, on which of the two foregoing perspectives is correct. My current research, while driven initially by the clash between these perspectives, is moving in a direction that I think fits within the more complex framework proposed by the organizers of this workshop. This short thinkpiece addresses only a handful of the possible aspects of that fit, under three rubrics.

But first, let me provide a capsule summary of where my research has concentrated recently. After laboring over the study of the informationization process throughout China, from the inception of national policies for high-tech development and the responses in local policies and development plans; through the growth of high-tech companies; the development of telecommunications infrastructures; the adoption of computers, networking, and the latest telecommunications technologies; the types of applications both "correct" and "incorrect" of those technologies; and the ways in which ICTs affected China's interactions with the global economy, international political communities, etc. -- I decided that I needed a narrower focus if the study were to stay grounded and rigorous. Therefore I recast the project to concentrate on a much smaller swath of China, the Yangzi River Delta area defined as the triangle described by the cities of Shanghai, Nanjing, and Hangzhou.

For the past year, my work in that arena, while continuing to inventory developments in the several dimensions enumerated above, has emphasized two main arenas: the development of "e-government" by municipal and provincial levels, and the interactions of online discourse with censorship interventions. Both such foci provide more than tangential points of contact with the critical policy studies framework, and helped shape the ideas introduced (in embryonic and tentative form) under the second and third rubrics.

I. Nature or nurture?

The first type of issue posed by this research project hails back to the perspectives introduced at the beginning of this essay. Is the direction of "informationization" somehow inevitably

determined by the very nature of the technology? Or is informationization not only driven by but also shaped by deliberate human interventions?

The latter, "nurture" argument need not mean solely government policy or state action. As Lawrence Lessig (1999) has pointed out, the "code" that shapes rights and capabilities in cyberspace includes an architecture that embodies certain types of value choices. Absent state choices, individuals or the "market" may commit to codes that privilege some values over others (intellectual property rights over access to information, for example; or surveillance over anonymity). But given deliberate and carefully applied state choices, the new technologies may be arranged in an architecture that restricts rather than expands freedoms, or that rearranges the priorities that might in the past have been imposed, in part, by the limitations of existing technologies.^a

If Lessig is on to something here -- and I confess to being close to thoroughly convinced by his argument -- then it behooves anyone studying China's informationization process to look into the coded architecture that underpins and girds it, to understand who (what institutions and interests) is shaping the architecture (not simply the individual policies), how the architecture shapes power and privileges certain values. Informationization makes doing some things, or some ways of doing things, easier; it also makes doing some things, or some ways of doing things, much harder.

Having said that, I must observe that addressing such questions at the national level makes me

^a "Search and seizure," for example, being assumed to refer to physical spaces enclosed by walls and roof, until one's computer could be searched from a remote location without any physical intrusion or evidence of such search.

quail with trepidation, and I find it far more congenial to investigate them by probing the local instances.

II. Seeing like a modernizing state: the central and the local

Informationization has been emphasized as a key element in the national development strategy since the mid-1990s, and has entailed a number of initiatives spearheaded by the national government, including the massive rapid construction of modern telecommunications infrastructure and preferential policies to aid the growth of high-tech industry. Central "plans" have included the very concrete Golden Projects (initially only three -- cards, customs, and tax -- but later proliferating), and the somewhat more amorphous successive annual programs for Government/Enterprises/People Online. Central "policies" have played important roles in shaping the informationization process with money, rules (especially those defining roles, boundaries and power), and preferences whether monetary or other. In introducing both plans and policies, central level officials' language-of-informationization has emphasized goals such as national defense, national economic power and international competitiveness, economic growth, and integration-efficiency-control, with sometimes, almost as afterthought, the improvement of quality of life.

In many senses, though, the real work of "informationization" must be done at the local level, with local governments, local companies, and local residents all playing important roles. Those local players often take "informationization" in directions neither foreseen nor desired by the central state, or seize upon conflicts among central state bodies in order to expand their own

local economic growth options, political power, or claims on resources.

In interviews with government and party officials in the Yangzi Delta area, I have noticed that the language used to describe their informationization goals, while incorporating much of the central state discourse, expands to include goals like

- achieving status in some national hierarchy (the first to build/develop/adopt xxx; or, as a Hangzhou official described the value of being designated as one of China's five "information cities," being able to wear a nice "hat")
- achieving status in some putative international hierarchy (e.g., becoming a Chinese "Silicon Valley")
- increasing the locality's attraction to outside world (especially investment and trade, but not exclusively those)
- survival/ revivification of local economic sectors
- maintenance of local identity and affiliation across space (e.g., Nanjingren and Hangzhouren now residing elsewhere in China, or abroad)

At the same time, even goals voiced in similar language to that used at central level often have a different emphasis or depth, as with the goals of improving government efficiency (which, at local level, takes on strong tinges of improved transparency and accountability) or of quality of life (which takes on greater concreteness of meaning as one gets closer to the level where life is lived).

I am using the differences in discourse here to highlight central/local differences that may be seen in other policy-related arenas. The question is, do those differences merely reflect a

difference in *function* of the two levels? Or are they rather indicative of some *disjunction* in purposes between them? I can hear political scientists in chorus reminding me that the former invariably produces the latter, but I pose the question rather naively in order to underscore a key point: while differences in function alone may give rise to conflicts between the two levels, it is the disjunction in fundamental purposes that is likely to give rise to the pursuit of incompatible strategies and -- in the informationization arena -- to the construction of incompatible architectures. In many respects, central policy has left key parts of the architecture open to local construction, so one of the key research issues has to be the inquiry into the fit or misfit between locally and centrally introduced architectures.

Posed this way, the issue pertains quite directly to the workshop's second thematic question concerning *zhengce* and *duice*. But one can, I think, go even beyond that construct when examining the dance of the two *ce*'s with respect to informationization policy. Central state policy on informationization has carried to an extraordinary extreme a practice that has been fairly common throughout the PRC's history: the granting, in the name of experimentation, exceptions from certain central rules for certain localities. To some extent, the exception-izing may be attributed to the unpredictability of the technology itself (what innovation might come next, upsetting previous choices?); to some extent, though, I think the pattern might also be attributed to the exploitation, by local levels, of as-yet unruled arenas and their staking out of potentially useful experimental space before the rules are written. If this pattern results not merely in patchiness for central policy, but in a patchwork, the question of what *zhengce* really means becomes highly germane.

III. Contended space, place, pace

Moving the focus down to the local level, though, one finds that informationization at the local level has also become a crucial arena for the competition of different interests. The vagueness and shifting nature of the term "informationization" have permitted and even encouraged such maneuvers, while the by now nearly hallowed nature of the term "informationization" itself provides convenient legitimation for nearly any move made with computers or telephones attached. In this respect, informationization provides a kind of leveler at the rhetorical level. However, when one gets beyond the rhetoric, informationization emphasizes expensive technologies that quickly go obsolescent, privileging certain social groups and interests in shaping local development patterns and shares of resources. To the extent that there is conflict and competition over the policy at the local level, then, it is most likely to be competition within the elite, or between rival elites, rather than a broader one.

But within the elite/s, some interesting dynamics can be observed that suggest the ways in which one can observe intra-elite struggles reflected in informationization policy positions, while at the same time demonstrating how informationization (policy and application) may be restructuring elites and the nature of power. My work on local e-government, for example, identifies ways in which e-government at the municipal level affects the power balances between municipal agencies as well as between municipal and subordinate levels, upsets the status hierarchy and power balances among differing expertises, and reconfigures "state" and "nonstate" interests. Lacking time to go into all those in any detail here, I will offer just a few examples:

- the centralizing/decentralizing architectural choices for local government's online presence:

web sites designed and managed separately by individual agencies, or centrally by an informationization agency of some sort?

- the reshaping of the timing and choices for local agencies' procurement decisions, not only for ICT goods but--using ICT as a lever--for other types of goods and for services.
- the use of state information resources (e.g., data banks) to create new entities that are neither State nor Private: a kind of de-statification without privatization.

Overall, I see this study as relating especially strongly to the second and the fourth of the six areas for investigation. With respect to the second, in this particular policy arena, I see not only the policies above and counter-measures below, but (because this is a many-layered process) each set of counter-measures becoming part of the policies confronting the next layer down. With respect to the fourth, I consider it essential to inquire into the implicit value choices embodied in an informationization-driven development process.

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