Juridical Delusions of Control?

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Jennifer A. Chandler, *The Autonomy of Technology: Do Courts Control Technology or Do They Just Legitimize its Social Acceptance?,* 27 **Bull. Sci. Tech. & Soc.** 339 (2007), available at SSRN.

There's this feeling I sometimes get browsing law review articles. It happens, like, once or twice in a decade. When it happens, I am so utterly struck by an article's hypothesis that its supporting arguments practically fall by the wayside. Not because those arguments aren't important or convincing. Ultimately, they are crucial. But, on rare occasions, the arguments are eclipsed by the author's incredible insight in the formulation of the research question itself. This feeling that I am describing is the academic's equivalent to a Jerry McGuire moment.

And, let me just say, Jennifer Chandler's "The Autonomy of Technology" had me at hello.

Chandler examines the "autonomy of technology" thesis—a rather odd philosophical notion made famous by Jacques Ellul and Langdon Winner, that "technology tends to move along a trajectory that is relatively impervious to deliberate social control and that society instead tends to adapt its values to technological change." (P. 341.) While this particular philosophy of technology has in recent years suffered many slings and arrows from the social constructivist camp (who argue that "technologies are very much shaped by social factors and the appearance of determinism arises because the social interests at stake in technological design are forgotten once the technology is completed" (P.342)), Chandler wonders whether the "autonomy of technology" thesis might be useful in illuminating the role of courts in the social control of technology. As she asks in her subtitle: do courts control technology or do they just legitimize its social acceptance?

Offering three interesting case studies, Chandler tries to demonstrate the possibility that "the courts may be systematically supporting the social acceptance of technology and technological values as they develop and apply the private law of tort and contract." (P.342.) This possibility, she thinks, is reminiscent of the "autonomy of technology" thesis: "despite our belief that we direct the development of technologies and choose whether or not to use them, this control is more or less illusory." (P.341.)

Chandler draws on several philosophical concepts, including Langdon Winner's "reverse adaptation"—the phenomenon that, "[a]s a technology emerges, human ends are adjusted to match the available means." (P. 341.) Chandler's hypothesis is that judges, though they believe themselves to be autonomous, authoritative regulators of emerging technologies, are in some sense compelled through various private law principles and legal techniques to support and legitimize novel technologies within society. As Winner himself once put it, "[w]e may firmly believe that we are developing ways of regulating technology. But is it perhaps more likely that the effort will merely succeed in putting a more elegant administrative façade on old layers of reverse adapted rules, regulations and practices?"[1]

My favorite of Chandler's three case studies examines the judicial construct that "harm is caused by rejecting technology."(P. 342.) The discussion centers around one of Canada's most interesting tort cases in recent years, a class action suit commenced on behalf of a group of organic farmers seeking damages from agricultural biotech giants Monsanto and Bayer.[2] According to the farmers, the foreseeable pollen drift from Monsanto's and Bayer's genetically modified canola products contaminated their crops, causing harm by thwarting their ability to grow certified organic canola. However, Monsanto and Bayer responded by claiming that the harm was *not* caused by their corporate release of genetically modified canola but rather only by the standards required to obtain organic certification (those standards being incompatible with the products' inevitable drift) as well as by the farmers' own attempts to adhere to those

standards.

As Chandler very astutely observes, by favoring the defendants' position on this issue, the court's line of reasoning provides a classic illustration of Winner's reverse adaptation thesis. Adapting human ends to available technological means, "it is not the parties modifying the environment with a novel technology that cause harm to others, but the parties seeking to avoid the use of the new technology that bring harm upon themselves." (P. 343.) According to Chandler, "[t]he courts … are helping to make the technology an invisible part of the 'cultural' wallpaper, such that a rejection of available technology is irrational and is the source of any harm suffered." (P. 344.)

Interestingly, Chandler goes on to demonstrate that the court's reverse adaptation rule is *not* a one–off phenomenon. In her second case study, she offers a fascinating explication of the doctrine of mitigation in tort law to show that courts expect individuals to submit to technologies considered reasonable (from the perspective of rational risk) in order to mitigate harms caused by others. According to the mitigation doctrine, where the majority has embraced a particular technology, a plaintiff will also be required to adopt it if the technology would assist in mitigating the plaintiff's losses. As Chandler points out in a detailed discussion of the existing Canadian case law, "[t]his becomes particularly troubling in the context of medical technologies, where a plaintiff must submit to [an unwanted] treatment if he or she wishes to recover compensation for injuries… [T]he economic duress faced by persons unable to work as a result of their injuries will in some cases exert serious pressure to comply with the mitigation requirement in order to obtain compensation through the courts." (P. 344.)

The mitigation doctrine, Chandler concludes, is a means by which the private law renders various emerging technologies reasonable. Its tenets require judges to "promot[e] the cultural integration of technologies by labeling as unreasonable an attempt to avoid them." (P. 346.) Chandler sees the mitigation doctrine as part of a systematic tendency "to legitimize certain technologies and to put pressure on dissentients to submit to them." (P. 346.)

These case studies on private law's notion of harm and its potential mitigation (and a third study on standard form/shrinkwrap contracts) provide a measure of support for Chandler's working hypothesis, "that judges, through various private law principles, support and legitimize novel technologies."(P. 348.) At the same time, by carefully referring to hers as a "working hypothesis", Chandler remains open to the possibility of refutation, expressly stating that "further work would be helpful in identifying counter-examples and in studying other legal doctrines to see if they support or undermine the hypothesis." (P. 348.)

Without trying to ram it down our throats, Chandler presents a very interesting, plausible and intuitive *prima facie* legal case for the rather implausible and generally counter-intuitive "autonomy of technology" thesis. When I said at the outset that she "had me at hello", I meant that even if it turned out that her overall argument is incomplete, incorrect or unconvincing, her article offers up some extremely tasty food for thought: *do the structures, doctrines, and methods of private law have the systematic effect of legitimizing the social acceptance of certain technologies?*

Now, *that* is one very *cool* question for cyberlaw scholars to consider!

So cool, in fact, that I think Chandler ought to be forgiven for stacking the deck in favor of her working hypothesis by "tak[ing] a narrow approach" (P. 348) and by "looking only at certain private law doctrines" (P. 348). The better understanding of her work is to see it as a challenge to herself and others to further investigate the rather bold assertion that courts have a systematic bias in favor of technology. I am hopeful that she will continue to do so. The topic certainly merits a full-length monograph, graduate dissertations and further published law review articles.

I also loved this article because it epitomizes the breadth and depth of Chandler's thinking and the beauty of her insight. Through her exploration of the philosophical debate on technological determinism across three doctrines in private law, Chandler invites cyberlaw scholars to ask and answer questions that will not only help to ground policy discussions about particular emerging technologies, but will also allow us to carefully reflect upon deeper juridical questions and issues surrounding the nature of law itself.

And, that's a tall order.

Let me finish with just a few of the questions burning in my mind.

If courts really are biased in favor of technology, what exactly is the cause of the bias? And, what makes the bias *systematic*? Can and should this bias be undone? Or, do core private law values (e.g., reasonableness, efficiency) necessarily favor the technological society? And, if so, how so? Is the advancement of technology impervious to judicial conservatism or discretion? Should law itself be understood as a kind of technology? If so, what does the "autonomy of technology" thesis teach us about the nature of law or our (in)ability to control *it*?

Although the "autonomy of technology" thesis may seem farfetched to some, it is important for cyberlaw scholars to remember that our entire field is in fact premised upon one of its core tenets. Joel Reidenberg's *lex informatica*, Lawrence Lessig's *code is law,* are both derivative of Langdon Winner's famous idea that artifacts have politics. As Winner put it, "A crucial turning point comes when one is able to acknowledge that modern technics, much more than politics as conventionally understood, now legislates the conditions of human existence."[3] In large measure, cyberlaw and technology policy analysis begin with this acknowledgement.

One of Jennifer Chandler's central insights, though she never expresses it as such, is that the "autonomy of technology" thesis does not entail a wholesale adoption of technological determinism. As Winner so eloquently stated: "It is somnambulism (rather than determinism) that characterizes technological politics—on the left, right and center equally."[4] Like Langdon Winner, Jennifer Chandler seeks to wake up those who would simply assume that technology is neutral and that judges (and other regulators) control technology through the application of rules. In her excellent preliminary work on the subject, she encourages a deeper understanding of the relationship between law and technology, beckoning a reconsideration of Thoreau's famous remark that perhaps, "we do not ride on the railroad; it rides upon us."[5]

1. **LangdonWinner, Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought** 320 (MIT Press) (1977). [?]
2. Hoffman v. Monsanto Canada Inc., 264 Sask.R. 1 (Q.B. 2005) *aff'd* 293 Sask.R. 89 (C.A. 2007). [?]
3. Winner, note 1 above, 324. [?]
4. Id. at 324. [?]
5. Henry David Thoreau, *The Annotated Walden: Walden; or, Life in the Woods* 223. [?]

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