

# Replacing Stovepipe Regulation

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**A**S WE APPROACH THE 10-YEAR anniversary of passage of the Telecommunications Act of 1996, a broad consensus has emerged that the statute's so-called "stovepipe" regulatory framework is outdated and an impediment to the development of sound communications policy. There is nothing more important to the project to conceive what we might call a new "Digital Age Communications Act" than developing a regulatory framework that reflects today's competitive marketplace realities.

**TECHNO-FUNCTIONAL STOVEPIPES** Stovepipe regulation results from the fact that the 1996 Act contains definitions for variously denominated communications services, such as "telecommunications," "information services," "cable service," "mobile service," and "open video system." Different regulatory treatment applies depending upon how a service offering is classified. Hence, "stovepipes" refer to the distinct sets of regulation that apply to the various service offerings. But the stovepipe regime no longer makes sense in a world in which various forms of communication are converging. Even more so than in the past, it creates opportunities for uneconomic regulatory arbitrage and wasteful regulatory gaming.

Why is the current regime obsolete? Because the statutory definitions that are its foundation rest upon "techno-functional constructs" that are anachronisms in a digital world. Consider, for example, the definitions of "telecommunications" and "information service" that are at the forefront of today's most hotly contested regulatory battles.

"Telecommunications" is defined as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information sent and received." An "information service" is "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . . but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service." Those definitions are nothing if not grounded firmly in techno-functional constructions: transmitting information among points "specified by the user," "without a change in form or content," "generating," "storing," "processing," "retrieving," "transforming" information, and so on.

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Think about the meaning those words convey. What does it mean to say "transforming" information, or transmitting information "without change in the form or content" of the information? When you and I exchange instant messages, and I key-in the letter in one font size and, as a result of your terminal settings or mine, or your ISP's protocols or mine, you receive the letter in another size or in another color, has there been a change in form or content of the information, or a transformation of the information? This is the stuff of digital-age philosophers, which is why I have referred to the existing regulatory distinctions as metaphysical.

It is not only the "telecommunications" and "information service" stovepipes that rest on techno-functional constructs. The statute's "mobile services" definition includes terms such as "a regularly interacting group of base, mobile, portable, and associated control and relay stations" and so on. The "cable service" definition turns on whether transmissions are "one-way," "video programming," or "other programming services," and whether any "subscriber interaction" is required for the selection of such video programming.

However serviceable those definitional constructs may have been at an earlier time when analog transmissions were the prevalent communications mode, they no longer are relevant because digital technology is rapidly displacing analog. The old saw, "A bit is a bit is a bit," really does have important implications. It is economically and technically infeasible to distinguish among "voice," "data," and "video" bits that travel along in the same communications stream.

I do not mean to deny the regulators' ingenuity in creating the definitional constructs or in rendering them serviceable for as long as possible. Take the Federal Communication Commission's landmark *Computer II* proceeding from the early 1980s. It was then, when data processing capabilities and communications initially were becoming intertwined in nascent "online" activities such as e-mail and data retrieval, that the FCC created the regulatory distinction between "basic" and "enhanced" services. In essence, "enhanced" services were applications with computer processing capabilities integrated into and dependent upon telecommunications to get from one place to another, while a "basic" service was pure transmission capacity.

The FCC's purpose in creating this new regulatory distinction was salutary: If new online services were classified as a form of basic communications, they would be subject to common carrier rate, entry, and nondiscrimination regulation under the Communications Act. The FCC believed, correctly, that online services could develop on a competitive basis and, therefore, should be free from the economic regulation to

which common carriers were subject.

Under the constraints of the then-existing Communications Act, the *Computer II* decision was wise policy. Online services, from the early CompuServe and Prodigy, through America Online, and on through the onrush of the ubiquitous World Wide Web, did indeed flourish on an unregulated basis. So, without much controversy, *Computer II*'s "basic" and "enhanced service" definitions were included in essentially the same form in the 1996 Telecom Act as "telecommunications" and "information services."

**THE PROBLEM** What was once wise policy and manageably serviceable in a narrowband era is much more problematical today as broadband becomes more ubiquitous. In the narrowband world, we generally could equate "voice" with "telecommunications," "data" with "information services," and "video" with "cable service." To a large extent, limited bandwidth masked the inherently problematical nature of those separate techno-functional definitional constructs.

Broadband's more abundant bandwidth, which enables fast-growing services such as Internet access and Voice over Internet Protocol (VoIP) Internet telephony, tugs mightily at the regulatory mask. Is high-speed "cable modem" Internet access service a "cable," "telecommunications," or "information service"? The FCC has said it is an unregulated information service, and in June a divided Supreme Court affirmed the commission's classification. What about high-speed Digital Subscriber Line (DSL) Internet services offered by the traditional telephone companies? While the FCC proposed three years ago to reclassify DSL as an unregulated information service, for now it remains regulated telecommunications.

What about the burgeoning VoIP services? In February of 2004, the FCC ruled that one form of VoIP service, a "computer-to-computer" voice application that does not use ordinary telephone numbers or originate or terminate calls on the public network, is an information service. Following the statute's formulation, the FCC concluded that the Free World Dialup service is an information service because it "offers 'a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.'" The fact that Free World Dialup happens "to enable members to talk over the Internet" did not affect the agency's determination.

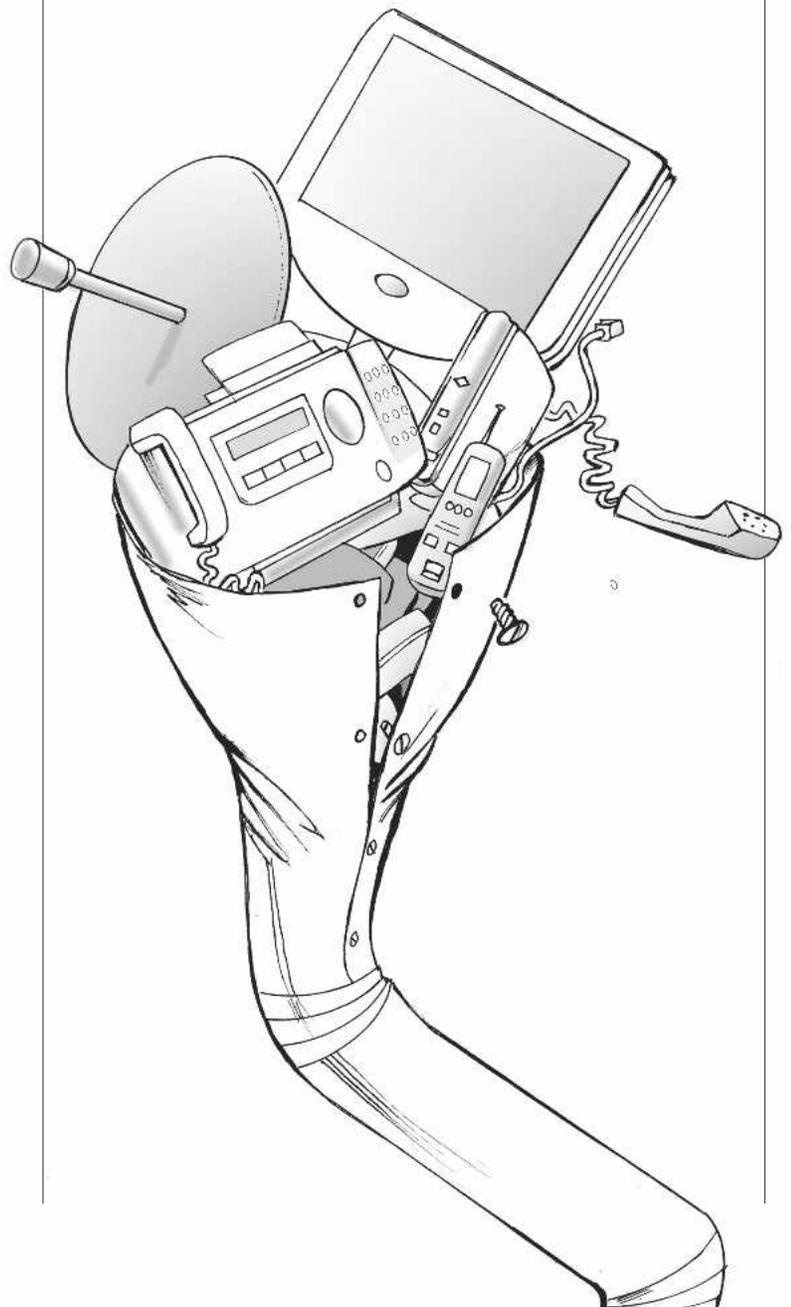
How to classify the Internet telephony offering by Vonage, a company that bills itself as "the broadband telephone company"? Vonage DigitalVoice subscribers, who must have access to a broadband connection, make calls that generally use ordinary telephone numbers and that either originate or terminate on the public network. In November of 2004, the FCC preempted state economic regulation of DigitalVoice and similar services by ruling that they are interstate services. Pointing to an already initiated generic rulemaking that considers VoIP more broadly, the FCC refrained from addressing the classification of Vonage's and similar services for federal regu-

latory purposes. It nevertheless declared Vonage's service "resembles the telephone service provided by the circuit switched network."

In the generic VoIP rulemaking notice, the FCC emphasized "it may become increasingly difficult, if not impossible, to distinguished 'voice' service from 'data' service, and users may increasingly rely on integrated services using broadband facilities." Already, there are more than 32 million high-speed broadband Internet connections in service (almost 40 percent of all Internet connections), with the annual growth rates still exceeding 25 percent per year. And analysts project that as soon as 2007 there will be 20 million VoIP subscribers.

**THE CONSEQUENCES** Does it matter that Vonage and similar Internet telephony services resemble plain old telephone service but are classified differently? Does it matter that broadband Internet access services provided by what we still call cable and telephone companies are classified differently?

Of course it matters. Telecommunications services typically are subject to price and entry regulation; information services are



not. Telecommunications services may be required to be “unbundled” so competitors can access the unbundled components at regulated rates; information services are not subject to mandatory unbundling requirements. Telecommunications services are subject to certain “social obligations” such as contributing to universal service subsidy funds; information service providers generally are exempt from such contribution requirements. Telecommunications services also are subject to certain “health and safety” mandates such as provision of Enhanced-911 service and wiretap capability requirements, from which non-telecommunications services are exempt. Cable operators are subject to certain regulatory obligations such as obtaining a local franchise and paying local franchise fees, which presently may not apply to competing non-cable video services.

Thus, services that from the consumers’ perspective are comparable and that compete against each other in the marketplace are subject to different regulatory requirements based solely on how they are classified. So even though cable operators currently have approximately twice as many broadband Internet access subscribers as DSL, cable remains generally free of federal regulation while DSL does not. The existence of such asymmetrical regulation naturally encourages service providers to seek opportunities to advantage themselves and/or disadvantage their competitors by manipulating and litigating the service classification determinations.

**THE SOLUTION** A new regulatory framework is needed. Here are some general thoughts about the direction such change should take:

First, what is to be avoided is a new framework that merely substitutes one set of techno-functional constructs for another. For example, MCI representatives have proposed that

policymakers “adopt a comprehensive legal and regulatory framework founded on the Internet’s horizontal network layers.” Identifying four layers—content, applications, logical, and physical—that supposedly comprise the Internet’s architecture, MCI urges that public policy be formulated to respect the integrity of the distinct layers in order to determine whether regulation of service providers is necessary.

MCI calls its regulatory model “a horizontal leap forward.” Turning stovepipes on their side is not a leap forward, but rather an invitation to stultify the continued evolution of network infrastructure and the service applications that may be integrated into networks. It is difficult to predict in a technologically dynamic environment how network platforms or the Internet (really a network of networks) will evolve on a technical or functional basis. Embodying such predictions in regulations is likely to inhibit the realization of real economic efficiencies.

What is needed is a new market-oriented model that employs antitrust-like principles in considering marketplace structure and the market power of competitors. Such a market-oriented model would put the focus on the consumer—and consumer welfare—where it belongs, not on arcane distinctions grounded in technology or functional characteristics that have little to do with marketplace realities. Under this approach, comparable services from the consumer’s perspective would not be subject to different regulatory treatment just because they are delivered using different technologies. Most significantly, the opportunities for engaging in regulatory arbitrage and gaming that pervade the existing regime would be eliminated.

The soundness of any economic regulatory regime ultimately must be judged by whether or not it advances marketplace competition and promotes consumer welfare, not by whether or not it advantages or disadvantages certain competitors. **R**

## REACH Exceeding Its Grasp?

BY ANGELA LOGOMASINI, *Competitive Enterprise Institute*  
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**E**UROPEAN REGULATORY OFFICIALS seem to regard interference with free markets and hostility to technological innovation as a kind of recreation. The outcome is often rather like skydiving without a parachute.

The latest example is a European Union proposal for comprehensive regulation of chemicals, called REACH, an acronym for “Registration, Evaluation and Authorization of Chemicals.” The EU Parliament is currently in the process of amending the proposal, with

final passage expected in 2007.

REACH would extend the precautionary principle to all chemicals produced in or imported into Europe. The principle, which holds that if the safety evidence about a product, technology, or activity is any way incomplete, the product should be prohibited. (See “The Paralyzing Principle,” Fall 2002.) This notion is based on a number of false assumptions, one of which is that little real harm comes from delaying the introduction of new products and technologies. The precautionary principle exaggerates the potential drawbacks of a new (or existing) product and underestimates its benefits. Supposedly a variation on the motherly admonition of “better safe than sorry,” the principle is vacuous and self-contradictory. Because you can never really prove anything fully safe, the principle enables regulators to delay or deny the use of products, technologies, or activities on the basis of no more than conjecture about possible dangers.

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Potential risks should be taken into consideration before proceeding with any new activity or product, whether it is the siting of a power station or the introduction of a new flame retardant. But the precautionary principle focuses narrowly on the possibility that technologies and products could pose unique, extreme, or unmanageable risks, even after considerable testing has already been conducted. What is missing from precautionary calculus is an acknowledgment that even when technologies and products introduce new risks, most confer net benefits—that is, their use reduces other, far more serious hazards.

The danger in the precautionary principle is that it diverts consumers and policymakers from possible solutions to known, significant threats to human health. Its overall impacts may be overwhelmingly negative. For example, in 18th century Europe, excessively precautionary bias delayed for decades the introduction of the first smallpox vaccine, with millions dying unnecessarily. Restrictions on the pesticide DDT have caused the deaths of scores of millions from malaria and other insect-borne diseases.

REACH's impacts will be far-reaching. Registration requires manufacturers and importers to submit hazard, exposure, and risk information on 30,000 existing substances and any new substances that are produced or imported into Europe in yearly quantities exceeding one metric ton. Evaluation requires regulators to assess risks for 4,000 substances that are produced or imported in yearly quantities exceeding 100 tons, and also for substances in lower quantities if they are "of concern." The newly established European Chemicals Agency will then determine whether

further testing is needed. Authorization applies to substances of "very high concern," for which specific permission would be required for certain uses. Approximately 1,500 registered substances will be subject to authorization.

REACH applies not only to the 30,000 specifically referenced chemicals, but also to "downstream" products derived from or containing regulated chemicals. It requires downstream users to carry out additional testing if the exposure or use of the product exceeds that foreseen by the manufacturer. Because chemical products are ubiquitous in automobiles, aircraft, home construction and furnishings, and workplaces, REACH intrudes deeply into the life of every European. And given the massive amount of U.S.–European trade, it will also exert profound effects on American businesses and individuals.

**SUBSTITUTION?** The ultimate goal of REACH is to rid society of allegedly "dangerous" products. Regulators' euphemism for this elimination is "substitution"—implying that regulators will ban some products and replace them with better ones.

But the assumption that regulators can find and pick better products is dubious and presents a real danger. New York City regulators thought that it was wise to ban asbestos at the time that the World Trade Center was under construction, forcing the builders to stop applying it above the 64th floor. Had asbestos been applied to the higher floors, the victims of September 11 might have had more time to escape the burning towers before the buildings collapsed.

Similarly, the pesticide DDT was once used to control malaria-carrying mosquitoes around the world, eradicating

the disease in some places and lowering the incidence in others by many orders of magnitude. Yet in the 1970s, based on specious claims about adverse health effects, U.S. regulators banned all uses of DDT. The U.S. ban led other nations to follow suit. The pesticide's inclusion on the list of "persistent organic pollutants" to be banned under a United Nations-sponsored treaty has severely stigmatized DDT—and malaria cases have skyrocketed. According to the World Health Organization, malaria now infects 300 to 400 million people a year. In Africa alone, 1.5 million to 2.7 million people—mostly children—die from malaria each year. Yet inexplicably, many politicians and regulators still think it "safer" to let children die than to make DDT available.

Whether you call this political correctness, stupidity of epic proportions, or genocide, it is certainly a continuing calamity. Incredibly, an EU white paper on REACH highlights the DDT bans as an "accomplishment" whose only fault is that it did not come soon enough. REACH is intended to enable regulators to prevent the use of products like DDT in the first instance. According to this logic, DDT should never have been used, even if that meant permitting malaria to remain endemic in European and North American countries.

**COST** In addition to empowering public officials to ban important and useful products, the high costs of REACH will divert significant resources away from far more serious needs and reduce innovation. The Commission's own very conservative estimates for the registration phase of REACH (as described in an October 2003 draft of the legislation) range from €2.3 billion to €5.2 billion. (The costs of evaluation, authorization, and other REACH-related regulations were not estimated.)

The regulations will exert a disproportionate effect on smaller businesses. In Germany alone, small businesses could suffer 50,000 of the nation's anticipated 150,000 overall job losses, according to claims by an alliance of small and medium-sized businesses at a recent protest in Berlin. Does this sound like a wise policy option for a region that is already teetering on the brink of economic recession?

The European Commission recently released two new studies of the likely impacts of REACH. The first, conducted by KPMG, suggests that REACH will produce a one-time 6 to 20 percent increase in production costs, which supposedly is manageable. However, the study only attempts to measure the cost of registration. By not considering costs associated with authorization, the study neglects what could be the most expensive and burdensome part of the program—regulations and bans that will result from the authorization phase. The study also suffers from small sample sizes and under-representation of small businesses, to mention just a couple of methodological problems. In spite of those limitations, the study still indicates that small and mid-sized firms will suffer considerably.

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## REACH will have protectionist effects, reduce innovation, and harm the competitiveness of businesses.

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Nonetheless, groups like the World Wildlife Fund and some public officials cite the KPMG study as showing that big business can afford registration. Even if that were true, more than 99 percent of EU businesses are small to mid-sized firms, and they provide two thirds of the jobs in Europe. The study should be little comfort to those firms, their employees, and customers—all of whom eventually will shoulder REACH's costs.

Initial findings from the second study, conducted by the Institute for Prospective Technological Studies, reveal that REACH will have protectionist effects, reduce innovation, and harm the

competitiveness of businesses located in precisely the nations that need development most—the newer EU members in Eastern Europe. So far, data collected for Poland, the Czech Republic, and Estonia are not encouraging. The report finds that REACH is

likely to undermine trade between the new EU members and non-EU nations. Many firms in those EU nations (and probably others as well) will find it easier to import chemicals from companies within the EU because it will be easier to show that their suppliers are REACH-compliant. Firms producing chemicals in new EU-member nations may also have to raise prices of their products because of REACH compliance costs, which will make their products less competitive elsewhere in already highly competitive world markets.

Not surprisingly, politicians and green activists are dismissive of those findings. Nor should it come as a surprise that they do not intend to let facts get in the way of a bureaucratic juggernaut. According to news reports, they are currently working with "stakeholders" to "realign" the results of this latest study in order to fix "problems concerning the quality of the study," and to make it more REACH-friendly.

**BENEFITS?** The Institute for Prospective Technological Studies analysis also points out that a reliable assessment of benefits from the implementation of REACH has been "entirely neglected." The sweeping program's presumed benefits are based on the assumption that testing chemicals, filing paperwork, and pursuing politically correct product bans will somehow reduce cancer rates. But the vast majority of cancers are not related to chemicals. According to the World Health Organization, cancer prevention should focus on tobacco use, diet, and infections, which account for 75 percent of cancer cases worldwide. Those recommendations are based on findings from a landmark study conducted by scientists Sir Richard Doll and Richard Peto, which concluded that all environmental pollution might amount to only as much as two percent of cancers. Given our current knowledge on this topic, it seems unlikely that REACH will have a measurable impact on cancer rates.

The European Commission's only study of likely benefits from REACH, conducted by Risk and Policy Analysis Limited in 2003, addresses occupational exposure to chemicals and attempts to estimate the extent to which REACH would reduce health problems among workers. However, it is based on

sketchy, incomplete, and inconsistently collected data assembled from a handful of member governments, and many of the data are unclear as to cause and effect.

Weakest of all are the data that supposedly provide the most information about REACH's potential benefits. The 2003 study claims that risks from virtually all known manmade carcinogens will be addressed with existing worker safety regulations while REACH will prevent currently unknown health problems caused by chemicals. The report then attempts to quantify the number of work-related health cases that resulted in the past from "unknown" chemical origins. The study uses dubious and incomplete data from several nations to extrapolate the risks of "unknown" chemical agents for the entire EU—and then via sleight-of-hand suggests that somehow REACH will reduce the number of such cases in the future. It is reckless to use such unsupported conjecture to justify a hugely expensive and extensive regulatory program that could slow European economic growth appreciably.

The 2003 study also validates a figure that the European Commission appears to have pulled out of thin air when it started this process. A 2003 Commission white paper asserted, and the 2003 study repeats, that REACH will find an additional 500 "problem" chemicals to regulate. We have no doubt that, spurred by pure speculation and bolstered by

junk science, regulators will be driven to condemn that many chemicals—even without scientific justification.

### CONCLUSION

There is something to be said for letting our trade competitors in Europe commit economic suicide by means of such a massive, self-administered, regulatory overdose. However, the imposition of such unreasonable requirements will have ominous consequences for companies that wish to export to the European market.

Although few big businesses would dare to withdraw completely from the EU market, many small firms will be forced out or prevented from ever entering. In order to attain a competitive advantage, the larger firms that have geared up to comply will push for the globalization of over-REACHing regulation. The EU white paper on REACH committed the member nations to push for the globalization of those standards, and officials are already discussing the possibility at various forums within the United Nations and at the Organization of Economic Cooperation and Development.

European bureaucrats' attempts to REACH across the Atlantic with this precautionary regulation are repugnant and a matter for grave concern. Personally, we would rather endure Swedish taxes, English food, and Italian air conditioning. **R**

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